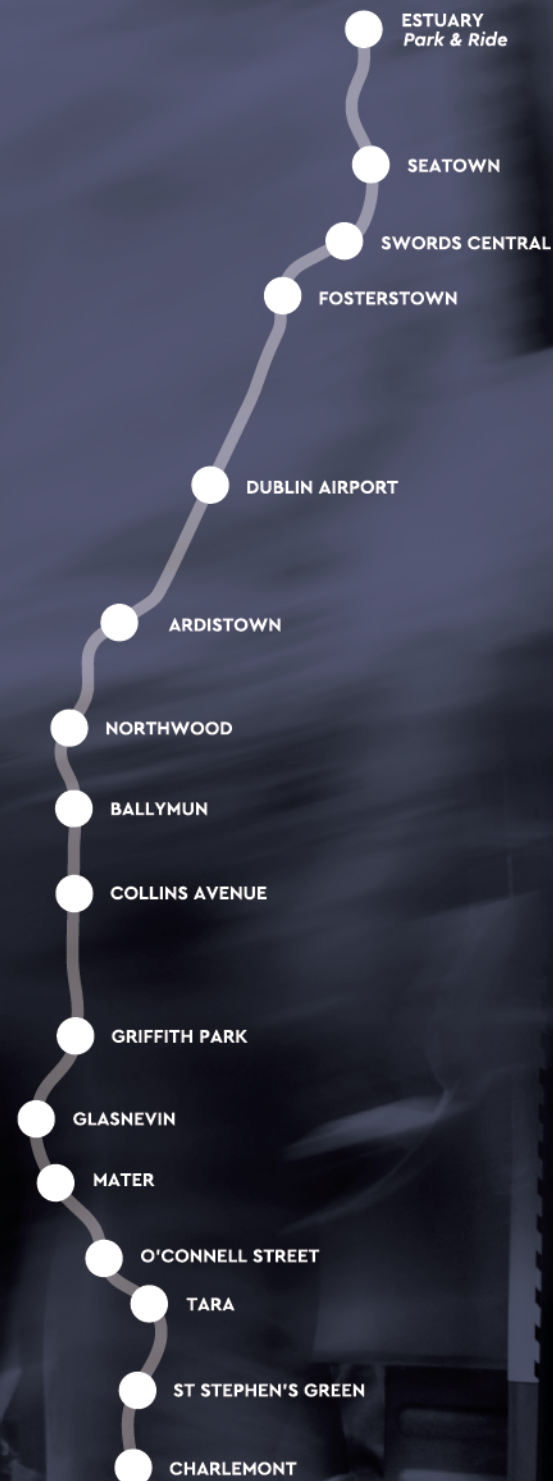




MetroLink Railway Order Statutory Consultation

Section 5.2, Part 2 of 2 – TII Response to Submission
No.'s 141 to 320, plus Fingal County Council Submission

Table 3: Index - Submissions Received in Response to Railway Order Application Statutory Consultation (Alphabetical Order)

Submission No.	Submission Entity/ Person	Location	Area/ Category
1	ACRA and Ballymun Road North Residents	Collins Ave-Griffith Park	AZ4 (b)
2	ACRA Association of Combined Residence Association	General	GEN
3	Aidan Cyril Forde	Tara-SSG	AZ4 (g)
4	Aine Wellard	Tara	AZ4 (g)
5	Alstead Securities Limited	Tara	AZ4 (g)
6	Amanda Hughes	Mater	AZ4 (e)
7	An Post	Multiple	MULT AZ4
8	AnTaisce	Tara	AZ4 (g)
9	Andrew Conlon and Maeve Fitzpatrick	Mater	AZ4 (e)
10	Andrew Whelan	Multiple	MULT AZ's
11	Anne Behan and John Kearns	Seatown-Swords	AZ1(a)
12	Anne Confrey	Griffith Park-Glasnevin	AZ4 (c)
13	Anne G Meehan	Griffith Park-Glasnevin	AZ4 (c)
14	Ashley Estate Residents	Seatown-Swords	AZ1(a)
15	Barry and Aileen Dempsey	Charlemont	AZ4 (i)
16	Barry Murphy	Charlemont	AZ4 (i)
17	Bart and Patricia Broderick	Tara	AZ4 (g)
18	Ben and Tatiana Hurley	Charlemont	AZ4 (i)
19	Berkeley Road Services and Traders Association	Mater	AZ4 (e)
20	Bernard Seymour	SSG	AZ4 (h)
21	Bindford Limited	Glasnevin	AZ4 (d)
22	BORG Developments and JOM Investments	Northwood	AZ3
23	Bovale Developments ULC	Estuary	AZ1(a)
24	Bovale ULC and Balheary Properties ULC	Estuary	AZ1(a)
25	Breda Scully	Mater	AZ4 (e)
26	Brendan Flanagan	Mater	AZ4 (e)
27	Brendan Heneghan	Charlemont	AZ4 (i)
28	Brendan Howley	Collins Ave-Griffith Park	AZ4 (b)
29	Brian McGrath	O'Connell St.	AZ4 (f)
30	Brigid Purcell (People Before Profit representative)	Tara	AZ4 (g)
31	Butterfield District Residents Association	Charlemont	AZ4 (i)
32	Cairn Homes Properties Limited	Estuary-Seatown	AZ1(a)
33	Caitriona and Ciaran Byrne	Seatown	AZ1(a)
34	Caitriona Shaffrey	Charlemont	AZ4 (i)
35	Carmen Neary	Charlemont	AZ4 (i)
36	Caroline Eyre O'Connor	Charlemont	AZ4 (i)
37	Caroline Regan and family	Charlemont	AZ4 (i)
38	Cathal Duffy	Tara	AZ4 (g)
39	Catherine Foley and Keith Madden	Griffith Park-Glasnevin	AZ4 (c)
40	Charlemont and Dartmouth Community (Dartmouth Road)	Charlemont	AZ4 (i)
41	Charlemont and Dartmouth Community (Dartmouth Square West)	Charlemont	AZ4 (i)
42	Charlemont and Dartmouth Community (General Area)	Charlemont	AZ4 (i)
43	Ciaran Black and Leon McCarthy	Charlemont	AZ4 (i)
44	Ciaran Cuffe	Multiple	MULT AZ's
45	Claire Dunne	Glasnevin	AZ4 (d)
46	CLG Na Fianna CO Cormac O Donnchu	Multiple	MULT AZ's
47	Colin Torpay	SSG	AZ4 (h)

Table 3: Index - Submissions Received in Response to Railway Order Application Statutory Consultation (Alphabetical Order)

Submission No.	Submission Entity/ Person	Location	Area/ Category
48	College and Wainsfort Residents Association	Ssg-Charlemont	AZ4 (h)
49	Colm and Caitriona Warfield	Charlemont	AZ4 (i)
50	Commission for Railway Regulation	Multiple	MULT AZ's
51	Conor and Lorraine Power	Charlemont	AZ4 (i)
52	Coras Iompair Eireann	Multiple	MULT AZ4
53	Core Capital	Ssg-Charlemont	AZ4 (h)
54	Cormac McKay and Aeravai	Multiple	GEN
55	Dan Coulcher and Paula Fyans	General	GEN
56	DECC Geological Survey Ireland	Multiple	GEN
57	Declan Ryan	Ssg-Charlemont	AZ4 (h)
58	Deirdre Byrne and Family	Seatown-Swords	AZ1(a)
59	Deirdre Vaughan	Griffith Park-Glasnevin	AZ4 (c)
60	Denis McLoughlin and Teresa Reid	Charlemont	AZ4 (i)
61	Dermot and Doris Healy	Tara	AZ4 (g)
62	Desmond and Kathleen Rice	Griffith Park-Glasnevin	AZ4 (c)
63	Development Applications Unit	Multiple	MULT AZ's
64	Devonmill Limited	Swords-Fosterstown	AZ1(b)
65	Diarmuid Burke	Charlemont	AZ4 (i)
66	District 7 Community Alliance	Mater	AZ4 (e)
67	Donal O'Brolcain	General	GEN
68	Dublin Airport	Dublin Airport	AZ2
69	Dublin Central GP Limited	O'Connell St.	AZ4 (f)
70	Dublin Chamber	Multiple	MULT AZ4
71	Dublin City Council	Multiple	MULT AZ's
72	Dublin Commuter Coalition	General	GEN
73	Dublin Cycling Campaign	Multiple	MULT AZ's
74	Duncan Smith	Multiple	MULT AZ's
75	Dympna Rooney	Griffith Park-Glasnevin	AZ4 (c)
76	Eamonn Smyth	Mater	AZ4 (e)
77	Eanna Coffey	Tara	AZ4 (g)
78	Earl Court Management Company DAC	Ssg-Charlemont	AZ4 (h)
79	Earldev Properties Unlimited Company	Ssg-Charlemont	AZ4 (h)
80	Earlsfort Basin Limited	Ssg-Charlemont	AZ4 (h)
81	Edward Kelly and Joyce MacRedmond	Charlemont	AZ4 (i)
82	Eirgrid	Multiple	MULT AZ's
83	Elisabeth Vandenberghe	Charlemont	AZ4 (i)
84	Emir McDonagh	Charlemont	AZ4 (i)
85	Emma Kelly	Ssg-Charlemont	AZ4 (h)
86	Erica and Bryan Dalton	Charlemont	AZ4 (i)
87	ESB Telecoms Limited	Collins Ave	AZ4 (a)
88	Espirit Investments Limited	Tara-Ssg	AZ4 (g)
89	Estuary Court Residents Association 2	Seatown-Swords	AZ1(a)
90	Estuary Court Residents Association	Seatown-Swords	AZ1(a)
91	Eveleen Coyle	Charlemont	AZ4 (i)
92	Faile Ireland	General	GEN
93	Farrier Technology Limited	Glasnevin	AZ4 (d)
94	Father Paul Churchill and others (St. Josephs Church)	Mater	AZ4 (e)

Table 3: Index - Submissions Received in Response to Railway Order Application Statutory Consultation (Alphabetical Order)

Submission No.	Submission Entity/ Person	Location	Area/ Category
95	Fingallians GAA Club	Estuary-Seatown	AZ1(a)
96	Fiona O'Kelly	Glasnevin	AZ4 (d)
97	Frances Maguire	Collins Ave	AZ4 (b)
98	Frank McDonald	General	GEN
99	GADRA	Multiple	MULT AZ4
100	Geraldine Ann Cusack and Geraldine O'Connell Cusack	Charlemont	AZ4 (i)
101	Gerard F Brouder	Multiple	GEN
102	Gerard Gannon Properties	Swords	AZ1(b)
103	Gerhard and Rosemary Mayrhuber	Tara	AZ4 (g)
104	Glasnevin Village Residents Association	Glasnevin	AZ4 (d)
105	Godfrey Gillett	Charlemont	AZ4 (i)
106	Grace Bible Fellowship	Tara-SSG	AZ4 (g)
107	Grace Maguire	Charlemont	AZ4 (i)
108	Grand Parade Property Trading Company DAC	Charlemont	AZ4 (i)
109	Greybitch Limited	Tara	AZ4 (g)
110	Hammerson ICAV	Swords	AZ1(b)
111	Hampstead Residents CLG	Collins Ave-Griffith Park	AZ4 (b)
112	Hedigans Limited (Michael and Peter Hedigan)	Glasnevin	AZ4 (d)
113	Helen and Luke Sherlock	Tara	AZ4 (g)
114	Helena Kelly	Charlemont	AZ4 (i)
115	Hertz Europe Service Centre Limited	Seatown-Swords	AZ1(a)
116	Hibernia Real Estate Group Limited	SSG-Charlemont	AZ4 (h)
117	Hines Real Estate Ireland Limited	SSG	AZ4 (h)
118	HSE National Drug Treatment Centre	Tara-SSG	AZ4 (g)
119	Hugo Byrne CO John Byrne	Dardistown-Northwood	AZ3
120	Ian and Eva Sutherland	Charlemont	AZ4 (i)
121	Iarnrod Eireann	Multiple	MULT AZ4
122	Institutional Investment Partners GmbH	O'Connell St.	AZ4 (f)
123	Iona and District Residents Association 2	Glasnevin	AZ4 (d)
124	Iona and District Residents Association	Repeated submission (superceded by #123)	
125	IPUT plc and Irish Life Assurance plc	Fosterstown	AZ1(b)
126	Irene Sorohan	Charlemont	AZ4 (i)
127	Irish Airline Pilots Association	Dublin Airport	AZ2
128	Irish Georgian Society	General	GEN
129	Irish Life Assurance plc. (19-20 Earlsfort Terrace and 65A Adelaide Road)	SSG-Charlemont	AZ4 (h)
130	Irish Life Assurance plc. (4 Earlsfort Terrace)	SSG-Charlemont	AZ4 (h)
131	Irish Life Assurance plc. (70 St Stephens Green)	SSG	AZ4 (h)
132	Irish Life Assurance plc. (Earlsfort Terrace Block C)	SSG-Charlemont	AZ4 (h)
133	Irish Water	Multiple	MULT AZ's
134	IvanaBacik	Multiple	GEN
135	J Murphy (Devlopments) Limited	Fosterstown	AZ1(b)
136	James Geoghegan	Charlemont	AZ4 (i)
137	James Wickham	General	MULT AZ4
138	Jamie Maher and Others	Charlemont	AZ4 (i)
139	Jennie McGee and Ian Kelly	Glasnevin	AZ4 (d)
140	Jerdip Properties Unlimited Company	SSG-Charlemont	AZ4 (h)
141	Jian Cheng and Family	Collins Ave-Griffith Park	AZ4 (b)

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Submission No.	Submission Entity/ Person	Location	Area/ Category
142	Jim O'Callaghan	Charlemont	AZ4 (i)
143	Johann Harty	Glasnevin	AZ4 (d)
144	John A Ryan	Charlemont	AZ4 (i)
145	John and Josianne Bullows 2 (Letter+ land registry records, deeds, vesting certs & photos)	Charlemont	AZ4 (i)
146	John and Josianne Bullows (same letter as above)	Charlemont	AZ4 (i)
147	John and Majella Darcy	Tara	AZ4 (g)
148	John Bernard Reid	Multiple	GEN
149	John Conway and Orlaith McCarthy	Charlemont	AZ4 (i)
150	John Lawlor	General	GEN
151	John Loughrey	Charlemont	AZ4 (i)
152	John McGreevy	Fosterstown	AZ1(b)
153	John Neary and Kathleen White	Charlemont	AZ4 (i)
154	Jonathan Healy	Mater	AZ4 (e)
155	Juliana and Joe Boland and Family	Swords	AZ1(b)
156	Justin Marden	Multiple	MULT AZ's
157	Karen Colgan	Charlemont	AZ4 (i)
158	Karl Egan	Tara	AZ4 (g)
159	Kathleen McDonagh	Charlemont	AZ4 (i)
160	Kathleen Shields	Tara	AZ4 (g)
161	Kevin Muaghan	Charlemont	AZ4 (i)
162	Kieran Smyth and Margaret McDonnell and Others	Collins Ave-Griffith Park	AZ4 (b)
163	Knocklyon Network CLG	SSG-Charlemont	AZ4 (h)
164	Kohlin Lourenco	Charlemont	AZ4 (i)
165	KW Real Estate ICAV	SSG	AZ4 (h)
166	Leo and Anne Crehan	Charlemont	AZ4 (i)
167	Leonard Kinsella	SSG-Charlemont	AZ4 (h)
168	Lesley Hewson	Glasnevin	AZ4 (c)
169	LIDL Ireland GmbH	Northwood	AZ3
170	LOKRA Lower Kimmage Road Residents Association	SSG-Charlemont	AZ4 (h)
171	Lorraine Rooney	Glasnevin	AZ4 (c)
172	Louisa Gannon	Charlemont	AZ4 (i)
173	Louise Boughton and Glenn Sharpe	Collins Ave-Griffith Park	AZ4 (b)
174	M.E. Hanashoe Solicitors	Glasnevin	AZ4 (d)
175	Management Company Board on behalf of The Court	Glasnevin	AZ4 (d)
176	Margaret Morrissey	Glasnevin	AZ4 (d)
177	Maria Elena Garcia Valasco	Tara	AZ4 (g)
178	Maria O'Connor	Tara	AZ4 (g)
179	Marie Balfe	Tara	AZ4 (g)
180	Marie McMahon	Glasnevin	AZ4 (d)
181	Marie Sherlock	Multiple	MULT AZ4
182	Mark Campbell and Aimee O'Farrell	Glasnevin	AZ4 (d)
183	Mark O'Connell	Glasnevin	AZ4 (d)
184	Martin Sheridan	Tara	AZ4 (g)
185	Mary Fitzpatrick	Multiple	MULT AZ's
186	Mater Misericordiae and the Childrens University Hospitals	Mater	AZ4 (e)
187	Mater Misericordiae University Hospital	Repeated submission	
188	Maureen O'Scanail	Swords	AZ1(b)

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Submission No.	Submission Entity/ Person	Location	Area/ Category
189	Metro South West Group	SSG-Charlemont	AZ4 (h)
190	Michael A Doyle and Carmel Smith Doyle	Charlemont	AZ4 (i)
191	Michael B. Barry	SSG-Charlemont	AZ4 (h)
192	Michael McDowell	Charlemont	AZ4 (i)
193	Michael Quinn	Glasnevin	AZ4 (d)
194	Millenium Theatre Company	Mater-O'Connell St.	AZ4 (e)
195	Monica Deering	Tara	AZ4 (g)
196	Mouna Unlimited Company	Dardistown	AZ3
197	Muiris O'Dwyer	SSG-Charlemont	AZ4 (h)
198	National Disability Authority	General	GEN
199	National Transport Authority	General	GEN
200	Neasa Hourigan	General	GEN
201	Newcourt Retirement Fund Managers Ltd Trustees of Majella Darcy PRSA	Tara	AZ4 (g)
202	Niall Lynch	SSG-Charlemont	AZ4 (h)
203	Niall Parsons 2	Charlemont	AZ4 (i)
204	Niall Parsons	Charlemont	AZ4 (i)
205	Nicholas Mansergh	Multiple	GEN
206	Nicola Brait and Greta Tumiatti	Tara	AZ4 (g)
207	Nicola O'Doherty	Charlemont	AZ4 (i)
208	Nigel Clerkin	General	GEN
209	Nigel Mallen	Glasnevin	AZ4 (d)
210	Nuala Kelly	Tara	AZ4 (g)
211	October Investments Limited	Swords	AZ1(b)
212	Olan O'Brien	Mater	AZ4 (e)
213	OPW (1 Georges Quay and others)	Multiple	MULT AZ4
214	OPW (13-14 Burgh Quay Offices)	Multiple	MULT AZ4
215	OPW (14-17 Moore Street - 8-9 Moore Lane)	Multiple	MULT AZ4
216	OPW (16 Parnell Square)	Multiple	MULT AZ4
217	OPW (22-25 Clare Street)	Multiple	MULT AZ4
218	OPW (44-45 O'Connell Street)	Multiple	MULT AZ4
219	OPW (52 St Stephens Green)	Multiple	MULT AZ4
220	OPW (9-15 O'Connell Street)	Multiple	MULT AZ4
221	OPW (Apartments 1-8 Clare Court)	Multiple	MULT AZ4
222	OPW (Ballymun Garda District Headquarters and INTERO Office)	Multiple	MULT AZ4
223	OPW (Department of Enterprise, Trade and others)	Multiple	MULT AZ4
224	OPW (Department of Finance)	Multiple	MULT AZ4
225	OPW (Department of Justice 50-51 St Stephens Green)	Multiple	MULT AZ4
226	OPW (Garden of Remembrance)	Multiple	MULT AZ4
227	OPW (Government Buildings Block)	Multiple	MULT AZ4
228	OPW (Headquarters of the Department of Agriculture, Food and the Marine)	Multiple	MULT AZ4
229	OPW (Iveagh House - Department of Foreign Affairs)	Multiple	MULT AZ4
230	OPW (Leinster House Complex)	Multiple	MULT AZ4
231	OPW (Mobhi Road Complex)	Multiple	MULT AZ4
232	OPW (National Concert Hall Complex)	Multiple	MULT AZ4
233	OPW (National Gallery of Ireland)	Multiple	MULT AZ4
234	OPW (National History Museum)	Multiple	MULT AZ4
235	OPW (National Library of Ireland)	Multiple	MULT AZ4

Table 3: Index - Submissions Received in Response to Railway Order Application Statutory Consultation (Alphabetical Order)

Submission No.	Submission Entity/ Person	Location	Area/ Category
236	OPW (National Museum of Ireland)	Multiple	MULT AZ4
237	OPW (St Stephens Green Buildings)	Multiple	MULT AZ4
238	OPW (St Stephens Green House)	Multiple	MULT AZ4
239	OPW (St Stephens Green Park)	Multiple	MULT AZ4
240	OPW (The General Post Office)	Multiple	MULT AZ4
241	Orwell Park (Templeogue) Residents Association	SSG-Charlemont	AZ4 (h)
242	O'Scanail Veterinary Hospital	Swords	AZ1(b)
243	Our Ladies of Victories Church	Collins Ave	AZ4 (b)
244	Our Lady of Victories Boys' School (Dermot Murphy)	Collins Ave-Griffith Park	AZ4 (b)
245	Our Lady of Victories Girls National School (Dermot Murphy)	Collins Ave-Griffith Park	AZ4 (b)
246	Our Lady of Victories Infant School (Dermot Murphy)	Collins Ave-Griffith Park	AZ4 (b)
247	Owners of 9, 10 and 11 Nelson Street	Mater	AZ4 (e)
248	Pat and Barbara McCormack	Glasnevin	AZ4 (d)
249	Patricia Roe	Collins Ave-Griffith Park	AZ4 (b)
250	Patricia Whyte	SSG-Charlemont	AZ4 (h)
251	Paul and Brian Connell	Glasnevin	AZ4 (d)
252	Paul Cusack on behalf of residents of 153 Ballymun Road	Ballymun-Collins Ave	AZ4 (a)
253	Paul Hughes	Mater	AZ4 (e)
254	Paul McAuliffe	Ballymun-Collins Ave	AZ4 (a)
255	Peter and Breda Gregory	Glasnevin	AZ4 (d)
256	Peter Schneider Energy Consultants	General	GEN
257	Peter Twamley	Multiple	GEN
258	Phibsboro Village Tidy Towns (PVTT)	Glasnevin	AZ4 (d)
259	Proinsias Mac Fhlannchadha	Charlemont	AZ4 (i)
260	Prospect Architectural Conservation Area	Glasnevin	AZ4 (c)
261	Rail Users Ireland (Thomas J Stamp)	Multiple	MULT AZ's
262	Rathgar Residents Association	General	GEN
263	Recorders Residents Association	SSG-Charlemont	AZ4 (h)
264	Rethink Metrolink	Charlemont	AZ4 (i)
265	RGRE Burlington Limited and RGRE Harcourt Terrace Limited	SSG-Charlemont	AZ4 (h)
266	Richard Guiney	General	GEN
267	Rita Marie Harvey	Charlemont	AZ4 (i)
268	Rohan Holdings Limited (Part I & Part II)	Seatown-Swords	AZ1(a)
269	Roisin Shortall	Collins Ave-Griffith Park	AZ4 (b)
270	Royal Canal Clean-Up Group	Glasnevin	AZ4 (d)
271	Ruadhan MacEoin	Multiple	GEN
272	Sadhbh O'Neill	Multiple	GEN
273	Sainfoin Property Company Limited	Dardistown	AZ3
274	Santry Forum	Multiple	MULT AZ's
275	Sarah Meredith	Glasnevin	AZ4 (d)
276	Save Markievicz Pool & Gym Campaign (John Dean)	Tara	AZ4 (g)
277	Seatown Villas Residents	Seatown	AZ1(a)
278	Shandon Mill Owners Management Company CLG	Glasnevin	AZ4 (d)
279	Shandon Residents Association	Glasnevin	AZ4 (d)
280	Shira Mehlman	Glasnevin	AZ4 (d)
281	Sinead Quilty	Swords	AZ1(a)
282	Smokin Bones LTD	Swords	AZ1(b)

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Submission No.	Submission Entity/ Person	Location	Area/ Category
283	Smyths Toys Superstores	Swords	AZ1(b)
284	St.Annes Resident's Association	SSG	AZ4 (h)
285	Susan Cosgrove	Tara	AZ4 (g)
286	Suzi Taylor and G.I Taylor	Charlemont	AZ4 (i)
287	Tanat Limited	Tara	AZ4 (g)
288	Tanrat Limited TA Starbucks	Swords	AZ1(b)
289	Terenure West Residents Association	General	GEN
290	Tesco Ireland	Multiple	MULT AZ's
291	The Abbey Theatre (Amharclann na Mainistreach)	O'Connell St.-Tara	AZ4 (f)
292	The CMCCG Action Group (Sabine Klinger)	Tara	AZ4 (g)
293	The Foley Family	Charlemont	AZ4 (i)
294	The Owner of Apartment 27 College Gate	Tara	AZ4 (g)
295	The Residents of Albert College Lawn	Collins Ave-Griffith Park	AZ4 (b)
296	The Rotunda Hospital	Mater-O'Connell St.	AZ4 (e)
297	Thomas Harty	Glasnevin	AZ4 (d)
298	Thomas Herlihy	General	GEN
299	TII (Edel McCormack) NOT A SUBMISSION	Proof of postage of notification letters to landowners/occupiers	
300	Tom Harrington	Charlemont	AZ4 (i)
301	Tony Graham	General	GEN
302	Townsend Apartment Management Company Limited	Tara	AZ4 (g)
303	Trinity College Dublin	Tara-SSG	AZ4 (g)
304	Troys Butchers	O'Connell St.	AZ4 (f)
305	Union Investment Real Estate GmbH	Charlemont	AZ4 (i)
306	University College Dublin (UCD)	Charlemont	AZ4 (i)
307	Upper Leeson Street Area Residents Association	Charlemont	AZ4 (i)
308	Veronica Jane O'Mara	Tara	AZ4 (g)
309	Vincent Harrison and others 2	Glasnevin	AZ4 (d)
310	Vincent Harrison and others	Glasnevin	AZ4 (d)
311	Voice of Vision Impairment	General	GEN
312	Waterways Ireland	Glasnevin	AZ4 (d)
313	Westward Group Ltd	Mater-O'Connell St.	AZ4 (e)
314	Will Phelan	SSG-Charlemont	AZ4 (h)
315	Woodies DIY co Grafton Group PLC	Seatown	AZ1(a)
316	WORK Residents Association (Michael Griffin)	SSG-Charlemont	AZ4 (h)
317	Wynn's Hotel	O'Connell St.-Tara	AZ4 (f)
318	Yu Miao Yang YMY Ltd	Mater	AZ4 (e)
319	Yvonne Allen	Charlemont	AZ4 (i)
320	Yvonne Collins	SSG-Charlemont	AZ4 (h)
N/A	Fingal County Council	Multiple	

Submission No.			141	
Organisation Name or Name of Submitter			Jian Cheng and Family (residents - 164 Ballymun Road)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Jian Cheng				
1	Observations/ Concerns	1	We absolutely oppose to the proposal of construction of Glasnevin Metro station within the Metro link project along the Ballymun Road, in particular about the plan to construct the underground metro directly under my house on 164 Ballymun Road, Dublin 9. 1. There will be major disruption on this end of Ballymun Road, the project will severely effect residents on the main road and we'll all face major issues with accessing our properties, traffic disruption, noise, vibration, dirt and dust to mention a few.	Thank you for your submission and for sharing your observations with regards to the MetroLink project to which we have responded below. We note your objection to Glasnevin Station but this is unsupported with any specific concerns for us to address as it is not adjacent to your property.
2	Observations/ Concerns	1	2. There is the Our Lady of Victories national school across road from my house, on normal days, the parents park their cars along footpath of both sides of the road during drop off and collection. The project will majorly disrupt these activities and create a major safety hazards for the parents, the children and the local residents.	As outlined in Chapter 9 of the EIAR, there will be additional traffic at Our Lady of Victories Schools during construction, however a Traffic Management Plan will be implemented to ensure that there are no significant impacts on students, parents and staff albeit with a restriction on the kerbside drop off.. All HGV movements will be managed in line with the measures with further details found in the Outline CEMP (Volume 5, Appendices, Chapter 5 (MetroLink Construction Phase) and Appendix A9.5, Section 2.5.2 to ensure that there are no accidents involving construction phase vehicles. These measures will include control of the movement of HGVs to and from the site during school drop off and pick up times. It should also be noted that during all phases of construction the pedestrian crossing between Our Lady of Victories church and the schools will be maintained to ensure safe access across the road. To minimise disruption, where practicable, construction work requiring short term disruption and road closures will be carried out when traffic volumes are lower, such as at night, at weekends and during school holidays (Section 9.7.1.2, EIAR Chapter 9). Appropriate traffic management and health and safety best practice will be adhered to during construction with public safety in mind with the pedestrian crossing maintained. These measures will cater to all vulnerable users including children. There will be a construction management team on-site for the duration of the Construction Phase who will ensure mitigation measures are implemented, and that construction impacts and nuisance are minimised. All construction work in connection with the proposed Project will be carried out in accordance with the CEMP (EIAR Appendix A5.1) and relevant health and safety legislation and best practice, with particular regard to: • Safety, Health and Welfare at Work Act, 2005; • Safety, Health and Welfare at Work (Construction) Regulations 2013; and • Other relevant Irish and EU safety legislation. As required by the Regulations, a Health and Safety Plan will be formulated which will address health and safety issues from the design stages through to completion of the construction and maintenance phases. The plan will be reviewed as the development progresses. A Project Supervisor Construction Stage will be appointed by TII and a Safety File prepared for the Construction Phase (Section 5.11, Chapter 5 (MetroLink Construction Phase)). Vulnerable road users such as pedestrians and cyclists will be prioritised for protection in the Scheme Traffic Management Plan. Temporary pathways will be installed where appropriate and provisions will be made to ensure access for the mobility impaired is maintained. For those who walk to Our Lady of Victories Schools the signalised pedestrian/toucan crossing outside of the front of the school will be retained during all works and will continue to allow safe access for pedestrians and vulnerable users. Cycle lanes will continue to be provided along the R108 (Section 9.6.1.2.4.3, Chapter 9 (Traffic & Transport)). The planning, testing and commissioning and operation of the proposed Project will be carried out in accordance with the Railway Safety Act 2005 and with consents and directions issued by the Commission for Railway Regulation under the Act. A safety management system and safety case will be in place for the operation of the proposed Project (Section 5.11, Chapter 5 (MetroLink Construction Phase)).

Submission No.			141	
Organisation Name or Name of Submitter			Jian Cheng and Family (residents - 164 Ballymun Road)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Jian Cheng				
3	Observations/ Concerns	1	3. Then there is the relocation of all services (drainage, sewerage, electricity, water, gas) to the eastern side of Ballymun road before station construction even commences.	Prior to the enabling works and the main construction phase a Traffic Management Plan will be developed (Refer to Appendix A9.5 of the EIAR). The use of a traffic management plan is critical to the management of the services diversion phase and construction phase traffic and vulnerable road users such as cyclists and pedestrians. The contractor will be legally required to adhere to the requirements of the plan on a day by day basis and so any such measures will be implemented with a focus on managing traffic movements to ensure that there are no accidents. It should also be noted that as outlined in Table 9.64 in Chapter 9 of the EIAR, enabling works in this area will be undertaken such that one lane of general traffic and one bus lane in each direction will remain open. Dedicated cycle lanes will also be provided during the construction phase. Furthermore, as outlined in EIAR Appendix A9.5 section 2.5.2.2, construction vehicles will be controlled in terms of the hours of operation (i.e. construction traffic will be prohibited during periods of very heavy traffic and during school drop off and pick up periods). Additionally, there will be controls at the entrance and exits of sites for construction vehicles in order to ensure the safety of other road users.
4	Observations/ Concerns	1	4. The station construction itself will require 7-10 years duration with associated road closures and traffic gridlock, with no vehicle access to my own house.	Please refer to Response (3). Access will be maintained to your property during this period. The impacts of the works on traffic flow have been assessed and reported on in EIAR Chapter 9.
5	Observations/ Concerns	1	5. Furthermore, there is also the construction and excavation of the proposed shaft in the Albert college park, which is also a major project itself.	Albert College Park has also been considered in the EIAR and cumulative traffic impacts assessed together with wider environmental impacts of the proposed project. Refer to EIAR Chapter 9 for Traffic impacts and Chapters 1 to 31 for wider impacts of the works.

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Organisation Name or Name of Submitter			Jian Cheng and Family (residents - 164 Ballymun Road)	
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6	Observations/ Concerns	1	6. The construction will inevitably causing damage to our house as well as the long term structure effect on our property since the underground tunnel running directly underneath our house. Think about the noise, the vibration each time the metro passes through underneath.	A comprehensive Settlement Assessment has been undertaken to determine the potential impacts that construction of the proposed Project will have on sensitive receptors such as buildings and infrastructure from the advance of the TBM. The ground movement predictions and the building damage assessment methodology adopted for MetroLink is based on the approach adopted in most tunnel projects around the world, including London Crossrail and High Speed 2 in England. This is described in EIAR Section 5.4.11 (Ground Settlement Monitoring and Mitigation Works). The EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. Table 5.2 of this report shows that your property (AB07) has been assessed as falling within the 'Very Slight' category currently. The building risk categories shown in Table 4-4 of the aforementioned report are used to define the degree of building damage related to the Risk Category. There is no predicted structural impact due to tunnelling nor the subsequent operation of MetroLink. Noise and Vibration Chapter 14 presents the assessment of groundborne noise and vibration impacts for both construction and operation phases. EIAR Appendix A14.5 Groundborne Noise and Vibration and Blasting Modelling Results presents the predicted noise and vibration levels during TBM passage and railway operation for various sensitive receptors, including 164 Ballymun Road. The predicted level of groundborne noise during TBM passage is 49 dB LASmax, which is above the 45 dB LASmax threshold resulting in a significant impact on the building occupants during TBM passage. The predicted vibration for TBM Passage during the day and night are 0.255ms-1.75 (VDV day) and 0.214ms-1.75 (VDV night). Both of these values are lower than the VDV Threshold Levels of 1.0ms-1.75 (VDV day) and 0.5ms-1.75 (VDV night). These threshold levels have been established in relation to human response to vibration, and thresholds for building damage are much higher. As the predicted levels of vibration from TBM passage are below these thresholds then no impact from vibration during TBM passage is expected for this building. The predicted groundborne noise and vibration from mechanical excavation at Collins Avenue Station are also presented with groundborne noise predicted to be 29 dB LASmax, which is below the 40 dB LASmax threshold. The predicted vibration during mechanical excavation is 0.001 ms-1.75 V DV which is well below the VDV Threshold Levels of 0.8ms-1.75 VDV (day) and 0.4ms-1.75 VDV (night). There are therefore no adverse impacts predicted at this location during the mechanical excavation at Collins Avenue station. Unfortunately, there are no effective methods are available to reduce groundborne noise from TBMs at source. The principal mitigation measures aimed at minimising impacts are as follows: • Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects during construction, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. • TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6). During railway operation the predicted groundborne noise at 164 Ballymun Road is 31 dB LASmax, which is below the threshold level of 40 dB LASmax indicating no significant impact during railway operation. The predicted VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) during railway operation is 0.006 ms-1.75 (VDV day) and 0.003ms-1.75 (VDV night). Both of these values are well below the VDV Threshold Levels of 0.8ms-1.75 (VDV day) and 0.4ms-1.75 (VDV night) indicating no significant impact for the building or for residents of this address.

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Organisation Name or Name of Submitter			Jian Cheng and Family (residents - 164 Ballymun Road)	
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7	Observations/ Concerns	1	We cannot tolerate the noise, pollution and vibration that will be caused during the construction directly outside and underneath my house.	Please refer to response item (6) above related to Groundborne Noise and Vibration. <u>Airborne Noise and Vibration</u> The assessment of airborne noise and vibration during the construction of Collins Avenue Station includes the consideration of a number of receptors on Ballymun Road. Table 13.59 of Chapter 13 presents the unmitigated potential significant airborne noise impacts, which includes receptors with predicted Moderate to Significant, and Significant to Very Significant impacts during some of the work phases. Measures to mitigate noise are discussed in Section 13.6.1 and include the provision of 4m high boundary hoarding around works at Collins Avenue compound. Following the implementation of noise mitigation measures the magnitude of impact at 164 Ballymun Road is reduced to "Not Significant" as indicated in Pages 39 to 45 of EIAR Appendix 13.7 Construction Phase modelling. The Contractor will be required to set out noise mitigation measures in their Construction Environmental Management Plan (CEMP), an outline of which is included in EIAR Appendix A5.1. Should an Enforceable Railway Order be granted, prior to the commencement of any construction works, a detailed noise assessment for each work site will be undertaken based on the most up to date information for each. There is no published statutory Irish guidance relating to the maximum permissible noise level that may be generated during the Construction Phase of a project. Local authorities normally control construction activities by imposing limits on the hours of operation and consider noise limits at their discretion. Additionally, the contractor undertaking the construction of the works will be required to take specific noise abatement measures to the extent required and comply with the recommendations of BS 5228-1 (BSI 2014a). The Transport Infrastructure Ireland (TII) Airborne Noise and Ground-borne Noise Mitigation Policy (Appendix A14.6 of EIAR Chapter 14) sets out the construction noise insulation and temporary rehousing measures to be implemented, if required. When the dust minimisation measures detailed in the mitigation section of EIAR Chapter 16 are implemented, fugitive emissions of dust or pollution from the site are not predicted to be significant and pose no nuisance, human health or ecological risk to nearby receptors. Thus, there will be no likely residual Construction Phase dust effects.
8	Observations/ Concerns	1	We are also deeply fearful of the safety of our house due to tunnel being constructed directly underneath our house, we are even more fearful of the safety on ourselves day in and day out during the construction period that will last well beyond the 7-10 years that was estimated for this part of the project. I cannot accept that my children to grow up during their most vulnerable times on a construction site for best part of their youth.	TII would like to reassure you that the impact on your house has been assessed and there are no structural safety issues due to either the construction or operation of MetroLink. TII intend to implement best practice with regard to the construction of MetroLink and a priority is to ensure the safety and security of all those impacted by the works. TII acknowledge that there is potential for significant environmental effects on the surrounding area to the proposed MetroLink station if not mitigated effectively. However, as detailed in relevant chapters of the EIAR, TII's assessment shows that it is possible to mitigate the potential impacts identified at this location during the construction period. Once the construction phase is completed, the location of a MetroLink station at Our Lady of Victories Church will provide significant positive benefits to the local community in terms of enhanced public transport provision, reduced traffic and the resultant improvements in the environment, with reduced noise and air quality pollution.

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9	Observations/ Concerns	1	I am also deeply concerned in respect of hugely increased population footfall after the station being in place, in terms of anti-social behaviour etc. The local residents all firmly believe that the Metro Station should be redesigned and built within the Albert College Park instead of building a ventilation shaft.	TII are keen to point out that once the construction phase is completed the location of a MetroLink station here will provide significant positive benefits to the local community in terms of enhanced public transport provision, reduced traffic and the resultant improvements in the environment, with reduced noise and air quality pollution. As outlined in section 7.7.10.7 of Chapter 7 of the EIAR the assessment undertaken for the Emerging Preferred Route (EPR) identified a preferred route option including the proposed station location in front of Our Lady of Victories Church. This location for the station provides a number of advantages when compared to other options which are: (1) It allows the project to achieve a core project objective of providing public transport that is integrated in the existing and future proposed transport network, allowing as it does for interchange between bus routes both on Collins Avenue and on Glasnevin road. A station location further south at the northern section of Albert College Park would not allow for this interchange potential as there would be over 500m separating potential bus stop locations and the MetroLink station. (2) The proposed Collins Avenue station would have a significant catchment area and analysis undertaken leading to the EPR identified that this route option had the highest potential passenger numbers when compared with other route options. (3) During the construction phase, the location of a station within the frontage to Our Lady of Victories means that traffic disruption would be reduced when compared to the location of a station within the road corridor (partially or fully). Regarding anti-social behaviour, as presented in the EIAR Chapter 6, MetroLink Operations and Maintenance, one of the outcomes of the architectural and urban realm design is to discourage anti-social behaviour, for example through the attractive setting, use of public lighting, open sight-lines, and avoidance of areas where individuals and groups of people can hide. Subject to data protection impact assessment and compliance with the General Data Protection Regulation (GDPR) anti-social behaviour on the trains and within the stations will be observed through CCTV (Closed Circuit Television) and if required staff sent to manage the situation. The ACID (Access control and intrusion detection) system will also identify intruders trying to enter locations where unauthorised access is prohibited. The station will be designed with safety and security in mind and as a core design principle.
10	Observations/ Concerns	1	We as a family had been extremely stressful about the planning proposal, we believe the current planed project will make our lives a living nightmare, essentially making our current location an inhabitable environment. We are pleading with the authority to reject the current planning proposal and order TII to redesign their planning please.	Refer to response (8).

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Organisation Name or Name of Submitter			Jim O'Callaghan TD	
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SUBMISSION TO AN BORD PLEANALA Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022.				
1	Letter	1	I support the decision of government and the application to grant permission for a Railway Order to run from Estuary to the City Centre. Dublin City has long needed a rail link to Dublin Airport and this central objective of the application as my support.	Thank you for taking the time to make a submission and your overall endorsement of the MetroLink Project. We have reviewed your submission and responded to the observations made below.
2	Letter	1	One aspect of the proposal which I do not support and which I would ask An Bord Pleanala to refuse is the proposal to have a terminal at Charlemont. As you know, the government decision permitted the construction of a Metrolink from Estuary to Dublin City Centre. Charlemont is not Dublin City Centre. It is a residential area south of the canal and a mile south of the City Centre.	The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were was prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future Metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemon in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". It is not clear what Government decision is referred to in the submission, but the Preliminary Business Case approved by the Government in July 2022 included the station at Charlemont. Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This TII do not agree that Charlemont is the incorrect location for an interchange with the Luas Green Line or that it prejudices future options for integration with the wider transport network for the reasons set out below. In the Emerging Preferred Route Report, Charlemont was identified as the last station prior to the tie-in to the Green Luas Line which was intended to be upgraded to Metro standard. as outlined in EIAR chatper 7, decision to terminate at Charlemont instead was driven by three factors: (a) the additional impacts that would be involved in upgrading the Luas south of Charlemont as a result of the proposed adoption of a high degree of automated operations (GoA4); (b) the development of alternatives to accommodate increased capacity on the Luas line south of Charlemont without that upgrade; and (c) Feedback received during the EPR non-statutory consultation.

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				The proximity of the Metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and Metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the Metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Accordingly, the location of the Charlemont station is supported by detailed project-level analysis and the strength of that location is reflected at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to Metro with a Metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the Metro in all any of the above directions.
3	Letter	1	I believe permission should not be granted for the Metro Station at Charlemont but instead the terminal should be in the City Centre at St. Stephen's Green. The reason I oppose the Metro going to Charlemont is because I believe Dublin City will require a Metrolink to the south-west of the City in the very near future. If the Metrolink goes to Charlemont then this, in effect, rules out the later development of that Metro towards the south-west of the City.	The reasons for why TII are proposing a station at Charlemont are covered by response (2) above, noting that a station at Charlemont does not preclude the later development of the Metro towards the south-west of the City. The proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future Metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.

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Organisation Name or Name of Submitter			Jim O'Callaghan TD	
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SUBMISSION TO AN BORD PLEANALA Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022.				
4	Letter	1	I believe that the reason why TII has sought to terminate the Metrolink at Charlemont is in order to pre-determine any future extension of that line so that it runs along the green Luas line. This has already been rejected by government and the TII should not be permitted to bind the hands of any future government and decisions it may wish to make in respect of the extension of rail infrastructure in the City.	TII can confirm that there is no predetermined future extension of Metro and would refer to responses (2) and (3) above that explain the reasons why a station at Charlemont is proposed.
5	Letter	2	There are many areas in south-west Dublin that do not have any rail infrastructure such as Leonard's Corner, Portobello, Harold's Cross, Rathgar, Terenure, Templeogue and Walkinstown. An Bord Pleancila should recognise that it makes no planning sense for this Metrolink to terminate at Charlemont which is a quiet residential area south of the canal.	Please refer to responses (2) and (3) that explain the reasons why a station at Charlemont is proposed. Future plans for the extensions of the Metro south of Charlemont are outside of the scope of this Railway Order application.
6	Letter	2	The overall project objective for Metrolink as established by the NTA and TII is to provide "a sustainable...and accessible public transport service between Swords, Dublin Airport and Dublin City Centre". By seeking permission for the Metro to terminate at Charlemont, the TII is seeking to circumvent this aim and objective of the project.	TII disagree that the overall project objectives are not achieved by a proposed station at Charlemont. EIAR Chapter 3, Background to the MetroLink Project, explains how the proposed Project will provide significant benefits not only to those who choose to use it, but also to other transport network users, by generating a modal shift from private car use, thereby reducing the demand for road space and creating the opportunity for the road transport system to achieve optimum levels of efficiency and effectiveness. MetroLink is predicted to divert 6.8 million car trips per annum in the early years, growing to 12 million per annum by 2045. Subsequently, there will be strong modal shift along all sections of the alignment, Further, as outlined in Chapter 3, the proposed Project is part of an integrated transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2023 and make Dublin a more liveable and sustainable city. Whilst MetroLink is a standalone project that is not dependent on any other projects for its delivery or effective operation, it is nonetheless a critical part of the proposed integrated transport network for the Greater Dublin Area. Finally, as noted by the above responses, the proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023).

Submission No.			143	
Organisation Name or Name of Submitter			Johann Harty (resident - 3A Mobhi Road, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Intended application by NRA [operating as Transport Infrastructure Ireland] for Railway [MetroLink- Estuary to Charlemont via Dublin Airport] Order [2022]				
1	Letter	1	I have received an information pack from Transport Infrastructure Ireland (TII) in relation to their application for the above reference MetroLink. Their application includes the acquisition of Substratum land beneath our property. While I support the proposed MetroLink, I have concerns in relation to the potential structural damages that may occur to our property during the construction stage.	While acknowledging your support for the Project, TII thank you for your submission and for sharing your concerns with regards to the MetroLink project to which we have responded below. A comprehensive Settlement Assessment has been undertaken to determine the potential impacts that construction of the proposed Project will have on sensitive receptors such as buildings and infrastructure from the advance of the TBM. The ground movement predictions and the building damage assessment methodology adopted for MetroLink is based on the approach adopted in most tunnel projects around the world, including London Crossrail and High Speed 2 in England. This is described in EIAR Section 5.4.11 (Ground Settlement Monitoring and Mitigation Works). EIAR Appendix A5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. Section 5.2 of this report sets out the rationale for the assessment of properties similar to yours. The results of the assessment provided in Table 5.2 shows that your property (Ref B - 163), as one of the representative properties selected, has been assessed as falling within the 'Negligible ' category. The building risk categories shown in Table 4-4 of the aforementioned report are used to define the degree of building damage related to the Risk Category. According to this Table, the Negligible damage category refers to hairline cracks. As your property is within the negligible category no further assessment beyond the Phase 2a Building Damage Assessment is required. Appendix A5.17 Appendix C contains the predicted settlement contour drawings. Sheet 20 of 30, drawing ML1-JAI-EIA-Rout_XX-DR-T-21140 refers to the tunnel alignment relevant to your propoerty.
2	Letter	1	I would therefore request that TII indemnify us against and structural damage or any loss of Rental income that is caused as a direct result of this development being approved and going ahead.	The Property Owner Protection Scheme (POPS), committed to by TII, allows residential property owners to register with TII if their residential property is within thirty (30) metres of the edge of the MetroLink alignment or fifty (50) metres of station structures. The POPS comprises condition surveys of residential properties along the route of the proposed Project. The purpose of the condition surveys is to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether same may be attributable to the proposed Project, and subsequently to recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in swift and accurate verification of any property damage claims which may be received from property owners. The POPS is designed to cater for / address repair work which may be necessary for any damage (attributable to the proposed Project) to a qualifying residential property up to a threshold of €45,000. The POPS will be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Further information on POPS is available in Chapter 11 (Population & Land Use). Useful information can also be found in the MetroLink Frequently Asked Questions document which can be found online at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/ , and this is where useful updates will be made available as the proposed Project progresses.

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Organisation Name or Name of Submitter			Johann Harty (resident - 3A Mobhi Road, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Intended application by NRA [operating as Transport Infrastructure Ireland] for Railway [MetroLink- Estuary to Charlemont via Dublin Airport] Order [2022]				
3	Letter	1	In the case of my wife's Healthcare business at 3a St. Mobhi Rd, any loss of income or disruption to her business as a direct result of this development been approved and going ahead I would request similar indemnity to be in place.	Please refer to response item (2) above related to POPS, however it is important to note that this scheme is only applicable to residential properties and not for commercial buildings. TII acknowledge your concerns regarding any potential impact on your wife's healthcare business. Your property is approximately 280m from the southern boundary of the proposed construction compound at Albert College Park and therefore the direct impact from the shaft construction activities will be negligible. Traffic management plans have been developed to minimise the impact of the Project on road users, and to maintain continual access to residential properties and businesses. A hierarchical approach has been adopted, with pedestrian, cyclist, public transport and commercial needs provision taking priority over private vehicles. Whilst increases in traffic flow and driver delay are expected, there are no proposed diversions for local movements at this location and therefore disruption will be minimised. In very sensitive areas, such as the City Centre, the designated access and pedestrian routes around the construction sites, particularly at and/or along the hoarding lines, must not be perceived as uninviting by pedestrians. The environment around the sites, therefore, will be designed to ensure that pedestrians and cyclists feel they are entering a safe and accessible environment. This will ensure that impact to businesses and shops adjacent to the works areas is minimised. See EIAR Chapter 11, Population and Land Use, section 11.6.1.2 detailing construction activity mitigations for the population in general including those for economic activity. The Construction Noise and Vibration Management Plan will set out a detailed analysis of each construction compound relating to noise levels, durations and number of properties impacted and the planned approach for managing same. Prior to any construction work commencing on any of the main work sites a detailed acoustic impact assessment will be undertaken which will involve a baseline noise study, model of the contractors final site layout, plant and equipment models, numbers and on-site location and the inclusion of all available on-site noise control measures
4	Letter	1	I am presently negotiating with potential purchasers for my property. I therefore do not want potential building works to compromise this sale.	MetroLink will necessitate construction/ building works, however once complete it is anticipated that MetroLink will enhance the value for business and private properties.
5	Letter	2	If TII are not willing to indemnify us against any structural damage, loss of income, loss of sale of property due to this development been approved or work commencing we therefore object to the project.	Please refer to response items (2) and (3) above related to POPS and compensation for loss of income, and response item (4) in relation to the sale of your property.

Submission No.			144	
Organisation Name or Name of Submitter			John A Ryan (3 Dartmouth Square West)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Railway (MetroLink-Estuary to Charlemont via Dublin Airport) Order 2022 Case reference Number NA29N.314724				
1	Letter - Introduction	1	Whilst I am broadly in favour of any well-thought-out transport infrastructure planning (such as the proposed MetroLink to connect the airport to the city centre), I have deep misgivings about the proposed plan and the competence of TII to execute this plan within budget and timescale. As a resident of a home very close to the proposed Charlemont terminus I feel that my views on this aspect of the plan are concrete rather than abstract.	It is regrettable that the submitter has such misgivings given TII's record in successful delivery of Road and Public transport projects.
2	Key Submission Points	1	1. Charlemont is the incorrect strategic location for a Terminus. The notion of locating a major rail terminus at a small, congested, residential street such as Dartmouth Road is plainly absurd. Dartmouth Road currently struggles with the current level of through traffic between Ranelagh and Leeson Street. The congestion that will be caused by thousands of passengers transiting the station every hour and connecting with other forms of transport will create enormous issues not only for those same passengers but for the entire community within the area.	TII do not agree that Charlemont is the incorrect location for an interchange with the Luas Green Line or that it prejudices future options for integration with the wider transport network for the reasons set out below. In the Emerging Preferred Route Report, Charlemont was identified as the last station prior to the tie-in to the Green Luas Line which was intended to be upgraded to Metro standard. as outlined in EIAR chapter 7, decision to terminate at Charlemont instead was driven by three factors: (a) the additional impacts that would be involved in upgrading the Luas south of Charlemont as a result of the proposed adoption of a high degree of automated operations (GoA4); (b) the development of alternatives to accommodate increased capacity on the Luas line south of Charlemont without that upgrade; and (c) Feedback received during the EPR non-statutory consultation. A station on St Stephen's Green West is not preferred for several reasons. If a station was placed on St Stephen's Green West, the alignment between the proposed Tara Station and a station on St Stephen's Green West would result in an undesirable horizontal reverse curve and an alignment greater than a 1000m long that would necessitate an intermediate intervention shaft located somewhere between these stations to comply with the MetroLink Fire Strategy. Additional construction would be required to provide such a facility, similar in size to the proposed Albert College Park Intervention shaft. This could feasibly be situated in the Trinity College Dublin sports grounds. TII note that it is Government policy to provide a station and interchange with the Luas Green Line at Charlemont, as set out by the GDA Transport Strategy 2022 – 2042. Should a station be placed on St Stephen's Green West, the alignment between a station located here and the proposed Charlemont Station would also result in an undesirable horizontal reverse curve and an alignment that is greater than 1000m long, and would thus again require an intervention shaft similar to the proposed Albert College Park Intervention shaft to be provided. This would be expected to result in significant demolition and redevelopment in an existing built-up area. In both cases, compared to the proposed alignment that runs much more directly between Tara, St Stephen's Green and Charlemont, the additional length of tunnel and the addition of two intervention shafts generated by locating a station on St Stephen's Green West is uneconomic in comparison. As a potential station location, St Stephen's Green West itself is a very constrained location due to the presence of buildings, Luas and St Stephen's Green Park. Maintaining the Luas operational during station construction would be complex and challenging with significant disruption expected, whilst the impacts on St Stephen's Green Park would be greater for a station in this location compared to the proposed location on St Stephen's Green East. This would be the result of; the likely need to place more of the station in the Park compared to the proposed station on St Stephen's Green East; it would impact an area of the Park that has greater amenity value than St Stephen's Green East due to the nearby Park entrance adjacent to the southern end of Grafton Street, and there would be a risk of impacting the existing Park lake.

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				In summary, an alignment that links the proposed Tara, St Stephen's Green East and Charlemont stations is a more direct and economic alignment, does not require additional intervention infrastructure, avoids a complex engineering interface with the Luas Green Line, impacts the Park less and has less potential for disruption during the construction phase. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area.
				By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro.The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Accordingly, the location of the Charlemont station is supported by detailed project-level analysis and the strength of that location is reflected at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all any of the above directions. Traffic and Pedestrian Congestion TII have modelled the impact of the potential changes to traffic and pedestrian movements and this shows there will be no significant impacts and instead MetroLink will provide improvements to the transport network as explained below. Please refer to Chapter 9, Traffic and Transport, Appendix A9.2-B Traffic and Transport Assessment, Charlemont Station, summarised in section 7.

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				The MetroLink is designed to form part of an integrated public transport network with Charlemont selected as the preferred interchange location in order to maximise the potential interchange with the existing Luas Green Line. In overall terms, Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. The proposed pedestrian crossing on Grand Parade will have minimal impact on the traffic flow along Grand Parade and can be programmed to operate in sync with the existing signalised junction at Grand Parade /Charlemont Street to maintain the flow of traffic movements. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area.
3	Key Submission Points	1	2. Using Charlemont as a terminus will prejudice the future evolution of the network. For reasons best known to themselves TII have always favoured continuing Metrolink along the Luas Green Line, a policy that implied the destruction and rebuild of some of the best rail infrastructure undertaken in this country. When it was pointed out to them that the depth of the tunnel under the main sewer made this impossible, they changed the plan to make Charlemont a terminus. This appears to be a stubborn refusal to face engineering reality, as well as a shocking indictment of their professional competence. It was a local resident who pointed out the existence of a deep sewer along the canal, something TII had missed in their plans.	For clarity, the decision not to progress along the Luas Green Line with MetroLink was not driven by the location of the sewer along Grand Canal and any adjustments to the vertical alignment to de-risk the impacts to the sewer. ALG: As noted in Response (1) the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. It is provided for the in the Transport Strategies and Dublin City Development Plan 2022-2028. The proposed MetroLink alignment has not been extended south of Charlemont for the reasons set out by the GDA strategy , section 12.3.10, "The challenges associated with the upgrading of the Luas Green Line to a metro standard of service have led to the emergence of an alternative proposal which seeks to meet travel demand from south of Sandyford along a new light rail corridor which serves UCD post-2042. As such, the upgrading of the Green Line to metro standard is not being pursued as part of this strategy. Instead, for this strategy period, the capacity and frequency on the current Green Line from Sandyford northwards to the city centre will be incrementally increased through the provision of additional tram fleet and services and associated turnback arrangements to meet forecast passenger demand. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the Metro.

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4	Key Submission Points	1	3. The budget of €650M for the section between St. Stephens Green and Charlemont is an enormous misuse of financial resources when one considers that there is already a perfectly good means of making that short journey - the Luas.	The Board is not responsible for any decisions in relation to the funding the Project. It is solely responsible for assessing whether the Project is consistent with proper planning and sustainable development and that its effects on the environment are acceptable. The responsibility for funding the Project lies with the NTA, the Government and ultimately the Oireachtas. It has received all necessary approvals, including under the Public Spending Code for the making of a Railway Order. It will undergo further scrutiny and approvals, including under the Public Spending Code, before it is funded. It is not appropriate for the Board to make findings in relation to value-for-money that are outside its statutory functions and would cut across those arrangements. Members of the public are entitled to make representations to their TDs in relation to the value-for-money of any element of the Project. In any event, TII do not agree with this statement for the reasons set out by response (2) above, noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.
5	Key Submission Points	2	4. NTA have failed to provide adequate impact studies in relation the proposed project and those that have been supplied have all the appearance of documents hurriedly put together. Witness the extension of the deadline for making submissions to ABP due to the 'inadvertent omission' of such key documents.	TII disagree with this assertion. A detailed, robust and comprehensive EIAR and supporting appendices has been prepared for the proposed Project, which has allowed TII to address all questions raised during the statutory consultation from the material provided within the EIAR and supporting documentation. With regards to the extension of deadline referred, when it was found that c.30 pages had been inadvertently omitted from a 12,000 page submission, it was right and proper to extend the submission deadline.
6	Key Submission Points	2	5. NTA's record in managing a project of this scale is highly questionable. As mentioned in 2) they had failed to note the presence of a major sewer along the Grand Canal. The €25 million spent on excavating and building a station box beneath the Mater Hospital which will now have to be simply written off is further evidence that incompetence.	TII had not "failed to note the presence of a major sewer". It is a normal part of project design development for amendments to be made as further information becomes available, in this case surveys were undertaken of the sewer, and thus the proposed alignment design and Charlemont Station has full regard to the location of the sewer along Grand Canal. A station box was not built previously at Mater, rather a section of wall was installed to future proof the possible construction of a station. A comprehensive alternatives/options assessment has been undertaken for this Project to ensure that it meets the objectives for this Project (not a previous one). This assessment, as presented in Chapter 7 of the EIAR identified an alternative route for the alignment that did not match the one proposed for "Old Metro North" and as a result it was not possible or desirable to utilise the section of retaining wall constructed at the time.

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7	Requested amendment	2	Requested amendment to An Bord Pleanála We request the following amendments: 1. Omit from the Railway Order the section from Tara Street Station to Charlemont Station and associated onward tunnel extension and intervention tunnel 2. Require the submission of a railway order for a section from Tara Street Station to St. Stephens Green which would effectively provide for a terminal hub station that can integrate with the Luas Green Line, multiple bus routes and future DART underground.	The above responses to the observations made explain why TII do not consider it is correct or appropriate that the MetroLink alignment south of the proposed Tara Station should be omitted, and also demonstrates why the proposed Charlemont Station has been selected by TII as the preferred interchange with the Luas Green Line A scheme which terminates at Tara Street would not be consistent with the Transport Strategy for Greater Dublin Area (2022-2042). In addition any decision to terminate the scheme at Tara will significantly impact on the overall viability and benefits of scheme.

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Organisation Name or Name of Submitter			John and Josiane Bullows	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Metro Terminus Case Reference Number: NA29N 314724 January 7 th , 2023				
1	Letter	1	As owners of the property situated in 17 Dartmouth Square, we are writing regarding the proposed tunnel under our property. We are totally opposed to the metro running through and under our property, The power of the metro structure would destroy the integrity of our property, cause serious devaluation and have a gravely detrimental effect on our health.	Please refer to the TII response to your submission dated 21 November 2022 (No.146), and in particular TII response (1).
2	Letter	1	TII accepted at an earlier Metrolink Meeting that the proposed metro could run under Carroll's Building which is not a residential building. Dartmouth Square is in a conservation area and all the properties are listed and protected.	Please refer to the TII response to your submission dated 21 November 2022 (No.146), and in particular TII response (2).
3	Letter	1	We own 17 Dartmouth Square, house, gardens and access to the lane. We also own the ground rent in respect of these properties. We do not accept that the metro should run under our gardens, close to our home. Furthermore, there are no amenities in the vicinity, no bus stops, no coach stops. To attempt to introduce them would create chaos. Also, Luas does not connect and the new Luas lift fitted with 4 hand rails accommodates at best 2 people with a bag. Cars and taxis cannot stop on the canal without create a serious danger for motorists, cyclists and pedestrians.	Please refer to the TII response to your submission dated 21 November 2022 (No.146), and in particular TII response (3) and (4).
4	Letter	1	The logical location for the Metro Terminus is in St Stephen's Green where all the amenities, attractions, shopping and cultural activities are and where the metro lines can radiate further West. The impact of the metro under our property would be devastating for us, for our home and for the other residents of Dartmouth Square. It would be inappropriate and prejudicial to position the metro directly behind Dartmouth Square and disastrous to run the tunnel through our property . Terminus needs to be positioned in St Stephen's Green where it should be.	Please refer to the TII response to your submission dated 21 November 2022 (No.146), and in particular TII response (1) and (5).

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Re: Metrolink Terminus Case Reference Number: NA29N.314724 November 21, 2022				
1	Letter	1	As owners of 17 Dartmouth Square, we are opposed to the acquisition of the land under our property, both in terms of the amount of building and disturbance it would create but also the vibrations of the power of the Metro structure which, in such proximity, would affect the integrity of our house and the neighbouring houses and would be a cause of devaluation.	TII understand the reasons for your concerns and would like to provide the assurance that the potential disturbance impact on your property as a result of the proximity of the proposed tunnel and station has been carefully assessed. This includes the impact of noise and vibrations from: the tunnel boring machine (TBM), mechanical excavation and blasting; construction generated ground movements leading to settlement and possible building and property movement; and the operation of MetroLink. All of which have been assessed and reported in the EIAR and are summarised below. With exception of a temporary disturbance when the TBM passess your property, TII are predicting a 'not significant' impact to the building occupants and your building, or risk to the integrity of your house. Regards devaluation, there is evidence to suggest that property values will in fact increase in close proximity to public transport infrastructure and that local residents will greatly benefit from having a world class Metro system providing access to the city centre, airport and north city at their door step. The benefits of the project for all communities along the MetroLink route are described in Chapter 3: Background to the MetroLink Project, section 3.4 MetroLink Response to Challenges. Construction Phase – Airborne Noise and Vibration EIAR Chapter 13 Airborne Noise and Vibration, Table 13.68 summarises the potential significant construction noise impacts from the construction of the proposed Charlemont Station, which includes receptor 29 for 17 Dartmouth Square. The predicted impact without additional noise mitigation is Significant to Very Significant during some of the work phases. Noise mitigation measures are detailed in section 13.6.1 and include for a proposed 4m high acoustic noise screen along the east, west and southern boundaries of the Charlemont construction compound, and a 7m high noise screen along the northern boundary. Surface activities to support sprayed concrete tunnel construction will be enclosed within an acoustically clad steel framed building to control airborne noise breakout to surrounding receptors. With these mitigations the construction impacts are reduced to below significant. Construction Phase – Groundborne Noise and Vibration EIAR Chapter 14 Groundborne Noise and Vibration, Appendix 14.5 presents the predicted groundborne noise and vibration levels during the construction phase of the project for 17 Dartmouth Square: • The predicted level of groundborne noise during TBM passage is 49 dB LASmax, which is above the 45 dB LASmax threshold resulting in a significant impact on the occupants of the building for the relatively short duration of TBM passage. • The predicted level of groundborne vibration during TBM passage is 0.254 ms-1.75 day and 0.214 ms-1.75 night, below the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) Threshold Level of 1.0 ms-1.75 day and 0.5 ms-1.75 night, resulting in a not significant impact on the building. • The predicted level of groundborne noise during mechanical excavation at Charlemont Station is 38 dB LASmax, which is below the 40 dB LASmax threshold resulting in a not significant impact on the occupants of the building. • The predicted level of groundborne vibration during mechanical excavation at Charlemont Station is 0.002 ms-1.75 day and 0.002 ms-1.75 night, well below the VDV Threshold Level of 0.8 ms-1.75 day and 0.4 ms-1.75 night, resulting in a not significant impact on the building. • The predicted level of vibration during blasting at Charlemont Station is 6.1mm/s PPV (Peak Particle Velocity), which is below the 8mm/s PPV threshold resulting in a not significant impact on the building. • The predicted level of air overpressure during blasting at Charlemont Station is 110.1dB, below the Threshold Level of 125dB, resulting in a not significant impact on the building. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from the TBM at source but noting that the duration of this impact will be temporary and of the order of up to two-weeks as the TBM passes. TII will undertake advanced consultation and stakeholder engagement to prepare people for the passing of the TBM and ensure the timing of these impacts are known.

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			Response (1) continued.	TII's contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project as referred to in EIAR Appendix A5.1, Outline Construction Environmental Management Plan (CEMP). The CNVMP will be a live document and will include a full monitoring and auditing programme which will be agreed with the Local Authorities prior to the commencement of the Construction Phase, including predetermined monitoring trigger levels to ensure noise and vibration limits are not breached, noting that it is not possible to mitigate TBM groundborne noise and vibration at source. Table 6.2: Noise and Vibration Measures of the Outline CEMP outlines the monitoring programme requirements. The Transport Infrastructure Ireland (TII) Airborne Noise and Ground-borne Noise Mitigation Policy (Appendix A14.6 of EIAR Chapter 14) also sets out the construction noise insulation and temporary rehousing measures to be implemented where required. Construction Generated Ground Movements EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on your property and has been predicted to not exceed the 'Slight' category, an explanation for which can be found in Table 4-4 of the aforementioned report. The assessment work undertaken for the EIAR has determined that your property along with other similar neighbouring properties have been designated as "special" and hence a further Phase 3 refined assessment will be undertaken that will take account of final design and construction methodology details most likely utilising advanced numerical modelling techniques and further surveys of the building. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. Monitoring instrumentation will also be installed to monitor the performance of the works and potential environmental impacts, including those discussed above to ensure that acceptable limits are not breached. TII would also draw attention to the fact that private properties within 50m of the station excavation, or 30m of the tunnel are eligible to subscribe to the Property Owners Protection Scheme (POPs). The Property Owners' Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor. Operational Noise and Vibration EIAR Chapters 13 and 14 present a comprehensive and detailed assessment of operational groundborne and airborne noise and vibration. No residual noise impacts are identified at this location during operation. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and results in a not significant to slight impact when added to the prevailing noise environment.

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			Response (1) continued.	Chapter 13, sections 13.2.3.2 and 13.5.3.2.3 recognise that ventilation systems if not designed and mitigated effectively are potential noise sources. Section 13.6.2.3 outlines the detailed considerations that will be included in the design to ensure that the ventilation systems do not exceed limits as per BS 4142, including: • Reduction of induct flow rates; • Reduction of elements in the airflow; • In duct attenuators; • Orientation of grilles and louvres away from sensitive receptors; • Acoustic louvres; and • Anti-vibration mountings and couplings will be incorporated into the design to control vibration. Measures to mitigate noise from the use of public address systems is also detailed in Chapter 13 (sections 13.5.3.2.4 and 13.6.2.4). Best practice design principles will be employed to minimise noise breakout at the surface from these systems via escalators, lift shafts and stairwells. EIAR Chapter 14, Groundborne Noise and Vibration, Appendix 14.5 presents the predicted groundborne noise and vibration levels during the operation phase of the project for 17 Dartmouth Square: • The predicted level of groundborne noise during the railway operation is 21 dB LASmax, which is below the 40 dB LASmax threshold resulting in a not significant impact on the occupants of the building. • The predicted level of groundborne vibration during the railway operation is 0.001 ms-1.75 day and 0.00 ms-1.75 night, well below the VDV Threshold Level of 0.8 ms-1.75 day and 0.4 ms-1.75 night, resulting in a not significant impact on the building.
2	Letter	1	TII admitted at a Metrolink meeting that it was possible to position the proposed Metro under the Carroll's building. This would be a better solution for Dartmouth Square residents.	Though the possibility of locating the station beneath the Carolls building may have been discuss at one of the meetings with TII staff, TII confirm that it is not possible to locate the station beneath this building due to geometric constraints at this location.

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3	Letter	1	By positioning the terminus centrally in St Stephen's Green, passengers can avail of other forms of transport such as luas, bus, coach, taxi and rail, in an area that can absorb future major transport activity on the scale of a Metrolink southside terminus.	TII do not agree that St Stephen's Green is a better interchange with the Luas Green Line than Charlemont for the reasons set out below. The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were was prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future Metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemon in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to Metro with a Metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the Metro in all any of the above directions. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to Metro with a Metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the Metro in all the above directions. The proximity of the Metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and Metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. . Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location.

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Organisation Name or Name of Submitter			John and Josiane Bullows	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Metrolink Terminus Case Reference Number: NA29N.314724 November 21, 2022				
			Response (3) continued.	The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future Metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the Metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).
4	Letter	1	In Charlemont, there are no bus tops, coach stops or taxi ranks on the boundary roads and to introduce them, would be creating an unimaginable chaos, and Luas would not connect. The canal road is congested and blocked in the morning and evening. It would be dangerous for a car or a taxi to stop to drop or collect a passenger in the middle of the traffic. There is also very limited transport access to the location as it is defined from the East by the residential houses of Dartmouth Square and from the West by the very narrow residential Dartmouth Lane. To the South is Dartmouth Road which is also severely congested. This would become the point of entry for cars, buses, coaches and taxis and would have devastating consequences for the residents and also for Dublin traffic in general.	As noted in response (3), the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The terminus is consistent with the GDA Transport Strategy. TII would note that the observations made with regards traffic congestion is one of the reasons why MetroLink is such an important project for the Greater Dublin Area. The proposed Project will provide significant benefits not only to those who choose to use it, but also to other transport network users, by reducing the demand for road space and creating the opportunity for the road transport system to achieve optimum levels of efficiency and effectiveness. The system is designed in an integrated manner so that people travelling from the area south of Dublin to access locations north of Charlemont, such as Dublin Airport, Mater, Swords etc. will utilise public transport to interchange with the MetroLink or will walk or cycle to access their local station. The system is not designed to encourage people to drive to stations within the City and TII do not anticipate that there will be significant volumes of people driving to any stations, other than the Park & Ride station at Estuary. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Chapter 9: Traffic & transport, Appendix A9.2-B Traffic and Transport Assessment Charlemont Station, Section 6.1.2. refers. With regards to the observation that "Luas would not connect", a microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the Project station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both have been sized for Metro to Luas, and Luas to Metro passenger numbers. TII would also note they have deliberately designed Charlemont Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus.

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Organisation Name or Name of Submitter			John and Josiane Bullows	
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5	Letter	1	The logical location for the Metro link in St Stephen' s Green, in the city centre, where the amenities, attractions, shopping and cultural activities are.	Please refer to response (3) above.
6	Letter	1	The added cost of tunnelling and building a terminus in Charlemont cannot be justified as there are no advantages in building it there. On the opposite, one would face a minefield of traffic, human and environmental issues which would have to be reversed.	The Board is not responsible for any decisions in relation to the funding the Project. It is solely responsible for assessing whether the Project is consistent with proper planning and sustainable development and that its effects on the environment are acceptable. The responsibility for funding the Project lies with the NTA, the Government and ultimately the Oireachtas. It has received all necessary approvals, including under the Public Spending Code for the making of a Railway Order. It will undergo further scrutiny and approvals, including under the Public Spending Code, before it is funded. It is not appropriate for the Board to make findings in relation to value-for-money that are outside its statutory functions and would cut across those arrangements. Members of the public are entitled to make representations to their TDs in relation to the value-for-money of any element of the Project. In any event, TII do not agree with the statement "building a terminus in Charlemont cannot be justified" for the reasons set out by response (2) above, noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision. TII would also note, for the reasons explained by response (4) above that the observation that traffic impacts are made worse is incorrect and contrary to one of the key objectives and benefits of the MetroLink Project. TII acknowledge there are human and environmental impacts, but TII have demonstrated these can be mitigated to acceptable levels.

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Organisation Name or Name of Submitter			John and Josiane Bullows	
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7	Letter	1	For all the reasons listed above and the impact it would have on a residential area and the environment, it would be inappropriate and prejudicial to position the Metro directly behind Dartmouth Square and build a Metro station with lifts and escalators at 1,5 m (5 feet) from our homes.	TII have carefully considered the submission and responded to the observations made. As reflected by the TII responses above to the observations raised, TII consider they have demonstrated why the proposed Charlemont Station has been selected by TII as the preferred interchange with the Luas Green Line.

Submission No.			148	
Organisation Name or Name of Submitter			John Bernard Reid (4 Bridge Court, City Gate, Saint Augustine Street, Christchurch, Dublin 8, D08R6PV)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Observation on the application for a Railway Order for Metrolink (Case reference NA29N.314724).				
1	Letter	1	I write in support of the application for a railway order for the Dublin (Estuary to Charlemont, via Dublin Airport) Metrolink. The proposed Metrolink constitutes an absolutely vital and necessary piece of national infrastructure.	Thank you for taking the time to make this submission and for your endorsement of the MetroLink Project.
2	Letter	2	Allowing the proposed Metrolink to reach the proposed Charlemont station on the South side of the city would allow the eventual (and necessary) extension of the line to the South and South West of the city and county. A Charlemont terminus would also allow for a potential future Metrolink extension or spur to Ireland's largest university, University College Dublin at Belfield. Despite its status as the country's largest third-level institution, UCD is currently not connected by even one direct railway link.	In accordance with your observation and as identified in EIAR Chapter 7, Consideration of Alternatives, the selection of Charlemont does not preclude any future connections to the south-west or south of the city. TII will maintain engagement with UCD and relevant stakeholders for future feasibility studies and route considerations for future phases of the Project. The GDA Transport Strategy 2022-2042 (as adopted in Jan 2023) section 12.3.8 Additional Luas Lines Post-2042, also states that the analysis undertaken for the Transport Strategy indicates that a number of corridors in the GDA will, in the longer term, generate travel demand above that which can be catered for by higher capacity bus systems and are likely to require upgrading to light rail in the period after 2042. The planning and design work associated with this longer term framework can commence during the strategy period. The Green Line Reconfiguration is proposed to provide a city centre line to Bray via UCD and Sandyford, however this is subject to the detailed appraisal, planning and design by the NTA, and is not within the remit of TII or An Bord Pleanála as regards this application.
3	Letter	2	The current absence of a direct railway link to Ireland's largest university is incongruent and unsustainable. Allowing the proposed Metrolink to reach Charlemont (as per the current railway order application) would lay the groundwork for eventually rectifying this anomaly for the good of students, residents and Ireland's international reputation.	Please refer to response (2) above.
4	Letter	3	The proposed 3,000 space multi-story Park and Ride car park facility at the proposed Estuary terminus should be approved, with the proposed car park capacity perhaps even increased in order to facilitate more than 3,000 car drivers to use the proposed Metrolink.	The Project has been designed to ensure maximum interchange with other modes of transport, specifically more sustainable modes of transport, such as walking, cycling and public transport to encourage a modal shift away from private vehicles and an overall reduction in car trips in Dublin. Chapter 9, Traffic and Transport details the operational impact of the Park & Ride facility on the surrounding road network, and whilst the strategic road network will experience an overall reduction in AADT and delays with increased use of public transport, the M1 and other local roads north of the Park & Ride facility see an increase in traffic flow due to people accessing the Park & Ride. Therefore, as outlined in EIAR Chapter 31, Summaries of the route wide mitigation and monitoring, item TT19, the use of the Park & Ride facility at Estuary Station will be monitored throughout the Operational Phase. Data on the origins and destinations of users and their trips will be monitored throughout the operation of the Park & Ride facility so that the operation of the Park & Ride facility can be optimised throughout the life of MetroLink.
5	Letter	3	In conclusion, I believe that it is in the national interest for the current Metrolink railway order application to be approved, in an expeditious manner and without delay. I would request that An Bord Pleanála would avoid the creation of unnecessary delays such as oral hearings, for example. MetroLink needs to be approved for construction whilst both the political will, and the money, is there to build it.	TII again thank you for your endorsement and support. TII as the Government Agency responsible for delivering MetroLink are committed to expediting the delivery of this transformative project should An Bord Pleanála chose to grant the Railway Order and in accordance with Government direction and any conditions that the Railway Order may include.

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Organisation Name or Name of Submitter			John Conway and Orlaith McCarthy (15 Dartmouth Square West)	
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Observation on a Startegic Infrastructure Development				
1	Letter introduction	3	Our names are John Conway and Orlaith McCarthy. We have been living at # 15 Dartmouth Square West for more than 40 years..... It is important to state at the outset that we are very much in favour of the Metrolink project to connect Dublin's city centre to our national airport and the broader objective of providing a modern and efficient public transport infrastructure for the people of Dublin. That is why we have a number of concerns that the current plan is not optimal and is wasteful of public money. We want to set out a number of observations for the Board regarding the proposal to locate the city centre Terminus station at Charlemont-Dartmouth. Our family home is in the midst of the community where the Terminus station is proposed to be located.	Thank you for taking the time to make a submission and your overall endorsement of the MetroLink Project. We have reviewed your submission and responded to the observations made below.
2	(a) Strategy & Policy Issues	4	1. Charlemont is NOT the correct strategic location for a Terminus hub and spoke system. It is too far out along the Luas Green Line spoke and would prejudice future options for integration of networks and services.	TII do not agree that Charlemont is the incorrect location for an interchange with the Luas Green Line or that it prejudices future options for integration with the wider transport network for the reasons set out below. The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all any of the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an interchange at St Stephen's Green Station.

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				The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).	
3	(a) Strategy & Policy Issues	4	1. (continued) St. Stephens Green is the most appropriate location for the Terminus as it provides for interchange with bus, Luas and future DART underground. The project incorrectly dismisses St. Stephens Green West as an appropriate terminal station. It only considers St. Stephens Green East and Charlemont. Furthermore, no study has been completed by NTA/TII as part of the entire Metrolink project on the optimal location for a city centre terminus.	TII do not agree that St Stephen's Green is the most appropriate interchange location for the reasons set out by response (2) above. It is not correct to say that the Project "only considers St. Stephens Green East and Charlemont." A number of route options were considered in the process of identifying the Emerging Preferred Route (EPR). These route options included potential station locations on St. Stephen's Green West. However these options were ruled out as it was not possible to design an alignment that would also provide a MetroLink interchange with DART at Tara Street Station. A station on St Stephen's Green West is not preferred for several reasons: If a station was placed on St Stephen's Green West, the alignment between the proposed Tara Station and a station on St Stephen's Green West would result in an undesirable horizontal reverse curve and an alignment greater than a 1000m long that would necessitate an intermediate intervention shaft located somewhere between these stations to comply with the MetroLink Fire Strategy. Additional construction would be required to provide such a facility, similar in size to the proposed Albert College Park Intervention shaft. This could feasibly be situated in the Trinity College Dublin sports grounds. TII note that it is Government policy to provide a station and interchange with the Luas Green Line at Charlemont, as set out by the GDA Transport Strategy 2022 – 2042. Should a station be placed on St Stephen's Green West, the alignment between a station located here and the proposed Charlemont Station would also result in an undesirable horizontal reverse curve and an alignment that is greater than 1000m long, and would thus again require an intervention shaft similar to the proposed Albert College Park Intervention shaft to be provided. This would be expected to result in significant demolition and redevelopment in an existing built-up area.	

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				In both cases, compared to the proposed alignment that runs much more directly between Tara, St Stephen’s Green and Charlemont, the additional length of tunnel and the addition of two intervention shafts generated by locating a station on St Stephen’s Green West is uneconomic in comparison. As a potential station location, St Stephen’s Green West itself is a very constrained location due to the presence of buildings, Luas and St Stephen’s Green Park. Maintaining the Luas operational during station construction would be complex and challenging with significant disruption expected, whilst the impacts on St Stephen’s Green Park would be greater for a station in this location compared to the proposed location on St Stephen’s Green East. This would be the result of; the likely need to place more of the station in the Park compared to the proposed station on St Stephen’s Green East; it would impact an area of the Park that has greater amenity value than St Stephen’s Green East due to the nearby Park entrance adjacent to the southern end of Grafton Street, and there would be a risk of impacting the existing Park lake. In summary, an alignment that links the proposed Tara, St Stephen’s Green East and Charlemont stations is a more direct and economic alignment, does not require additional intervention infrastructure, avoids a complex engineering interface with the Luas Green Line, impacts the Park less and has less potential for disruption during the construction phase. As outlined by EIAR Chapter 3, Background to the MetroLink Project, one of the key objectives of the Project is the integration of it with the wider transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2023 and make Dublin a more liveable and sustainable city. Arising from the decision to postpone the future upgrade of the Green Line to metro services, it is being argued that Charlemont station effectively becomes a terminus station in the short to medium term. In this regard, it is true to say that the Metrolink trains will terminate and turn back at Charlemont station, however the public transport service offering for passengers does not terminate, it transfers from Metrolink to LUAS as part of the integrated transport network. The terminus station for MetroLink is located at Estuary where all of the activities normally associated with a terminus take place. At this location the high capacity public transport offering terminates and the public transport offering transfers to a completely different mode, i.e. Bus. The environmental effects of the Metrolink terminus are accordingly assessed in the EIAR. Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a “system turn back location”. Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. The associated environmental impacts for the turnback and station at Charlemont have been fully assessed in the EIAR. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services, as outlined above. The section of the line between St Stephen’s Green and Charlemont generates considerable benefits for the scheme in terms of increased patronage. As noted in response item (2), during the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The fact that the Charlemont Station is now being referred to and considered as a “terminus station” rather than an interchange station, does not increase the environmental impacts the station has on its local environment, in terms of passenger demand, airborne noise. vibration and other environmental effects.

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				If a decision was taken to terminate MetroLink at St Stephen's Green, significant changes would be required to the scheme. These would include design changes at St Stephen's Green station and provision of alternative turnback facilities immediately south of the station. The proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) in which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.

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Organisation Name or Name of Submitter			John Conway and Orlaith McCarthy (15 Dartmouth Square West)	
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4	(a) Strategy & Policy Issues	4	2. Expensive Duplication of Rail infrastructure - The inclusion of an expensive and costly section between St. Stephens Green and Charlemont is strategically weak and duplicates the existing Luas Green Line services. The NTA's cost estimate for this 1 km section at €650M is an expensive duplication and significant investment that deprives other parts of Dublin that are in immediate need of rail infrastructure to support housing and urban development.	The Board is not responsible for any decisions in relation to the funding the Project. It is solely responsible for assessing whether the Project is consistent with proper planning and sustainable development and that its effects on the environment are acceptable. The responsibility for funding the Project lies with the NTA, the Government and ultimately the Oireachtas. It has received all necessary approvals, including under the Public Spending Code for the making of a Railway Order. It will undergo further scrutiny and approvals, including under the Public Spending Code, before it is funded. It is not appropriate for the Board to make findings in relation to value-for-money that are outside its statutory functions and would cut across those arrangements. Members of the public are entitled to make representations to their TDs in relation to the value-for-money of any element of the Project. In any event, TII do not agree with this statement for the reasons set out by response (2) above, noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision. With regards the observation that "Charlemont rules out the development of the metro to parts of the South city not covered by light rail", TII do not agree and would further note that the proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.

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5	(a) Strategy & Policy Issues	4	3. The station box at Charlemont, as constructed in 2021/22 by the Developer Hines, does not have the benefit of planning permission and has not been part of the EIA undertaken for this project. Processing the current Railway Order application, which is reliant on these preliminary and now constructed works, is legally unsafe and contravenes the provisions of the EIA Directive.	The MetroLink enabling works constructed as part of the Hines development was included in the planning application for the Hines Development and has the benefit of planning permission which was granted in April 2019.

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6	(a) Strategy & Policy Issues	4	4. The station box at Charlemont will result in only one possible future tie in with the Luas Green Line to the south, which would result in an option that was previously dismissed as part of the Tie-In study from March 2017. No alternatives to the station box at Charlemont were considered as it had been fixed through the design of the overhead Hines Grand Parade commercial development. The implications of this new alignment are very significant for our wider community as it will involve top-down construction that will only be possible when many houses on Manders Terrace, Oakley Road and Charleston Road are demolished.	The station box at Charlemont allows for a future tie into the Luas Green Line should it be determined in the future that through running metro services to Sandyford is the required solution to address the public transport needs to the south of the city. It is incorrect to say that the current proposal is based on an option that was previously dismissed as part of the March 2017 Green Line tie in study. The station design is in affect a modification to the preferred Green Line Tie Option 4B which was modified as result of the postponement of the upgrade of the Green Line to metro standard. The station box location was not fixed by the Charlemont Development. The preferred route for MetroLink was published in March 2019 following a comprehensive route options study. The preferred route was based on the emerging preferred route for the scheme which included a station at Charlemont. The Charlemont Metro Enabling Works were constructed to enable the Charlemont Development to proceed whilst simultaneously ensuring there was an option available to construct a station at Charlemont that avoided unnecessary demolition, took advantage of an available site, provided infrastructure that is integrated with planned development rather than necessitating later changes and retrospective adjustments to a new development or even possible demolition of the new development, whilst providing protected provision for the future extension of the scheme south, if required. It is also important to recognise that the station location at Charlemont is influenced by available vacant land and thus avoids unnecessary demolition. The submission seeks to portray the construction of the Metro Enabling Works as prejudicial to future decisions on proper planning and sustainable development of the area. It implies that the counterfactual would have had no effect on such decisions. That is not the case. There was a planning conflict between the EPR and the Grand Parade Development at the time the latter development was proposed. There was no resolution to that conflict that was free of implications for future decisions on the proper planning and sustainable development of the area. The Board could have refused permission for the Grand Parade Development, inevitably creating a underutilised and potentially vacant and idle site in a commercial hub location. The Board could have granted permission with no provision to facilitate a station at this location, resulting in a requirement for the railway order to provide for the demolition of a new office building. The Board's actual decision was reasonable and lawful in seeking to minimise the prejudice to an important office development and a critical piece of national infrastructure. It was also not particularly restrictive of future decisions in relation to the proper planning and sustainable development of the area. Of the three options open at the date of the Grand Parade planning application, two remain open: the Board can still require changes to the station design that require the demolition of the commercial building and it can grant an order that avoids demolition by using the Metro Enabling Works. It is agreed that the short-term implications for local residents will be significant as the scheme progresses through the construction stage, however the EIAR assesses the environmental impacts of the construction phase and commits to the implementation of appropriate mitigation measures that reduce the environmental impacts to not significant. The same is true of the operations phase for the project. TII will work closely with local residents to ensure the required mitigation measures are put in place. If in the future, the metro was extended south, this does not mean that inevitably open cut construction will be required or demolition of property will be necessary. In designing an extension, the promoter will seek to reduce the requirement for demolition by looking for tunnel launch sites at the southern extent of the scheme and, if one can be identified, driving the Tunnel Boring Machine northwards ultimately connecting into the existing tunnel. In that case, even if the new alignment were under the properties identified in the submission, the tunnel underneath them would be constructed by the Tunnel Boring Machine without the need for above ground works.

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7	(b) Neighbourhood & Community	4	The entire Dartmouth Square - North, South, East & West - is designated as an ACA and all of the dwellings are protected structures. We have been part of this community for more than 40 years and we have often remarked on the pride which all the neighbours take in the physical environment in which we live. We feel a responsibility to maintain and protect it and to hand it on to future generations of residents in as good or better condition as we received it.	TII recognise the importance of Dartmouth Square and its designated status as an Architectural Conservation Area (ACA). Mitigation measures for Architectural Heritage can be found in Table 26.66 of EIAR chapter 26 (Architectural Heritage). The only potential for direct impacts on the Architectural Heritage Areas (ACA) is related to the diversion of utilities on Dartmouth Square West. To minimise the impact on protected structures in Dartmouth Square such as historic granite steps, kerbing and lamp standards, works within the Dartmouth Square ACA will be overseen by the Project Conservation Architect (PCA) and carried out in accordance with a method statement prepared by PCA. This commitment is detailed in section 26.7.1 of Chapter 26 (Architectural Heritage). The impact on Architectural Heritage in Dartmouth Square has been assessed to decrease to slight following mitigation.
8	(b) Neighbourhood & Community	5	We note that in the Dublin City Development Plan 2022 - 2028 our houses are covered by the zoning objective Z2 - ‘to protect and / or improve the amenities of the residential conservation areas’. Clearly, the proposal to locate the city centre Terminus within such close proximity of our dwelling at # 15 Dartmouth Square West is blatantly inconsistent with this zoning objective.	TII do not agree that Charlemont Station is inconsistent with the zoning objective. The zoning under the Dublin City Development Plan 2022 - 2027 for the residential properties in question is "Z2 Residential Neighbourhoods (Conservation Areas)" with an objective to "protect them from unsuitable new developments or works that would have a negative impact on the amenity or architectural quality of the area (See Table 3.11 of the Planning Report). Further, Dublin City Development Plan supports the location of a station at Charlemont. As outlined in Section 4.5.18.6 of the Planning Report, the element of the project within the Z2 zoning area will affect a below ground area only and as such will not compromise the land use objective for the lands overhead. The majority of the proposed station and all above ground elements are located within the lands zoned Z5 with the objective “To provide for the creation and protection of enterprise and facilitate opportunities for employment creation”. The station has been designed so that it is integrated with the proposed redevelopment of this site by a third party development, and as such, demonstrates that the proposed Project is consistent with the zoning objective.

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9	(b) Neighbourhood & Community	5	The construction phase of 9+ years will place an intolerable burden on us residents in terms of noise, vibration, subsidence, and the work compound. But matters will not improve when construction is completed, and the terminus becomes operational. Indeed, the situation will get worse in terms of noise, vibration, subsidence risk and traffic congestion. We are both in our late 60s. This project is a life sentence for us. Our property will be unsaleable throughout the 9+years of the construction phase and the position will not improve in the operational phase. We have a particular worry about the structural damage that our property could suffer as a result of subsidence and vibrations during the construction phase as the tunnelling will be within very close proximity indeed to our dwelling (well less than 50 metres).	TII have carefully assessed the environmental impacts on your property, 15 Dartmouth Square West, including noise, vibration, construction generated ground movements (subsidence) and traffic, summarised below. No profound impacts are predicted, in line with the EIAR significance ratings. <u>Construction Noise and Vibration</u> Potential impacts identified due to airborne noise & vibration are presented in EIAR Chapter 13. Proposed mitigation includes 4m high noise barriers and further proposed mitigation in line with the Airborne and Groundborne Noise Mitigation Policy. On the implementation of these measures the residual impacts are predicted to be moderate. EIAR Appendix A14.5, Groundborne Noise and Vibration and Blasting Modelling Results, 14.4 Section AZ4 Northwood to Charlemont, presents the predicted vibration levels during TBM passage for various sensitive receptors. The predicted vibration presented in this section outlines the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) for TBM Passage during the day and night at 15 Dartmouth Square West are 0.249ms-1.75 (VDV day) and 0.21ms-1.75 (VDV night) respectively. Both of these values are lower than the VDV Threshold Levels of 1.0ms-1.75 (VDV day) and 0.5ms-1.75 (VDV night). Levels of vibration during mechanical excavation of Charlemont Station are predicted to be 0.004ms-1.75 and 0.003ms-1.75 for day and night-time respectively. The threshold levels have been set in relation to human response to vibration, and thresholds for building damage are much higher. As the predicted levels of vibration from TBM passage and mechanical excavation are below these thresholds then no impact is expected for the building or for residents of this address. Predictions of vibration during blasting at Charlemont Station have also been made. For 15 Dartmouth Square an exceedance vibration level of 11.2mm/s PPV (Peak Particle Velocity) is predicted compared to the threshold level for this building of 8mm/s resulting in a potential significant impact. As a result, mitigation measures will be implemented to reduce the risk to buildings as outlined in EIAR Chapter 14, Section 14.5.1.2. Mitigation measures to reduce the impact of blasting will include the preparation of specific blast design at each location, minimisation of the maximum instantaneous charge weight or alternatives to blasting. With the implementation of appropriate mitigation to reduce vibration from blasting the residual impact is expected to be reduced to not-significant. The predicted level of groundborne noise during TBM passage is 49 dB LASmax, which is above the 45 dB LASmax threshold, resulting in a significant impact on the occupants of this address for the relatively short 2-week duration of TBM passage. Unfortunately there are no effective methods available to reduce groundborne noise from TBMs at source and therefore the principal mitigation measure is advance public consultation to inform residents of the anticipated timing of the TBM passing to allow building occupants to prepare for the passage of the TBM and resultant elevated noise levels. In addition to the mitigation measures outlined above, the contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project, which will be a live document. There are no statutory standards in Ireland relating to noise and vibration limit values for construction works. The contractor(s) will work within the noise and vibration significance threshold levels identified in the EIAR for both airborne and groundborne noise and vibration and the limits contained in the Railway Order approval. Further details on the proposed mitigation measures can be found in section 6.2. of Appendix A5.1 Outline Construction Environmental Management Plan.

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				<u>Operational Noise and Vibration</u> - please refer to response (11) below. <u>Construction Generated Ground Movements (risk of subsidence)</u> The approach taken by TII for assessing the impact of construction generated ground movements reflects the industry standard three-phased ground movement impact assessment process that is undertaken on tunnelling and underground projects around the world, that includes Channel Tunnel Rail Link (CTRL), Dublin Port Tunnel, Crossrail and High Speed 2. EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement and includes for the assessed impact on 15 Dartmouth Square West. EIAR Appendix 5.17 refers. The Phase 2 assessment of the damage for this building is "slight" (an explanation for which can be found in Table 4-4), please refer to building B-150 in table 5-2 of the appendix. As your property is a designated Protected Structure, it has been designated as "special", and hence a further Stage 3 refined assessment, despite the impact only being assessed as 'slight' will be undertaken that will take account of final design and construction methodology details most likely utilising advanced numerical modelling techniques and further surveys of the building. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. Monitoring instrumentation will also be installed in the area to monitor the performance of the works and potential environmental impacts, including those discussed above to ensure that acceptable limits are not breached. The Property Owner Protection Scheme (POPS), committed to by TII, allows residential property owners to register with TII if their residential property is within thirty (30) metres of the edge of the MetroLink alignment or fifty (50) metres of station structures. The POPS comprises condition surveys of residential properties along the route of the proposed Project. The purpose of the condition surveys is to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether same may be attributable to the proposed Project, and subsequently to recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in swift and accurate verification of any property damage claims which may be received from property owners. The POPS is designed to cater for / address repair work which may be necessary for any damage (attributable to the proposed Project) to a qualifying residential property up to a threshold of €45,000. The POPS will be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Further information on POPS is available in Chapter 11 (Population & Land Use). Useful information can also be found in the MetroLink Frequently Asked Questions document which can be found online at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/ , and this is where useful updates will be made available as the proposed Project progresses. TII also do not expect significant ground movement to continue long-term after excavation is completed. The monitoring referred to above will verify this.

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				<u>Traffic Congestion</u> - please refer to response (13) below Regards devaluation, there is evidence to suggest that property values will in fact increase in close proximity to public transport infrastructure and that local residents will greatly benefit from having a world class Metro system providing access to the city centre, airport and north city at their doorstep. The benefits of the project for all communities along the MetroLink route are described in Chapter 3: Background to the MetroLink Project, section 3.4 MetroLink Response to Challenges.
10	(b) Neighbourhood & Community	5	We have major worries about so many aspects of the Environmental Impact Assessments (EIA) which have been undertaken - or so often not been undertaken. We set out below some specific concerns. 5. The Environmental Impact Assessment is inadequate in relation the description of development, alternatives, transport assessment, noise and the cumulative effects of the development on the Charlemont-Dartmouth Community. For a project of this size, scale, and investment to date, it is inadequate to propose a Railway Order with so many important studies and analysis missing.	TII do not agree that the Environmental Impact Assessment is deficient, inadequate or missing information. The Railway Order application comprises a very detailed environmental impact assessment that has identified and assessed the potential environmental impacts of MetroLink and proposed mitigations for these impacts where necessary. TII would also draw attention to the detailed project description, construction phase description and operational phase description provided in EIAR Chapters 4 and 5 and 6, and EIAR Chapter 7 and associated appendices that present details of alternatives considered. EIAR Chapter 9 and appendices provides a detailed analysis of transport and traffic effects, and EIAR Chapters 13 Airborne Noise & Vibration, and 14 Groundborne Noise & Vibration provide a detailed assessment of potential noise and vibration effects, while Chapter 29 outlines the assessment of interactions between various environmental aspects, and Chapter 30 covers the cumulative impacts with other projects. This assessment is carried out for the full length of the alignment including relative to potential significant effects on the Charlemont-Dartmouth Community.

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11	(b) Neighbourhood & Community	5	6. The development would result in noise and disturbance during the construction and operational phases and would result in a loss of amenities for the area.	The EIAR presents a comprehensive and detailed assessment of both groundborne and airborne noise and vibration in Chapter 13 and 14 of the EIAR. The assessments include predictive modelling in order to identify the potential impacts on all sensitive receptors during both the construction phase and the operational phase. Noise and disturbance during construction: No profound impacts have been identified for residents and mitigation measures proposed will be effective at reducing the impacts on these properties and in general terms impacts will be associated with the construction phase only. Significant mitigation is proposed to include 4m high noise barriers and further proposed mitigation in line with the Airborne and Groundborne Noise Mitigation Policy. On the implementation of these measures the residual impacts of airborne noise are predicted to be moderate. Chapter 14 of the EIAR assesses groundborne noise and vibration, with EIAR Appendix A14.5 Groundborne Noise and Vibration and Blasting Modelling Results presenting predicted groundborne noise and vibration levels during below ground construction. During TBM passage the predicted level of groundborne noise will be above the 45 dB LASmax threshold for a number of receptors above the runnel alignment, resulting in a significant impact on the building occupants during the relatively short 2-week duration of the TBM passage at a given location. The predicted vibration levels for TBM passage are well below human response thresholds during both day and night-time periods. Unfortunately there are no effective methods are available to reduce groundborne noise from TBMs at source. The principal mitigation measures aimed at minimising impacts are to give advance notice to residents of the timing of the TBM passage. In addition TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6). Noise and disturbance during operation: No residual noise impacts are identified at this location during operation. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and results in a not significant impact when added to the prevailing noise environment. Loss of amenity during construction: EIAR Chapter 11, Population & Land Use provides an assessment of effects on community amenity during construction and operation, which relates to the interaction of impacts on air quality; visual amenity; traffic and transport; and noise and vibration. At this location during construction as outlined in Section 11.5.2 of Chapter 11, no impacts are identified on the retail sector or community and social infrastructure (e.g. schools or hospitals). Any severance/disruption to transport will be limited by site mitigation measures such as alternative routes, reducing impacts to not significant.

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				Loss of amenity during operation: No significant residual negative impacts are anticipated on the Population and Land Use from the operation of the proposed Project, following the incorporation of the mitigation measures into the design of the proposed Project and implementation on an ongoing basis throughout the lifecycle. The residual effects that will arise during operation will be permanent and positive as detailed in EIAR Chapter 11, section 11.1.1. The zoning under the Dublin City Development Plan 2022 - 2027 for the residential properties in question is "Z2 Residential Neighbourhoods (Conservation Areas)" with an objective to "protect them from unsuitable new developments or works that would have a negative impact on the amenity or architectural quality of the area (See Table 3.11 of the submitted Planning Report). As outlined in Section 4.5.18.6 of the Planning Report, the element of the Project within the Z2 zoning area will affect a below ground area only and as such will not compromise the land use objective for the lands overhead. The majority of the proposed Charlemont Station and all above ground elements are located within the lands zoned Z5 with the objective "To provide for the creation and protection of enterprise and facilitate opportunities for employment creation". The Station has been designed so that it is integrated with the proposed redevelopment of this site by a third party development, and as such, demonstrates that the proposed Project is consistent with the zoning objective. The MetroLink station design does not result in any segregation of the area, with no surface barriers or walls proposed.
12	(b) Neighbourhood & Community	5	6. (continued) The Traffic Study for the local Charlemont area is wholly inadequate as it omitted the modelling of the impact of Airport users coming to the only Dublin South Metrolink station at Charlemont. The Traffic Study uses a strategic, generalised regional model that does not take local factors into account. Extract from observation 7) - The EIA did not properly assess the impact of additional local traffic volumes. Rather they used a generalised regional model that does not take local factors into account. A Terminus at Charlemont will attract a hinge volume of passengers travelling to and from the airport. They will come from Dublin South and the greater Dublin/Leinster area via car or taxi with baggage and baby buggies for onward destination to the airport. However, there is absolutely no space for set-down at Grand Parade or in the residential area around Charlemont-Dartmouth. This neighbourhood cannot sustain the significant additional traffic volumes associated with this development.	The MetroLink forms part of an integrated public transport network. The system is designed in an integrated manner so that people travelling from the area south of Dublin to access locations north of Charlemont, such as Dublin Airport, Mater, Swords etc. will utilise public transport to interchange with the MetroLink, or will walk or cycle to access their local station. The system is not designed to encourage people to drive to stations within the City and TII actively discourage people from doing so other than the Park & Ride station at Estuary. TII therefore do not agree with the observation that there will be a "huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with luggage for onward destination to the airport" as this is not borne out by our transport analysis. The Transport Assessment for MetroLink includes for people travelling to/from Dublin Airport from all areas within the extents of the GDA area, therefore it is incorrect to say "The Traffic Study for the local Charlemont area is wholly inadequate as it omitted the modelling of the impact of Airport users coming to the only Dublin South Metrolink station at Charlemont". The NTA's Eastern regional Model (ERM) incorporates a wide range of data sources, including demographic data, land use data, transportation network data, and travel survey data. The system is designed to model a variety of transportation modes, including private vehicles, public transit, walking, and cycling, and to simulate the interactions between these modes. The ERM model has been validated and calibrated using a range of localised data sources to ensure that the model can accurately represent the transport network, these include public transport and vehicle counts from the canal cordon counts. The outputs from the model have been combined with local survey data to undertake the more localised modelling, such as the pedestrian impact assessments, or the local traffic signals. This does not support the observations made "The Traffic Study uses a strategic, generalised regional model that does not take local factors into account." or "The EIA did not properly assess the impact of additional local traffic volumes, rather they used a generalised regional model that does not take local factors into account." Regards the observation there will be a "huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with luggage for onward destination to the airport. Grand Parade and the residential area around Charlemont-Dartmouth cannot sustain the significant additional traffic volumes associated with this development", this is covered by response (10) below.

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13	(b) Neighbourhood & Community	5	7. The development would have an adverse impact upon traffic during the construction and operational phase. The proposed Terminus provides very poor integration with other modes of transport. Pedestrian movements in and around the station would be very difficult. Grand Parade is an already heavily congested orbital route.	The MetroLink is designed to form part of an integrated public transport network with Charlemont selected as the preferred interchange location in order to maximise the potential interchange with the existing Luas Green Line. In overall terms, Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Construction Phase: EIAR Appendix A9.5 Scheme Traffic Management Plan presents the analysis undertaken to assess the impact of the traffic management measures on the local road network surrounding the proposed Charlemont Station during the construction phase. At the local level the following parameters have been used to assess impacts on general traffic and on pedestrians: • Increase in walking distance/quality of service for pedestrians (through removal of footpath, reduction of quality of service, removal of a pedestrian crossing or relocation of crossing by more than 100m); • Increase in driver delays at junctions; • Changes in traffic flows on surrounding streets; and, • Additional distance travelled due to diversions. The analysis undertaken at this location indicates that the increased volume of traffic on Grand Parade and Northbrook Road does not translate into any significant increase in driver delay. The largest increase in driver delay of 12 seconds is registered on the westbound approach on Grand Parade to the Ranelagh Road signalised junction. During the construction phase, pedestrians will experience a reduction in quality of pedestrian infrastructure and space. The construction site boundary will encroach upon footways in the local area, including the northern side of Dartmouth Road, and the southern side of Grand Parade. However, a temporary signalised crossing will be provided west of the Luas to maintain pedestrian access to and from the Stop. Whilst there are partial closures on Dartmouth Road and Grand Parade, pedestrian movements will be maintained on appropriately sized footways through the area. Operational Phase: A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers.

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				In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. The proposed pedestrian crossing on Grand Parade will have minimal impact on the traffic flow along Grand Parade and can be programmed to operate in sync with the existing signalised junction at Grand Parade /Charlemont Street to maintain the flow of traffic movements. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Furthermore, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus.
14	(b) Neighbourhood & Community	6	8. The development will have an adverse impact upon property values, particularly during the construction phase. For many houses in the area there will be a long term and permanent adverse impact upon property values from noise of the operating rail infrastructure, vents, tannoy systems, escalators and large traffic volumes - vehicular and pedestrian using the station 19 hours per day. The adverse impact also extends to the loss of amenity for the wider community changing a quiet residential neighbourhood into a noisy, busy, congested major transport hub.	Responses (9) and (11) above outline the predicted environmental impacts with regards to noise and vibration, and amenity, while responses (12) and (13) summarise the assessed traffic and pedestrian impacts. TII would note that as explained by response (13) above that in overall terms Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips. Regards devaluation, there is evidence to suggest that property values will in fact increase in close proximity to public transport infrastructure and that local residents will greatly benefit from having a world class Metro system providing access to the city centre, airport and north city at their doorstep. The benefits of the project for all communities along the MetroLink route are described in Chapter 3: Background to the MetroLink Project, section 3.4 MetroLink Response to Challenges.
15	Letter conclusion	6	We believe that the logical place for the city centre Terminus is in St Stephens Green. This location would effectively provide for a hub station that can integrate with the Luas Green Line and multiple bus routes. There is also ample space for taxi and private car set-down	Please refer to responses (2) and (3) above that explain the rationale for a proposed station at Charlemont.
16	Letter conclusion	6	Importantly, this solution saves public money in the short term while at the same time it leaves open a broader range of strategic options to extend the Metro in the future such as the South West corridor.	Please refer to responses (2) and (3) above explain the rationale for a proposed station at Charlemont, whilst noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running, and that as noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise."

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Organisation Name or Name of Submitter			John Lawlor (17 the Close, Highlands, Rathmullen Road, Drogheda, Co. Meath, A92RW8X)	
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Letter: Case reference NA29n.314724				
1	Letter	3	I am writing in connection with the above case, i.e. Metrolink. This will be a very important addition to Dublin's public transport infrastructure. However, a major weakness is that it does not link with Connolly Station. This impacts negatively at three levels: • Interconnectivity • Construction • Operations	EIAR Chapter 7, Consideration of Alternatives, details the robust decision-making that has led to the preferred route chosen, including alternative alignments and station locations. The identification of a preferred route took account of the interchange capability of a location with other modes of transport, including the DART network. However, other criteria were also identified, such as potential trip demand, key trip attractors in the area, and directness of route (and subsequent impact on cost). While Connolly Station is an important station for Intercity and Dart services, it is located in the east of the city away from areas of high passenger demand for MetroLink services between the Dublin Airport and the City Centre. A MetroLink interchange located at Connolly Station would therefore negatively impact on potential trip demand, the directness of the route (increasing the cost of the project), and would not serve key attractors in the city centre. MetroLink connectivity with Connolly Station and its Intercity and Dart services is provided via the proposed new MetroLink station at Glasnevin, together with and interchange at Tara station.
2	Interconnectivity	3	Connolly is the most important railway station in the country, being the terminus for most mainline and Dublin commuter services (all of them if there is a link from Heuston in the future), as well as linking with both DART and LUAS. It is also adjacent to Busaras. Therefore, in terms of connectivity, it is the most important station to link the new service with. Interconnectivity is a key prerequisite of successful public transport and is regularly highlighted at Irish Government¹ and EU level². Including a station at Connolly would not eliminate the potential to include a station at Tara Street also.	The overall project objective of MetroLink, as established by TII and as outlined in the National Development Plan 2021-2030 (Government of Ireland, 2021) is 'to provide a sustainable, safe, efficient, integrated and accessible public transport service between Swords, Dublin Airport and Dublin City Centre'. While Connolly Station is an important station for Intercity and Dart services, it is located in the east of the city away from areas of high passenger demand for MetroLink services between the Dublin Airport and the City Centre. A MetroLink interchange located at Connolly Station would therefore negatively impact on potential trip demand, the directness of the route (increasing the cost of the project), and would not serve key attractors in the city centre. With the interchanges provided by Metrolink at both Tara and Glasnevin, the proposed route offers high levels of interchange with Dublin Airport, the Western Commuter Line (Maynooth Line), the South-Western Commuter Line (Kildare Line), DART network, Intercity Services, Luas Lines, Dublin Bus network and future BusConnects network, in line with the project's objective.

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Organisation Name or Name of Submitter			John Lawlor (17 the Close, Highlands, Rathmullen Road, Drogheda, Co. Meath, A92RW8X)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter: Case reference NA29n.314724				
3	Construction	3	Another important factor from a planning perspective is disruption during construction and the socioeconomic costs thereof. Urban transport developments, including metro infrastructure, are internationally recognised as generating largescale disruption during their construction phases. In this regard, Connolly has advantages over the proposed city centre stations (O' Connell Street and Tara Street) as follows: • There are two large surface carparks immediately to the east of Connolly station (see image overleaf), which could: - be utilised to accommodate Metrolink surface access and - greatly facilitate the construction of and tunnelling for Metrolink. If this were to be done, the material dug up could also be removed by rail, greatly reducing or eliminating road traffic disruption in the city centre during construction • Connolly is a better candidate for a city centre Metrolink station than Tara Street, because the latter is closer to the river. That means its station would have to be deeper, taking longer and costing more to construct and generating more dig spoil.	EIAR Chapter 5 (Construction Phase) Section 5.10.11 sets out the construction methods and activities anticipated in constructing the proposed Metrolink Tara station. While property and utility impacts have been identified, the Construction Phase for MetroLink is anticipated to last approximately 8 years, whereas the Operational Phase is anticipated to last for many years. As a result, the operational benefits of delivering the Project through the city centre, as opposed to serving Connolly Station, outweigh the short-term construction benefits, if any, that could be achieved by serving Connolly Station instead of O'Connell Street or Tara during this phase of the Project.
4	Operations	4	Operationally, Connolly has advantages over the proposed city centre stations, as follows: • A new metro station at Connolly could be linked by underground passageway to Busaras, effectively creating an intermodal public transport hub. • Being underground, a Metrolink station at Connolly would be unconstrained for space; underground capacity at Connolly could potentially cater for other services currently terminating at the station, relieving pressure on the surface. • Because a Connolly Metrolink station would not be as deep as a Tara Street Station, it would be quicker and more convenient to use. • Maintaining public safety at Connolly would be easier than at a station on O'Connell Street, as it would be contained within an existing station facility.	Please refer to the responses above that set out TII's rationale for providing an interchange at Tara rather than Connolly.

Submission No.			151	
Organisation Name or Name of Submitter			John Loughrey	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022 Case Reference Number NA29N.314724				
1	Letter	1	Firstly, in general, I am in favour of the broad aim of the Metrolink project to connect Dublin's city centre to our national airport. However, as a resident living in the Dartmouth/Charlemont area, I wish to set out a number of observations for the Board regarding the proposal to locate the Terminus station at Charlemont-Dartmouth. My family home is in the midst of the community where the Terminus station is proposed to be located.	Thank you for taking the time to make a submission and your overall endorsement of the MetroLink Project with the exception of Charlemont Station. We have reviewed your submission and have responded to the observations made below.
2	Letter	1	I object to the proposed Metrolink Extension to Charlemont on the following grounds; 1 . Additional Cost. The requirement to interface with LUAS could be achieved at an earlier location eg Stephens' Green with adaptations that would save public funds of approximately 650 million Euro on this section project which duplicates existing rail infrastructure. This is especially relevant in the rising interest rate environment.	<u>Rationale for selecting Charlemont as the preferred interchange with the Luas Green line</u> While an interchange with the Luas Green Line could be achieved at St Stephen's Green, Charlemont has been chosen as the interchange for the reasons set out below. The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all any of the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further details are provided on Table 7-16 in Chapter 7: Consideration of the Alternatives, section 7.7.8. MetroLink Southern Terminus Location.

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Organisation Name or Name of Submitter			John Loughrey	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022 Case Reference Number NA29N.314724				
			Response (2) continued.	The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Duplication of Existing Infrastructure The Board is not responsible for any decisions in relation to the funding the Project. It is solely responsible for assessing whether the Project is consistent with proper planning and sustainable development and that its effects on the environment are acceptable. The responsibility for funding the Project lies with the NTA, the Government and ultimately the Oireachtas. It has received all necessary approvals, including under the Public Spending Code for the making of a Railway Order. It will undergo further scrutiny and approvals, including under the Public Spending Code, before it is funded. It is not appropriate for the Board to make findings in relation to value-for-money that are outside its statutory functions and would cut across those arrangements. Members of the public are entitled to make representations to their TDs in relation to the value-for-money of any element of the Project. In any case, TII do not agree with the duplication of rail infrastructure observation for the reasons set out by the above, noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.
3	Letter	1	2. Future Strategic Planning. A future south city Metro extension will need to be flexible in terms of transport and population demographics. A terminus at Charlemont restricts other direction options, and is strategically weak, whereas an earlier terminus retains future options.	TII do not agree with the observation that the selection of Charlemont is "strategically weak" or constrains future options for extending the metro if deemed required. The preferred location of the MetroLink interchange with the Luas Green Line has been selected for the reasons set out by response (2) above. This includes the consideration of possible future onward extension of the metro. The proposed Charlemont Station allows for a future tie into the Luas Green Line should it be determined in the future that through running metro services to Sandyford is the required solution to address the public transport needs to the south of the city.

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Organisation Name or Name of Submitter			John Loughrey	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022 Case Reference Number NA29N.314724				
4	Letter	1	3. Unsuitability of the area. The Charlemont area and surrounding roads are historic Victorian residential areas with limited scope for increased transport interfacing, footfall and required amenities. The character of the many protected structure dwellings are at risk. Noise and disturbance during construction will result in loss of amenities for the area and an adverse impact upon traffic.	TII have assessed the impact on traffic and pedestrians, noise during construction and amenity. A summary of this assessment is provided below which indicates there will not be a significant impact and that the character of the dwellings will not be impacted. <u>Assessed Traffic and Pedestrian Impacts</u> In overall terms, Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Construction Phase EIAR Appendix A9.5 Scheme Traffic Management Plan presents the analysis undertaken to assess the impact of the traffic management measures on the local road network surrounding the proposed Charlemont Station during the construction phase. At the local level the following parameters have been used to assess impacts on general traffic and on pedestrians: • Increase in walking distance/quality of service for pedestrians (through removal of footpath, reduction of quality of service, removal of a pedestrian crossing or relocation of crossing by more than 100m); • Increase in driver delays at junctions; • Changes in traffic flows on surrounding streets; and, • Additional distance travelled due to diversions. The analysis undertaken at this location indicates that the increased volume of traffic on Grand Parade and Northbrook Road does not translate into any significant increase in driver delay. The largest increase in driver delay of 12 seconds is registered on the westbound approach on Grand Parade to the Ranelagh Road signalised junction. During the construction phase, pedestrians will experience a reduction in quality of pedestrian infrastructure and space. The construction site boundary will encroach upon footways in the local area, including the northern side of Dartmouth Road, and the southern side of Grand Parade. However, a temporary signalised crossing will be provided west of the Luas to maintain pedestrian access to and from the Stop. Whilst there are partial closures on Dartmouth Road and Grand Parade, pedestrian movements will be maintained on appropriately sized footways through the area. Operational Phase A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. The proposed pedestrian crossing on Grand Parade will have minimal impact on the traffic flow along Grand Parade and can be programmed to operate in sync with the existing signalised junction at Grand Parade /Charlemont Street to maintain the flow of traffic movements. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Furthermore, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus.

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Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022 Case Reference Number NA29N.314724				
			Response (4) continued.	<u>Noise and Disturbance During Construction</u> The EIAR presents a comprehensive and detailed assessment of both groundborne and airborne noise and vibration in Chapter 13 and 14 of the EIAR. The assessments include for predictive modelling in order to identify the potential impacts on all sensitive receptors during the construction phase. No profound impacts have been identified for residents and mitigation measures proposed will be effective at reducing the impacts on these properties. Significant mitigation is proposed to include 4m high noise barriers and further proposed mitigation in line with the Airborne and Groundborne Noise Mitigation Policy. On the implementation of these measures the residual impacts are predicted to be moderate. However, as outlined in Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) there is a process in place whereby further mitigation measures can be implemented at individual properties should this be merited. <u>Loss of Amenity During Construction</u> EIAR Chapter 11, Population & Land Use provides an assessment of effects on community amenity during construction and operation, which relates to the interaction of impacts on air quality; visual amenity; traffic and transport; and noise and vibration. At this location during construction as outlined in Section 11.5.2 of Chapter 11, no impacts are identified on the retail sector or community and social infrastructure (e.g. schools or hospitals). Any severance/disruption to transport will be limited by site mitigation measures such as alternative routes reducing impacts to not significant.
5	Letter	2	4. Environmental impact The environmental impact assessment of the project in relation to transport, noise, alternatives and cumulative impact on the Charlemont-Dartmouth community is inadequate for a project of this scale.	TII do not agree that the Environmental Impact Assessment is inadequate. The Railway Order application comprises a very detailed environmental impact assessment that has identified and assessed the potential environmental impacts of MetroLink and proposed mitigations for these impacts where necessary. TII would also draw attention to the detailed project description, construction phase description and operational phase description provided in EIAR Chapters 4 and 5 and 6, and EIAR Chapter 7 and associated appendices that present details of alternatives considered. EIAR Chapter 9 and appendices provides a detailed analysis of transport and traffic effects, and EIAR Chapters 13 Airborne Noise & Vibration, and 14 Groundborne Noise & Vibration provide a detailed assessment of potential noise and vibration effects, while Chapter 29 outlines the assessment of interactions between various environmental aspects, and Chapter 30 covers the cumulative impacts with other projects. This assessment is carried out for the full length of the alignment including relative to potential significant effects on the Charlemont-Dartmouth Community.
6	Letter	2	5. Station Box. The station box at Gharlemont, constructed in 2020/21 by Hines does not have the benefit of planning permission and therefore the current railway order application which relies on this already constructed work, is legally unsafe.	The MetroLink enabling works constructed as part of the Hines development was included in the planning application for the Hines Development and has the benefit of planning permission which was granted in April 2019.
7	Letter	2	I request the following amendments: Omit from the Railway Order the section from Tara Street Station to Gharlemont Station and associated onward tunnel extension and intervention tunnel. Require the submission of a railway order for a section from Tara Street Station to St. Stephens Green which would effectively provide for a terminal hub station that can integrate with the LuasGreen Line, multiple bus routes and future DART underground.	The above responses to the observations made explain why TII do not consider it is correct or appropriate that the MetroLink alignment south of the proposed Tara Station should be omitted, and also demonstrates why the proposed Charlemont Station has been selected by TII as the preferred interchange with the Luas Green Line A scheme which terminates at Tara Street would not be consistent with the Transport Strategy for Greater Dublin Area (2022-2042). In addition any decision to terminate the scheme at Tara will significantly impact on the overall viability and benefits of scheme.

Submission No.			152		
Organisation Name or Name of Submitter			John McGreevy (Clonaloney, 223 Mount Prospect Avenue, Clontarf, Dublin 3)		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Letter Re: NA29N.314724 Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin (MetroLink)					
1	Paragraph 2 Fig. 1 Fig. 2	1, 2, 3	On behalf of John McGreevy of Clonaloney, 223 Mount Prospect Ave, Clontarf, Dublin 3, D03 DX04, we wish to make the following observation... request that the parcel of Mr McGreevy's land, highlighted in pink on the enclosed plans, is not acquired by the railway/TII for the purposes of accommodating a relocated telecommunications mast. The parcel of land, which extends to approximately 1750sqm, is situated to the immediate north-east of the proposed Fosterstown Station and is included within land take ref: ML1T-A2.	The relocation of utilities along the route of the proposed alignment are an essential part of the MetroLink project. This site has been identified as an appropriate place in the local vicinity to where the existing telecommunications mast can be relocated to, helping to lessen the visual impact and allowing unimpeded construction access for the station area itself. So whilst the mast itself is not a direct part of the MetroLink project, the relocation of same is essential to facilitate the MetroLink alignment.	
2	Paragraph 3 Fig. 2	1, 3	On behalf of John McGreevy of Clonaloney, 223 Mount Prospect Ave, Clontarf, Dublin 3, D03 DX04, we wish to make the following observation... The landowner is generally supportive of the Metrolink, but he has concerns that the proposed land acquisition on his land exceeds the requirements to accommodate the tracks and station.	TII notes your concern in relation to land-take requirements. The land-take at this location is required to facilitate the construction of the rail alignment retaining structure, Fosterstown Station along with the creation of the associated station access, access to the respondents land, relocation of utilities and landscaping proposals around the station and the alignment. TII would like to highlight that we have taken your concerns seriously and have actively engaged in previous discussions to address them. As a result of this engagement, we have already taken measures to reduce the land-take where possible. See also response number (1) above.	

Submission No.			153	
Organisation Name or Name of Submitter			John Neary and Kathleen White (11 Cambridge Terrace, Dartmouth Square)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022 Case Reference Number NA29N.314724				
1	Letter introduction	1	Both 11 Cambridge Terrace (which is a protected structure forming part of the Dartmouth Square Architectural Conservation Area) and 35 Dartmouth Road are located in the residential area proposed as the location of the Terminus for the Metrolink project. It is clear that during the construction phase, which is expected to last 9 years, our property at 35 Dartmouth Road will be uninhabitable and our access to and enjoyment of our home at 11 Cambridge Terrace will be severely compromised. During the operation phase the noise, vibration, light, traffic and influx of people using the station will significantly impact on our quality of life and the value of our properties. We are fully supportive of the Charlemont and Dartmouth Community Group Metrolink submission as well as the submission made on behalf of the Residents of Dartmouth Road. We wish to highlight the following key observations for the Board regarding the proposal to locate the Terminus station at Charlemont.	We have reviewed your submission and responded below to each of the observations raised, that includes the assessed noise, vibration, traffic and pedestrian impacts, and where necessary, the proposed mitigations for both the construction and operational phases of the Project. TII understand your particular concerns regards the proximity of 35 Dartmouth Road to the construction of the proposed Charlemont Station, and while TII are of the view that the construction environmental impacts can be mitigated, relocation is an available option during peak construction. TII are available to discuss this option if that is something the property owner would like to explore and consider. Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (EIAR Chapter 14, Appendix A14.6) there is a process in place whereby further mitigation measures, including temporary relocation, can be implemented at individual properties should this be merited. Regards light, we have not identified a particular observation with regards to this matter. During the construction phase, lighting will be designed to ensure that artificial light emitted from the construction compound does not cause a nuisance to residents. Lighting will be positioned and directed so as not to intrude unnecessarily on adjacent properties. For further information on site lighting, see section 5.12.9 of Chapter 5 and EIAR Appendix A5.18 (Site Lighting Plan). Regards lighting during the operational phase, EIAR Chapter 4, Description of the MetroLink Project, section 4.12.8.3 explains the lighting class (and therefore the light level and uniformity targets) for each area to be lit, and has been selected using BS5489-1:2020 with account made for the local ambient lighting and environmental zones. The following measures will be undertaken to ensure the quality of life of residents will not be effected by station lighting: • LED lights will be used instead of traditional lights to control light spill, in compliance with the Institute of Lighting Profession 'GN01 Guidance Notes for the Reduction of Obtrusive Light' document; • The use of luminaires will ensure that zero upward light is emitted; and • Lighting will be adjusted depending on a stations setting for example lighting columns on highways will be 12m high but lighting columns in or near residential areas will be 8m high. TII also confirm they have reviewed and responded to all other submissions made.
2	Key Observations	1	1. Despite the fact that our property at 35 Dartmouth Road will be one of the houses most impacted during the construction phase, we have received no direct communication from Metrolink about how our property will be protected. Specifically: a. We understand that it is the subject of a substratum CPO. However, we have not been received any communication in this regard. b. The property has not been identified in the Book of Reference.	No. 35 was under construction at the time referencing was carried out and would note the property lies within the land owned by 11 Cambridge Terrace who were referenced. 35 Dartmouth Road is a new mews residence to the rear of 11 Cambridge Terrace. The owner of 11 Cambridge Terrace was served the notice and the submission on page 15 notes the owner of 35 Dartmouth Road as one and the same. The new build was completed in Q4 2022 and remains part of the garden to the rear of 11 Cambridge Terrace until separately registered. A letter seeking confirmation of title pertaining to 11 Cambridge Terrace was issued on 02/02/2022, in the full knowledge that TII understood that a dwelling was currently being constructed to the rear of 11 Cambridge Terrace. A Mr John Neary responded on 09/02/2022 confirming ownership of 11 Cambridge Terrace and referring to the new dwelling being currently being constructed at the rear of 11 Cambridge Terrace. - At the time of the RO Application there was no change/new Folio to Land Registry boundary information to 11 Cambridge Terrace, therefore no transfer (of part) to new owners. - At the time of the RO Application there was no update to Registry of Deeds title, therefore no transfer (of part) to new owners. - At the time of the RO Application there was no update to The Property Price Register, therefore no indication of a sale. Accordingly, there was no new data/evidence at the time, and the understanding would have been the property (i.e. the new dwelling known as 35 Dartmouth Road) was not completed/sold prior to September 2022, at the time of the RO Application. It has not been alleged by the observer that the facts are different, but this may be clarified at oral hearing. From a Land Referencing perspective, TII could not done anything further to establish possible ownership/tenancy on a new build which was possibly not completed prior to the MetroLink RO. This will be subject of legal submissions at oral hearing in due course.

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Organisation Name or Name of Submitter			John Neary and Kathleen White (11 Cambridge Terrace, Dartmouth Square)	
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Re: Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022 Case Reference Number NA29N.314724				
3	Key Observations	1	c. We have not received any specific information about the provision of mitigating measures for noise, access, dust and dirt, etc.	(c) For the reason explained in response (2) above, no direct mailing of information was carried out to No.35 Dartmouth Road. The EIAR and associated appendices presents the proposed mitigation measures for the Project. Chapter 13 and Chapter 14 of the EIAR identifies the required mitigation measures for noise and vibration associated with the Project, and Chapter 16 provides mitigation measures associated with dust. Further detail on mitigation measures are provided in Appendix A5.1 Construction Environmental Management Plan (CEMP) and Appendix A16.4 Dust Management Plan. In summary: <u>Construction Noise and Vibration</u> Potential impacts identified due to airborne noise and vibration are presented in EIAR Chapter 13. Noise mitigation proposed for works at Charlemont Station are summarised in Section 13.6.1 of the EIAR and include for boundary hoarding around the working area, including a 4m high hoarding at the southern boundary. In addition, the above ground support works for below ground sprayed concrete tunnelling works will be enclosed within an acoustically clad steel framed building to control noise breakout to surrounding receptors. On the implementation of these measures the residual impacts at the adjacent 34 Dartmouth Road, and therefore comparable for 35 Dartmouth Road, are predicted to be Moderate to Significant. EIAR Appendix A14.5, Groundborne Noise and Vibration and Blasting Modelling Results, 14.4 Section AZ4 Northwood to Charlemont presents the predicted vibration levels during TBM passage for various sensitive receptors and outlines the predicted VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) for TBM Passage during the day and night at the adjacent 34 Dartmouth Road are 0.251ms-1.75 (VDV day) and 0.211ms-1.75 (VDV night) respectively. Both of these values are lower than the VDV Threshold Levels of 1.0ms-1.75 (VDV day) and 0.5ms-1.75 (VDV night). Levels of vibration during mechanical excavation of Charlemont Station are predicted to be 0.003ms-1.75 and 0.003ms-1.75 for day and night-time respectively. The threshold levels have been set in relation to human response to vibration, and thresholds for building damage are much higher. As the predicted levels of vibration from TBM passage and mechanical excavation are below these thresholds, no impact is predicted for either the building or for residents of this address. Predictions of vibration during blasting at Charlemont Station have also been made. For 34 Dartmouth Road an exceedance vibration level of 9.3mm/s PPV (Peak Particle Velocity) is predicted compared to the threshold level for this building of 8mm/s resulting in a potential significant impact. As a result, mitigation measures will be implemented to reduce the risk to buildings as outlined in EIAR Chapter 14, Section 14.5.1.2, including measures to reduce the impact of blasting through the preparation of specific blast design at each location, minimisation of the maximum instantaneous charge weight or alternatives to blasting. With the implementation of appropriate mitigation to reduce vibration from blasting the residual impact is predicted to be reduced to not-significant. The predicted level of groundborne noise during TBM passage is 48 dB LASmax at 34 Dartmouth Road, which is above the 45 dB LASmax threshold, resulting in a significant impact on the occupants of this address for the relatively short 2-week duration of the TBM passage. Unfortunately there are no effective methods available to reduce groundborne noise from TBMs at source and therefore the principal mitigation measure is advance consultation and engagement to inform residents of the timing of the TBM passing to allow building occupants to prepare for the temporary elevated noise levels. As outlined in Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) there is a process in place whereby further mitigation measures, including temporary relocation, can be implemented at individual properties should this be merited. <u>Operational Noise and Vibration</u> EIAR Chapters 13 and 14 present a comprehensive and detailed assessment of operational airborne and groundborne noise and vibration. No residual noise impacts are identified at this location during operation. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and result in a not significant to slight impact when added to the prevailing noise environment. EIAR Chapter 13, sections 13.2.3.2 and 13.5.3.2.3 recognise that ventilation systems if not designed and mitigated effectively are potential noise sources. Section 13.6.2.3 outlines the detailed considerations that will be included in the design to ensure that the ventilation systems do not exceed limits as per BS 4142, including: • Reduction of induct flow rates; • Reduction of elements in the airflow; • In duct attenuators; • Orientation of grilles and louvres away from sensitive receptors; • Acoustic louvres; and • Anti-vibration mountings and couplings will be incorporated into the design to control vibration. Measures to mitigate noise from the use of public address systems is also detailed in Chapter 13 (sections 13.5.3.2.4 and 13.6.2.4). Best practice design principles will be employed to minimise noise breakout at the surface from these systems via escalators, lift shafts and stairwells. <u>Access</u> During construction, pedestrian access will be maintained to the property. Once the station is operational, as outlined by EIAR Chapter 9 Traffic and Transport, with mitigation measures implemented there will be a residual long term slight impact on pedestrians as a result of there being more pedestrians in the area. However the use of existing footpaths will be at "acceptable comfort levels". There will be no other residual impacts in the operational phase related to traffic or transport. (also see responses (16) and (17) below).

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			Response (3) continued.	<u>Dust / Air Quality Construction Phase</u> EIAR Chapter 16, Air Quality, section 16.6 Mitigation Measures. The potential risk from dust emissions has been reviewed for the most important activities and each of the construction areas. Before commencing relevant works, an Air Quality Management Plan will be prepared and submitted for approval to the planning authority. The plan will take account of all relevant dust and emissions applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. The plan will be developed by the contractor and for each worksite shall include: - An inventory and timetable of activities which may give rise to emissions or dust; - Alert levels; - Alert system to be used (including notification process); - Details of control measures; - Details of dust monitoring arrangements, including the location of sensitive receptors, monitoring locations, and monitoring equipment to be used; and - Details of the air quality reporting requirements. In order to ensure that no dust nuisance occurs, a series of measures will be implemented, as detailed in Appendix A16.4. In summary, the measures will include: - Material handling systems and site stockpiling of materials designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; - Any blasting will be completed by specialised contractors with a specific blasting dust management plan; and - Hoarding will be provided around the construction compounds. Strict dust prevention will be in place at all times to minimise any potential emissions and these procedures will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations. Consistent implementation of good dust minimisation practices will ensure that the impact from construction dust is Long-Term, Localised, Reversible and not significant when considered with respect to the Environmental Protection Agency (EPA) description of effects (EPA 2022). <u>Dust / Air Quality - Operational Phase</u> As noted by EIAR Section 16.6.2 Operational Phase, all ambient air pollutants will remain in compliance with the ambient air quality standards and the proposed Project has negligible impacts at all modelled receptors, and therefore no specific operational phase mitigation measures are required.
4	Key Observations	1	d. We have not received any assurances about compensation in the event of damage to the house as a result of construction work or subsidence even though the excavation of the tunnel driving at 30 metres deep will be located a mere 2 metres from the front elevation of the property.	The impacts of construction generated ground movements on 35 Dartmouth Road have been assessed. The approach taken by TII for assessing the impact of construction generated ground movements reflects the industry standard three-phased ground movement impact assessment process that is undertaken on tunnelling and underground projects around the world, that includes Channel Tunnel Rail Link (CTRL), Dublin Port Tunnel, Crossrail and High Speed 2. EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement and includes for the assessed impact on 35 Dartmouth Road. The Phase 2 assessment of the assessed impact on a representative building adjacent to No. 35 is "slight" (an explanation for which can be found in Table 4-4), please refer to representative building B-151 in table 5-2 of the appendix. Given that your property is a new build, the impacts described above are likely to be less. As your property is in close proximity to the station box excavation, the assessment work undertaken for the EIAR has determined that your property along with other similar neighbouring properties have been designated as "special" (please refer to section 4 Subsidence Damage Assessment Methodology of Appendix A5.17). Consequently, the property will be subject to a further Phase 3 refined assessment (despite the impact only being assessed as 'slight') to take account of final design and construction methodology details. The Phase 3 assessment will most likely utilising advanced numerical modelling techniques and further surveys of the building. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. Monitoring instrumentation will also be installed in the area to monitor the performance of the works and potential environmental impacts, including ground movements to ensure that acceptable limits, determined as part of the Phase 3 assessment, are not breached. TII would also draw attention to the fact that private properties within 50m of the station excavation, or 30m of the tunnel are eligible to subscribe to the Property Owners Protection Scheme (POPs). The Property Owners' Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor.

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5	Key Observations	1	e. We have not received any information about the provision of relocation expenses, including security and maintenance of our empty house, in the expected event that our lives become intolerable or unsafe during the construction period.	As noted by the responses to this submission, the environmental impacts when they are mitigated are considered to be within acceptable levels with the exception of an approximate 2 week period when the TBM passes generating groundborne noise, and construction airborne noise that could be Moderate to Significant (see response (3) above). TII also confirm that no works will be undertaken that are unsafe. As outlined in Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) there is a process in place whereby further mitigation measures can be implemented at individual properties should this be merited. TII also confirm that while of the view that the construction environmental impacts can be mitigated, relocation is an available option during peak construction. TII are available to discuss this option if that is something the property owner would like to explore and consider.
6	Key Observations	1	f. During the operation phase we note that there has been no assessment of the noise and air emissions from the proposed overtrack ventilation system to be located directly opposite 35 Dartmouth Road.	TII can confirm that the EIAR has considered noise and air emissions from the station ventilation system. Please refer to response (3) above, Operational Noise and Vibration, and Dust / Air Quality - Operational Phase.
7	Key Observations	1	g. The proposal to locate a pedestrian crossing directly outside the house will make it impossible for our car to access the electric car charging point located in the courtyard of the house. This is not acceptable.	The location of pedestrian crossings have been chosen to ensure that there are no permanent restrictions to property access. At this location, the pedestrian crossing is designed to ensure that it will not restrict access to your property TII will meet with you to ensure arrangements are in place to ensure access to your electric charging point can be maintained.
8	Letter - Point 2	2	2. The current proposal will essentially turn a quiet residential street, which is covered by Objective Z2 zoning: to protect and/or improve the amenities of residential conservation areas, into the forecourt of a busy Terminus Station. It is noted that all mature trees on the street will be lost as a result of the development and no replacements are proposed.	As outlined by response (3) above, no residual noise impacts are identified at this location during the operational phase. The zoning under the Dublin City Development Plan 2022 - 2027 for the residential properties in question is "Z2 Residential Neighbourhoods (Conservation Areas)" with an objective to "protect them from unsuitable new developments or works that would have a negative impact on the amenity or architectural quality of the area (See Table 3.11 of the Planning Report). As outlined in Section 4.5.18.6 of the Planning Report the element of the Project within the Z2 zoning area will affect a below ground area only and as such will not compromise the land use objective for the lands overhead. The majority of the proposed station and all above ground elements are located within the lands zoned Z5 with the objective "To provide for the creation and protection of enterprise and facilitate opportunities for employment creation". The station has been designed so that it is integrated with the proposed redevelopment of this site by a third party development, and as such, demonstrates that the proposed Project is consistent with the zoning objective. Chapter 9 Traffic and Transport outlines that after mitigation measures have been implemented there will be a residual long term slight impact on pedestrians as there will be more pedestrians in the area. However the use of existing footpaths will be at "acceptable comfort levels". There will be no other residual impacts either in the operational phase related to traffic or transport. In addition, no significant residual negative impacts are anticipated on the Population and Land Use from the operation of the proposed Project as outlined in Chapter 11 Population and Land use. Following the incorporation of the mitigation measures into the design of the proposed Project and implementation on an ongoing basis throughout the lifecycle, the residual effects that will arise during operation will be permanent and positive. As a result, it is not considered that the proposed development compromises the requirements of the Dublin City Development Plan 2022 – 2027. It is regrettable there will be a loss of three street trees at this location that need to be felled to facilitate the construction of the proposed station. However TII would note that the impact of tree loss is considered in Chapter 15: Biodiversity section 15.8.1. Habitat Loss, with replanting proposed in the landscape design to compensate for habitat loss by providing new areas for trees. The landscape plan includes for the planting of 3,444 individual trees which will be organised in small copses, lines of trees and within woodland habitats. The planting of these new trees will compensate for the loss and will not result in significant negative residual effect on trees at any geographic scale.

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9	Letter - Point 3	2	3. Charlemont is the incorrect strategic location for a Terminus hub and spoke system as it is too far out along the Luas Green Line spoke and would prejudice future options for integration of networks and services.	TII do not agree that Charlemont is the incorrect location for an interchange with the Luas Green Line or that it prejudices future options for integration with the wider transport network for the reasons set out below. In the Emerging Preferred Route Report, Charlemont was identified as the last station prior to the tie-in to the Green Luas Line which was intended to be upgraded to Metro standard. as outlined in EIAR chatper 7, decision to terminate at Charlemont instead was driven by three factors: (a) the additional impacts that would be involved in upgrading the Luas south of Charlemont as a result of the proposed adoption of a high degree of automated operations (GoA4); (b) the development of alternatives to accommodate increased capacity on the Luas line south of Charlemont without that upgrade; and (c) Feedback received during the EPR non-statutory consultation. St Stephen's Green West was not considered a feasible terminus location as an alignment that links the proposed Tara and St Stephen's Green west would have an undesirable horizontal reverse curve and an alignment greater than a 1000m long that would necessitate an intermediate intervention shaft located somewhere between these stations to comply with the MetroLink Fire Strategy. St Stephens Green West would also require a complex engineering interface with the Luas Green Line, significantly greater impacts on the Park and has greater potential for disruption during the construction phase. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategy was prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." Under the Planning and Development Act 2000, the Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station is supported by detailed project-level analysis and the strength of that location is reflected at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all any of the above directions.

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10	Letter - Point 3 (continued)	3	St. Stephens Green is the most appropriate location as it provides for interchange with bus, Luas and future DART underground. The project incorrectly dismisses St. Stephens Green West as an appropriate terminal station. It only considers St. Stephens Green East and Charlemont. Furthermore, no Study has been completed by NTA/TII as part of the entire Metrolink project on the optimal location for a City centre terminus.	TII do not agree that St Stephen's Green is the most appropriate interchange location for the reasons set out by response (9) above. It is not correct to say that the Project "only considers St. Stephens Green East and Charlemont." A number of route options were considered in the process of identifying the Emerging Preferred Route (EPR). These route options included potential station locations on St. Stephen's Green West. However these options were ruled out as it was not possible to design an alignment that would also provide a MetroLink interchange with DART at Tara Street Station without the requirement for an additional intervention shaft and poor reverse curve. As outlined by EIAR Chapter 3, Background to the MetroLink Project, one of the key objectives of the Project is the integration of it with the wider transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040 and the GDA Transport Strategy 2022-2042 (section 12.3.2). Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more liveable and sustainable city. It is being argued that Charlemont station effectively becomes a terminus station in the short to medium term. In this regard, it is true to say that the Metrolink trains will terminate and turn back at Charlemont station, however the public transport service offering for passengers does not terminate, it transfers from Metrolink to LUAS as part of the integrated transport network. The terminus station for MetroLink is located at Estuary where all of the activities normally associated with a terminus (train sideways, car parking etc) take place. At this location the high capacity public transport offering terminates and the public transport offering transfers to a completely different mode, i.e. Bus and car . The environmental effect of the Metrolink terminus are accordingly assessed in the EIAR. Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a "system turn back location". Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. The associated environmental impacts for the turnback and station at Charlemont have been fully assessed in the EIAR. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services, as outlined above. The section of the line between St Stephen's Green and Charlemont generates considerable benefits for the scheme in terms of increased patronage. Operationally, the Station will see people moving quickly in and out of the area, noting that it will act as an interchange, and has been deliberately designed with minimum set down space or room for taxis so that it does not encourage the Station to be used as a terminus. All operational environmental impacts are mitigated so they are not significant, while the impact on amenity will be permanent and positive. The proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) in which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.

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11	Letter - Point 4	2	4. Expensive Duplication of Rail infrastructure - The inclusion of an expensive and costly section between St. Stephens Green and Charlemont is strategically weak and duplicates the existing Luas Green Line services. NTA's cost estimate for this 1km section at €650M is an expensive duplication and significant investment that deprives other parts of Dublin that are in immediate need of rail infrastructure to support housing and urban development.	The Board is not responsible for any decisions in relation to the funding the Project. It is solely responsible for assessing whether the Project is consistent with proper planning and sustainable development and that its effects on the environment are acceptable. The responsibility for funding the Project lies with the NTA, the Government and ultimately the Oireachtas. It has received all necessary approvals, including under the Public Spending Code for the making of a Railway Order. It will undergo further scrutiny and approvals, including under the Public Spending Code, before it is funded. It is not appropriate for the Board to make findings in relation to value-for-money that are outside its statutory functions and would cut across those arrangements. Members of the public are entitled to make representations to their TDs in relation to the value-for-money of any element of the Project. In any case, TII do not agree with this statement for the reasons set out by response (2) above, noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers. There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ratio (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.
12	Letter - Point 5	2	5. The station box at Charlemont, as constructed in 2021/22 by the Developer Hines, does not have the benefit of planning permission and has not been part of the EIA undertaken for this project. Processing the current Railway Order application, which is reliant on these preliminary and now constructed works, is legally unsafe and contravenes the provisions of the EIA Directive.	The MetroLink enabling works constructed as part of the Hines development was included in the planning application for the Hines Development and has the benefit of planning permission which was granted in April 2019.

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13	Letter - Point 6	3	6. The station box at Charlemont will result in only one possible future tie in with the Luas Green Line to the south, which would result in an option that was previously dismissed as part of the Tie-In study from March 2017. No alternatives to the station box at Charlemont were considered as it had been fixed through the design of the overhead Hines Grand Parade commercial development. The implications of this new alignment is very significant on our wider community as it will involve top down construction that will only be possible when many houses on Manders Terrace, Oakley Road and Charleston road are demolished.	The station box at Charlemont allows for a future tie into the Luas Green Line should it be determined in the future that through running metro services to Sandyford is the required solution to address the public transport needs to the south of the city. It is incorrect to say that the current proposal is based on an option that was previously dismissed as part of the March 2017 Green Line tie in study. The station design is in affect a modification to the preferred Green Line Tie Option 4B which was modified as result of the decision not to proceed with the upgrade of the Green Line to metro standard. The station box location was not fixed by the Charlemont Development. The preferred route for MetroLink was published in March 2019 following a comprehensive route options study. The preferred route was based on the emerging preferred route for the scheme which included a station at Charlemont. The Charlemont Metro Enabling Works were constructed to enable the Charlemont Development to proceed whilst simultaneously ensuring there was an option available to construct a station at Charlemont that avoided unnecessary demolition, took advantage of an available site, provided infrastructure that is integrated with planned development rather than necessitating later changes and retrospective adjustments to a new development or even possible demolition of the new development, whilst providing protected provision for the future extension of the scheme south, if required. It is also important to recognise that the station location at Charlemont is influenced by available vacant land and thus avoids unnecessary demolition. The submission seeks to portray the construction of the Metro Enabling Works as prejudicial to future decisions on proper planning and sustainable development of the area. It implies that the counterfactual would have had no effect on such decisions. That is not the case. There was a planning conflict between the EPR and the Grand Parade Development at the time the latter development was proposed. There was no resolution to that conflict that was free of implications for future decisions on the proper planning and sustainable development of the area. The Board could have refused permission for the Grand Parade Development, inevitably creating a underutilised and potentially vacant and idle site in a commercial hub location. The Board could have granted permission with no provision to facilitate a station at this location, resulting in a requirement for the railway order to provide for the demolition of a new office building. The Board's actual decision was reasonable and lawful in seeking to minimise the prejudice to an important office development and a critical piece of national infrastructure. It was also not particularly restrictive of future decisions in relation to the proper planning and sustainable development of the area. Of the three options open at the date of the Grand Parade planning application, two remain open: the Board can still require changes to the station design that require the demolition of the commercial building and it can grant an order that avoids demolition by using the Metro Enabling Works. It is agreed that the short-term implications for local residents will be significant as the scheme progresses through the construction stage, however the EIAR assesses the environmental impacts of the construction phase and commits to the implementation of appropriate mitigation measures that reduce the environmental impacts to not significant. The same is true of the operations phase for the project. TII will work closely with local residents to ensure the required mitigation measures are put in place. If in the future, the metro was extended south, this does not mean that inevitably open cut construction will be required or demolition of property will be necessary. In designing an extension, the promoter will seek to reduce the requirement for demolition by looking for tunnel launch sites at the southern extent of the scheme and, if one can be identified, driving the Tunnel Boring Machine northwards ultimately connecting into the existing tunnel. In that case, even if the new alignment were under the properties identified in the submission, the tunnel underneath them would be constructed by the Tunnel Boring Machine without the need for above ground works.
14	Letter - Point 7	2	7. The Environmental Impact Assessment is inadequate in relation the description of development, alternatives, transport assessment, noise and the cumulative effects of the development on the Charlemont-Dartmouth Community. For a project of this size, scale, investment to date, it is inadequate to propose a Railway Order with so many important studies and analysis missing.	TII do not agree that the Environmental Impact Assessment is deficient, inadequate or missing information. The Railway Order application comprises a very detailed environmental impact assessment that has identified and assessed the potential environmental impacts of MetroLink and proposed mitigations for these impacts where necessary. TII would also draw attention to the detailed project description, construction phase description and operational phase description provided in EIAR Chapters 4 and 5 and 6, and EIAR Chapter 7 and associated appendices that present details of alternatives considered. EIAR Chapter 9 and appendices provides a detailed analysis of transport and traffic effects, and EIAR Chapters 13 Airborne Noise & Vibration, and 14 Groundborne Noise & Vibration provide a detailed assessment of potential noise and vibration effects, while Chapter 29 outlines the assessment of interactions between various environmental aspects, and Chapter 30 covers the cumulative impacts with other projects. This assessment is carried out for the full length of the alignment including relative to potential significant effects on the Charlemont-Dartmouth Community.

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15	Letter - Point 8	3	The development would result in noise and disturbance during the construction and operational phases and would result in a loss of amenities for the area.	For noise and vibration assessed impacts please refer to response (3) above. Loss of amenity during operation: No significant residual negative impacts are anticipated on the Population and Land Use from the operation of the proposed Project, following the incorporation of the mitigation measures into the design of the proposed Project and implementation on an ongoing basis throughout the lifecycle. The residual effects that will arise during operation will be permanent and positive as detailed in EIAR Chapter 11, section 11.1.1. Response (8) above explains why TII consider the proposed station complies with the zoning defined by the Dublin City Development Plan 2022 - 2027. The Station has been designed so that it is integrated with the proposed redevelopment of this site by a third party development, and as such, demonstrates that the proposed Project is consistent with the zoning objective. The MetroLink station design does not result in any segregation of the area, with no surface barriers or walls proposed.
16	Letter - Point 8 (continued)	3	The Traffic Study for the local Charlemont area is wholly inadequate as it omitted the modelling of the impact of Airport users coming to the only Dublin South Metrolink station at Charlemont. The Traffic Study uses a strategic, generalised regional model that does not take local factors into account. Extract from observation 9) - The EIA did not properly assess the impact of additional local traffic volumes, rather they used a generalised regional model that does not take local factors into account. A key local factor at a Terminus station in Charlemont that runs to the Airport is the huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with baggage for onward destination to the airport. Grand Parade and the residential area around Charlemont-Dartmouth can not sustain the significant additional traffic volumes associated with this development.	The MetroLink forms part of an integrated public transport network. The system is designed in an integrated manner so that people travelling from the area south of Dublin to access locations north of Charlemont, such as Dublin Airport, Mater, Swords etc. will utilise public transport to interchange with the MetroLink, or will walk or cycle to access their local station. The system is not designed to encourage people to drive to stations within the City and TII actively discourage people from doing so other than the Park & Ride station at Estuary. TII therefore do not agree with the observation that there will be a "huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with luggage for onward destination to the airport" as this is not borne out by our transport analysis. The Transport Assessment for MetroLink includes for people travelling to/from Dublin Airport from all areas within the extents of the GDA area, therefore it is incorrect to say "The Traffic Study for the local Charlemont area is wholly inadequate as it omitted the modelling of the impact of Airport users coming to the only Dublin South Metrolink station at Charlemont". The NTA's Eastern regional Model (ERM) incorporates a wide range of data sources, including demographic data, land use data, transportation network data, and travel survey data. The system is designed to model a variety of transportation modes, including private vehicles, public transit, walking, and cycling, and to simulate the interactions between these modes. The ERM model has been validated and calibrated using a range of localised data sources to ensure that the model can accurately represent the transport network, these include public transport and vehicle counts from the canal cordon counts. The outputs from the model have been combined with local survey data to undertake the more localised modelling, such as the pedestrian impact assessments, or the local traffic signals. This does not support the observations made "The Traffic Study uses a strategic, generalised regional model that does not take local factors into account." or "The EIA did not properly assess the impact of additional local traffic volumes, rather they used a generalised regional model that does not take local factors into account." Regards the observation there will be a "huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with luggage for onward destination to the airport. Grand Parade and the residential area around Charlemont-Dartmouth cannot sustain the significant additional traffic volumes associated with this development", this is covered by response (17) below.

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Re: Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022 Case Reference Number NA29N.314724				
17	Letter - Point 9	3	9. The development would have an adverse impact upon traffic during the construction and operational phase, and it has not been properly designed and there is poor integration with other modes of transport. Pedestrian movements in and around the station would be difficult. Grand parade is an already heavily congested orbital route.	Metrolink is designed to form part of an integrated public transport network with Charlemont selected as the preferred interchange location in order to maximise the potential interchange with the existing Luas Green Line. In overall terms, Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Construction Phase: EIAR Appendix A9.5 Scheme Traffic Management Plan presents the analysis undertaken to assess the impact of the traffic management measures on the local road network surrounding the proposed Charlemont Station during the construction phase. At the local level the following parameters have been used to assess impacts on general traffic and on pedestrians: • Increase in walking distance/quality of service for pedestrians (through removal of footpath, reduction of quality of service, removal of a pedestrian crossing or relocation of crossing by more than 100m); • Increase in driver delays at junctions; • Changes in traffic flows on surrounding streets; and, • Additional distance travelled due to diversions. The analysis undertaken at this location indicates that the increased volume of traffic on Grand Parade and Northbrook Road does not translate into any significant increase in driver delay. The largest increase in driver delay of 12 seconds is registered on the westbound approach on Grand Parade to the Ranelagh Road signalised junction. During the construction phase, pedestrians will experience a reduction in quality of pedestrian infrastructure and space. The construction site boundary will encroach upon footways in the local area, including the northern side of Dartmouth Road, and the southern side of Grand Parade. However, a temporary signalised crossing will be provided west of the Luas to maintain pedestrian access to and from the Stop. Whilst there are partial closures on Dartmouth Road and Grand Parade, pedestrian movements will be maintained on appropriately sized footways through the area. Operational Phase: A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. The proposed pedestrian crossing on Grand Parade will have minimal impact on the traffic flow along Grand Parade and can be programmed to operate in sync with the existing signalised junction at Grand Parade /Charlemont Street to maintain the flow of traffic movements. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Furthermore, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used for a significant volume of car or taxi trips.

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Re: Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022 Case Reference Number NA29N.314724				
18	Letter - Point 10	4	10. The development will have an adverse impact upon property values, particularly during the construction phase. For many houses in the area there will be a long term and permanent adverse impact upon property values from noise of the operating rail infrastructure, vents, tannoy systems, escalators and large traffic volumes - vehicular and pedestrian using the station 19 hours per day. The adverse impact also extends to the loss of amenity for the wider community changing a quiet residential neighbourhood into a noisy, busy, congested major transport hub.	Response (3) above outlines the predicted environmental impacts with regards to noise and vibration, and amenity, while responses (16) and (17) summarise the assessed traffic and pedestrian impacts. TII would note that as explained by response (17) above that in overall terms Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips. TII do not agree that the development will have a long term and permanent negative affect. In fact there is evidence to suggest that property values will in fact increase in close proximity to public transport infrastructure and that local residents will greatly benefit from having a world class metro system providing access to the city centre, airport and north city at their door step. The benefits of the project for all communities along the MetroLink route are described in Chapter 3: Background to the MetroLink Project, section 3.4 MetroLink Response to Challenges.
19	Requested Amendments	4	Requested amendment to An Bord Pleanala We request the following amendments: 1. Omit from the Railway Order the section from Tara Street Station to Charlemont Station and associated onward tunnel extension and intervention tunnel 2. Require the submission of a railway order for a section from Tara Street Station to St. Stephens Green which would effectively provide for a terminal hub station that can integrate with the Luas Green Line, multiple bus routes and future DART underground. 3. If the construction of a station at Charlemont is permitted, require the provision of adequate mitigation measures to protect the owners of residential properties significantly affected during the construction and operational phases. 4. If the construction of a station at Charlemont is permitted, require the relocation of the proposed pedestrian crossing directly outside No 35 Dartmouth Road.	The above responses to the observations made explain why TII do not consider it is correct or appropriate that the MetroLink alignment south of the proposed Tara Station should be omitted, and also demonstrates why the proposed Charlemont Station has been selected by TII as the preferred interchange with the Luas Green Line A scheme which terminates at Tara Street would not be consistent with the Transport Strategy for Greater Dublin Area (2022-2042). In addition any decision to terminate the scheme at Tara will significantly impact on the overall viability and benefits of scheme. TII have also outlined how the potential construction and operational environmental impacts will be mitigated, but as confirmed by response (5) above, TII are available to discuss with the property owner the option to relocate during the peak construction. Regards the proposed pedestrian crossing outside No 35 Dartmouth Road, as noted by response (7) above, TII propose to meet with you to ensure that an arrangement can be arrived at that ensures you can charge your car.

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Organisation Name or Name of Submitter			Jonathan Healy (22 Geraldine Street, Phibsborough)		
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Letter Re: Submission in Relation to Metrolink (Ref: ABP-302010-18) and Proposed Mater Station					
1	Station design	1 and 2	The railings, gates, some of the statues and plinth walls enclosing the park at the corner of Eccles Street and Berkeley Road, are protected structures which I understand will be stored and reinstated according to the details provided in the Railway Order and accompanying documentation. However, the photomontages illustrating the ex post reinstatement of the park show a vastly changed area, with a hard landscaped 'plaza' replacing much of the soft landscaping, a voluminous (excessively tall and long) station entrance and canopy blocking views of the Mater Hospital from Berkeley Road, and a number of ancillary buildings which are not in keeping with the architectural surroundings. Such development would be highly deleterious to the visual amenity and architectural heritage of valuable local streetscape. I therefore request the following changes to the station design to protect and enhance the visual and recreational amenity of the area: • Serious consideration should be given to a reduction in the size of the above-ground Mater Station in both height and length, and/or consideration of an alternative location parallel to St Joseph's Church (on the east of Four Masters' Park) with entrances/exits via Eccles St and Berkeley Road.	TII believe the commissioning of internationally renowned architect Nicholas Grimshaw and Partners, has delivered a contemporary station design which is appropriate for a state of the art metro system such as MetroLink. Appropriately, significant emphasis is placed on the public spaces. Where feasible, the station concourse is a soaring space illuminated from above with natural light. Dublin's rich architectural heritage has been respected, but not copied in a pastiche imitation. In accordance with best conservation principles, as set out in the ICOMOS Venice Charter of 1964, the stations are architecturally distinguishable so as not to falsify the existing historic context. Reference and due respect to that context is made through the choice of high quality and appropriate materials and the scale of the interventions. At Mater station, the canopy entrance evokes the scale of park structures. The aesthetic values of all eras, including our own, have cultural validity, and therefore the brick is used in a contemporary way reflecting contemporary aesthetic idioms derived from 21st century technology. TII believe the current station and surface level designs greatly enhance the public realm at all locations along the MetroLink route. There is a unifying commonality in the design of all stations, providing a consistent and coherent architectural language, which assists with orientation and wayfinding, and contributes a new architectural lexicon to the cultural iconography of the city. The station architecture is integrated in the park in a sympathetic fashion with the skylights being framed by planting and providing circulation routes through the park. Existing monuments and protected railings will be relocated within the park. Large mature trees will be placed so as to provide balance and create space within the park. The landscape design itself will be created on top of the station box and sufficient depths and infrastructure are provided for in order to integrate the landscape design. There will be one entrance to Mater Station, situated at the northwest corner of the park and close to the Mater Hospital access, which is conveniently located to walk to Mater Hospital, St. Joseph's Church and Berkeley Road. The station location will also connect with bus services to and from Dublin City Centre with bus stops on Berkeley Road. A change in location for the station and creation of additional station entrances/exits would have a major impact on the design of the station in terms of utilities, traffic and construction, in a very space-constrained location.	
2	Station design	2	• The removal of 50 mature trees from this relatively small area is excessive, unnecessary, at odds with Government climate action and biodiversity policy, and would represent a significant environmental and visual amenity loss to the local area. The Planning Report states that “<i>tree planting will ... be relatively immature and will not enclose the Park or contribute much to the definition of the two adjoining streets for at least a period of approximately 7-10 years</i>”. In light of this, proper consideration should be given to protecting existing mature trees where possible, as well as reinstating mature trees that must be felled with mature specimens.	TII recognise the impact that the Proposed Project will have on Four Masters Park, particularly during construction. EIAR Chapter 27 (The Landscape) details the impact on the landscape and visual amenity of the stations during both the construction and when the station is operational. On completion of the station box, the existing Four Master Park and its surface features will be substantially reinstated with the visual amenity of the area largely restored, much to its existing condition and improved in respect of the shared space to the front of the original hospital building, the refinement of the park layout and the tree and plant species selection. Over the initial period after completion of the construction, the maturity and ambience created by the existing trees cannot be matched. However, as the new trees mature, this too will return with views along the adjacent streets and into the Park, much as they were. The restoration of the open green park space within the triangle of buildings along with the proposed amendments to the original Mater Hospital section of Eccles Street, will again impart the tranquil qualities of the existing condition. Overall, the predicted effects on the visual environment and on visual amenity when the station is operational will, in the longer term be significant and positive.	

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3	Station design - alternatives	2	Local residents, including myself, do not wish to see the Four Masters' Park becoming a hard landscaped 'plaza'. Thus, consideration should be given to the use of more soft landscaping of the reinstated park (including shrubbery, gravel pathways, etc.) to better recreate the feel, design and visual configuration of the current park.	Please refer to response item (1) in relation to the architectural design of Mater Station. TII recognise that Four Masters Park has very important heritage and architectural connotations, and as such the Mater Station urban realm design principles for restoration of the Park at completion are based on the following: * Realignment of the Four Masters Memorial; * Rearranging the footpath to provide enough pedestrian space for the main entrance; * Reinstatement with enhanced planting of the Four Masters Park and its existing railings; and * Replacement of existing trees. The construction of Mater Station in the Four Masters Park will affect the park itself, both Eccles Street and Berkeley Road, and St Joseph's Church, requiring stringent environmental management measures during construction and restoration of the urban realm. Design changes that were introduced to reduce impacts on heritage include the following: prior to the construction phase the railings, gates, plinth walls, Healing hands sculpture and Celtic cross at Four Masters Park (RPS, Reference 737) will be removed, stored carefully and reinstated following the completion of construction of the proposed Mater Station. Please refer to response item (4) below for more information related to the provisions of Park reinstatement following the completion of the construction of the Mater Station box.	
4	Station design - alternatives	2	Ancillary station buildings containing lifts, ventilation shafts, etc., should be redesigned aesthetically, in keeping with the local environment, and with a view to minimising visual intrusion.	Please refer to response item (1) and (3) in relation to the architectural design and proposed landscaping at Mater Station. As detailed in Chapter 26 (Architectural Heritage), following the completion of the construction of the station box, the Park will be reinstated on the surface to a shape and form similar to the existing Park with updated planting, including new trees along each side of the triangle. To ensure the protection of architectural heritage throughout the alignment, a Project Conservation Architect has been engaged to oversee the implementation of the Project. A specialist Heritage Works Contractor will also be appointed to remove, store and conserve the architectural heritage constraints identified at Four Masters Park during the construction phase, to ensure they are protected for reinstatement as part of the completion of the station. Please refer to section 26.7 Mitigation Measures and Residual Impacts, of Chapter 26. The railings and gates, the Four Masters Cross and the sculpture will all be reinstated to a slightly amended alignment and locations to facilitate ventilation grilles, air intake shafts, fire access lift, emergency escape stairs and the main entrance to the station. The existing garden and grotto adjoining and within the grounds of St Joseph's Church will also be reinstated on the existing footprint and in similar style to the Four Masters Park proposals with proposed trees. This allows the accommodation of the introduced elements of the station which will now be expressed at surface level. It also ties in with the axial elements related to the original Mater building and which will be expressed in the proposed shared surface at its front. Please refer to section 26.5.4.8 Mater, from Chapter 26.	
5	Station design	2	The excessive use of bollards around the station entrance should be avoided, as these detract from the visual amenity and will undoubtedly become damaged. Consideration should be given instead to greener alternatives - such as a row of trees and shrubs - as well as the use of the existing cast-iron railings to form a protective frontage for the station if this is desired.	The use of bollards for the purpose of security at station entrances is a feature common across the majority of the proposed city centre deep stations, particularly where space for other methods is limited. The commonality of approach aligns with the Architectural, Urban Realm, and Landscaping Design Principles set out in Section 4.7 of Chapter 4: Description of the MetroLink Project. Please refer to response item (4) above related to the provisions of Park reinstatement following the completion of the construction of the Mater Station box.	
6	Station design	2	All of the historical, protected cast-iron railings and other features of Four Masters' Park should be reinstated.	Please refer to response item (4) in relation to the reinstatement of architectural heritage features at Mater Station.	

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7	Station design	2	Station skylights should be flush with the ground rather than raised, as the current design is visually intrusive.	Please refer to response item (1, 2, 4) above related to the design and construction of the Mater Station box.
8	Station design	2	There should be ample seating, planting and paths within the reinstated park.	Please refer to response items (2, 4) above related to the provisions of Park reinstatement following the completion of the construction of the Mater Station box.
9	Construction phase	2	With regard to issues that may arise during the construction phase, a number of matters have not been adequately addressed in the Railway Order, Environmental Impact Assessment, Appropriate Assessment, Planning Report or related documents: Parking for local residents is limited on the streets adjacent to the Mater site running off Berkeley Road (DCC Zone 2: “To protect and/or improve the amenities of residential conservation areas”). As residents of Victorian housing without the facility of driveways or garages and therefore reliant on zoned residential disc parking, for which residents pay an annual charge, it would be an egregious impact on the local community should construction workers and Metrolink contractors use these limited parking spaces, especially given the lengthy duration of the project. Consideration should be given to a ‘park and ride service’ for construction workers, or some alternative to the use of private vehicles to commute to the Mater site.	Construction Staff Parking As noted in A5.1 Outline Construction Environmental Management Plan (CEMP) section 5.14 Worker Access, all construction staff and workforce will be encouraged to make their way to site and home from site by public transport, by project specific transport (e.g. minibuses), by bicycle or on foot. Limited parking spaces will be provided for vehicles required for the construction activity and for employees. The nominated contractor(s) may provide a transfer pick-up and drop off service from suitable public transport hubs. As part of the preparation for the construction phase the appointed contractor for the works at Mater Station will prepare a detailed CEMP that will include plans to mitigate construction parking locally with the preparation of the Construction Mobility Plan, part of the CEMP documentation to be submitted for Dublin City Council approval prior to works commencing at Mater. Construction Phase - Impact on local parking Parking availability during the construction phase at the proposed Mater Station is covered in Chapter 9 (Traffic and Transport) of the EIAR, section 9.6.1.2.4.5, Parking and Loading Construction Impact Assessment, with particular detail provided in EIAR Appendix A9.5 Scheme Traffic Management Plan, section 7.7: There will be slight impacts for loading and parking during the Enabling Works associated with Mater Station. This loss of parking will at its peak be approximately 7 parking spaces, however generally only one or two spaces will be lost through the phasing of the work. During Phase 1 of the Main Works, the Pay and Display parking spaces along the eastern side of Berkeley Road will be removed, resulting in the removal of 12 on-street parking spaces. Approximately 5 on-street Pay and Display and Resident Permit parking spaces will be removed from the western side of Berkeley Road. A temporary location for the taxi rank will be agreed with DCC. During Phase 2 and 3 of the Main Works at Mater Station, the Pay and Display parking spaces along the eastern side of Berkeley Road will be removed. This will result in the removal of 12 on-street parking spaces. On the west side of Berkeley Road, five on-street Pay and Display and Resident Permit parking spaces will be removed as well as a loading bay that will be relocated. A summary of Mitigation Measures in Construction Phase are presented in Table 9.147 of the EIAR Chapter 9 (Traffic & Transport). The mitigation measure for Berkeley Road for general traffic, parking and loading is to monitor if closures are required at all stages of the construction phase, or if spaces can be reinstated temporarily throughout the works. Operational Phase - Impact on local parking Once MetroLink is operational, to accommodate the station entrance, the current footways and traffic lanes on Eccles Street will be realigned as part of the proposed Project. The realignment of Eccles Street, and the widening of the footway on Berkeley Road will result in the loss of on-street parking at both locations. Approximately 20 on-street parking spaces will be lost on Eccles Street, while approximately 14 spaces will be lost on Berkeley Road, due to the provision of a signalised crossing in proximity to the Station entrance. While there will be a loss of commercial and residential parking and loading infrastructure as a result of the proposed Project, the modal shift from road to public transport when the proposed Project is in place will reduce the overall demand on parking and loading facilities, thus reducing the severity of the impact. For more information, please refer to Chapter 9: Traffic and Transport, Appendix A9.2-I, Traffic and Transport Assessment Mater Station.

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10	Construction phase	3	• Residents like myself are very concerned about access to their homes during the construction phase. It is not clear from the project documentation how residents will be able to continue to access their homes, how traffic from Berkeley Road will be re-directed, the impacts of any redirections, including traffic, noise, pollution, etc. A detailed traffic management system, in consultation with local residents, should be put in place as a condition of proper planning.	Chapter 5 of the EIAR, MetroLink Construction Phase, explains that traffic management plans for the construction phase of the Project have been developed to minimise the impact on road users, and to maintain access to businesses and other premises. Prior to implementation, all traffic management measures will be agreed with Dublin City Council and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The design of traffic management measures and highways works around the proposed Mater Station is based on achieving the key objective of maintaining continual access to all properties during the works. Where necessary, a safe alternative route will be provided for pedestrians and vulnerable road users, such as children, and persons with restricted mobility, to maintain pedestrian access to premises. Where detour routes are required, these will be kept as short as possible and detour signage will be clear and easy to understand. All construction sites will be designed to be as unobtrusive as possible. The EIAR Appendix 9.5, Scheme Traffic Management Plan provides details of the Traffic Management Plans for the construction phases at Mater Station. As detailed, during the Enabling Works there will be no diversions or road closures that will impact local access in the vicinity of Mater Station. Temporary shuttle signals will be introduced on Berkeley Road which will lead to slight traffic delays of approximately 20 seconds. During the Main Works, general traffic will not be able to access Eccles Street from the Berkeley Road direction (with the exception of emergency vehicles), however movements on Eccles Street will be maintained via the N1. This will result in a moderate redistribution of traffic, leading to delays of approximately 30 seconds. Mitigation measures to reduce noise from construction traffic are limited to restricting speed limits, maintaining road surfaces and ensuring all vehicles are properly maintained. In addition, any coverings on construction vehicles will be securely fastened before leaving site to avoid excessive 'rattling'. As detailed in Chapter 16 (Air Quality), the modelling of road traffic for impacts on human and ecological receptors has found no significant impacts that require mitigation measures with respect to the modelling of emissions. However, some mitigation measures can be put in place to minimise emissions: * Implement a policy which prevents idling of vehicles both on and off-site including HGV holding sites; * Construction Phase traffic should be monitored to ensure construction vehicles are using the designated haul routes; * Additional vehicular traffic will be managed through the CEMP and Temporary Traffic Management Plans for the proposed Project and stations as per Chapter 9 (Traffic and Transport); * Efficient scheduling of deliveries to minimise number of deliveries required, and in turn their emissions; and, * Construction vehicles should conform to the current EU emissions standards and where reasonably practicable, their emissions should meet upcoming standards prior to the legal requirement date for the new standard. This will ensure emissions are minimised. As detailed in Appendix A5.1 Outline CEMP, a Project Construction Traffic Forum will be established for local stakeholders to address any concerns regarding construction traffic.

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11	Construction phase	3	It is not clear from the documentation how construction-related noise and airborne pollution and dirt will be minimised. Air pollution levels are widely documented to be already high in the area. A pollution mitigation plan must be produced and conveyed to residents.	<u>Airborne and Groundborne Noise and Vibration</u> In order to manage and mitigate airborne noise, the Contractor will be required to set this out in their Construction Environmental Management Plan (CEMP), for consolation and approval by Dublin City Council, an outline of which is included in EIAR Appendix A5.1. The setting of Construction Noise Thresholds (CNT’s) limits used in the EIAR for this Railway Order, are based on the requirements of BS 5228-1 (BSI 2014a), with details provided in Chapter 13, section 13.2.6.1.3. Should the Railway Order be granted the Construction Noise Threshold (CNT's) limits as listed in the EIAR will be mandated to the contractors and enshrined in the Railway Order. Before commencing works, a detailed noise assessment for each work site will be undertaken based on the most up to date information for each site and the contractors will then need to provide best practice mitigation to reduce the impacts. If the Contractor is unable to reduce the impacts sufficiently, with residual levels remaining such that widespread community disturbance or interference with sleep is likely to occur, then TII will consider whether the provision of further Noise Insulation (NI) or Temporary Rehousing (TRH) would be appropriate at locations where eligibility for either has been established. The Transport Infrastructure Ireland (TII) Airborne Noise and Ground-borne Noise Mitigation Policy (Appendix A14.6 of EIAR Chapter 14) sets out the construction noise insulation and temporary rehousing measures to be implemented where required. Regarding the noise and vibration from TBM Passage, as presented in the EIAR Chapter 14 (Groundborne Noise and Vibration), none of the construction activities proposed for MetroLink will have potential to meet the thresholds levels of vibration for buildings damage, with the exception of blasting. For some of the buildings located above or in close proximity of the tunnel, the noise level from TBM Passage will be above the 45 dB threshold level, resulting in a significant impact on the residents for the limited duration during TBM passage. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from TBMs at source, but noting that the duration of this impact will be in the order of up to two weeks as the TBM passes. TII will liaise with the residents to ensure the timing of these impacts are known. <u>Air Quality</u> EIAR Chapter 16, Air Quality, assesses the likely effects of the Project on Air Quality during the construction phase with mitigation measures proposed where required. Air Quality during the construction phase will be impacted by traffic and dust emissions resulting from construction activities at the Mater Station site from Earthworks, Construction and Trackout (Maximum Daily HGV Movements). Section 16.5.2.6, Regional Air Quality Assessment – Construction Phase Southern Peak Scenario, has assessed traffic emissions pre-mitigation as being overall Neutral, Not Significant and short-term. Table 16.44 presents a summary of predicted dust emission magnitudes from the main construction sites, the results for the Mater Station site being: - Earthworks - Large; - Construction - Small; - Trackout – Large; This has resulted in defining the site-specific mitigation level as High and thus mitigation will be required. A detailed list of Dust Mitigation Best Practice Measures for each construction activity is presented in Appendix 16.4 Dust Management Plan. Before commencing relevant works, an Air Quality Management Plan will be prepared and submitted for approval to Dublin City Council. The plan will include all appropriate dust and emissions mitigation measures applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. A plan will be developed by the contractor for each worksite, including Mater. Strict dust prevention will be in place at all times to minimise any potential emissions and these procedures will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations.

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12	Construction phase	3	Hours of operation on this site need to be clearly defined and communicated to residents. To minimise disruption to residents, there should be no work performed at weekends, and on weekdays before 8am or after 6pm in the interests of planning and residential amenity.	As detailed in the EIAR Chapter 5, MetroLink Construction Phase, the programme for the construction of the proposed Project has been optimised to minimise the duration of the Construction Phase in order to lessen the duration of potential environment impacts, while ensuring that the areas surrounding the work sites remain operational and functional. Work will run concurrently at all MetroLink site locations to ensure the Project is delivered in an effective and timely manner. Once a contractor has been appointed, TII will seek to further optimise the programme with a view to reducing the overall duration of works at the proposed Mater Station. TII will consult with the stakeholders on any such proposals received from the contractor. Section 5.2.4 of Chapter 5: MetroLink Construction Phase of the EIAR sets out the proposed working hours across the project, with those proposed at Mater Station also listed in Table 5.5. The MetroLink construction duration of 105 weeks at Mater Station, listed in diagram 5.4 is based on these proposed working hours. Standard 5.5 day shift patterns are proposed during the main station construction activities at Mater Station, but move to 24 hour 7 day working at the later stages of the programme for the following activities: TBM Traverse across the station; Mechanical, Electrical and Plumbing (MEP) and station fitout all within the completed station structure. During 24 hour, 7 day working, deliveries to site will be limited to standard hours. Any requirements for occasional night-time activates outside of standards hours, such as: Traffic management, abnormal deliveries, concrete pours etc will be agreed with Dublin City Council having due consideration for local residents.
13	Construction phase	3	Regarding day-to-day construction-related impacts, including noise, vibration and other impacts from tunnelling, construction, debris removal, etc., it is important that a Metrolink project liaison officer be appointed who can offer to meet with each resident and business-owner in the Berkeley Road area including the residential streets adjacent to the Mater site, namely Geraldine St, O'Connell Ave, Sarsfield St, Saint Vincent St North and Goldsmith St.	Further to the RO application, TII intends to establish a minimum of 3 local community liaisons offices along the MetroLink Route. It is proposed to locate these offices in the city centre, Glasnevin and Swords Areas. The offices will be established at least 3 months prior to the commencement of Major Infrastructure works. As noted in Appendix A5.1 Outline CEMP, TII and the contractor(s) will take all reasonable steps to engage with stakeholders in the local community, especially those who may be affected by the construction works including residents, businesses, community resources and specific vulnerable groups. The contractor(s) will be responsible for putting in place a Stakeholder Communications Plan which will be developed by the contractor as part of the CEMP (EIAR Appendix A5.1) before any work can commence. Prior to the submission to DCC for approval, the Stakeholder Engagement Plan will be developed under and endorsed by a designated community liaison officer appointed by TII. The purpose of this plan will be to provide a two-way mechanism for members of the public to communicate with a designated member of the contractor(s)'s staff and for the contractor(s) to communicate important information on various aspects of the proposed Project to the general public. Further details are provided within 5.12.4 Construction Phase Sustainability, CC2: Community and Engagement.
14	Community engagement	3	Finally, in terms of community engagement, it is vital that greater clarity and local community consultation be prioritised as a project objective. There is a general lack of clarity around the responsibilities of the scheme contractor in terms of communication and consultation with the local community over the course of the project. This also includes the proper demarcation of responsibilities between the Scheme Contractor, TII and Dublin City Council. I also observe a lack of specificity with regard to the scheme contractor's formal obligations to the local community (e.g. monitoring air emissions, dirt, noise and vibration, cleaning, traffic management, reinstatement of the Four Masters' Park, etc.). The restoration and rejuvenation of the area after the development of the Mater Station is vital to the proposal being acceptable to the local community.	TII have undertaken extensive consultation across the route of MetroLink and has listened carefully to the concerns of stakeholders and the community, as documented by EIAR Chapter 8. In preparation for the Railway Order application TII have also undertaken a detailed and an extensive Environmental Impact Assessment that identifies and addresses environmental concerns as evidenced by the submitted EIAR, including proposed mitigations to reduce environmental impacts. The EIAR Appendix 5.1 sets out the outline CEMP that is based on the assessment outcomes of the EIAR which subject to Railway Order approval will condition the scheme appointed contractors to meet the performance requirements and conditions set by the Railway Order. Please refer to response item (13) above in relation to TII's commitment to engagement during the construction phase.

Submission No.			154	
Organisation Name or Name of Submitter			Jonathan Healy (22 Geraldine Street, Phibsborough)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Submission in Relation to Metrolink (Ref: ABP-302010-18) and Proposed Mater Station				
15	Community engagement	3	It is recommended that in order to ensure that the local community impacted by the Mater Station remain 'on board' and supportive of the project, a Mater Station Liaison Group be established which would comprise of TII officials, local representatives (Councillors) and representatives of the local Residents' Associations (Berkeley Road and District 7). This Group should be responsible for dealing with day-to-day construction-related issues such as those referred to in this submission, working with the local community to minimise adverse impacts and agreeing solutions to same, as well as provision of additional information to the local community.	Please refer to response item (13) above in relation to community liaison officers.
16	Community engagement	3	Given the scale of upheaval in the area, and duration of the project, I believe that it should be a condition of planning that TII make provision for a Community Fund for the benefit of the local area (i.e. funding for improvements to the visual amenity and liveability of the local area, traffic calming, greening, etc.). This will be particularly critical in the context of the reinstatement of the Four Masters' Park and the substantial impact to Berkeley Road residents and businesses.	TII will work with established Community Groups through the local community liaison officers along the route to identify projects at local level that would involve the Community in the delivery of MetroLink and its legacy. Such projects could include: - A local school learning programme. - Enhancement of community amenity within agreed funding limits. - Engagement with final landscape and finishing options, including aspects of biodiversity. TII are willing to explore mechanisms for investing in local initiatives to support affected communities during the works, such initiatives will be subject to funding being made available.

Submission No.			155	
Organisation Name or Name of Submitter			Juliana and Joe Boland and Family	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: Case Ref. NA29N.314724 Railway (Metrolink - Estuary to Charlemont Via Dublin Airport) Order (2022) Observations/Arguments re potential Compulsory Purchase Order of Properties on the proposed Metrolink route in Swords area submitted by: Juliana and Joe Boland and family				
1	Letter	2	This is the second Railway Order which we as a business and family have been directly subjected to. The original Metro north proposed routes published by the RPA in 2006 and further changes to proposed routes published in 2008 at which time the RPA applied for a railway order to An Bord Pleanála. During this period we had various communications with the RPA as to potential CPO of part and or whole of both our family home and business premises which lie east and west respectively of the R132 between the Coachmans roundabout and what is now known as Boroimhe/Airside Junction, Swords, Co Dublin. The Oral hearings took place in 2009 and 2010, which I (Juliana Boland) personally attended at the Gresham Hotel, Croke Park and finally in the offices of An Bord Pleanála. My concerns about the project led me to attend at least two thirds of the Oral Hearing, even on days which did not directly relate to our own properties. The Oral Hearings were suspended in 2009 by An Bord Pleanála requiring further detailed submissions to be made by RPA re environmental impact statement and various engineering tests to be carried out as opposed to relying on previously published reports by others not related to nor contracted by the RPA to carry out such investigations. In October 2011 a Railway Order was granted after revised submissions had to be made with regards to the end point of the route to cease at Estuary as opposed to further North on the R132 in the vicinity of Blakes Cross, with a completion date of 10 years, if memory recollects correctly. Only for the then Minister for Transport Leo Varadkar to announce a month later that the Metro North project was been indefinitely deferred. In 2015 the government of the day announced that the Metro North would now go ahead potentially opening in 2027, with an application for extension of the Railway Order having to be made. 2018 revised plans extending Metrolink from St Stephens Green to Charlemont were announced this section alone at an estimated then cost of €3 billion euro. In 2021 with no works commencing and Eamon Ryan stating that it was never likely to be achievable by 2027, (on RTE 26/9/21) John Kilraine on RTE news 9/11/21 announced that the Metrolink would be postponed for ten years meaning the Order was now nullified as it would not commence never mind be completed within the time frame of the Order. Finally in 2022 a new Railway Order application was submitted	TII are aware of the frustrations experienced by you due to the ongoing arising from the Railway Order Applications for Metro North and MetroLink. TII are committed to implementing the MetroLink project upon receipt of an Enforceable Railway Order.
2	Letter	3	Throughout the above time period from 2006 to present money has been spent as if it were going out of fashion with regards to the Metro proposal. Even during the Covid Pandemic ground works were carried out in Swords in November 2020 when it was feasibly possible that the government and TII were aware that the existing Order would not be adhered to. This money may have been spent more wisely reopening disused existing railway lines and stations around the county and thereby servicing the county as a whole as opposed to simply Dublin benefitting yet again. The Kishoge, West Dublin train station built in 2009 approx. cost in excess of €6 million is still not operational and required a refurbishment at an estimated cost in excess of €3 million. Does the wastage ever end ?	Ground investigation works carried out in November 2020 were not related to the old Metro North Railway Order but rather were required for the updated design of the current MetroLink proposals. The other schemes mentioned are outside TII scope.
3	Letter	3	As hopefully you can appreciate from the above our lives have been put on hold literally living in oblivion since 2008 a period of 14 years due to will it won't it go ahead. We have had brief periods where it has been 'shelved' when we started to plan again for our lives only for these to be dashed by talks of the Metro. Will we be here in another 10 years submitting another Observation for a new Metrolink Railway Order application ?	TII are aware of the frustrations experienced by you due to the ongoing arising from the Railway Order Applications for Metro North and MetroLink. TII are committed to implementing the MetroLink project upon receipt of an Enforceable Railway Order.
4	Letter	3	We are not only potentially losing our family home but also our family business. Whilst we have had several meetings and communications with the Property Acquisition Dept of TII (Michael Horan) and previously Rory O'Connor of the RPA, these are simply general what may possibly happen conversations and nothing concrete.	Please see response to item (5) below
5	Letter	4	Although we had from the beginning been reluctant to agree to moving we were always painfully aware that we may end up been subject to a CPO and with that in mind we have kept our eyes open for appropriate premises to relocate to. This was done by generally window shopping by viewing estate agent's premises, reading the Property sections and gaining contacts in the industry who are aware of the type of properties we would be interested in all the ways people normally seek out a property. Very few ticking all or at least most of the boxes, have come on the market in the 14 year period, bearing in mind location and similar property type. There have in fact only been three properties which we would have contemplated moving to. In early 2022 one particular property was brought to our attention, so much so that with the impending new Railway Order to be submitted we contacted TII's Michael Horan to discuss the possibilities of coming to a settlement at that time for TII to purchase our properties. However as Michael noted during our meetings no financial recompense could be agreed and paid at that time, in fact this would not be possible until a Business Plan was agreed by the Government and an actual Railway Order obtained. Even then there is no guarantee of when this would actually happen. In the meantime we are expected to look for suitable properties only for them to be unavailable by the time any financial settlement is obtained. An unrealistic position to put anyone in.	TII understands and acknowledges the importance for residential property owners and businesses to plan their affairs with as much notice as possible. As part of the Land Acquisition Strategy, TII has introduced a discretionary scheme for residential property owners to encourage early engagement. Our intention is to enter into a pre-agreement with residents who are subject to compulsory acquisition to agree terms to acquire which will accelerate the acquisition process following an enforceable Railway Order and avoid protracted negotiations. Where businesses are to be displaced an agency service will be established to support the search for suitable alternative accommodation. Following approval to the Railway Order, confirmation of funding, TII will use reasonable endeavours to make arrangements to provide business with a longer period in which to relocate, commensurate with the co-ordinated progress of the MetroLink works. In both cases compensation will be paid in accordance with the compensation code. Please refer to metrolink_cpoguideline_final_september-2022
6	Letter	4	Under CPO guidance a property is valued at Average Market Value. Any property or good has two values one which a purchaser is prepared to pay and one which a willing seller is prepared to accept, the AMV does not reflect this and is wholly unfair to property owners who are subjected to a CPO.	The principles of compulsory purchase are to seek to place affected parties in no better or worse position than prior to the acquisition of their property interest. Compensation is paid in accordance with the compensation code and assessed depending upon individual circumstances. The main heads of claim are (i) market value which is the estimated amount for which an asset should sell on a valuation date between a willing buyer and willing seller in an arm's length transaction (ii) disturbance costs (iii) professional fees and cost of reinvestment where relevant.

Submission No.			156	
Organisation Name or Name of Submitter			Justin Marden (Australia)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: APPLICATION FOR METROLINK NA29N.314724				
1	Letter	1	I was referenced in the An Bord Pleanála's Planning Inspectors report for Metro North In relation to St Stephens Green and its environs. Please see below and attached the grounds of observation and evidence of support. Much of the research and design development I did prior to the Metro North application advocated for a lower visual, environmental impacts and higher cultural and social returns results including: 1) Metro Entrances in shopfronts in O'Connell St in lieu of significant negative visual impact in heritage streetscapes. 2) Elevators in St Stephens Green to reduce significant negative visual impact in heritage streetscapes and the national moment.	TII wish to thank you for your submission and has provided response to your concerns in the items below.
2	Letter	1	The new project Metrolink "borrows some of these ideas" but still has a long way to meet the standards of International best practice. We believe the scheme needs more development and changes/upgrades to meet its full potential. The concept architects work is linked in the newspaper below. https://www.theage.com.au/national/victoria/southern-cross-is-grim-grimy-and-depressing-melbourne-deserves-better-20220628-p5ax8x.html	TII disagree and believe the commissioning of internationally renowned architect Nicholas Grimshaw and Partners, has delivered a contemporary station design which is appropriate for a state of the art metro system such as MetroLink. TII believe the current station and surface level designs greatly enhance the public realm at all locations along the MetroLink route. There is a unifying commonality in the design of all stations, providing a consistent and coherent architectural language, which assists with orientation and wayfinding, and contributes a new architectural lexicon to the cultural iconography of the city.
3	List	2	We would request that An Bord Pleanála formally request in writing prior to and await submission of reports which will be made public and accessible prior to any oral hearing/decisions that addresses the issues below: [PRESCRIBED BODIES] The ministers for [Tourism, Culture, Arts, Gaeltacht, Arts, Sport and Media] & [Environment, Climate and Communications] & [Public Procurement] conduct an internal comprehensive independent multi-criteria assessment written report separately in relation to alternatives of: listed below : <i>[See following items where these points are listed]</i> Any such report should quantify in numbers alternative cultural impacts, tourism impacts, art impacts, Gaeltacht impacts local and international.	TII does not have any comment to make in relation to the observers requests to ABP for reports by prescribed bodies and the Ministers of Government Departments Chapter 11 (Population) details the associated impacts on community and social infrastructure, with Chapter 25 presenting the impacts to Cultural Heritage. Chapter 03 (Background to the MetroLink Project) details the need for the Project, and how it will address challenges such as quality international connectivity. Tourists will be able to arrive at Dublin Airport and then access the rest of the rail network efficiently and effectively, confident in the time their journey will take and when they will arrive. By increasing the accessibility of Dublin and enhancing regional connectivity across Ireland, the Project will contribute to increased accessibility of the arts and cultural activities which often take place within Dublin City Centre. By facilitating improved rail connectivity to the rest of Ireland through interchanges provided at Glasnevin and Tara Street, there will be improved accessibility to Gaeltacht areas (e.g. Donegal, Mayo, Galway, Kerry , Cork, Meath and Waterford). As show in the images in Chapter 04 (Description of the MetroLink Project), signs will display the station names in both English and as Gaeilge.
4	List	2	Request for an independent multi-criteria assessment written report separately in relation to alternatives of: i) Selected colour coded stations. (St Stephens Green / Green - National Monument). Request for an independent multi-criteria assessment written report separately in relation to alternatives of: ii) A station foyer that references the Pantheon, Rome.	TII does not have any comment to make in relation to the observers requests to ABP for independent multi criteria assessment i), ii) Design principals for the project, including station design, are described in EIAR Chapter 4 (Description of the MetroLink Project), section 4.7. The project will deliver a robust and authentic design with a strong metropolitan identity, unique and sympathetic to Dublin. Dublin's rich architectural heritage has been respected, but not copied in a pastiche imitation. In accordance with best conservation principles, as set out in the ICOMOS Venice Charter of 1964, the stations are architecturally distinguishable so as not to falsify the existing historic context. Reference and due respect to that context is made through the choice of high quality and appropriate materials and the scale of the interventions. For example at Mater station, the canopy entrance evokes the scale of park structures. At St Stephen's Green, the materials of the ventilation structures are chosen to respect the surrounding 18th century Georgian brick architecture. The aesthetic values of all eras, including our own, have cultural validity, and therefore the brick is used in a contemporary way reflecting contemporary aesthetic idioms derived from 21st century technology.

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Organisation Name or Name of Submitter			Justin Marden (Australia)	
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RE: APPLICATION FOR METROLINK NA29N.314724				
5	List	2	Request for independent multi-criteria assessment written report separately in relation to alternatives of: iii) How green Connemara Marble/Surfaces might play a role to offset commercial designs with local cultural values in the realm of National Monuments. Request for independent multi-criteria assessment written report separately in relation to alternatives of: iv) A metro station alternative based on the form of the Book of Kells to offset the negative visual and cultural impact of automatic platform doors and commercial design.	TII does not have any comment to make in relation to the observers requests to ABP for independent multi criteria assessments. iii), iv) National Monuments have been identified in EIAR Chapter 25 (Archaeology and Cultural Heritage) and potential impacts from the proposed scheme on their settings are discussed in Chapter 27 (The Landscape) of the EIAR. As detailed in Chapter 27 (The Landscape) the underground station at St. Stephen's Green will include new above-ground elements which need to be incorporated within the reconstructed public realm and park, however the automatic platform doors will be located underground, causing no visual impact on the surface level. To mitigate visual and cultural impacts at St Stephen's green, the railings, statues, bollards, lamp standards and other park features that have to be removed prior to construction will be conserved and reinstated following completion of construction and all hard and soft landscaping will be reinstated. New structures will be designed to cause minimal visual impact on the Park and all final landscaping, conservation and reinstatement requirements will be agreed in direct consultation with the MHLGH/OPW and the TII Project Archaeologist and Project Conservation Architect. The Contractor appointed for the Operation Phase of the proposed Project will be required to keep all stations and their associated infrastructure well maintained and clean and to replace any failed planting above the station box.
6	List	2	Request for independent multi-criteria assessment written report separately in relation to alternatives of: v) The impact an international design competition, innovation partnerships would have on the project under European Procurement Law and Public Procurement Procedures and why this has not yet been progressed if they are claiming to get the best cultural/social/design/transport/tourism/environmental outcomes and why heritage entrances have not been considered in lieu of generic commercial design solutions Request for independent multi-criteria assessment written report separately in relation to alternatives of: vi) The impact of funding some companies involved in the project previously been in a consortium of nuclear weapons management in the UK and the extent to which nuclear power may fund/power this project from France with the Celtic Interconnector. https://www.reuters.com/article/uk-britain-atomicweapons-contract-idUSKBN27IOT5	TII does not have any comment to make in relation to the observers requests to ABP for independent multi criteria assessment v) Please refer to response item (4) summarising the design principles for the proposed Project, and response item (5) above in relation to the measures taken at St Stephen's Green to reduce the visual impact of the station. vi) Chapter 04 (Description of the MetroLink Project) details the proposed MetroLink Grid Connections and Power Systems. Electrical power will be provided from the national grid (Electricity Supply Board Networks Ltd - ESNB) at 110kV alternating current, which will feed two high voltage bulk connection (multi-purpose connection) substations, which will be Gas Insulation Switchgear transmission power substations. The new electrical substations will be constructed at the Dublin Airport North Portal and at the Dardistown Depot. These connections will be sought through a separate planning application by ESNB, but the environmental effects are assessed as part of the proposed Project in the EIAR in Chapter 10 (Human Health), Chapter 11(Population & Land Use), Chapter 12 (Electromagnetic Compatibility and Stray Current), Chapter 13 (Airborne Noise & Vibration), Chapter 15 (Biodiversity), Chapter 17 (Climate), Chapter 18 (Hydrology), Chapter 19 (Hydrogeology), Chapter 21 (Land Take), Chapter 22 (Infrastructure and Utilities), Chapter 24 (Materials & Waste Management), Chapter 25 (Archaeology & Cultural Heritage), Chapter 27 (Landscape & Visual) and Chapter 28 (Risk of Major Accidents & Disasters).

Submission No.			156	
Organisation Name or Name of Submitter			Justin Marden (Australia)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: APPLICATION FOR METROLINK NA29N.314724				
7	List	2	Request for an independent multi-criteria assessment written report separately in relation to alternatives of: vii) Provide the m3 of concrete, steel, earth moved, and total embodied energy to construct and operate, maintain the project including the financing costs and how these will contribute to carbon expenditure and how many litres of petrol this could buy. Request for an independent multi-criteria assessment written report separately in relation to alternatives of: viii) Provide a fixed relationship value estimate of 1 euro to carbon/mega joules/energy/Litre of petrol in the project. Request for an independent multi-criteria assessment written report separately in relation to alternatives of: ix) The negative impact of not formally allowing Dublin Bus drivers first preference to drive or operate the new transport impacting negatively on their jobs and future/economy.	TII does not have any comment to make in relation to the observers requests to ABP for independent multi criteria assessment vii), viii) EIAR Chapter 17 (Climate) presents the proposed Project's carbon emissions during both the construction and operational phase. During the construction phase the embodied carbon assessment includes for construction materials such as concrete or steel, excavations, waste, transportation of materials and waste, power usage and water usage. Full details are available in Section 17.5.2.1 of the EIAR. As calculated using the TII Carbon Tool (v2.1) the proposed Project will result in total Construction Phase GHG emissions of 1,017KT CO2eq over the 9.25 year period, equivalent to an annualised total of 0.32% of Ireland's non-ETS 2030 target. Over the predicted 60-year lifespan the annualised emissions due to the initial Construction Phase and ongoing maintenance of the Proposed Project will reach at most 0.044% of Ireland's non-ETS 2020 emissions target, or 0.24% of the 2030 transport sector carbon budget. In order to minimise, control and mitigate carbon emissions, monitoring and reporting of the embodied carbon in the Construction Phase will be conducted. The aim of the monitoring will be to see further ways to minimise climate impacts. Monitoring will include contractual obligations, in line with the most recent Climate Action Plan and sectoral targets. Commitments to monitor GHG emissions during the construction phase will also be secured through the outline Construction Environmental Management Plan (CEMP) (Appendix A5.1). Monitoring will include; embodied carbon of construction materials, water usage, power and fuel usage and waste generation (including reuse and recycling rates). A Waste Management Plan for Construction and Demolition Waste will also be implemented. Section 17.5.3.5 discusses the embodied carbon of the rolling stock during the operational phase. The rolling stock is not yet final however once the rolling stock is finalised an Environmental Product Declaration (EPD) will be prepared for the exact specification. As this is currently not available for the proposed Project as the rolling stock has not been finalised, an EPD published in 2019 for rolling stock that is utilised on a similar Metro project (Sydney Metro Northwest) has been sourced to give a likely estimate of the embodied carbon of the rolling stock. The main components of the rolling stock are metallic materials and electronic and electrical equipment which allow a high recyclability (95.2%) potential. The Sydney Metro Northwest EPD for rolling stock had upstream and core emissions of 0.3447gCO2e per passenger km. With future improvements in technology, energy efficiency and sustainable practices the proposed Project aims to future reduce the rolling stock embodied carbon. Additionally, a whole -life Carbon Management Plan will be implemented to inform the detailed design, build and operation of MetroLink. During the operational phase, there will be GHG emission reductions through the displacement of existing car journeys. Metro trips typically emit seven times less CO2 than the current equivalent car journey. ix) TII to comment on impact on Dublin Bus drivers Chapter 03 (background to the MetroLink Project) details that the proposed Project will help to stimulate economic activity, encourage innovation and growth in Ireland's national skills base. The scale and complexity of the Project will support approximately 4,3000 direct construction jobs for each year of construction, as well as further indirect related jobs. The operations and maintenance will require over 300 permanent skilled jobs. In addition, the proposed Project is anticipated to generate agglomeration impact benefits for existing and new businesses, facilitated by increased accessibility of labour and reduced journey times.
8	List	2	Request for an independent multi-criteria assessment written report separately in relation to alternatives of: x) I believe the design standard of the stations/public realm is average at this point of time and could be upgraded for minimal costs for a multi-billion-dollar project.	TII does not have any comment to make in relation to the observers requests to ABP for independent multi criteria assessments]. Please refer to response item (4) summarising the design principles for the proposed Project.
9	List	2	Request for an independent multi-criteria assessment written report separately in relation to alternatives of: xi) The fare structure of the project.	TII does not have any comment to make in relation to the observers requests to ABP for independent multi criteria assessments]. As detailed in Chapter 06 (MetroLink Operations and Maintenance), the Project will have an automatic fare collection system compatible with an integrated ticketing scheme with other public transport offerings in the Greater Dublin Area. The fare structure for MetroLink is a mater for the National Transport Authority and does not form part of the railway order application for MetroLink.

Submission No.			156	
Organisation Name or Name of Submitter			Justin Marden (Australia)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: APPLICATION FOR METROLINK NA29N.314724				
10	List	2	Request for an independent multi-criteria assessment written report separately in relation to alternatives of: xii) Under Irish Procurement practice only architects with a "Royal" are allowed to design important major projects based on historical events. This is discrimination.	TII does not have any comment to make in relation to the observers requests to ABP for independent multi criteria assessments.
11	Letter	2 and 3	There are other ways to measure the value of architecture too, such as social value, which is especially relevant for public, civic and commercial buildings. You can find the RIBA Social Value Toolkit from the UK here. In Australia, Deloitte used both social value and financial measures to quantify the contribution of the Sydney Opera House to NSW. The Deloitte report - first published in 2013 and updated in 2018 - found that: "The social asset value of the Opera House has increased to \$6.2 billion since FY13. Visitation has also increased by 33% to 10.9 million, while the economic contribution of the Opera House rose by 44% to \$1.2 billion since FY13 ."	Please refer to Chapter 26 for details of the assessment of the impact on Architectural Heritage. The appraisal method for the assessments of impacts follows the guidance in Guidelines on the Information to be Contained in EIARs (EPA 2022), and Guidelines for the Assessment of Architectural Heritage Impacts of National Road Schemes (NRA, 2005). An overview of the approach is presented in Chapter 02 (Methodology used in Preparation of the EIAR. The approach involves identifying the value of an architectural constraint, assessing the magnitude of the impact of the proposed Project on the constraint during the Construction and Operational Phases, and then assessing the significance of the effect on the integrity of the constraint. Each of the buildings and other structures that are identified within the study area is evaluated in accordance with its legal protection status. Where a structure is included in more than one protection status, it is assigned to whichever category has the higher evaluation.
12	Letter point 2	3	The 2014 Directive states inspector that there is a requirement for a description of the reasonable alternatives studied by the developer which are relevant to the project and its specific characteristics. https://www.youtube.com/watch?v=24g9H5D2zt0	Chapter 7 (Consideration of Alternatives) of the EIAR provides a detailed assessment of alternative proposals to MetroLink, such as the consideration of alternative transports, route alignments and station locations, in line with the Directive 2014/52/EU. The chapter has also been prepared in accordance with the Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA 2022). The chapter describes the main alternatives considered at all stages of the MetroLink project development in order to clearly outline: * The robust decision-making process that has led to the proposed Project; * How environmental analysis was integrated into the proposed Project development from the earliest stages of the proposed Project; * The main reasons, environmental and otherwise, for choosing the proposed Project or the specific element of the proposed Project from the reasonable alternatives; and, * The likely evolution of the current state of the environment without implementation of the Project.
13	Letter point 2	3	Given that I raised many of these issues prior to and after the Metro North Application, during consultations, development plans and directly to ministers and in public where are the reasonable alternatives studied found in this application which is of International Significance in areas and environs of national monuments? At present I don't believe the application meets the high standards and objectives of the National Planning Framework highly enough without small and reasonable upgrades/innovation partnerships for a project of international significance under European law. Metrolink should be Irish.	MetroLink has been designed and assessed against all relevant polices at all levels, from European, through national and regional policy down to the local level. The policy context against which the project is considered and assessed is set out in the Planning Report and the EIAR that accompanies the Railway Order. The selection of the route of the project has been subject to a full consideration of alternatives as set out in the EIAR Chapter 07, as noted in response item (12) above.
14	Letter point 2	3	Will the applicant/inspector consider the issues raised in this submission or Article 26 Arbitration to resolve these issues and progress forward. Or will discrimination based on protected grounds under nationality/national origin be raised against the applicant on the employment equality acts.	TII have no comment to make in relation to whether the inspector should consider the MetroLink Railway Order Application is any-way discriminatory.

Submission No.			159	
Organisation Name or Name of Submitter			Kathleen McDonagh	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022. Case Reference Number NA29N.314724. 22/11/22				
1	Letter	1	1. Living in the midst of this tightly compacted residential community, I consider the proposed development totally unsuitable as a location for a major Terminus hub. Strategically, the Charlemont / Darthmouth location is too far from Dublin city centre and it would be an unnecessary expense and duplication of the existing Green Line services.	While TII agree the Charlemont site is constrained, a Station design has been developed that fits and works within this constrained site, and is adequately sized for projected passenger numbers. Responses (4) and (5) below cover TII's assessment of potential environmental impacts resulting from the construction and operation of the MetroLink Charlemont Station, noting that no significant residual impacts are predicted. TII do not agree that “Strategically, the Charlemont / Dartmouth location is too far from Dublin city centre” for the reasons set out below. The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is “a consideration material to the proper planning and sustainable development of the area or areas in question.” Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 “To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords”. Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all any of the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an interchange at St Stephen's Green Station. The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). It is true to say that the Metrolink trains will terminate and turn back at Charlemont station, However, Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a “system turn back location”. Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. The associated environmental impacts for the turnback and station at Charlemont have been fully assessed in the EIAR. Additionally, there is a strong level of interchange offered throughout the corridor at locations such as Glasnevin, O’Connell Street, Tara Street and St Stephen's Green, where many journeys on the MetroLink will ‘terminate’.

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Organisation Name or Name of Submitter			Kathleen McDonagh	
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Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022. Case Reference Number NA29N.314724. 22/11/22				
			Response (1) continues.	The terminus station for MetroLink is located at Estuary where all of the activities normally associated with a terminus take place. Regards your observation “it would be an unnecessary expense and duplication of the existing Green Line services.” The Board is not responsible for any decisions in relation to the funding the Project. It is solely responsible for assessing whether the Project is consistent with proper planning and sustainable development and that its effects on the environment are acceptable. The responsibility for funding the Project lies with the NTA, the Government and ultimately the Oireachtas. It has received all necessary approvals, including under the Public Spending Code for the making of a Railway Order. It will undergo further scrutiny and approvals, including under the Public Spending Code, before it is funded. It is not appropriate for the Board to make findings in relation to value-for-money that are outside its statutory functions and would cut across those arrangements. Members of the public are entitled to make representations to their TDs in relation to the value-for-money of any element of the Project. In any case,TII do not agree with this statement for the reasons set out above, noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.
2	Letter	1	Instead, why not locate such a major terminus at Stephen's Green where there would be more suitable integration of networks and services and a better location for interchange with bus, Luas and future Dart underground?	TII do not agree that St Stephen's Green is the most appropriate interchange location for the reasons set out by response (1) above. A number of route options were considered in the process of identifying the Emerging Preferred Route (EPR). These route options included potential station locations on St. Stephen's Green West. Route alignments from St. Stephen's Green West that would also provide an interchange with DART at Tara Street Station would require an intervention shaft between these locations and would also need an undesirable horizontal reverse curve and so are not favoured. Integration with other public transport projects is a key project objective as outlined by EIAR Chapter 3. Such projects include BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more liveable and sustainable city. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services, as outlined above. The section of the line between St Stephen's Green and Charlemont generates considerable benefits for the scheme in terms of increased patronage. The fact that the Charlemont Station is now being referred to and considered as a “terminus station” rather than an interchange station, does not increase the environmental impacts the station has on its local environment, in terms of passenger demand, airborne noise. vibration and other environmental effects.
3	Letter	2	2. The Station Box constructed at Charlemont 2021/22 by Hines does not have planning permission. Hence, processing the current Railway Order application which is reliant on the now constructed works is legally unsafe and contravenes the provisions of the Environmental Impact Assessment Directive.	The MetroLink enabling works constructed as part of the Hines development was included in the planning application for the Hines Development and has the benefit of planning permission which was granted in April 2019.

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4	Letter	2	3. As it is, there is an enormous volume of traffic in the Charlemont area. As proposed, a Terminus station servicing trains running to the airport and elsewhere 24/7 would greatly exacerbate existing traffic flow in such a confined area and increasingly endanger health and safety and further compromise existing problems. Grand Parade and the residential areas around Charlemont / Dartmouth could not possibly sustain the significant additional traffic volumes running to and from the airport.	The MetroLink is designed to form part of an integrated public transport network with Charlemont selected as the preferred interchange location in order to maximise the potential interchange with the existing Luas Green Line. The system is designed in an integrated manner so that people travelling from the area south of Dublin to access locations north of Charlemont, such as Dublin Airport, Mater, Swords etc. will utilise public transport to interchange with the MetroLink, or will walk or cycle to access their local station. The system is not designed to encourage people to drive to stations within the City and TII actively discourage people from doing so other than the Park & Ride station at Estuary. In overall terms, Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. TII therefore do not agree with the observation "Grand Parade and the residential areas around Charlemont / Dartmouth could not possibly sustain the significant additional traffic volumes running to and from the airport." as this is not borne out by our transport analysis. TII have assessed the impact on the traffic network for both the construction and operational phases of the Project: Construction Phase: EIAR Appendix A9.5 Scheme Traffic Management Plan presents the analysis undertaken to assess the impact of the traffic management measures on the local road network surrounding the proposed Charlemont Station during the construction phase. At the local level the following parameters have been used to assess impacts on general traffic and on pedestrians: • Increase in walking distance/quality of service for pedestrians (through removal of footpath, reduction of quality of service, removal of a pedestrian crossing or relocation of crossing by more than 100m); • Increase in driver delays at junctions; • Changes in traffic flows on surrounding streets; and, • Additional distance travelled due to diversions. The analysis undertaken at this location indicates that the increased volume of traffic on Grand Parade and Northbrook Road does not translate into any significant increase in driver delay. The largest increase in driver delay of 12 seconds is registered on the westbound approach on Grand Parade to the Ranelagh Road signalised junction. During the construction phase, pedestrians will experience a reduction in quality of pedestrian infrastructure and space. The construction site boundary will encroach upon footways in the local area, including the northern side of Dartmouth Road, and the southern side of Grand Parade. However, a temporary signalised crossing will be provided west of the Luas to maintain pedestrian access to and from the Stop. Whilst there are partial closures on Dartmouth Road and Grand Parade, pedestrian movements will be maintained on appropriately sized footways through the area. Operational Phase: A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. The proposed pedestrian crossing on Grand Parade will have minimal impact on the traffic flow along Grand Parade and can be programmed to operate in sync with the existing signalised junction at Grand Parade /Charlemont Street to maintain the flow of traffic movements. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Furthermore, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus.

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5	Letter	2	4. The proposed development will continue to have an adverse impact on the health of individuals in this heavily populated area. The noise and disturbance experienced already the residents takes its toll from this enterprise (boring machines etc). A continuation of this and the long-term and permanent impact of noise-operating machinery, vehicular use, tannoy systems etc will change a quiet residential neighbourhood into a noisy, busy, congested and major, unhealthy transport hub.	TII recognise and are cognisant of the risk of adverse environmental impacts and have therefore carefully assessed these impacts, as documented by the EIAR and summarised below, which concludes there are no significant residual impacts. The EIAR presents a comprehensive and detailed assessment of both groundborne and airborne noise and vibration in Chapter 13 and 14 of the EIAR. The assessments include for predictive modelling in order to identify the potential impacts on all sensitive receptors during both the construction phase and the operational phase. Noise and disturbance during construction: No profound impacts have been identified for residents and mitigation measures proposed will be effective at reducing the impacts on these properties and in general terms impacts will be associated with the construction phase only. Significant mitigation is proposed to include 4m high noise barriers and further proposed mitigation in line with the Airborne and Groundborne Noise Mitigation Policy. On the implementation of these measures the residual impacts are predicted to be moderate. However, as outlined in Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) there is a process in place whereby further mitigation measures can be implemented at individual properties should this be merited. Noise and disturbance during operation: No residual noise impacts are identified at this location during operation. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and results in a not significant to slight impact when added to the prevailing noise environment. Chapter 13, sections 13.2.3.2 and 13.5.3.2.3 recognise that ventilation systems if not designed and mitigated effectively are potential noise sources. Section 13.6.2.3 outlines the detailed considerations that will be included in the design to ensure that the ventilation systems do not exceed limits as per BS 4142, including: • Reduction of induct flow rates; • Reduction of elements in the airflow; • In duct attenuators; • Orientation of grilles and louvres away from sensitive receptors; • Acoustic louvres; and • Anti-vibration mountings and couplings will be incorporated into the design to control vibration. Measures to mitigate noise from the use of public address systems is also detailed in Chapter 13 (sections 13.5.3.2.4 and 13.6.2.4). Best practice design principles will be employed to minimise noise breakout at the surface from these systems via escalators, lift shafts and stairwells. Loss of amenity during construction: EIAR Chapter 11, Population & Land Use provides an assessment of effects on community amenity during construction and operation, which relates to the interaction of impacts on air quality; visual amenity; traffic and transport; and noise and vibration. At this location during construction as outlined in Section 11.5.2 of Chapter 11, no impacts are identified on the retail sector or community and social infrastructure (e.g. schools or hospitals). Any severance/disruption to transport will be limited by site mitigation measures such as alternative routes reducing impacts to not significant. Loss of amenity during operation: No significant residual negative impacts are anticipated on the Population and Land Use from the operation of the proposed Project, following the incorporation of the mitigation measures into the design of the proposed Project and implementation on an ongoing basis throughout the lifecycle. The residual effects that will arise during operation will be permanent and positive as detailed in EIAR Chapter 11, section 11.1.1. The zoning under the Dublin City Development Plan 2022 - 2027 for the residential properties in question is "Z2 Residential Neighbourhoods (Conservation Areas)" with an objective to "protect them from unsuitable new developments or works that would have a negative impact on the amenity or architectural quality of the area (See Table 3.11 of the submitted Planning Report). As outlined in Section 4.5.18.6 of the Planning Report, the element of the Project within the Z2 zoning area will affect a below ground area only and as such will not compromise the land use objective for the lands overhead. The majority of the proposed Charlemont Station and all above ground elements are located within the lands zoned Z5 with the objective "To provide for the creation and protection of enterprise and facilitate opportunities for employment creation". The Station has been designed so that it is integrated with the proposed redevelopment of this site by a third party development, and as such, demonstrates that the proposed Project is consistent with the zoning objective. The MetroLink station design does not result in any segregation of the area, with no surface barriers or walls proposed.

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Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022. Case Reference Number NA29N.314724. 22/11/22					
6	Letter	3	We request the following amendments:- 1. Omit from the Railway Order the section from Tara Street Station to Charlemont Station and associated onward tunnel extension and intervention tunnel. 2. Require the submission of a Railway Order for a section from Tara Street Station to St Stephens Green which would effectively provide for a terminal hub station that can integrate with the Luas Green Line, multiple bus routes and future DART underground.	The above responses to the observations made explain why TII do not consider it is correct or appropriate that the MetroLink alignment south of the proposed Tara Station should be omitted, and also demonstrates why the proposed Charlemont Station has been selected by TII as the preferred interchange with the Luas Green Line A scheme which terminates at Tara Street would not be consistent with the Transport Strategy for Greater Dublin Area (2022-2042). In addition any decision to terminate the scheme at Tara will significantly impact on the overall viability and benefits of scheme.	

Submission No.			160		
Organisation Name or Name of Submitter			Kathleen Shields (21 Palmerston Place, Broadstone)		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Re: Case reference NA29N.314724, Description: Railway (Metrolink Estuary to Charlemont via Dublin Airport) Order [2022]					
1	Letter - introduction	1	While I welcome the idea of a new metro for Dublin, especially from the Airport to the city centre, I do have concerns about the line after it reaches the city centre and continues south using the already existing Luas Green line. I outline some of these below. As a regular user of the Dublin City Council Markievicz sport and leisure centre I would like to make some observations on the proposed Metrolink Line particularly in relation to the section of the line at the Tara Street station.	TII wish to thank you for your submission and stated support for the delivery of MetroLink. Chapter 07 (Consideration of Alternatives) details the decision-making process that has led to the development of the proposed Project, including the route alignment and station locations. A station at Tara Street provides good interchange opportunities, serves important key trip attractors in the study area with high potential passenger trips. This option also takes a direct and short route through areas of high demand in the centre of the study area. As Dublin's public transport network grows through the implementation of higher capacity bus routes, more frequent heavy rail services and coverage, and the expansion of the light rail network it is critically important that to achieve the full benefits and capitalise on these investments that they are integrated fully where appropriate to attain "the network effect". High quality interchanges can significantly broaden the transport offer for their catchment and add to the appeal and attractiveness of sustainable transport by ensuring that people can easily change services to access a wider range of places by these modes, and each scheme should be designed to ensure that these are as seamless as possible. Please refer to response (7) which details the alternative options that were considered for this location, and outlines the reasons why this location (involving demolition) was ultimately identified as the preferred option.	
2	1. Loss of amenity	1	The Markievicz sport and leisure centre is a publicly owned facility managed by Dublin City Council. The pool and gym are used by people of all ages from all over the city as well as by visitors to Dublin. The pool is extensively used by schools and other groups for swimming lessons, by older people for exercise, by city centre workers. The health and wellness benefits that this facility provides cannot be overstated. This planning application envisages the complete demolition of the Markievicz centre without proposing any alternative in the city centre. I note from the railway drawings that the statue of Countess Markievicz is to be removed and stored for safe keeping while the works are being undertaken and then returned to its site. One wonders what Countess Markievicz would have to say about the destruction of the centre.	Mitigation for the loss of the Markievicz leisure centre is not addressed as part of the RO proposal and ABP is being asked to consent MetroLink acknowledging that this is a significant, unmitigated adverse impact on population and land use. However, Dublin City Council's functions include "the provision (both indoor and outdoor) of playing fields, athletic tracks, swimming pools and other bathing places, sports centres, gymnasia and other facilities and the holding of sporting events." TII will also continue to work with DCC in relation to the development of an alternative sports and recreational facility to replace the Markievicz leisure centre and intends to fund the alternative. However, TII does not have control over that development, which is part of DCC's function to provide public sport and recreational facilities in its function area. DCC may or may not be in a position to deliver it in parallel with the MetroLink project. Accordingly, the Board should assess the MetroLink project on the basis that the alternative may not be available. The impact would then be significant, but nonetheless one that would not outweigh the strategic scale long term benefits that MetroLink will deliver.	
3	2. Environmental impact	1	The area around Pearse street, Trinity College, Tara Street and Townsend Street is already an environmentally hostile one for pedestrians and cyclists. It will become even more so if this section of the metro is completed. There is no green infrastructure, pedestrian spaces or traffic calming proposed in the Metrolink plan. In addition, the complete demolition of a fully functioning sports centre and 78 apartments in good condition that were built twenty years ago comes with its own embodied carbon cost.	TII disagree with the statement that the area will become more hostile once the Tara Street Station is in place. As detailed in Chapter 04 (Description of the MetroLink Project), as part of the station and urban realm design, Luke Street will be converted into a shared space for cyclists and pedestrians, including provision of a two-way cycle track between its junctions with Poolbeg Street and George's Quay. Poolbeg Street will be reduced to one lane to accommodate more space for pedestrians and cyclists, and reduced space for general traffic. This newly created public realm will consist of outdoor seating and scope for ephemeral events, with the possibility of retro-fitting the adjacent rail arches to provide retail or food and beverage opportunities. High quality natural stone paving, seating used as directional wayfinding and space-making devices and large mature tree planting are used to create open space and enhance green infrastructure within the city centre. EIAR Chapter 17 (Climate) presents the proposed Project's carbon emissions during both the construction and operational phase. During the construction phase the embodied carbon assessment includes for construction materials such as concrete or steel, excavations, waste, transportation of materials and waste, power usage and water usage. Full details are available in Section 17.5.2.1 of the EIAR. As calculated using the TII Carbon Tool (v2.1) the proposed Project will result in total Construction Phase GHG emissions of 1,017KT CO2eq over the 9.25 year period, equivalent to an annualised total of 0.32% of Ireland's non-ETS 2030 target. Over the predicted 60-year lifespan the annualised emissions due to the initial Construction Phase and ongoing maintenance of the Proposed Project will reach at most 0.044% of Ireland's non-ETS 2020 emissions target, or 0.24% of the 2030 transport sector carbon budget. Section 7.5.2.1 Construction Phase Carbon Calculations refers. In order to minimise, control and mitigate carbon emissions, monitoring and reporting of the embodied carbon in the Construction Phase will be conducted, as set out in section 17.6.1 Construction Phase. The aim of the monitoring will be to see further ways to minimise climate impacts. Monitoring will include contractual obligations, in line with the most recent Climate Action Plan and sectoral targets. Commitments to monitor GHG emissions during the construction phase will also be secured through the outline CEMP (Appendix A5.1). Monitoring will include; embodied carbon of construction materials, water usage, power and fuel usage and waste generation (including reuse and recycling rates). A Waste Management Plan for Construction and Demolition Waste will also be implemented.	
4	3. Damage to community	1	In relation to quality of life in Dublin the demolition proposed at this site is one more example of loss of community space for residents, workers, and visitors in the city centre. No alternatives are proposed in this plan.	As noted in response item (7) below, the proposed option does not preclude future adjacent or oversite development following the demolition of the College Gate apartments and the Markievicz Leisure Centre. Please refer to response item (3) above in relation to the creation of a public plaza at this location as part of the proposed Project.	

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5	4. Demolition of housing during a housing emergency	2	It is proposed to demolish seventy-eight housing units during a major and unprecedented housing and construction crisis. There are more than seventy-eight residents living above the sports centre. Where are these residents to live and how are they to find new homes?	TII acknowledge the concerns you have around the demolition of College Gate. Mitigation for the loss of the College Gate apartments is being addressed as part of the Project with the support of Dublin City Council. In particular, TII, in consultation with DCC, will support rehousing and provide compensation for the loss of the residential units. By way of support, as noted in Chapter 21 (Land Take), section 21.6.1.2 Compensation for Compulsory Purchase, TII will offer compensation to property owners for land that is deemed to be acquired land in accordance with the general compulsory purchase code. Compensation will be provided through the Compulsory Purchase Order (CPO) process. In recognition of the impact on residential cases where properties are to be acquired and given the unique circumstances surrounding the proposed impacts to College Gate apartment complex, TII will engage the services of a property advisory company to engage directly with property owners. Property owners will be invited to participate in a Discretionary Scheme. The Discretionary Scheme will offer property owners the opportunity to negotiate and reach a 'Pre-Agreement' on both a baseline residential unit price and other matters of compensation that an owner would normally be entitled to under the compensation stage. This will provide the parties with as much certainty as possible at this early stage.
6	5. Economic loss	2	Metrolink have stated that they can sell the land above the completed metro line and once the underground Tara station is built. This financial consideration purely benefits Metrolink at a cost to others. In a broader sense this area of Dublin will become a non-economically viable dead zone with no commercial or cultural attractions whatsoever, reduced footfall and loss of amenity to the remaining residents in the greater TCD and Pearse street vicinity.	Please refer to response item (3) above in relation to the creation of a public plaza at this location as part of the proposed Project. As noted in Chapter 3 (Background to the MetroLink Project), MetroLink will provide a high-quality urban environment at station locations that will benefit the community as a whole by enhancing the urban realm directly and also by encouraging further high quality development which will stimulate the local economy. This will provide an opportunity for the development of a sustainable high quality urban environment along the alignment of the proposed Project. The business case for MetroLink, approved by Government in 2022, did not include for any benefit arising from the sale of lands above the station. TII have no plans for development of lands above the station. Should such a development take place an financial benefit will accrue to the State.
7	6. Alternatives - metro construction in other cities	2	While it might be financially expedient for Metrolink to acquire land, demolish the existing buildings and then sell it off again, it is not necessary to do so. In other cities (e.g. Paris) metros have been constructed underground without impacting on the buildings above.	Chapter 07 (Consideration of Alternatives) details the decision-making process that has led to the development of the proposed Project, including the route alignment and station locations. Appendix A7.2 Tara Street Station Report presents in detail the various options that were considered by TII for this location. Concerns had been raised during the public consultation on the Emerging Preferred Route (EPR) regarding the demolition required for the station in the location proposed, and concerns were again raised during the consultation on the Preferred Route. A number of alternative station locations were considered to try and address these concerns. Option 0 is the proposed station location, with a further 11 options assessed. Three options as submitted by College Gate residents, with the station relocated either to the north or south of the EPR proposed location, have been reviewed in detail. In addition, other options developed through the Preferred Route design process including a mined option and realignment of the route to the east of Tara Street Station have also been reviewed. All were assessed against the EPR proposed station location (Option 0) as a base case, adjusted to suit the single bore and reduced station box length. The various options were taken through a Multi Criteria Analysis to compare aspects of each different option. Assessment of options considered the viability of the rail alignment, the quality/ease of interchange with Tara DART Station (a key requirement given that this will be one of the busiest stations on MetroLink with high passenger interchange with the DART), demolition/construction impacts (including minimising impacts on the existing DART infrastructure/operations), other environmental and planning issues, including traffic and utility impacts, and urban integration, health and safety issues, and potential construction costs. A mined station option at Tara was considered as a solution to avoid the demolition of the College Gate building. The option comprises the construction of two deep shafts either side and immediately adjacent to the College Gate apartments to provide construction access for mining the tunnel under College Gate apartments and to subsequently provide permanent access, ventilation and back of house facilities for the operation of the station. It was established that 24 hour working would be the only realistically feasible approach to construct the cavern. Therefore, the nature of the work, drill and blast with mechanical excavation, would generate a level of groundborne noise and vibration would mean it would not be possible to inhabit the College Gate apartment block due to the disturbance caused, leading to a relocation of residents for a minimum of two years. However, there are possible risks that could extend the duration further, and therefore this option has a similar impact on College Gate residents as the cut and cover preferred option. TII consider that when balanced against the significant direct construction cost increase compared to the preferred cut and cover option, that demolition and redevelopment of the area around the site of the proposed Tara Station as part of the wider integrated development and regeneration of the site provides a better option. The mined option economically performs worse with a much greater risk allowance required compared to the preferred cut and cover option, and the preferred proposed cut and cover station provides a higher quality operational station that is consistent with the MetroLink architectural vision and operational and maintenance strategy. This assessment has identified that for a number of reasons including constructability, cost, and retention of a good interchange facility, that Option 0, including demolition of College Gate and Markiewicz Centre, remains the preferred station location: * This location retains a good interchange facility with Tara DART Station; * It reduces risk to the overall construction programme; * It offers cheaper overall construction cost; * It retains opportunity for future adjacent development by others; * Mitigation for the loss of the College Gate apartments is being addressed as part of the Project with the support of DCC. In particular, TII, in consultation with DCC, will support rehousing and provide compensation for the loss of the residential units; * Mitigation for the loss of the Markievicz leisure centre is not addressed as part of the RO proposal and ABP is being asked to consent MetroLink acknowledging that this is a significant, unmitigated adverse impact on population and land use. However, Dublin City Council's functions include "the provision (both indoor and outdoor) of playing fields, athletic tracks, swimming pools and other bathing places, sports centres, gymnasia and other facilities and the holding of sporting events." TII understands that Dublin City Council is investigating whether it is feasible to provide a facility at Sean Moore Park, Irishtown

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Organisation Name or Name of Submitter			Kathleen Shields (21 Palmerston Place, Broadstone)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
8	7. Lack of consultation with stakeholders	2	The public consultation process was not respected and from the very beginning Transport Infrastructure Ireland were determined that this section of the city would have to be demolished without considering or proposing alternatives.	TII disagree that the public consultation process was not respected. Chapter 08 (Consultation) (specifically section 8.3.5.5) details the consultation that has taken place with residential property/landowners and residents associations. The Project Team is acutely aware of the potential impacts of the proposed Project to residential property/landowners (and residents associations) in particular, and as a result, ongoing engagement and negotiation was undertaken to allow these stakeholders time to consider the proposals. Significant consultations took place with all owners of properties and lands which are affected by the proposed Project. In cases where properties or land is acquired to facilitate the construction of MetroLink, the discussions were of a sensitive nature and required one-to-one meetings. Appendix A8.19 notes that 5 meetings were held with Townsend Street DCC tenants throughout 2019. In preparing the application for Railway Order, the Project Team has consulted with the public and stakeholders in accordance with the following legislative, best practice and planning practice requirements in line with the Aarhus Convention, Consolidated EIA Directive Requirements and requirements of national law. Please refer to response item (7) above in relation to the alternatives considered for Tara Street Station, and the reasons for the identification of the proposed location as the preferred option.

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Organisation Name or Name of Submitter			Kevin Muaghan	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (MetroLink-Estuary to Charlemont via Dublin Airport) Order 2022. Case Reference Number NA29N.314724 23 rd Nov 2022				
1	Letter	1	Firstly, in general, I am in favour of the broad aim of the Metrolink project to connect Dublin's city centre to our national airport. However, as a resident living in the Dartmouth/Charlemont area, I wish to set out a number of observations for the Board regarding the proposal to locate the terminus station at Charlemont-Dartmouth. My family home is in the midst of the community where the Terminus station is proposed to be located.	Thank you for taking the time to make a submission and your overall endorsement of the MetroLink Project with the exception of Charlemont Station. We have reviewed your submission and responded to the observations made below.

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Organisation Name or Name of Submitter			Kevin Muaghan	
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2	Letter	1	1. Charlemont is the incorrect strategic location for a Terminus hub and spoke system as it is too far out along the Luas Green Line spoke and would prejudice future options for integration of networks and services.	TII do not agree that Charlemont is the incorrect location for an interchange with the Luas Green Line or that it prejudices future options for integration with the wider transport network for the reasons set out below. The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and as such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in any of the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connect on to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).

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Organisation Name or Name of Submitter			Kevin Muaghan	
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3	Letter	1	St. Stephens Green is the most appropriate location as it provides for interchange with bus, Luas and future DART underground. The project incorrectly dismisses St. Stephens Green West as an appropriate terminal station. It only considers St. Stephens Green East and Charlemont. Furthermore, no comprehensive study or investigation has been completed by NTA/TII as part of the entire Metrolink project on the optimal location for a city-centre terminus.	TII do not agree that St Stephen's Green is the most appropriate interchange location for the reasons set out by response (2) above. It is not correct to say that the Project "only considers St. Stephens Green East and Charlemont." A number of route options were considered in the process of identifying the Emerging Preferred Route (EPR). These route options included potential station locations on St. Stephen's Green West. However these options were ruled out as it was not possible to design an appropriate alignment that would also provide a MetroLink interchange with DART at Tara Street Station. An alignment between St. Stephen's Green West and Tara would require an intervention shaft to be located between these locations. As outlined by EIAR Chapter 3, Background to the MetroLink Project, one of the key objectives of the Project is the integration of it with the wider transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040 and the GDA Transport Strategy 2022-2042 (section 12.3.2). Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more liveable and sustainable city. Arising from the decision to postpone the future upgrade of the Green Line to metro services, it is being argued that Charlemont station effectively becomes a terminus station in the short to medium term. In this regard, it is true to say that the Metrolink trains will terminate and turn back at Charlemont station, however the public transport service offering for passengers does not terminate, it transfers from Metrolink to LUAS as part of the integrated transport network. The terminus station for MetroLink is located at Estuary where all of the activities normally associated with a terminus (train sideways, car-parking etc) take place. At this location the high capacity public transport offering terminates and the public transport offering transfers to a completely different mode, i.e. Bus or car . The environmental effect of the Metrolink terminus are accordingly assessed in the EIAR. Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a "system turn back location". Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. The associated environmental impacts for the turnback and station at Charlemont have been fully assessed in the EIAR. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services, as outlined above. The section of the line between St Stephen's Green and Charlemont generates considerable benefits for the scheme in terms of increased patronage as detailed in response item (2) above. Operationally, the Station will see people moving quickly in and out of the area, noting that it will act as an interchange, and has been deliberately designed with minimum set down space or room for taxis so that it does not encourage the Station to be used as a terminus. All operational environmental impacts are mitigated so they are not significant, while the impact on amenity will be permanent and positive. The proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) in which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.

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Organisation Name or Name of Submitter			Kevin Muaghan	
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4	Letter	1	2. Expensive Duplication of Rail infrastructure: - The inclusion of an expensive and costly section between St. Stephens Green and Charlemont is strategically weak and duplicates the existing Luas Green Line services. NTA's cost estimate for this 1km section at €650M is a duplication and enormous outlay that represents very poor value-for-money, and deprives other parts of Dublin that are in immediate need of rail infrastructure to support urgently required housing and urban development.	The Board is not responsible for any decisions in relation to the funding the Project. It is solely responsible for assessing whether the Project is consistent with proper planning and sustainable development and that its effects on the environment are acceptable. The responsibility for funding the Project lies with the NTA, the Government and ultimately the Oireachtas. It has received all necessary approvals, including under the Public Spending Code for the making of a Railway Order. It will undergo further scrutiny and approvals, including under the Public Spending Code, before it is funded. It is not appropriate for the Board to make findings in relation to value-for-money that are outside its statutory functions and would cut across those arrangements. Members of the public are entitled to make representations to their TDs in relation to the value-for-money of any element of the Project. In any case, TII do not agree with this statement for the reasons set out by response (2) above, noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.
5	Letter	1	3. The station box at Charlemont, as constructed in 2021/22 by the developer Hines, does not have the benefit of planning permission and has not been part of the EIA undertaken for this project. Processing the current Railway Order application, which is reliant on these preliminary and now constructed works, is legally unsafe and contravenes the provisions of the EIA Directive.	The MetroLink enabling works constructed as part of the Hines development was included in the planning application for the Hines Development and has the benefit of planning permission which was granted in April 2019.

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6	Letter	1	4. The station box at Charlemont will result in only one possible future tie in with the Luas Green Line to the south, which would result in an option that was previously dismissed as part of the Tie-In study from March 2017. No alternatives to the station box at Charlemont were considered as it had been fixed through the design of the overhead Hines Grand Parade commercial development. The implications of this new alignment are very negative for the local community as they will inevitably involve top-down construction that will only be possible when many houses on Manders Terrace, Oakley Road and Charleston Road are demolished.	"The station box at Charlemont allows for a future tie into the Luas Green Line should it be determined in the future that through running metro services to Sandyford is the required solution to address the public transport needs to the south of the city. It is incorrect to say that the current proposal is based on an option that was previously dismissed as part of the March 2017 Green Line tie in study. The station design is in affect a modification to the preferred Green Line Tie Option 4B which was modified as result of the decision not to proceed with the upgrade of the Green Line to metro standard. The station box location was not fixed by the Charlemont Development. The preferred route for MetroLink was published in March 2019 following a comprehensive route options study. The preferred route was based on the emerging preferred route for the scheme which included a station at Charlemont. The Charlemont Metro Enabling Works were constructed to enable the Charlemont Development to proceed whilst simultaneously ensuring there was an option available to construct a station at Charlemont that avoided unnecessary demolition, took advantage of an available site, provided infrastructure that is integrated with planned development rather than necessitating later changes and retrospective adjustments to a new development or even possible demolition of the new development, whilst providing protected provision for the future extension of the scheme south, if required. It is also important to recognise that the station location at Charlemont is influenced by available vacant land and thus avoids unnecessary demolition. The submission seeks to portray the construction of the Metro Enabling Works as prejudicial to future decisions on proper planning and sustainable development of the area. It implies that the counterfactual would have had no effect on such decisions. That is not the case. There was a planning conflict between the EPR and the Grand Parade Development at the time the latter development was proposed. There was no resolution to that conflict that was free of implications for future decisions on the proper planning and sustainable development of the area. The Board could have refused permission for the Grand Parade Development, inevitably creating a underutilised and potentially vacant and idle site in a commercial hub location. The Board could have granted permission with no provision to facilitate a station at this location, resulting in a requirement for the railway order to provide for the demolition of a new office building. The Board's actual decision was reasonable and lawful in seeking to minimise the prejudice to an important office development and a critical piece of national infrastructure. It was also not particularly restrictive of future decisions in relation to the proper planning and sustainable development of the area. Of the three options open at the date of the Grand Parade planning application, two remain open: the Board can still require changes to the station design that require the demolition of the commercial building and it can grant an order that avoids demolition by using the Metro Enabling Works. It is agreed that the short-term implications for local residents will be significant as the scheme progresses through the construction stage, however the EIAR assesses the environmental impacts of the construction phase and commits to the implementation of appropriate mitigation measures that reduce the environmental impacts to not significant. The same is true of the operations phase for the project. TII will work closely with local residents to ensure the required mitigation measures are put in place. If in the future, the metro was extended south, this does not mean that inevitably open cut construction will be required or demolition of property will be necessary. In designing an extension, the promoter will seek to reduce the requirement for demolition by looking for tunnel launch sites at the southern extent of the scheme and, if one can be identified, driving the Tunnel Boring Machine northwards ultimately connecting into the existing tunnel. In that case, even if the new alignment were under the properties identified in the submission, the tunnel underneath them would be constructed by the Tunnel Boring Machine without the need for above ground works.
7	Letter	2	5. The Environmental Impact Assessment is deficient in relation the description of development, alternatives, transport assessment, noise and the cumulative effects of the development on the Charlemont-Dartmouth Community. For a project of this size, scale, investment to date, it is inadequate to propose a Railway Order with so many important studies and analysis missing.	TII do not agree that the Environmental Impact Assessment is deficient, inadequate or missing information. The Railway Order application comprises a very detailed environmental impact assessment that has identified and assessed the potential environmental impacts of MetroLink and proposed mitigations for these impacts where necessary. TII would also draw attention to the detailed project description, construction phase description and operational phase description provided in EIAR Chapters 4 and 5 and 6, and EIAR Chapter 7 and associated appendices that present details of alternatives considered. EIAR Chapter 9 and appendices provides a detailed analysis of transport and traffic effects, and EIAR Chapters 13 Airborne Noise & Vibration, and 14 Groundborne Noise & Vibration provide a detailed assessment of potential noise and vibration effects, while Chapter 29 outlines the assessment of interactions between various environmental aspects, and Chapter 30 covers the cumulative impacts with other projects. This assessment is carried out for the full length of the alignment including relative to potential significant effects on the Charlemont-Dartmouth Community.

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8	Letter	2	6. The development would result in noise and disturbance during the construction and operational phases and would result in a loss of amenities for the area.	The EIAR presents a comprehensive and detailed assessment of both groundborne and airborne noise and vibration in Chapter 13 and 14 of the EIAR. The assessments include for predictive modelling in order to identify the potential impacts on all sensitive receptors during both the construction phase and the operational phase. Noise and disturbance during construction: No profound impacts have been identified for residents and mitigation measures proposed will be effective at reducing the impacts on these properties and in general terms impacts will be associated with the construction phase only. Significant mitigation is proposed to include 4m high noise barriers and further proposed mitigation in line with the Airborne and Groundborne Noise Mitigation Policy. On the implementation of these measures the residual impacts are predicted to be moderate. However, as outlined in Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) there is a process in place whereby further mitigation measures can be implemented at individual properties should this be merited. Noise and disturbance during operation: No residual noise impacts are identified at this location during operation. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and results in a not significant to slight impact when added to the prevailing noise environment. Loss of amenity during construction: EIAR Chapter 11, Population & Land Use provides an assessment of effects on community amenity during construction and operation, which relates to the interaction of impacts on air quality; visual amenity; traffic and transport; and noise and vibration. At this location during construction as outlined in Section 11.5.2 of Chapter 11, no impacts are identified on the retail sector or community and social infrastructure (e.g. schools or hospitals). Any severance/disruption to transport will be limited by site mitigation measures such as alternative routes reducing impacts to not significant. Loss of amenity during operation: No significant residual negative impacts are anticipated on the Population and Land Use from the operation of the proposed Project, following the incorporation of the mitigation measures into the design of the proposed Project and implementation on an ongoing basis throughout the lifecycle. The residual effects that will arise during operation will be permanent and positive as detailed in EIAR Chapter 11, section 11.1.1. The zoning under the Dublin City Development Plan 2022 - 2027 for the residential properties in question is "Z2 Residential Neighbourhoods (Conservation Areas)" with an objective to "protect them from unsuitable new developments or works that would have a negative impact on the amenity or architectural quality of the area (See Table 3.11 of the submitted Planning Report). As outlined in Section 4.5.18.6 of the Planning Report, the element of the Project within the Z2 zoning area will affect a below ground area only and as such will not compromise the land use objective for the lands overhead. The majority of the proposed Charlemont Station and all above ground elements are located within the lands zoned Z6 with the objective "To provide for the creation and protection of enterprise and facilitate opportunities for employment creation". The Station has been designed so that it is integrated with the proposed redevelopment of this site by a third party development, and as such, demonstrates that the proposed Project is consistent with the zoning objective. The MetroLink station design does not result in any segregation of the area, with no surface barriers or walls proposed. See below in relation to the submission that the Traffic Study for Charlemont is inadequate because it omitted the impact of airport users from south Dublin travelling to this location.

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Organisation Name or Name of Submitter			Kevin Muaghan	
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9	Letter	2	The Traffic Study for the local Charlemont area is wholly inadequate as it omitted the modelling of the impact of Airport users coming to the only Dublin South Metrolink station at Charlemont. The Traffic Study uses a strategic, generalised regional model that does not take local factors into account. Extract from observation 7) - The EIA did not properly assess the impact of additional local traffic volumes, rather they used a generalised regional model that does not take local factors into account. A key local factor at a Terminus station in Charlemont that runs to the Airport is the huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with luggage for onward destination to the airport. Grand Parade and the residential area around Charlemont-Dartmouth cannot sustain the significant additional traffic volumes associated with this development.	The MetroLink forms part of an integrated public transport network. The system is designed in an integrated manner so that people travelling from the area south of Dublin to access locations north of Charlemont, such as Dublin Airport, Mater, Swords etc. will utilise public transport to interchange with the MetroLink, or will walk or cycle to access their local station. The system is not designed to encourage people to drive to stations within the City and TII actively discourage people from doing so other than the Park & Ride station at Estuary. TII therefore do not agree with the observation that there will be a “huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with luggage for onward destination to the airport” as this is not borne out by our transport analysis. The Transport Assessment for MetroLink includes for people travelling to/from Dublin Airport from all areas within the extents of the GDA area, therefore it is incorrect to say “The Traffic Study for the local Charlemont area is wholly inadequate as it omitted the modelling of the impact of Airport users coming to the only Dublin South Metrolink station at Charlemont”. The NTA's Eastern regional Model (ERM) incorporates a wide range of data sources, including demographic data, land use data, transportation network data, and travel survey data. The system is designed to model a variety of transportation modes, including private vehicles, public transit, walking, and cycling, and to simulate the interactions between these modes. The ERM model has been validated and calibrated using a range of localised data sources to ensure that the model can accurately represent the transport network, these include public transport and vehicle counts from the canal cordon counts. The outputs from the model have been combined with local survey data to undertake the more localised modelling, such as the pedestrian impact assessments, or the local traffic signals. This does not support the observations made “The Traffic Study uses a strategic, generalised regional model that does not take local factors into account.” or “The EIA did not properly assess the impact of additional local traffic volumes, rather they used a generalised regional model that does not take local factors into account.” Regards the observation there will be a “huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with luggage for onward destination to the airport. Grand Parade and the residential area around Charlemont-Dartmouth cannot sustain the significant additional traffic volumes associated with this development”, this is covered by response (10) below.

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10	Letter	2	7. The development would have an adverse impact upon traffic during the construction and operational phase, and it has not been properly designed and there is poor integration with other modes of transport. Pedestrian movements in and around the station would be difficult. Grand Parade is an already heavily congested orbital route.	The MetroLink is designed to form part of an integrated public transport network with Charlemont selected as the preferred interchange location in order to maximise the potential interchange with the existing Luas Green Line. In overall terms, Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Construction Phase: EIAR Appendix A9.5 Scheme Traffic Management Plan presents the analysis undertaken to assess the impact of the traffic management measures on the local road network surrounding the proposed Charlemont Station during the construction phase. At the local level the following parameters have been used to assess impacts on general traffic and on pedestrians: • Increase in walking distance/quality of service for pedestrians (through removal of footpath, reduction of quality of service, removal of a pedestrian crossing or relocation of crossing by more than 100m); • Increase in driver delays at junctions; • Changes in traffic flows on surrounding streets; and, • Additional distance travelled due to diversions. The analysis undertaken at this location indicates that the increased volume of traffic on Grand Parade and Northbrook Road does not translate into any significant increase in driver delay. The largest increase in driver delay of 12 seconds is registered on the westbound approach on Grand Parade to the Ranelagh Road signalised junction. During the construction phase, pedestrians will experience a reduction in quality of pedestrian infrastructure and space. The construction site boundary will encroach upon footways in the local area, including the northern side of Dartmouth Road, and the southern side of Grand Parade. However, a temporary signalised crossing will be provided west of the Luas to maintain pedestrian access to and from the Stop. Whilst there are partial closures on Dartmouth Road and Grand Parade, pedestrian movements will be maintained on appropriately sized footways through the area. Operational Phase: A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. The proposed pedestrian crossing on Grand Parade will have minimal impact on the traffic flow along Grand Parade and can be programmed to operate in sync with the existing signalised junction at Grand Parade /Charlemont Street to maintain the flow of traffic movements. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Furthermore, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used for a significant volume of car or taxi trips.

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11	Letter	2	8. The development will have an adverse impact upon property values, particularly during the construction phase. For many houses in the area there will be a long term and permanent adverse impact upon property values from noise of the operating rail infrastructure, vents, operational noise and signals, escalators, and large traffic volumes - vehicular and pedestrian using the station 19 hours per day. The adverse impact also extends to the loss of amenity for the wider community changing a residential neighbourhood into a noisy, busy, congested major transport hub.	Response (8) above outlines the predicted environmental impacts with regards to noise and vibration, and amenity, while responses (9) and (10) summarise the assessed traffic and pedestrian impacts. TII would note that as explained by response (10) above that in overall terms Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips. TII do not agree that the development will have a long term and permanent negative affect. In fact there is evidence to suggest that property values will in fact increase in close proximity to public transport infrastructure and that local residents will greatly benefit from having a world class metro system providing access to the city centre, airport and north city at their door step.
12	Letter	2	Accordingly, we are requesting the following amendments of An Bord Pleanála: 1. Omit from the Railway Order the section from Tara Street Station to Charlemont Station and associated onward tunnel extension and intervention tunnel. 2. Require the submission of a Railway Order for a section from Tara Street Station to St Stephens Green which would effectively provide for a terminal hub station that can integrate with the Luas Green Line, multiple bus routes and future DART underground. 3. Halt any current construction at Charlemont until the stationbox (as constructed in 2021/22 by the Developer Hines) has received the benefit of full planning permission. Currently, it does not have the benefit of planning permission and has been constructed illegally.	TII respond as follows: 1. "The above responses to the observations made explain why TII do not consider it is correct or appropriate that the MetroLink alignment south of the proposed Tara Station should be omitted, and also demonstrates why the proposed Charlemont Station has been selected by TII as the preferred interchange with the Luas Green Line 2. A scheme which terminates at Tara Street would not be consistent with the Transport Strategy for Greater Dublin Area (2022-2042) and would be a material contravention of the Dublin City Development Plan 2022-2027. In addition any decision to terminate the scheme at Tara will significantly impact on the overall viability and benefits of scheme. " 3. The MetroLink enabling works constructed as part of the Hines development was included in the planning application for the Hines Development and has the benefit of planning permission which was granted in April 2019.

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Organisation Name or Name of Submitter			Kieran Smyth and Margaret McDonnell and others (121 Ballymun Road)		
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Letter Re: Application by Transport Infrastructure Ireland (TII) to An Bord Pleanála for the Railway (MetroLink Estuary to Charlemont via Dublin Airport) Order 2022					
1	1	1	While very supportive of the scheme overall, and its objectives as detailed in the application we would like to comment on certain details of the proposals, which raise concerns for us. Before doing so, we would like to take the opportunity of acknowledging and complimenting TII on its stakeholder engagement, and in particular its engagement of an independent engineering expert, RINA Consulting, to support residential stakeholders likely to be affected by the MetroLink works, which not only upholds the letter, but also the spirit of applicable Irish and EU law.	TII wish to thank you for your submission and your stated support for the delivery of MetroLink.	
2	"Albert College Park: Intervention Shaft- Protection and Preservation of the Park and Scale of Design Footprint"	1	Albert College Park is an essential community resource and everything possible should be done to fully protect and preserve it. Ideally, the MetroLink Project would not impact the Park in any way, and certainly not in any permanent way (as seems to be the approach to parks and green spaces, where emergency shafts are employed, in other underground systems, for example, the newly constructed Elizabeth Line in London). It seems however, based on the current Metrolink proposals and the applicable recommended standards that an Intervention Shaft (IS) is required between the Collins Avenue and Griffith Park Stations as they are more than one kilometre apart. Based on this approach, Albert College Park (ACP) would appear to represent the optimal location for such an Intervention Shaft (IS). (Just to note that whatever about an IS it is clear that the placement of a Metrolink Station within the ACP, were this to be proposed, would be a disaster for the continued functioning of the park and would very severely impact on its amenity).	The RO does not include a proposal for a station to be located in Albert College Park. As stated, Albert College Park has been assessed as the optimum location for the ventilation shaft as noted within Chapter 7, Section 7.7.11.1.	
3	Albert College Park: Intervention Shaft- Protection and Preservation of the Park and Scale of Design Footprint	1,2	In our view the size and scale of the design of the Intervention Shaft (IS) proposed in the Albert College Park (ACP) will negatively impact not only the visual but the general amenity of the park by reducing the area of the park that is available for walking, and sports etc. We would therefore ask that an alternative to the current IS design, that would reduce its overall footprint, be fully considered. From some preliminary discussions with experts we understand that a suitable and effective IS could possibly be devised which would reduce its footprint using the kind of approach employed in the London Underground e.g. the new Elizabeth Line and Italian underground systems (see the red and yellow markings on the extract from the TII drawing of the IS attached - which illustrates in broad outline what the redesign and considerably reduced footprint of the IS might involve).	The design for the ACP Intervention Shaft has been developed having regard to the operational requirements, submissions received and detailed discussions with Dublin Fire Brigade and other stakeholders with regard to the site layout. The landscaping has been developed to mitigate any visual impact. Overall, MetroLink is taking a small proportion of the park with the walkways and the football pitches will be reinstated on completion of construction. The EIAR Chapter 27, Landscape & Visual and Chapter 15, Biodiversity set out the assessment of the potential impacts at Albert College Park and the proposed mitigation, while Appendix A8.18 details the engagement that has taken place with Dublin Fire Brigade. TII will work with the subsequent detailed designer to provide optimisation if feasible such that residual impacts are mitigated so far as is reasonable practicable.	
4	Albert College Park: Intervention Shaft- Protection and Preservation of the Park and Scale of Design Footprint	2	Key issues to be considered here are: -reducing the number of parking places and placing the ones that remain onto a grass verge at the edge of the Ballymun Road as a new emergency vehicle only layby, - moving the Air Intake/Exhaust Ventilation structure to the main building structure for the stairs and lift: while it would make that building a little larger it would significantly reduce the 'technical footprint' of the site overall (as long as the equipment rooms below ground as currently designed remain as is and perhaps are grassed over).	Please refer to response item (3) above in relation to the design and sizing of the Intervention Shaft at Albert College Park. As set out within the EIAR Chapter 4 section 4.17.5, a one way system for entry from and exit to the R108 has been provided for Dublin Fire Brigade, alongside required parking space for vehicles by the intervention shaft, both following discussions with Dublin Fire Brigade regarding their requirements. Further details are provided on slide 84 of 89 on RO Submission: Structures Details Book 3 of 3 Other Line wide Structures Fingal County Council and Dublin City Council. The reasoning supporting the proposed location, layout and operation of the Emergency Shaft at Albert College Park is detailed within Appendix A8.16.	
5	Albert College Park: Intervention Shaft- Protection and Preservation of the Park and Scale of Design Footprint	2	Another issue to be examined in terms of reducing the footprint of the IS might be to limit it to a shaft head and the subsurface buildings with a clear paved road from the revised IS to the main road in a straight line. That would omit the parking area in particular and having both an access and an exit road). This would be done on the basis of the Ballymun Road being closed in the event of an emergency, which we understand would be a recognised approach successfully used in the London Underground system.	Please refer to responses (3,4) above in relation to the required space for emergency vehicles, following consultation with Dublin Fire Brigade.	

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6	Albert College Park: Intervention Shaft- Protection and Preservation of the Park and Scale of Design Footprint	2	While these are technical matters which would require detailed expert consideration we have seen no convincing analysis and rationale from TII for the proposed scale of the IS footprint in the ACP. We would ask that An Bord Pleanála as a preliminary matter in advance of the finalisation of the Railway Order require TII to give further consideration, in consultation with other relevant bodies, with a view to reducing the design of the IS in the ACP to the minimum necessary for a suitable and effective IS in order to better protect the amenity of the ACP.	Please refer to responses (2, 3 and 4) above in relation to the rationale for the location and size of the ACP Intervention Shaft, which takes cognisance of the requirements set out by Dublin Fire Brigade and the feedback from public consultations. TII will work with the subsequent detailed designer to provide optimisation, if feasible, such that residual impacts are mitigated so far as is reasonable practicable.
7	Albert College Park Intervention Shaft - Construction Issues	2,3	We would ask that very careful consideration be given to the Metrolink application, and in particular the Environmental Impact Assessment undertaken, to ensure that the proposals adequately protect the amenity of the houses and other premises in the environs of the ACP, during the construction phase of the IS and that the inevitable disruption from the construction of the IS is kept to a minimum. We would seek in this context that in the event of the Metrolink being approved by An Bord Pleanála that such approval be subject to specific conditions to ensure: That the noise and vibration as a result of the construction works (including blasting for shaft sinking and tunnelling) is kept to within tightly prescribed limits and monitored on an ongoing basis with a staffed 24 hour contact telephone line available should any issue of concern arise;	Chapter 13 (Airborne Noise and Vibration) and Chapter 14 (Groundborne Noise & Vibration) of the EIAR outline the baseline noise and vibration levels and proposed mitigation measures. Appendix A5.1 Outline CEMP notes that in addition to the noise and vibration mitigation measures proposed, the contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project which will be a live document. There are no statutory standards in Ireland relating to noise and vibration limit values for construction works. The contractor(s) will work within the noise and vibration significance threshold levels identified in the EIAR (as per British Standards) for both airborne and groundborne noise and vibration and the limits contained in the Railway Order approval. The outline CEMP, Section 3.3.1 notes that TII and the contractor(s) will take all reasonable steps to engage with stakeholders in the local community, especially those who may be affected by the construction works including residents, businesses, community resources and specific vulnerable groups. The contractor will also be responsible for putting in place a Stakeholder Communications Plan which will be developed under the consent of a designated Public Liaison Officer (or equivalent officer) appointed by TII. This plan will provide a two-way mechanism for members of the public to communicate with a designated member of the contractor(s)'s staff and for the contractor(s) to communicate important information on various aspects of the proposed Project to the general public.
8	Albert College Park Intervention Shaft - Construction Issues	3	That the proposed Construction Community Relations Officer have an adequate and dedicated support team in place to liaise in a timely and comprehensive way in order to update residents on a regular basis of developments and to deal with any issues or problems that may arise;	For the tunnel boring, Appendix A5.1 Outline CEMP states that TII will establish a website to provide information on the forecast and actual passage of the tunnel boring machine. The contractor(s) will distribute leaflets to properties and affected parties, giving such notice along the tunnelling alignment, along with details of the first point of contact for any queries. Notifications will detail the estimated duration of the works, the working hours and the nature of the works. All notifications will include a local helpline number, as detailed in response item (7) above.
9	Albert College Park Intervention Shaft - Construction Issues	3	The design of the Shaft Ventilation system be such as to minimise any noise or vibration arising in order to protect the amenity of the area;	The requirements for the selection and attenuation of the Albert College Park Intervention Shaft ventilation systems, will be based on background noise level at the nearest and most exposed NSLs to each fixed item of plant and determined for day and night-time periods, with the methodology described in the EIAR Chapter 13, Section 13.2.5.2.4. All baseline noise values will be confirmed prior to the design and selection of the operational plant items with requisite attenuation determined after the updated baseline noise surveys. Suitable noise attenuation will be provided for the intermittent fan operation and will be developed at detailed design to ensure best practical means and equipment are employed. As presented in the EIAR Chapter 13, Section 13.6.2.3, the following will be considered when designing the equipment: - Selection of low noise rated equipment; - Reduction of induct flow rates; - Reduction of elements in the airflow; - In duct attenuators; - Orientation of grilles and louvres away from sensitive receptors; - Acoustic louvres; and - Anti-vibration mountings and couplings will be incorporated into the design to control vibration."

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10	Albert College Park Intervention Shaft - Construction Issues	3	That the use of lorries and other vehicles to transport materials and staff to and from the IS in the ACP be minimised insofar as possible and in particular that out of hours working especially between 8pm and 7am (and at weekends) be avoided or at the very least severely restricted with a requirement to keep residents apprised in advance of any such planned out of hours working;	As detailed in the EIAR Chapter 5, MetroLink Construction Phase, the programme for the construction of the proposed Project has been optimised to minimise the duration of the Construction Phase in order to lessen the duration of potential environment impacts, while ensuring that the areas surrounding the work sites remain operational and functional. Work will run concurrently at all MetroLink site locations to ensure the Project is delivered in an effective and timely manner. EIAR Chapter 5, and Appendix A9.5 Scheme Traffic Management Plan details the impact of the temporary traffic management measures and associated construction traffic. As the Intervention Shaft is wholly located within the Albert College Park, there are no temporary traffic management measures associated with the main construction of this site required on the adjacent R108, causing no impact to road users. As shown in Appendix A5.7 Construction Vehicles, Plant and Equipment, there will be between 30 to 80 vehicle movements per day associated with the Intervention Shaft, however much of the works will see daily vehicle movements lower than this range. Vehicle movements will generally be limited to standard working hours as defined in Table 5.3 in section 5.2.4 of EIAR Chapter 5 which is as follows: - Monday to Friday 07:00hrs to 19:00hrs - Saturday 07:00hrs to 13:00hrs	
11	Albert College Park Intervention Shaft - Construction Issues	3	That appropriate traffic management plans be employed, including ones that take full account of the Bus Connects Ballymun/Finglas to City Centre proposals, in the event these are approved by An Bord Pleanála and proceed. (Just to note that it is understood that it is proposed that work on Metrolink and Bus Connects Ballymun/Finglas will be undertaken at the same time);	Please refer to response (10) in relation to the temporary traffic management measures associated with the Albert College Park Intervention Shaft. Chapter 5 of the EIAR, MetroLink Construction Phase, explains that traffic management plans for the construction phase of the Project have been developed to minimise the impact on road users, and to maintain access to businesses and other premises. Prior to implementation, all traffic management measures will be agreed with the relevant local authority (FCC or DCC) and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The design of traffic management measures and highways works is based on achieving the key objective of maintaining continual access to all properties during the works. As noted in Appendix A9.5 Scheme Traffic Management Plan, the 2028 Do Minimum model scenario used for the local and strategic impact assessments during the construction phase consists of a 2028 base network with the addition of the measures included within the R132 Connectivity Study and the proposed BusConnects infrastructure design changes. Therefore, the traffic assessment of both the baseline, construction and operational phases is on the basis that BusConnects infrastructure and network redesign are in place prior to the construction of MetroLink.	

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12	Albert College Park Intervention Shaft - Construction Issues	3	That satisfactory and appropriate mitigation strategies are employed to ensure that any risks, such as that of local flooding and rodent displacement (from construction work) are fully addressed.	The risk of flooding is minimal and the EIAR includes for provision to manage the risk. Table 18.16 of EIAR Chapter 18, Hydrology provides a summary of the construction and compound sites along the full route together with the planned discharge point (surface water/storm sewer) and the estimated daily rate of discharge to that receiving feature. Including Albert College Park, none of the planned construction or compound sites are located immediately within areas designated as Flood Zone A or B, in accordance with the OPW 'Planning System and Flood Risk Management Guidelines' (November 2009). The management of flood risk during construction is detailed in Chapter 18 (Hydrology, Section 18.6.1.3) and in the outline CEMP (Appendix 5.1). Any local drainage impacted will be diverted to suit such that flood risk is managed. In order to manage and mitigate all environmental risk at Albert College Park, and as part of the preparation for the construction phase, the appointed Contractor for these works will be required to set out their proposals in the Construction Environmental Management Plan (CEMP), an outline of which is included in EIAR Appendix A5.1. The Contractors CEMP will include a Construction Flood Protection Plan, with minimum requirements set out in EIAR Appendix A5.1, Table 6.4 Water Measures. As noted in Chapter 10, Section 10.5.1.10, with regard to rodent displacement, as is standard practice vermin control will be implemented on all MetroLink sites. While rodents will be temporarily displaced as a result of initial construction activities, there is nothing in the Construction Phase which would lead to an increase in the number of rodents. It could be argued that with the rodent control policies in place, there will be a reduction in the level of rodents and the subsequent risk. Because there will be no increase in vermin numbers and more likely a decrease because of vermin control measures there will be no increase in vermin transmitted disease over and no significant adverse effect on human health.
13	Collins Avenue Station and Tunnelling- Construction Issues	3	We would ask that very careful consideration be given to the Metrolink application, and in particular the Environmental Impact Assessment undertaken, to ensure that the proposals adequately protect the amenity of the houses and other premises in the environs, during the construction phase, of the Collins Avenue Station and the Tunnelling work and in particular that the inevitable disruption during the construction phase is kept to a minimum. We would ask that in the event of An Bord Pleanála approving the Metrolink application that it be done subject to detailed conditions along similar lines to those proposed for the IS in the ACPIS - Construction Issues section above.	Minimising environmental impact on the local community is fundamental to the approach that TII will take and this is documented throughout the EIAR. As detailed in EIAR Chapter 5, MetroLink Construction Phase, the programme for the construction of the proposed Project has been optimised to minimise the duration of the Construction Phase in order to lessen the duration of potential environment impacts, while ensuring that the areas surrounding the work sites remain operational and functional. Work will run concurrently at all MetroLink site locations to ensure the Project is delivered in an effective and timely manner. Potential impacts associated with the construction phase activities of the proposed Project on the residences and businesses are addressed in for example : Chapter 11 (Population & Land Use), Chapter 13 (Airborne Noise & Vibration), Chapter 14 (Groundborne Noise & Vibration), Chapter 9 (Traffic & Transport), and Chapter 16 (Air Quality). Measures to mitigate and monitor these impacts as a result of construction activity across the proposed Project are detailed in Chapter 5 (MetroLink Construction Phase) and summarised in Chapter 31 (Summaries of the Route Wide Mitigation & Monitoring Proposed). Additionally, the appointed contractor will prepare detailed design and construction methodologies in the form of a detailed Construction Environmental Management Plan (CEMP) to ensure all environmental impacts are managed and mitigated in accordance with the EIAR and Railway Order, assuming an Enforceable Railway Order is granted. The detailed CEMP(s) will be provided to DCC for consultation in advance of any construction works on site. An Outline CEMP is included in Appendix A5.1 of the EIAR that will be developed further by the appointed contractors. Monitoring instrumentation will also be used throughout the works to monitor potential environmental impacts, including those discussed above to ensure that acceptable limits are not breached.
14	Property Owners Protection Scheme (POPS)	3,4	We would like to welcome the proposal by TII for a POPS scheme. However, we have some concerns about some of the details of the scheme, including that the system put in place by TII for compensation awards for damage to houses arising as a result of the Metrolink's construction, is a streamlined one, that allows for the prompt payment of such awards. -Given the rate of inflation, and in particular building inflation, we are concerned that the proposed limit of Euro 45,000, non inclusive of VAT, for an individual award may not adequately cover the cost of damage to houses as a result of Metrolink's construction in light of the fact that such occurrences may only come to pass over ten years from now (assuming that the Metrolink gets the required approvals and proceeds as planned). TII should be required to commit to increasing the maximum level of award at least in line with building or general inflation, whichever is the higher. As an additional safeguard it should also be required to obtain expert advice on the adequacy of the maximum quantum of award to ensure house owners are fully compensated for damage arising as a result of the Metrolink works, in respect of the time the scheme becomes operational, and to act on that advice. Interested parties should be able to make submissions for consideration by the expert concerned within this context.	TII believe the current limit of 45,000 is appropriate but do recognise the impact of inflation on the number. TII commit to reviewing the appropriate of the figure taking account of forecasted inflation, on receipt of an enforceable railway order for the scheme. Furthermore it should be noted that participation in the POPS does not impede a property owner's standard legal rights and so should this POPS threshold be exceeded, the property owner may seek redress through standard legal means.

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15	Property Owners Protection Scheme (POPS)	4	Furthermore, we are concerned that the proposed time limit of one year from the end of the Metrolink construction phase for awards to be valid under the scheme is too short as the consequence of problems, such as ground settlement, may not be identified within such a short timescale. The normal statutory time limits, were such a matter to be taken to court, should apply.	TII believe the proposed time limit is appropriate
16	Property Owners Protection Scheme (POPS)	4	Residents in addition to opting for one of the three TII contracted experts should be able to choose to use their own expert and be compensated up to an agreed set maximum amount.	To avail of the scheme residents must use one one of the survey companies from the panel of survey companies listed in the POPs scheme.
17	Property Owners Protection Scheme (POPS)	4	A dispute resolution process for any disputes arising under the POPS scheme should be put in place. Indeed, a dispute resolution process should be in place for all significant impacts arising from the Metrolink project construction and operational phases, which should encompass a comprehensive complaints' procedure.	Clause 26 of the draft Railway Order sets out an arbitration process in relation to any dispute arising between TII and any other party in relation to the execution of the authorised works or the exercise by TII of the powers granted by this Order. Furthermore, in the event the property owner disputes the findings of any survey carried out by the panel surveyor (on foot of the POPS), Engineer's Ireland shall be instructed to appoint an independent expert to adjudicate over the matter. The decision of the Independent Expert from Engineer's Ireland will be binding upon TII, however the property owner shall not be bound by the decision.
18	Property Owners Protection Scheme (POPS)	4	The above changes should be made to the POPS in advance of the start of the Metrolink construction phase and made a specific condition of any approval by An Bord Pleanála for the Project to proceed.	Please see above responses.
19	Other Issues	4,5	We welcome the fact that TII has committed to discussing the issue of the implications for home insurance arising from the construction of the Metrolink with a view to protecting the interests of the stakeholders concerned and look forward to full updates and consultation on these ongoing discussions. We also welcome the commitment of TII to a programme of public engagement, during the operational phase, to provide, inter alia, information on measures to manage anti-social behaviour. We think the issue of crime and anti-social behaviour is a key one for communities. Much more detail and engagement is needed on these issues not just during the operational phase but also in advance of and during the construction phase. The use of closed circuit television, employment of dedicated security personnel by TII and multi-agency forums with the full participation of residents' groups, Gardai, local authorities etc are all key issues to be considered. Failure to address such issues satisfactorily will negatively impact communities, and indeed, the positive reputation and "brand" that the Metrolink Project should have.	TII to comment on implications for home insurance and consultations on this. Construction Phase As detailed in Chapter 05 (MetroLink Construction Phase), there will be a construction security team on site. The primary function of the site's security team will be to ensure that no unauthorised entry to site occurs. There will be fencing around the sites to minimise the risk of vandalism and unauthorised access. This process will be made easier by all operatives possessing an ID card. ID cards will only be issued to operatives that have attended the site induction and (if relevant) a medical examination. CCTV and alarm systems will be installed where required. Security will also undertake regular inspections of the boundary to the compound. TII will continue to liaise with An Gardai and DFB to ensure provisions are suitable and sufficient. Operational Phase One of the outcomes of the architectural and urban realm design is to discourage anti-social behaviour in the operational phase, for example through the attractive setting, use of public lighting, open sight-lines, and avoidance of areas where individuals and groups of people can hide. Vandalism and anti-social behaviour on the trains and within the stations will be observed through CCTV (Closed Circuit Television) and if required staff sent to manage the situation. (ALG: refer back to relevant section of EIAR/application documents) The ACID (Access control and intrusion detection) system will also identify intruders trying to enter locations where unauthorised access is prohibited. It will also cover the platform doors to the track (surface and retained cut stations) and to the tunnel (underground stations); entrances to technical rooms, the station incident rooms, and stations (outside operational hours); access to the mainline tracks; entrances to facilities at Dardistown depot (test racks, workshops, garages, OCC (Operational Control Centre), technical rooms, storage areas, offices, and emergency doors); the back-up OCC: electricity sub-stations; tunnel portals; shafts and ventilation shafts and emergency doors. ACID will be integrated with the telephone system, CCTV, SCADA (Supervisory Control and Data Acquisition), Fire Alarm System and the Central Clock System. Subject to a Data Protection Impact Assessment and compliance with the General Data Protection Regulation, there will be a single CCTV system and a single ACID system serving all stations, tunnels, substations, and depot, and managed from Dardistown Depot. The final detailed design will be agreed with An Gardai, DFB and DCC to ensure compliance.

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Organisation Name or Name of Submitter			Knocklyon Network CLG (1) - Idrone Avenue, Knocklyon, Dublin 16	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Case reference: NA29N.314724: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin				
1	Letter - introduction	2	Knocklyon Network CIG is a Community Organisation that represents the Community of Knocklyon and parts of Rathfarnham, Firhouse, Templeogue. We have a Community Facebook page with over 1000 followers. We work to improve and support all aspects of making our Community a better place to live.	TII wish to thank you for taking the time to prepare a submission, and have provided responses to your concerns below.
2	Statement	2	Our submission wholly relates to that portion of the proposed Metro Link beyond the station located at St Stephen's Green East. For the avoidance of any doubt, we are fully supportive of the project from Estuary to St Stephen's Green, which we consider is long overdue. We strongly support Metro South West Group and their campaign to bring Metrolink to the Transport deprived area of South West Dublin. Much of the arguments in our Submission are given in greater detail by the MSWG submission.	TII appreciates the submission and the statement of support for the delivery of MetroLink. Please refer to the responses below and to the Metro South West Group Response Register (189) for further details.
3	Submission	2 and 3	We submit that Bord Pleanála should defer the authorisation of the section of Metrolink beyond the St Stephen's Green station, other than to create a turning section similar in length to that which is currently proposed for Manders Terrace. Reasons as follows: 1 . Failure to consider an alternative routing of the terminus notably towards Rathmines We would submit that the Rathmines or Portobello area would be a far more suitable location for a terminus but TII has wholly failed to consider this. This became relevant once the destination for a southern terminus was to be in or in the vicinity of the south inner city, rather than Sandyford. Rathmines Road under Bus Connects will have four 'A' services and a number 80, 81 and 82 with an aggregate frequency of 33 per hour peak time in each direction. A terminus for MetroLink in Rathmines or Portobello would offer superb bus connectivity and would connect much of the south west city. There was an obvious possibility of using Cathal Brugha Barracks in Rathmines as a terminus with its wide-open spaces and possible site for Tunnel Boring Machine which could then be re-directed to South West Dublin. The barracks is currently under review for future development under Land Development Agency for housing, and commercial buildings, suitable for a major terminus and connection to the South West Dublin.	TII do not agree that the Project should not continue past St. Stephen's Green for the reasons set out below. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions. The proximity of the MetroLink to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at the St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. This is detailed in Chapter 7 (Consideration of Alternatives, section 7.7.8). The location of the interchange at Charlemont does not preclude onward extension south to areas such as Rathmines. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).

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4	Submission	3	2. Feasibility Study from City Centre to Knocklyon We note that in the context of the preparation of the Greater Dublin Area Transport Plan 2022-2042, the National Transport Authority did a feasibility study entitled Metro to Knocklyon. This study was severely flawed, and the criterion given to Jacob's International were bound to produce a negative result. We would request that a proper/comprehensive feasibility study be done to assess the options for the south west city. Any route decided upon would be more feasible from Stephen's Green than Charlemont. We do not believe that any progress can be made in assessing the alternative option unless a proper assessment of metro to the south west city is done. This study could be carried out while Metrolink continues to be built from Estuary. It will be unlikely to reach city centre before 2025.	Please refer to response item (2) above in relation to continuation of the Project to Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any feasibility studies undertaken as part of future phases of the study will be subject to the planning, design and appraisal of the NTA. The Metro to Knocklyon Feasibility Study is not part of the submitted Railway Order.	
5	Submission	3	3 Limitations of Charlemont terminus for radial extensions onwards to south city It would seem, that the longer-term intent is, that the MetroLink line be extended into the south city area. There are statements on this by various persons including NTA senior executives and the Minister. There are three alternatives posed: a. south west city towards Tallaght, b. continuing the existing Luas line or c. heading south east towards UCD and Sandyford. In various statements both from Government and NTA , it would seem that options b and c are no longer under consideration for Metro. This been the case it would seem appropriate to look for a suitable terminus for option c. We believe that if the tunnel is bored as far as Manders Terrace, this seriously compromises the ability for an extension to serve important communities. In particular we find it difficult to see how MetroLink could be extended to include relatively inner-city suburbs such as Portobello, Rathmines, and Harold's Cross. MSWG have requested NTA through the Minister to give details of what suburbs could be served from a continuation of Manders Terrace to the South West. The NTA have not responded to this request of over a year. We would submit that proper planning requires a proper evaluation of the options for extension and <i>that it is not consistent with proper planning to permit a station at Charlemont which would compromise the options.</i>	Please refer to response item (2) above in relation to continuation of the Project to Charlemont. As noted, the selection of Charlemont Station as the last station on the alignment does not preclude onward extensions to the south, south-east or south-west of the city. Any decisions for extensions to MetroLink south from Charlemont would be based on future demand requirements. Any such extensions if identified as necessary would be subject to full alternatives assessment prior to identifying a preferred route that would be submitted to An Bord Pleanála for a Railway Order.	
6	Submission	4	4. Environmental Issues From Data collected by Metro South West Group, there is no doubt that the long-term plan for Dublin's environmental health must include substantial investment in Metro systems. There is a lack of belief in the public that buses and Bus Connects will be sufficient to meet the demands for public transport as proposed by NTA/TII. A Metro system, operated on electricity generated by Renewable Energy Resources is among the lowest carbon footprint. See Our World in Data Table. This is the obvious solution for the growing needs for Transport in South West Dublin. The benefits increase year on year as the occupancy increases year on year as was found with Luas. CSO Transport Survey of 2019 found the following conclusions. Almost half (48.5%) of respondents aged 18 years and over never use bus services, while one quarter (24.8%) use it less than monthly. One in every sixteen (6.3%) persons use the bus services very frequently, at least 5 times a week. Persons aged 18 to 24 years use the bus services most frequently - 36% of females and 33.6% of males in this age group use the bus services at least 5 times a week. At an overall level, one in twenty of over 18-year-olds (4.7%) use the bus 3 to 4 times a week, and 8.5% use it less frequently, 1 to 2 times a week.	Please refer to response item (2) above in relation to the continuation of the Project to Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.' Bus Connects and MetroLink are both part of a comprehensive network of public transport interventions identified in the GDA Transport Strategy 2022-2042 that will reduce GHG emissions due to the predicted modal shift away from private car usage in response to these interventions. The GDA strategy is based on detailed and comprehensive modelling of future public transport demands across the Greater Dublin Area (GDA) and on this basis the proposed public transport provision has been designed to meet demand covering the period 2022 - 2042. However, it should be noted that this will be reviewed for future plans and that future predicted public transport demands will be assessed to identify potential future extensions to MetroLink.	
7	4 Environmental Issues	4 and 5	Green House Gas (GHG) Emissions are a major contributor to global climate change, which will increase the number and severity of extreme weather events in the region. In the United States, the biggest source of GHG emissions is from transportation. Every trip taken with Metro and not a car reduces the region's carbon footprint. On average, traveling by Metro results in 46% less GHG emissions per mile than driving in a single-occupancy vehicle. The transport sector emitted 12.0 million tons (Mt) CO2 in 2021 and accounted for 34.0% of Ireland's total energy emissions. Transport remained the most carbon intensive demand sector, with 95.5% of transport energy demand coming from fossil fuels. Rebounding from 2020 COVID-related travel restrictions, energy demand for transport increased by 8.3% in 2021, and was a significant driver of the overall increase in Ireland's energy-related emission this year.	Please refer to response item (6) above.	

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8	4 Environmental Issues	5	Private car use is by far the largest transport sub-sector, and accounts for 43.0% of all transport energy demand. Energy demand by private cars is 67% greater than the combined demand of both heavy goods and light goods commercial vehicles on Irish roads. These numbers highlight the urgent need to reduce the climate impact of private car use by increasing the number of journeys we make by foot, by bicycle, and on public transport, while simultaneously replacing petrol and diesel cars with EVs. Provisional data from the first 6-months of 2022 indicates that demand for petrol is up by 27%, compared to the same period in 2021, and the demand for diesel is up by 15%, as consumption of both fossil fuels return to pre-COVID levels. Cars account for 65% of Dublin's transport emissions. <i>Source SEAI Report on Transport Energy consumption.</i>	Please refer to response item (6) above.	
9	4 Environmental Issues	6	In addition to the socioeconomic benefits such as reduction in travel time, travel cost, accident rate, per capita vehicle ownership etc., the ability of metro system towards substantial reduction in per capita pollution emission is considered as one of the major benefits. However, if the benefits offered by the metro system such as reduced traffic congestion, GHG emissions, accident rates, savings in travel time and cost, safety and comfort are assessed and quantified collectively, the metro projects could become the most cost-effective projects than the other public transport project alternatives. These details from the 2016 Census Data, CSO highlight our over dependence on the car. In Conclusion we see a Metro to South West Dublin originating at Stephen's Green as the answer to not only Public Transport needs in South West Dublin, but the only Environmentally satisfactory answer to reducing Green House Gases and encouraging a Modal shift from Private cars to Public Transport.	Please refer to response item (6) above.	
10	Submission	6	5 Poor access to Charlemont from Rathmines Road The original Metro North project, which was approved for a Railway Order by An Bord Pleanála, had the metro station on the western (College of Surgeons) side of St Stephens Green, where the interchange between the Green Line and metro would be swift. Charlemont would be unsuitable for an interchange between MetroLink and the Green Luas line. Figure 7.1 shows the vertical separation that would occur were the Luas /metro interchange to be located in Charlemont. Figure 7.2 shows that the first manoeuvre for incoming Luas passengers (many with luggage and/or disabilities) would be to cross the Luas line (looking both ways to avoid being mown down by an incoming or outgoing Luas). Would this be a safe manoeuvre to require, for example, from children?	TII do not agree that Charlemont is an unsuitable interchange between MetroLink and the Luas Green Line. Please refer to response item (2) in relation to the suitability of the interchange at Charlemont. As noted, the interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an interchange at St. Stephen's Green. Please refer to response item (11) below in relation to the anticipated pedestrian comfort levels at the interchange. Wayfinding will be appropriately signed to ensure safe movements for all users.	
11	5 Poor access to Charlemont from Rathmines Road.	7	 The second manoeuvre would require passengers to descend 3 flights of stairs in the open. It could be expected that there would be considerable congestion on these stairs and many passengers would be moving slowly and add to the congestion. The third manoeuvre would be a walk in the open towards the entrance to the proposed metro station. This is a station that lies alongside and above a canal and a major traffic route. The fourth manoeuvre - descending to the metro platform - is shown in Figure 7.3. The complexity and safety issues surrounding Charlemont make it unsuitable as an interchange.	Please refer to response item (10) in relation to the interchange arrangements at Charlemont Station. As outlined in Chapter 09 (Traffic and Transport), a microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance.	
12	Submission	9	7 (6) Lack of adequate public service in outer suburbs In Knocklyon and the surrounding suburbs we are over dependent on the car for transport. Surveys found that over 74% of the population travel in a car daily. We are faced with large increase in population and cars as the county is expected to increase in population by over 50,000 in the coming 10 years. This added to the existing 350000 living in the triangle between the two Luas lines adds to congestion, pollution, time wasted in traffic, further dependence on the car. NTA proposals for Bus Connects are entirely inadequate and will not encourage a modal switch to public transport. There proposal in the latest Greater Dublin Area Transport Strategy Review is to look at possibility of three additional Luas lines, but in 2042. In addition, we have planning permission by SDCC to build an Interpretive Centre for the Dublin Mountains in the Knocklyon Area. This is proposed to bring 300000 visitors a year to the area. A metro station with a shuttle bus would solve this increase if suitably planned, as the roads certainly will be unable to accommodate these numbers.	Please refer to response items (2, 6) above in relation to the potential for future extensions to MetroLink. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise."	

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13	6 Lack of adequate public service in outer suburbs	9	The rush hour congestion in mornings and evenings is getting worse as all available land is filled with new and necessary apartment blocks. The lack of any time consistency in public transport. The increase in pinch points for traffic on routes. Public transport is not attractive. At present the population sees only more cars as their only option for travel.	Please refer to response item (2) above in relation to the continuation of the Project to Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.'	
14	6 Lack of adequate public service in outer suburbs	9	"What had the outside reviewers have to say about continuing to Charlemont/Manders Terrace?" <i>Jaspers: "Regarding the project's scope and design several technical aspects appear to make the project expensive: in particular the inclusion of the connection to Ranelagh/Charlemont. The connection to Ranelagh could feasibly be deferred until there is clarity on the future of the Green Line (subject to an improved understanding of how this could physically be delivered in a scenario with Metro operational) ."</i> Major Projects Advisory Group: "<i>The rationale for extending the preferred scheme to Charlemont is noted by JASPERS as "strategically weak" given the additional costs involved and the duplication of the LUAS Green Line which also provide a public transport service to the areas of the city centre in question "</i>.	TII do not agree with this statement for the reasons set out by response (2) above, noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.	
15	Conclusions	10	We suggest the following three conclusions. • Metro is necessary for Dublin South West. • Metrolink proceed as soon as possible from Estuary to Stephens Green. • A proper Feasibility study be undertaken in the next year to see the most suitable route for continuation of Metrolink when it reaches Stephens Green.	Please refer to response item (2) above in relation to the continuation of the Project to Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.' Any feasibility studies undertaken as part of future phases of the study will be subject to the planning, design and appraisal of the NTA.	

Submission No.			165	
Organisation Name or Name of Submitter			KW Real Estate ICAV (represented by Stephen Little & Associates)	
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RE: "RAILWAY (METROLINK - ESTUARY TO CHARLEMONT VIA DUBLIN AIRPORT) ORDER 2022" - ABP REF. NA29N.314724, AREA 306 - ST. STEPHEN'S GREEN				
1	Cover Letter	1,11	The main concern in terms of the Shelbourne Hotel relates primarily to the potential impacts of MetroLink on the ongoing and successful operation of the Shelbourne Hotel during the construction phase of the MetroLink Project. Our Client is seeking to ensure that the construction of MetroLink Project will be undertaken with minimal disruption to the renowned historic Shelbourne Hotel and its guests and visitors.	TII have reviewed your submission and noted your concerns/observations which are responded to below. TII confirm that your property has been included in the assessment of potential construction and operational impacts of the MetroLink Project. The EIAR fully details all impacts to the Shelbourne Hotel during construction and operational phases of the MetroLink. TII will however ensure that all impacts are minimised so far as is reasonably practical.
2	Cover Letter	1,11	It is also incumbent on the TII to ensure that any potential direct or indirect adverse impacts in respect of noise, vibration or pedestrian and vehicular accessibility to the hotel during the construction and operational phase of MetroLink Project is appropriately mitigated through design.	The EIAR fully details the impacts of both the Construction and Operational Phases and proposes appropriate mitigations. Mitigations will be implemented throughout the design and construction phase. Included below is a summary of the impacts and mitigations provided for but reference should also be made to the Outline Construction Environmental Management Plan (CEMP) in EIAR Appendix A5.1. Noise and Vibration Regarding potential direct or indirect adverse impacts in respect of noise and vibration, please refer to Item 5 below. In order to mitigate noise and vibration the CEMP has been prepared and is included as Appendix A5.1. This is a working document that will be updated by the contractor prior to commencement of construction and regularly as the project progresses. Table 6.2 of the CEMP outlines the noise and vibration measures proposed during construction phase of MetroLink Project. Pedestrian and vehicular accessibility Pedestrian and Vehicular access to the Shelbourne is unaffected throughout the main works construction and during the enabling works periods any utility diversion work will be managed to minimise any short term disruption. The construction site does not alter during the main works phase. Only short term, slight negative impacts to traffic flow on St Stephens Green East are noted in the EIAR Chapter 9 (Traffic & Transport). Mitigation measures during the Construction Phase of the proposed Project will be managed through the Outline Construction Environmental Management Plan (CEMP) and Temporary Traffic Management (TTM) Plans for the proposed Project and stations. The contractor(s) are required to implement the measures outlined in Table 6.1 of the Outline CEMP in relation to traffic and transportation during construction. The Traffic Management proposals have been developed to minimise construction impacts on pedestrians, cyclists and on the operation of bus services based on the principles of the road user hierarchy. During operational phase, it is anticipated that, overall, the proposed Project will provide for improvements to the public transport network, resulting in decreases in car usage/trips, increases in public transport usages, and will facilitate walking and cycling to the stations, without significantly impacting on the operation of the networks in the area. The proximity of the station to your hotel will benefit the Shelbourne Hotel hugely in the operational phase.
3	Cover Letter	1	Our Client has made a significant investment in the external and internal conservation, repair and refurbishment of the Shelbourne Hotel in recent years to ensure that it remains an iconic City destination. It would be totally unacceptable to our Client that potential impacts arising during the construction or operational phases of the MetroLink Project would undermine the investment expended to date to ensure that the historic architectural quality of the building is maintained in excellent order and that the best quality experience is delivered to the hotel's local and international guests.	TII recognise the importance of the building and have included for this in the environmental impact assessments, including EIAR Architectural Heritage. [Section 26.4.4.14.2 specifically notes the Shelbourne Hotel building in this Historical Background section of the study area] Further Section 26.5.4.13.2 and 3 note that there will be no impacts on architectural heritage in this section of the study area (where the Shelbourne Hotel is located) during the Construction and Operational phases respectively. The impact of ground movement is discussed below in response (5).
4	Land Use Zoning	3	Significant investment has been made by the current owner in the conservation, repair and refurbishment of the Shelbourne Hotel as an iconic heritage and visitor destination in the City, in accordance with the aforementioned zoning objectives for this site. Our Client is anxious to ensure that this investment in the Shelbourne Hotel as a successful going concern and local historic landmark is not undermined by the MetroLink Project works or operation.	Refer to Response 3.

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5	Protected Structure	4	The potential significant impact of any proposed MetroLink works on the Shelbourne Hotel (historic building and use) and its setting as a protected structure will need to be taken into account in terms of the construction and operational phases of the MetroLink Project.	The potential construction and operational impacts on the Shelbourne Hotel have been assessed within the EIAR. Potential impacts on the Shelbourne Hotel buildings and its use could arise due to settlement, air emissions and dust, airborne and groundborne noise and vibration. The main potential construction and operational impacts are summarised below while the EIAR chapters fully details all impacts during construction and operational phases of the MetroLink Project. 1. Settlement EIAR Appendix A 5.17, Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on properties. Table 5-2 outlines the results of the Phase 2a Building Damage Assessment conducted on representative buildings along the proposed tunnel alignment, including for Shelbourne Hotel (building reference B-12 and B-13). Table 5-2 shows that assessments to date indicate that the buildings fall into the "Negligible" damage category. As Protected Structures, the Shelbourne buildings are designated as 'special buildings' which means they will be taken forward for a Phase 3 Assessment that will be undertaken by the main works contractor at the detailed design stage of the Project. This is despite the negligible damage predicted. This further assessment will pick up on the building's condition close to the time when the building will be impacted. A detailed survey will be carried out as part of the Phase 3 assessment to provide the necessary additional information to inform this detailed analysis of how the individual elements of the building would be affected by the predicted ground movements. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. 2. Airborne Noise and Vibration EIAR Chapter 13 (Airborne Noise and Vibration) assesses the impact of the MetroLink Project arising from Airborne Noise during the Construction Phase and Operational Phase. The assessment of airborne noise from above ground construction activities at nearby St. Stephen's Green Station is presented in section 13.5.2.6 AZ4: Northwood to Charlemont of EIAR Chapter 13. Full calculated results for this work area, including for Shelbourne Hotel, are included in EIAR Appendix A13.7. The airborne noise levels at Shelbourne Hotel are predicted to be between 62 - 68 dB LAeq,T depending on the sequence of construction activity, which are below the construction noise threshold level of 75 dB LAeq,T., resulting in a "not significant" impact on the building operation during the Metrolink construction phase. Once operational, the Metrolink will be in tunnel within Northwood to Charlemont section of the proposed Project. The primary operational noise sources in this section relate to station and ventilation tunnel systems. For the ventilation systems, during the detailed design phase, the operational noise level from each surface grill will be calculated to the nearest sensitive area to each and specific attenuation designed for each system to not exceed the relevant design criteria for each location (in line with BS4142). 3. Groundborne Noise and Vibration Chapter 14 (Groundborne Noise & Vibration) of the EIAR assesses the impact of the MetroLink Project arising from Groundborne Noise and Vibration during the Construction Phase and Operational Phase. The Shelbourne Hotel was assessed for potential groundborne noise and vibration impacts from the construction works (mechanical excavation, blasting, and TBM Passage) and railway operation. The predicted groundborne noise and vibration results for the Shelbourne Hotel are summarised in the EIAR Chapter 14, Table 14.29 (Groundborne Noise during TBM Passage), Table 14.31 (Groundborne Noise during Mechanical Excavation), Table 14.32 (Vibration during TBM Passage), Table 14.33 (Vibration during Construction Mechanical Excavation), Table 14.34 (Blasting Vibration Levels), Table 14.35 (Blasting Air Overpressure Levels), Table 14.44 (Groundborne Noise during Railway Operation), Table 14.45 (Groundborne Vibration during Railway Operation). The full suites of groundborne noise and vibration results are presented in Table 14.4 (Section AZ4) of EIAR Appendix 14.5. According to the assessment calculations, the noise and vibration levels during construction and operational phases will be below the threshold limits (please refer to EIAR Chapter 14.3.1.4 Sensitive Receptors AZ4 Northwood to Charlemont, Table 14.18 for threshold limits applicable to The Shelbourne Hotel) resulting in "no significant" impact on buildings operation, except for TBM Passage where the noise value of 47 dB will be above the threshold limit of 45dB, resulting a "significant" impact on the buildings operation for the limited duration (a maximum of 2 weeks) during TBM passage.

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			Response (5) continued.	3. Air Quality Air quality impact was assessed in the EIAR Chapter 16 Air Quality. According to the assessment, following mitigation measures, the likely effects of the emissions from the proposed Project construction, are considered overall Neutral, Not Significant and Medium-Term and fugitive emissions of dust from the site are not predicted to be significant and pose no nuisance, human health or ecological risk to nearby receptors. During Metrolink operation, overall, considering the likely effect of emissions from the Operational Phase of the proposed Project, the likely effects are considered overall Neutral, Not Significant and Long-Term. In conclusion, according to the above mentioned there will be no predicted significant impacts on Shelbourne Hotel operation due to settlement, noise and vibration and air quality, except for the noise generated during TBM Passage which will be of limited duration. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from TBMs at source but note that the duration of this impact will be in the order of up to two weeks as the TBM passes. TII will liaise with Shelbourne Hotel to ensure the timing of these impacts are known.
6	Conservation Area	4	Again, the potential significant impact of any proposed MetroLink Project works on the Shelbourne Hotel (historic building and use) and its setting as a protected structure in a designated 'Conservation Area', will need to be taken into account in terms of the construction and operational phases of the MetroLink Railway Order application .	Please see responses (5) above and (11) below.
7	Noise & Vibration	8	On review of the mitigation measures set out in the EIAR, noise insulation and temporary re-housing is proposed for all sensitive receptors. The mitigation measures do not differentiate between a residential or a hotel use for example. While the tunnel boring may be temporary as it passes in proximity and beneath the Shelbourne Hotel the 'residual impacts' as set out in the EIAR are naturally a concern for our Client. The mitigation measures set out in the EIAR do not appear to differentiate between the types of sensitive receptors along the MetroLink line. Our Client would have significant concerns in relation to the practical application of the proposed mitigation measures in the context of the Shelbourne Hotel.	Unfortunately, there are no effective methods are available to reduce groundborne noise from TBMs at source. The principal mitigation measures aimed at minimising impacts from groundborne noise are as follows: • Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects during construction, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. It is important however to note that the advancement of the Tunnel Boring Machine will be for a very short duration over a matter of days and that the noise will be imperceptible to most guests. TII and their contractors will engage with the Shelbourne Hotel regarding the potential impacts of these works and the proposed programme for the same once this information is available.
8	Noise & Vibration	8	Secondary glazing would not be appropriate on the Shelbourne Hotel given that it is a Protected Structure. Such works are likely to significantly detract from the character of the building even in a temporary scenario. Furthermore, such mitigation measures may not be implementable due to the potential impact on the historic protected fabric of the building.	This point is noted, but for clarity please note that secondary glazing is neither proposed nor required at this location.
9	Noise & Vibration	8	Temporary Rehousing is not considered feasible for a hotel of such significance in Dublin City centre. Even if it were, rehousing guests / visitors would have a significant impact on the operation of the Shelbourne Hotel.	Please see response to 7 above.
10	Noise & Vibration	8	Our Client is a Key Stakeholder and early engagement with both TII and future Contractor is requested to ensure the short to medium term operation of the Shelbourne Hotel is not unduly impacted by noise and vibration during the construction phase of the MetroLink Project.	TII will engage with the Shelbourne Hotel as required both in advance of the works likely to impact and throughout the construction phase.

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Organisation Name or Name of Submitter			KW Real Estate ICAV (represented by Stephen Little & Associates)	
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11	Conservation / Architectural Heritage	8,9	The Architectural Heritages Chapter of the EIAR submitted with the Draft Railway Order identifies that there will be a significant indirect impact on the Protected Structures on the northern side of St. Stephens Green (which include the Shelbourne Hotel). It is acknowledged that the 'setting' in the context of the Protected Structures on the northern side of St- Stephens Green (which include the Shelbourne Hotel) will be reinstated. In this instance it is proposed to re- Instatement of protected railing and new tree planting within the northwestern corner of St.Stephens Green. It is incumbent on TII o ensure that during the construction phase of the MetroLink Project at St. Stephen's Green East that the operation of the Construction Compound does not have any adverse impacts on the operation of the Shelbourne Hotel. This would include orderly management of the compound to ensure it remains well maintained and does not detract from the setting of the Shelbourne Hotel whilst present. Our Client is a Key Stakeholder and early engagement with both TII and future Contractor is requested to ensure the setting of the Shelbourne Hotel in architectural heritage terms is not substantial undermined during the construction phase of the MetroLink Project.	According to the assessment, during Construction Phase, an indirect impact on the building will occur due to the presence of the construction site directly in front of the protected structure. On completion of the works the impact will be not significant. This is an indirect impact due to the works to St Stephen's Green. TII can confirm that the protected railing will be reinstated and new trees will be planted as stated. TII will ensure that the site is hoarded and maintained to a standard in keeping with the setting.
12	Traffic	9	The results of the junction modelling set out in EIAR indicate that the main impact of the traffic management measures at St. Stephen's Green station will occur in the Weekday AM Peak Hour. The closure of Hume Street and subsequent diversion via Pembroke Street and Leeson Street (See Figure 6) will impact on the flow of traffic generally in the area.	Correct. For context only slight negative short term impacts are assessed on St Stephens Green East.
13	Parking & Loading	10	During the construction phase St. Stephen Green East will have a temporary layout which may in turn impact on the road layout on St. Stephens Green North once a detailed Construction Management Plan is put in place by the Contractor. The Draft Railway Order sets out in relation to parking and loading area impacts that: "Parking and Loading Impact Temporary management measures have been developed to minimise the impact on parking and loading. Site specific mitigation measures will be developed through consultation with stakeholders, including local authorities, residents and business owners. These impacts should be monitored throughout the Construction Phase to assess if any disrupted bays can be reinstated." Our Client is a Key Stakeholder and early engagement with both TII and future Contractor is requested to ensure that the operation of the Shelbourne Hotel is not impacted by any temporary traffic arrangements implemented during the construction phase of the MetroLink Project. Any amendments to the road layout on the junction of St. Stephens Green North and St. Stephen Green East are likely to have an impact on the operation of the Shelbourne Hotel. This needs to be fully considered prior to the commencements of works of the MetroLink Project at this location.	The traffic management arrangements developed in conjunction with DCC and the NTA are included within the EIAR and have been modelled. The arrangements will not impact upon the operation of the Shelbourne Hotel. TII note your observation and although temporary traffic impacts and arrangements have been fully considered in the EIAR, we nonetheless welcome continued engagement with Shelbourne Hotel with regards to your concerns related to temporary traffic arrangements.
14	Air Quality & Dust	10	The Draft Railway Order sets out that an Air Quality Management Plan shall be prepared and submitted for approval to the relevant Planning Authority. The EIAR describes the impact on air quality during the construction phase as short to medium term, negative, localised and not significant. Our Client is a Key Stakeholder and early engagement with both TII and future Contractor is requested to ensure that the operation of the Shelbourne Hotel is not impacted by dust or air quality arising from the construction phase of the MetroLink Project.	Please refer to response (5) above. Air Quality will be managed to minimise all impacts with details of the proposed mitigations contained in the CEMP.

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Organisation Name or Name of Submitter			Leo and Anne Crehan	
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Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) order 2022 Case Reference Number NA29N.314724				
1	Letter - Introductio	1	We live at 11 Dartmouth Square West.... Firstly, in general, we are in favour of the broad aim of the Metrolink project to connect Dublin's city centre to our national airport. However, as a resident living in the Dartmouth/Charlemont area, we wish to set out a number of observations for the Board regarding the proposal to locate the Terminus station at Charlemont-Dartmouth. Our family home is in the midst of the community where the Terminus station is proposed to be located; and further, the application makes provision for part of our property to become the subject of a Compulsory Purchase Order. We respectfully ask that you consider the following points in making your decision on the Application.	Thank you for taking the time to make a submission and your overall endorsement of the MetroLink Project. We have reviewed your submission and responded to the observations made below.

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2	Letter - Point 1	1	1. Charlemont Is the incorrect strategic location for a Terminus hub and spoke system as it is too far out along the Luas Green Line spoke and would prejudice future options for integration of networks and services.	TII have carefully considered where the best location is for a southern interchange with MetroLink, and for the reasons set out below, the preferred location is a station at Charlemont. The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an interchange at St Stephen's Green Station. The detailed analysis done for the Railway Order further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).

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3	Station Location	2	1. (continued) St. Stephens Green is the most appropriate location as it provides for interchange with bus, Luas and future DART underground. The project incorrectly dismisses St. Stephens Green West as an appropriate terminal station. It only considers St. Stephens Green East and Charlemont. Furthermore, no Study has been completed by NTA/TII as part of the entire Metrolink project on the optimal location for a City centre terminus. If St. Stephen's Green were to be designated as the hub, there would be the opportunity for an integrated underground commercial development which could be privately funded as part of the project.	"TII do not agree that St Stephen's Green is the most appropriate interchange location for the reasons set out by response (2) above. It is not correct to say that the Project ""only considers St. Stephens Green East and Charlemont."" A number of route options were considered in the process of identifying the Emerging Preferred Route (EPR). Route alignments from St. Stephen's Green West that would also provide an interchange with DART at Tara Street Station would require an intervention shaft between these locations and would also need an undesirable horizontal reverse curve and so are not favoured. As outlined by EIAR Chapter 3, Background to the MetroLink Project, one of the key objectives of the Project is the integration of it with the wider transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040 and the GDA Transport Strategy 2022-2042 (section 12.3.2). Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more liveable and sustainable city. The submission is being argued argues that Charlemont station effectively becomes a terminus station in the short to medium term. The implication is that the activities normally associated with a terminus are incompatible with the proper planning and sustainable development of this location, in particular, travel to and from the location by car at the start and end of journeys. In this regard, it is true to say that the Metrolink trains will terminate and turn back at Charlemont station, However, Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a "system turn back location". Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. The associated environmental impacts for the turnback and station at Charlemont have been fully assessed in the EIAR. Additionally, there is a strong level of interchange offered throughout the corridor at locations such as Glasnevin, O'Connell Street, Tara Street and St Stephen's Green, where many journeys on the MetroLink will 'terminate'. The terminus station for MetroLink is located at Estuary where all of the activities normally associated with a terminus take place. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services, as outlined above. The section of the line between St Stephen's Green and Charlemont generates considerable benefits for the scheme in terms of increased patronage. As noted in response item (2), during the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The fact that the Charlemont Station is now being referred to and considered as a "terminus station" rather than an interchange station, does not change the environmental impacts the station has on its local environment, in terms of passenger demand, airborne noise. vibration and other environmental effects. If the scheme were to terminate at St Stephen's Green, it would be inconsistent with the GDA Transport Strategy 2022-2042 to locate the terminus at Charlemont.

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4	Letter - Point 2	1	2. Expensive Duplication of Rail infrastructure - The inclusion of an expensive and costly section between St. Stephens Green and Charlemont is strategically weak and duplicates the existing Luas Green Line services. NTA's cost estimate for this 1km section at€650M is an expensive duplication and significant investment that deprives other parts of Dublin that are in immediate need of rail infrastructure to support housing and urban development. If the Green Luas Line is becoming overloaded, surely that is because it is the only north/south transit system going through South Dublin; a better, and cheaper, solution would be to build 1 or 2 parallel new Luas lines to service South Dublin, which would reduce the demand on the Green Line.	The Board is not responsible for any decisions in relation to the funding the Project. It is solely responsible for assessing whether the Project is consistent with proper planning and sustainable development and that its effects on the environment are acceptable. The responsibility for funding the Project lies with the NTA, the Government and ultimately the Oireachtas. It has received all necessary approvals, including under the Public Spending Code for the making of a Railway Order. It will undergo further scrutiny and approvals, including under the Public Spending Code, before it is funded. It is not appropriate for the Board to make findings in relation to value-for-money that are outside its statutory functions and would cut across those arrangements. Members of the public are entitled to make representations to their TDs in relation to the value-for-money of any element of the Project. In any case, TII do not agree with this statement for the reasons set out by response (2) above, noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers. There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision." In any case, TII do not agree with this statement for the reasons set out by response (2) above, noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).

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			Response (4) continued.	Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision. Regards the suggestion to build additional Luas lines, TII do not consider this a better solution than MetroLink as new Luas lines would still be constrained by on-street running as a result of their integration with the road network, these new lines would have to be tied in to the existing Luas Green Line stations that would need to be increased in size at St Stephen's Green and Charlemont where space is limited, noting also Charlemont is also on a viaduct, or completely new lines and stations constructed with little to no available surface space to accommodate this. Whilst noting for the reasons explained above that Charlemont provides a better interchange location with the Luas Green Line than St Stephen's Green.
5	Letter - Point 3	2	3. The station box at Charlemont, as constructed in 2021/22 by the Developer Hines, does not have the benefit of planning permission and has not been part of the EIA undertaken for this project. Processing the current Railway Order application, which is reliant on these preliminary and now constructed works, is legally unsafe and contravenes the provisions of the EIA Directive.	The MetroLink enabling works constructed as part of the Hines development was included in the planning application for the Hines Development and has the benefit of planning permission which was granted in April 2019.

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6	Letter - Point 4	2	4. The station box at Charlemont will result in only one possible future tie in with the Luas Green Line to the south, which would result in an option that was previously dismissed as part of the Tie-In study from March 2017. No alternatives to the station box at Charlemont were considered as its location was fixed in order to accommodate the design of the Grand Parade commercial development by Hines. The implication of this new alignment is very significant on our wider community as it will involve top down construction that will only be possible when many houses on Manders Terrace, Oakley Road and Charleston Road are demolished	The station box at Charlemont allows for a future tie into the Luas Green Line should it be determined in the future that through running metro services to Sandyford is the required solution to address the public transport needs to the south of the city. It is incorrect to say that the current proposal is based on an option that was previously dismissed as part of the March 2017 Green Line tie in study. The station design is in affect a modification to the preferred Green Line Tie Option 4B which was modified as result of the postponement of the upgrade of the Green Line to metro standard. The station box location was not fixed by the Charlemont Development. The preferred route for MetroLink was published in March 2019 following a comprehensive route options study. The preferred route was based on the emerging preferred route for the scheme which included a station at Charlemont. The Charlemont Metro Enabling Works were constructed to enable the Charlemont Development to proceed whilst simultaneously ensuring there was an option available to construct a station at Charlemont that avoided unnecessary demolition, took advantage of an available site, provided infrastructure that is integrated with planned development rather than necessitating later changes and retrospective adjustments to a new development or even possible demolition of the new development, whilst providing protected provision for the future extension of the scheme south, if required. It is also important to recognise that the station location at Charlemont is influenced by available vacant land and thus avoids unnecessary demolition. The submission seeks to portray the construction of the Metro Enabling Works as prejudicial to future decisions on proper planning and sustainable development of the area. It implies that the counterfactual would have had no effect on such decisions. That is not the case. There was a planning conflict between the EPR and the Grand Parade Development at the time the latter development was proposed. There was no resolution to that conflict that was free of implications for future decisions on the proper planning and sustainable development of the area. The Board could have refused permission for the Grand Parade Development, inevitably creating an underutilised and potentially vacant and idle site in a commercial hub location. The Board could have granted permission with no provision to facilitate a station at this location, resulting in a requirement for the railway order to provide for the demolition of a new office building. The Board's actual decision was reasonable and lawful in seeking to minimise the prejudice to an important office development and a critical piece of national infrastructure. It was also not particularly restrictive of future decisions in relation to the proper planning and sustainable development of the area. Of the three options open at the date of the Grand Parade planning application, two remain open: the Board can still require changes to the station design that require the demolition of the commercial building and it can grant an order that avoids demolition by using the Metro Enabling Works. It is agreed that the short-term implications for local residents will be significant as the scheme progresses through the construction stage, however the EIAR assesses the environmental impacts of the construction phase and commits to the implementation of appropriate mitigation measures that reduce the environmental impacts to not significant. The same is true of the operations phase for the project. TII will work closely with local residents to ensure the required mitigation measures are put in place. If in the future, the metro was extended south, this does not mean that inevitably open cut construction will be required or demolition of property will be necessary. In designing an extension, the promoter will seek to reduce the requirement for demolition by looking for tunnel launch sites at the southern extent of the scheme and, if one can be identified, driving the Tunnel Boring Machine northwards ultimately connecting into the existing tunnel. In that case, even if the new alignment were under the properties identified in the submission, the tunnel underneath them would be constructed by the Tunnel Boring Machine without the need for above ground works.

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7	Letter - Point 5	2	5. The Environmental Impact Assessment is inadequate in relation to the description of development, alternatives, transport assessment, noise and the cumulative effects of the development on the Charlemont-Dartmouth Community. For a project of this size, scale, investment to date, it is inadequate to propose a Railway Order with so many important studies and analyses missing. Full details of this inadequacy are set out in the observations submitted by the Charlemont-Dartmouth Community Group, of which we are members.	TII do not agree that the Environmental Impact Assessment is deficient, inadequate or missing information. The Railway Order application comprises a very detailed environmental impact assessment that has identified and assessed the potential environmental impacts of MetroLink and proposed mitigations for these impacts where necessary. TII would also draw attention to the detailed project description, construction phase description and operational phase description provided in EIAR Chapters 4 and 5 and 6, and EIAR Chapter 7 and associated appendices that present details of alternatives considered. EIAR Chapter 9 and appendices provides a detailed analysis of transport and traffic effects, and EIAR Chapters 13 Airborne Noise & Vibration, and 14 Groundborne Noise & Vibration provide a detailed assessment of potential noise and vibration effects, while Chapter 29 outlines the assessment of interactions between various environmental aspects, and Chapter 30 covers the cumulative impacts with other projects. This assessment is carried out for the full length of the alignment including relative to potential significant effects on the Charlemont-Dartmouth Community. TII can also confirm they have reviewed and responded to all submissions received in response to the submitted Railway Order application.

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8	Letter - Point 6	2	6. The development would result in noise and disturbance during the construction and operational phases which will result in a loss of amenities for the area.	The EIAR presents a comprehensive and detailed assessment of both groundborne and airborne noise and vibration in Chapter 13 and 14 of the EIAR. The assessments include for predictive modelling in order to identify the potential impacts on all sensitive receptors during both the construction phase and the operational phase. Noise and disturbance during construction: No profound impacts have been identified for residents and mitigation measures proposed will be effective at reducing the impacts on these properties and in general terms impacts will be associated with the construction phase only. Significant mitigation is proposed to include 4m high noise barriers and further proposed mitigation in line with the Airborne and Groundborne Noise Mitigation Policy. On the implementation of these measures the residual impacts are predicted to be moderate. However, as outlined in Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) there is a process in place whereby further mitigation measures can be implemented at individual properties should this be merited. Noise and disturbance during operation: No residual noise impacts are identified at this location during operation. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and results in a not significant to slight impact when added to the prevailing noise environment. Loss of amenity during construction: EIAR Chapter 11, Population & Land Use provides an assessment of effects on community amenity during construction and operation, which relates to the interaction of impacts on air quality; visual amenity; traffic and transport; and noise and vibration. At this location during construction as outlined in Section 11.5.2 of Chapter 11, no impacts are identified on the retail sector or community and social infrastructure (e.g. schools or hospitals). Any severance/disruption to transport will be limited by site mitigation measures such as alternative routes reducing impacts to not significant. Loss of amenity during operation: No significant residual negative impacts are anticipated on the Population and Land Use from the operation of the proposed Project, following the incorporation of the mitigation measures into the design of the proposed Project and implementation on an ongoing basis throughout the lifecycle. The residual effects that will arise during operation will be permanent and positive as detailed in EIAR Chapter 11, section 11.1.1. The zoning under the Dublin City Development Plan 2022 - 2027 for the residential properties in question is "Z2 Residential Neighbourhoods (Conservation Areas)" with an objective to "protect them from unsuitable new developments or works that would have a negative impact on the amenity or architectural quality of the area (See Table 3.11 of the submitted Planning Report). As outlined in Section 4.5.18.6 of the Planning Report, the element of the Project within the Z2 zoning area will affect a below ground area only and as such will not compromise the land use objective for the lands overhead. The majority of the proposed Charlemont Station and all above ground elements are located within the lands zoned Z5 with the objective "To provide for the creation and protection of enterprise and facilitate opportunities for employment creation". The Station has been designed so that it is integrated with the proposed redevelopment of this site by a third party development, and as such, demonstrates that the proposed Project is consistent with the zoning objective. The MetroLink station design does not result in any segregation of the area, with no surface barriers or walls proposed. See below in relation to the submission that the Traffic Study for Charlemont is inadequate because it omitted the impact of airport users from south Dublin travelling to this location.

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9	Letter - Point 6	2	point 6 (continued) The Traffic Study for the local Charlemont area is wholly inadequate as it omitted the modelling of the impact of Airport users coming to the only Dublin South Metrolink station at Charlemont. The Traffic Study uses a strategic, generalised regional model that does not take local factors into account. extract from point 9) - The EIA did not properly assess the impact of additional local traffic volumes, rather they used a generalised regional model that does not take local factors into account. A key local factor at a Terminus station in Charlemont that runs to the Airport is the huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with baggage for onward travel to the airport. Grand Parade and the residential area around Charlemont-Dartmouth cannot sustain the significant additional traffic volumes associated with this development	The MetroLink forms part of an integrated public transport network. The system is designed in an integrated manner so that people travelling from the area south of Dublin to access locations north of Charlemont, such as Dublin Airport, Mater, Swords etc. will utilise public transport to interchange with the MetroLink, or will walk or cycle to access their local station. The system is not designed to encourage people to drive to stations within the City and TII actively discourage people from doing so other than the Park & Ride station at Estuary. TII therefore do not agree with the observation that there will be a “huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with luggage for onward destination to the airport” as this is not borne out by our transport analysis. The Transport Assessment for MetroLink includes for people travelling to/from Dublin Airport from all areas within the extents of the GDA area, therefore it is incorrect to say “The Traffic Study for the local Charlemont area is wholly inadequate as it omitted the modelling of the impact of Airport users coming to the only Dublin South Metrolink station at Charlemont”. The NTA's Eastern regional Model (ERM) incorporates a wide range of data sources, including demographic data, land use data, transportation network data, and travel survey data. The system is designed to model a variety of transportation modes, including private vehicles, public transit, walking, and cycling, and to simulate the interactions between these modes. The ERM model has been validated and calibrated using a range of localised data sources to ensure that the model can accurately represent the transport network, these include public transport and vehicle counts from the canal cordon counts. The outputs from the model have been combined with local survey data to undertake the more localised modelling, such as the pedestrian impact assessments, or the local traffic signals. This does not support the observations made “The Traffic Study uses a strategic, generalised regional model that does not take local factors into account.” or “The EIA did not properly assess the impact of additional local traffic volumes, rather they used a generalised regional model that does not take local factors into account.” Regards the observation there will be a "huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with luggage for onward destination to the airport. Grand Parade and the residential area around Charlemont-Dartmouth cannot sustain the significant additional traffic volumes associated with this development", this is covered by response (12) below.	

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10			7. The noise and disturbance for our dwelling, that we will experience during construction, will be far in excess of that indicated in the Applicant's EIA. The level of noise, vibration and disturbance, combined with its duration, will render this house uninhabitable.	TII do not agree that noise and disturbance will be far in excess of that set out by the MetroLink EIAR, summarised below, or that your house will be rendered uninhabitable, noting that no profound effects from noise and vibration are predicted. Construction Airborne Noise and Vibration Potential impacts identified due to airborne noise and vibration are presented in EIAR Chapter 13. Noise mitigation proposed for works at Charlemont Station are summarised in Section 13.6.1 of the EIAR and include for boundary hoarding around the working area, including a 4m high hoarding at the southern, northern and western boundaries, increasing to 7m high on the eastern boundary. In addition, the above ground support works for below ground sprayed concrete tunnelling works will be enclosed within an acoustically clad steel framed building to control noise breakout to surrounding receptors. With consideration of the proposed noise mitigation measures, residual impacts during the construction of Charlemont Station have been set out in Table 13.90, where it is indicated that noise impacts at receptors at 11 Dartmouth Square West will be reduced to a Moderate magnitude. The Contractor will be required to set out site specific measures to manage and mitigate airborne noise in their Construction Environmental Management Plan (CEMP), an outline of which is included in EIAR Appendix A5.1. Should an Enforceable Railway Order be granted, prior to the commencement of any construction works, a detailed noise assessment for each work site will be undertaken based on the most up to date information for each site. There is no published statutory Irish guidance relating to the maximum permissible noise level that may be generated during the Construction Phase of a project. Local authorities normally control construction activities by imposing limits on the hours of operation and consider noise limits at their discretion. Additionally, the contractor undertaking the construction of the works will be required to take specific noise abatement measures to the extent required to comply with the recommendations of BS 5228-1 (BSI 2014a). EIAR Appendix A14.5, Groundborne Noise and Vibration and Blasting Modelling Results, 14.4 Section AZ4 Northwood to Charlemont presents the predicted vibration levels during TBM passage for various sensitive receptors and outlines the predicted VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) for TBM Passage during the day and night. At 11 Dartmouth Square West these are predicted to be 0.233ms-1.75 (VDV day) and 0.196ms-1.75 (VDV night) respectively. Both of these values are lower than the VDV Threshold Levels of 1.0ms-1.75 (VDV day) and 0.5ms-1.75 (VDV night). Levels of vibration during mechanical excavation of Charlemont Station are predicted to be 0.003ms-1.75 and 0.003ms-1.75 for day and night-time respectively, which is lower than the VDV Threshold Levels of 0.8 ms-1.75 daytime and 0.4 ms-1.75 night-time, resulting in a not significant impact on the building and its occupants. The threshold levels have been set in relation to human response to vibration, and thresholds for building damage are much higher. As the predicted levels of vibration from TBM passage and mechanical excavation are below these thresholds, no impact is predicted for either the building or for residents of this address. The predicted level of groundborne noise during TBM passage is 47 dB LASmax at 11 Dartmouth Square West, which is above the 45 dB LASmax threshold, resulting in a significant impact on the occupants of this address for the relatively short 2-week duration of the TBM passage. Unfortunately there are no effective methods available to reduce groundborne noise from TBMs at source and therefore the principal mitigation measure is advance consultation and engagement to inform residents of the timing of the TBM passing to allow building occupants to prepare for the temporary elevated noise levels. Predictions of vibration during blasting at Charlemont Station have also been made. For 11 Dartmouth Square West with a predicted exceedance vibration level of 8.4mm/s PPV (Peak Particle Velocity) compared to the threshold level for this building of 8mm/s resulting in a potential significant impact. As a result, mitigation measures will be implemented to reduce the risk to buildings as outlined in EIAR Chapter 14, Section 14.5.1.2, including measures to reduce the impact of blasting through the preparation of specific blast design at each location, minimisation of the maximum instantaneous charge weight or alternatives to blasting. With the implementation of appropriate mitigation to reduce vibration from blasting the residual impact is predicted to be reduced to not-significant. The predicted level of groundborne noise during the mechanical excavation of Charlemont Station is 40 dB LASmax, which meets the 40 dB LASmax threshold level. As outlined in Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) there is a process in place whereby further mitigation measures can be implemented at individual properties should this be merited, such as noise insulation or temporary rehousing.

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11		3	8. Locating part of the proposed Charlemont station box within the curtilage of our property, so close to the Victorian masonry walls of our Victorian-era Protected Structure, should not be regarded as being in accordance with the proper planning and development of what the Planning Authority has deemed to be an Architectural Conservation Area. Because of the breach of planning procedures noted in #3 above, it will not be possible to modify this location by conditioning an approval; the only way to resolve it would be to reject the proposed location of the Charlemont terminus.	The proposed station is not located within the curtilage of said property although some substratum acquisition is proposed below your garden. The impact of construction of the station in proximity to your property has been assessed and takes into account the protected status of your building. The approach taken by TII for assessing the impact of construction generated ground movements reflects the industry standard three-phased ground movement impact assessment process that is undertaken on tunnelling and underground projects around the world, that includes Channel Tunnel Rail Link (CTRL), Dublin Port Tunnel, Crossrail and High Speed 2. EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement and includes for the assessed impact on 11 Dartmouth Square West. EIAR Appendix 5.17 refers. The Phase 2 assessment of the ground movement impact to this building is "slight" (an explanation for which can be found in Table 4-4), please refer to building B-150 in table 5-2 of the appendix. As your property is a designated Protected Structure, it has been designated as "special", and hence a further Stage 3 refined assessment, despite the impact only being assessed as 'slight' will be undertaken that will take account of final design and construction methodology details most likely utilising advanced numerical modelling techniques and further surveys of the building. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. Monitoring instrumentation will also be installed in the area to monitor the performance of the works and potential environmental impacts, including those discussed above to ensure that acceptable limits are not breached. TII would also draw attention to the fact that private properties within 50m of the station excavation, or 30m of the tunnel are eligible to subscribe to the Property Owners Protection Scheme (POPs) which includes for pre and post-construction condition surveys and repair of damage, but noting that irrespective of subscription to the POPs, in the event of any damage occurring that is attributable to MetroLink works, this will be repaired at no cost to the property owner up to a value of €45,000. Further details on POPs can be found in Chapter 11 (Population and Land Use) section 11.6.1. Please refer to response (6) above that explains why TII consider there has been no breach of planning procedures.	

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12	Construction/Operational Phase	3	9. The development would have an adverse impact upon traffic during the construction and operational phase; access has not been properly designed and there is poor integration with other modes of transport. Pedestrian movements in and around the station would be difficult. Grand Parade is an already heavily congested orbital route.	Metrolink is designed to form part of an integrated public transport network with Charlemont selected as the preferred interchange location in order to maximise the potential interchange with the existing Luas Green Line. In overall terms, Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Construction Phase: EIAR Appendix A9.5 Scheme Traffic Management Plan presents the analysis undertaken to assess the impact of the traffic management measures on the local road network surrounding the proposed Charlemont Station during the construction phase. At the local level the following parameters have been used to assess impacts on general traffic and on pedestrians: • Increase in walking distance/quality of service for pedestrians (through removal of footpath, reduction of quality of service, removal of a pedestrian crossing or relocation of crossing by more than 100m); • Increase in driver delays at junctions; • Changes in traffic flows on surrounding streets; and, • Additional distance travelled due to diversions. The analysis undertaken at this location indicates that the increased volume of traffic on Grand Parade and Northbrook Road does not translate into any significant increase in driver delay. The largest increase in driver delay of 12 seconds is registered on the westbound approach on Grand Parade to the Ranelagh Road signalised junction. During the construction phase, pedestrians will experience a reduction in quality of pedestrian infrastructure and space. The construction site boundary will encroach upon footways in the local area, including the northern side of Dartmouth Road, and the southern side of Grand Parade. However, a temporary signalised crossing will be provided west of the Luas to maintain pedestrian access to and from the Stop. Whilst there are partial closures on Dartmouth Road and Grand Parade, pedestrian movements will be maintained on appropriately sized footways through the area. With particular regard to cycle safety, as part of the traffic assessment presented in EIAR Appendix A9.5 Scheme Traffic Management Plan, the impact on cycle safety has been considered. A two-stage screening assessment methodology has been adopted, ensuring that any reduction in quality of service for cyclists (by one level or more) has been captured, with remedial measures including the temporary installation of cycle ways where appropriate, to minimise the impact on cyclists. Where the existing level of service cannot be maintained in the vicinity of the construction sites, alternative routes will be designated to minimise the risk to vulnerable users. As such, the traffic management measures have been designed in line with the hierarchy of road users identified in the GDA Transport Strategy, giving highest preference to pedestrians and cyclists. Prior to implementation, all traffic management measures will be agreed with DCC, and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken to ensure the safety of users.

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			Response (12) continued.	Operational Phase: A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. The proposed pedestrian crossing on Grand Parade will have minimal impact on the traffic flow along Grand Parade and can be programmed to operate in sync with the existing signalised junction at Grand Parade /Charlemont Street to maintain the flow of traffic movements. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Furthermore, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used for a significant volume of car or taxi trips.	

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13	Adverse impact on Property Values	3	10. The development will have an adverse impact upon property values, particularly during the construction phase. For many houses in the area, and for our house in particular, there will be a long term and permanent adverse Impact upon property values from noise of the operating rail Infrastructure, vents, tannoy systems, escalators and large traffic volumes - vehicular and pedestrian - using the station 19 hours per day. The adverse Impact also extends to the loss of amenity for the wider community by changing a quiet, residential neighbourhood into a noisy, busy, congested major transport hub.	TII do not agree that the development will have a long term and permanent negative affect. In fact there is strong evidence to suggest that property values will in fact increase in close proximity to public transport infrastructure and that local residents will greatly benefit from having a world class metro system providing access to the city centre, airport and north city at their door step. No significant impacts during the operational phase are predicted, including with regards to noise or amenity, as summarised below. While response (12) summarises the assessed traffic and pedestrian impacts, noting that MetroLink forms part of an integrated public transport network. The system is designed in an integrated manner so that people travelling from the area south of Dublin to access locations north of Charlemont, such as Dublin Airport, Mater, Swords etc. will utilise public transport to interchange with the MetroLink, or will walk or cycle to access their local station. The system is not designed to encourage people to drive to stations within the City and TII actively discourage people from doing so other than the Park & Ride station at Estuary. In overall terms Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips. Operational Noise and Vibration With regards to the noise of operating rail infrastructure, EIAR Chapters 13 and 14 present a comprehensive and detailed assessment of operational airborne and groundborne noise and vibration. No residual noise impacts are identified at this location during operation. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and result in a not significant to slight impact when added to the prevailing noise environment. EIAR Chapter 13, sections 13.2.3.2 and 13.5.3.2.3 recognise that ventilation systems if not designed and mitigated effectively are potential noise sources. Section 13.6.2.3 outlines the detailed considerations that will be included in the design to ensure that the ventilation systems do not exceed limits as per BS 4142, including: • Reduction of induct flow rates; • Reduction of elements in the airflow; • In duct attenuators; • Orientation of grilles and louvres away from sensitive receptors; • Acoustic louvres; and • Anti-vibration mountings and couplings will be incorporated into the design to control vibration. Measures to mitigate noise from the use of public address systems is also detailed in Chapter 13 (sections 13.5.3.2.4 and 13.6.2.4). Best practice design principles will be employed to minimise noise breakout at the surface from these systems via escalators, lift shafts and stairwells. Mechanical elements associated with escalators are housed below ground and are fully enclosed. The operation of escalators does not generate any notable noise sources during operation and will not be audible above the prevailing noise environment. With regards to stations entrances, these are transient areas for passengers entering and exiting the station. These activities are not the source of significant noise generation and form part of the existing soundscape in the existing prevailing environment. It is acknowledged footfall numbers will increase in the vicinity of the station entrance, however this activity does not translate to significant noise impacts. Finally, noise levels arising from the station during the operational phase will be required to adhere to limits to ensure that there are no significant effects. To provide further assurance, it will also be a requirement placed upon the MetroLink operator to act responsibly and considerately, and be a 'good neighbour' when operating the station. Loss of amenity during operation - Please refer to response (8) above.

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14	Requested Amendments	4	We request the following amendments: 1. Omit from the Railway Order the Section from Tara Street Station to Charlemont Station and associated onward tunnel extension and intervention tunnel; 2. Require the submission of a railway order for a section from Tara Street Station to St. Stephens Green which would effectively provide for a terminal hub station that can Integrate with the Luas Green Line, multiple bus routes, future DART underground and possible future Luas line out the Nil. 3. In addition to the above, we wish to advise that the Application is in breach of agreed terms between TII and us. TII agreed a position prior to any planning application and in those circumstances, it is submitted that TII ought to amend the Application to comply with the terms of what was previously agreed.	The above responses to the observations made explain why TII do not consider it is correct or appropriate that the MetroLink alignment south of the proposed Tara Station should be omitted, and also demonstrates why the proposed Charlemont Station has been selected by TII as the preferred interchange with the Luas Green Line A scheme which terminates at Tara Street would not be consistent with the Transport Strategy for Greater Dublin Area (2022-2042). In addition any decision to terminate the scheme at Tara will significantly impact on the overall viability and benefits of scheme. TII note that there was an error in the temporary land take drawings submitted as part of the application. TII have written to the parties to confirm that it will be rectified and will provide the correct drawing at oral hearing.

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1	Introduction	1	With regards to the above matter I can confirm that I have been instructed to act on behalf of the above named party in relation to the above compulsory acquisition order as it effects their property. We would like to correct the record in that the letter was addressed to the previous owner of the property. The property is now owned by Lette Accommodation Ltd. The schedule should be amended to reflect this and all correspondence should be addressed to Mr. Justin Kinsella at 1 Harcourt Terrace. My client's property is part of a set piece regency terrace which was developed in the 1830's and is unique in that it is still largely intact and is therefore of significant architectural and historical significance. The property is also a protected structure under the current Dublin city Development plan.	Thank you for sharing this information. TII confirm that the schedule will be amended and all correspondence will be addressed to the new property owner. TII acknowledge the architectural and historical significance of the property, and recognise that the property is also designated as a protected structure. Hence, the property has been included in the impact assessment and presented in EIAR Chapter 26 (Architectural Heritage), Table 26.25: "BH-564 - 1 Harcourt Terrace - Three-storey over basement, three-bay detached house with central breakfront and rendered façade; RPS 3561 DCC; NIAH 50110463".
2	Draft of Proposed RO (paragraph 1)	1	My client was issued a letter dated the 20th of September 2022, which included several extracts from plans and a copy of the public advertisement placed in the Irish Independent on the 17th of September 2022, which proports to indicate they have applied for the relevant railway order. However, in their letter they refer to relevant extracts from the "draft of the proposed Railway Order". Indeed the booklet provided is called the Draft Railway order.	TII confirm that a letter (Ref. CAP_ML_0946_38) was issued on 20th of September 2022 to Mr. Leonard Kinsella at 1 Harcourt Terrace with reference to 'Intended application by the National Roads Authority (operating as Transport Infrastructure Ireland) for the Railway (MetroLink–Estuary to Charlemont via Dublin Airport) Order [2022]'. Please note that the reference to a "draft Railway Order" is correct and that it reflects the fact that it is a description of what is proposed by TII for approval. The "draft" railway Order will become a "Railway Order" only if and when An Bord Pleanála approve it and update to include any specific additional requirements that the Board identify as being required.
3	Draft of Proposed RO (paragraph 2)	2	In my view there should be no draft involved at this juncture either TII wish to apply for a railway order or they don't. If they wish to apply for a Railway Order to the Bord then both the Bord and Land owner should know exactly what is in the order and there should be no equivocation, which appears to be the case here were the documents are only draft. It begs the question of when will the final Order be submitted and will it be any different from the Draft Order. It is difficult to see how a land owner can make submissions or how the Bord can make decisions based on a draft.	Please refer to response item (2) above in relation to the term 'Draft'.

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4	COMPUSORY PURCHASE AND SUPPORTING INFORMATION	2	In respect of the draft Order I would point out that reference is consistently made to the schedules which are not attached. In particular in part three makes reference to several schedules which are meant to indicate the lands being acquired. Again without these schedules and plans it is not possible for us to properly identify the lands being acquired and the possible effects on our property. I would also draw the Bords attention to section 7.59 of the Non - Technical summary which states that there is are "limits of deviation during the construction phase. There is no such provision allowed in law. In fact schedule three of the 1966 Housing act states "the compulsory purchase order shall be in a prescribed form and shall describe by reference to a map the land to which it relates and shall incorporate, subject to the modifications here and after mentioned any necessary adaptations" Clearly the documentation provide to date does not meet this legal requirement.	Individual property notices were issued. Notification letter CAP_ML_0946_38 issued on 20th of September 2022 at 1 Harcourt Terrace includes relevant extracts from the Book of Reference to the plan, indicating the identity of the owners and of the occupiers of the lands described in the Plan. The unique land take referencing and numbering for 1 Harcourt Terrace is "ML6E-U16". The book of reference - third schedule (substratum land which may be acquired) for 1 Harcourt Terrace (ML6E-U16) is attached to the above mentioned notification letter. Relevant extracts of plans (including maps or drawings) which indicate the extent of the lands or land rights affected were also enclosed to the notification letter and include: • Individualised Property Details (Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-03762, ML6E-U16), which is the drawing marking out your property (only), which is extracted from the below property plan. • Property Details Hatch Street Lower to Grande Parade (Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-01097, ML-P 306 E-O), which shows the extent and types of land acquisition that TII proposes to acquire to facilitate the construction, operation, and maintenance of the MetroLink project along the section of the route close to your property. • Alignment Long Section 18 (Plan drawing no. ML-LN O-O18), which shows the indicative depth of the tunnel along the section of the route close to your property. • General Arrangement Hatch Street Lower to Grande Parade (Plan drawing no. ML-RO 306 E-O), which shows the general arrangement of the tunnel along the section of the route close to your property. The design includes for a limit of deviation which is required to allow for unforeseen obstructions and construction tolerances which may necessitate a change to the alignment. In the highly unlikely event that this were to occur, any resulting environmental impacts will comply with the limits set by the enforceable Railway Order. TII has carried out a comprehensive set of ground investigations in accordance with relevant guidelines and best practice. It has a high confidence that MetroLink can be constructed along the proposed alignment without requiring vertical or horizontal adjustment. However, in order to guard against rare and undetectable subterranean conditions that might interfere with construction, the Railway Order provides for limits of deviation (as have other railway authorisation since at least the 1840s). The impacts of potential changes within the Limits of Deviation are considered in the Wider Effects Report (Appendix A5.19).

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Re: Railway (Metro Link Estuary to Charlemont via Dublin Airport) Order 2022Mr Leonard Kinsella 1 Harcourt Terrace Dublin 2 Ref: ML6EU16				
5	SUBSTRATUM DEFINITION (paragraph 1)	2	The documentation supplied to date makes reference to acquiring substratum. There is no definition supplied as to what this is. Is it measured from the top or the bottom of the Tunnel? When they say the surface what do they mean, is it the floor of a basement and what consideration has been given to any structures with piled foundations or underground car parking? One can only presume that TII will attempt to rely on rule 17 as introduced by section 48 of the Planning and development (strategic infrastructure Act 2006 which states "the value of any land 10 meters or more below the surface of that land shall be taken to be nil, unless it is shown to be of a greater value by the claimant". All the other rules for the assessment of compensation are based on the open market Value of the lands, which can be determined by an Arbitrator in default of agreement. It is simply not credible that legislation can be introduced where the state has in essence predetermined a nil value to part of someone's property. Indeed even in the case of a half road bed which is controlled by a local authority this is not the case. We would ask that the Bord should seek legal clarity from the Courts as to whether this legislation is legal in the first instance.	Substratum' refers to an underlying layer or substance, in particular a layer of rock or soil beneath the surface of the ground. The substratum land take has been generated by creating a limit of deviation (LOD) ranging from 5 metres vertically upwards and 10 metres downwards to 15 metres laterally for the tunnel alignment. Substratum land take is shown on the Property Drawings submitted with the RO application (please refer to the 1 Harcourt Terrace property details plan mentioned at Item 4 above) and on Figure 21.1. of the EIAR Chapter 21 (Land Take). Rule 17 introduced by Section 48 of the Planning and Development (Strategic Infrastructure) Act 2006, states: 'The value of any land lying 10 metres or more below the surface of that land shall be taken to be nil, unless it is shown to be of a greater value by the claimant'. For MetroLink project, the depth of tunnel will vary along the route but it is expected that the average depth will be approximately 24m from ground level to track level. In the vast majority of cases the subsoil can be acquired without affecting the above ground property. For 1 Harcourt Terrace property the following data are shown on the individualised property details plan (please refer to Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-03762, ML6E-U16 listed at Item 4 above): • Ground level to crown of tunnel (m) - 17.3; • Ground level to track (m) - 24. EIAR Chapter 21 (Land Take), Section 21.6.1.2, outlines the Compensation for Compulsory Purchase process. Under the Transport (Railway Infrastructure) Act 2001 (as amended) (the ‘Act’) upon commencement of the Railway Order (RO), TII will be authorised to acquire compulsorily any land or rights in, under or over land or any substratum of land specified in the RO, and, for that purpose, the RO shall have effect as if it were a compulsory purchase order (as referred to in Section 10(1) of the Local Government (No.2) Act 1960 (as inserted by Section 86 of the Housing Act, 1966) which has been duly made and confirmed) with modifications. Accordingly, TII is authorised to serve a notice to treat pursuant to the provisions of the Housing Act, 1966, including Section 79 thereof. TII also has the right to enter onto other lands for the purposes of carrying out the works permitted under the RO in certain circumstances. The acquisition of the various specified rights and interests in land and property, is necessary in order to ensure the delivery of the MetroLink project in its entirety. Further information can be obtained from the MetroLink Compulsory Purchase Order Guideline document (September 2022) which can be found on-line at: https://www.metrolink.ie/media/0jlpbyso/metrolink_cpoguideline_final_september-2022.pdf
6	SUBSTRATUM DEFINITION (paragraph 2)	2	The lack of detailed design drawings means that we have no indication of where the top of the Tunnel will be in relation to the underside of our basement floor level of our property or any foundations. This will have serious implications for the property in terms of risk from Vibration during the works and also when the Rail is operational, and also in relation the possible interpretation of rule 17, as referred to previously.	Relevant preliminary drawings (alignment longitudinal section, general arrangement, property details) have been issued to 1 Harcourt Terrace property - please refer to Item no. 4 and 5 above. Details have been provided. With regards to your concerns related to potential vibration impacts, EIAR Appendix A14.5, Groundborne Noise and Vibration and Blasting Modelling Results, 14.4 Section AZ4 Northwood to Charlemont, presents the predicted day and night VDV levels (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) for TBM passage during construction phase and for railway operation, with the results for 1 Harcourt Terrace summarised below: • The predicted day and night levels of groundborne vibration during TBM Passage are 0.254ms-1.75 (VDV day) and 0.213ms-1.75 (VDV night). Both of these values are lower than the VDV Threshold Levels of 1ms-1.75 (VDV day) and 0.5ms-1.75 (VDV night) presented in EIAR Chapter 14.2.1.2.3 Vibration from Construction Sources other than Blasting, meaning that no significant impact is expected on the property as a result of vibrations during TBM passage. • The predicted day and night levels of groundborne vibration during railway operation are 0.007ms-1.75 (VDV day) and 0.004ms-1.75 (VDV night). Both of these values are much lower than the VDV Threshold Levels of 0.8ms-1.75 (VDV day) and 0.4ms-1.75 (VDV night) presented in EIAR Chapter 14.2.1.2.4 Vibration from Operation, meaning that no significant impact is expected on the property as a result of vibrations during railway operation.

Submission No.			167	
Organisation Name or Name of Submitter			Leonard Kinsella	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metro Link Estuary to Charlemont via Dublin Airport) Order 2022Mr Leonard Kinsella 1 Harcourt Terrace Dublin 2 Ref: ML6EU16				
7	APPROPRIATE ASSESSMENT (paragraph 1)	3	We also note that the Historic nature of Harcourt Terrace doesn't feature anywhere in the non -Technical summary not even in section 10.17 of the non -Technical summary which purports to deal with Archaeology and Cultural Heritage. One can only conclude that it has not been considered in TII's deliberations in relation to possible effects on a architecturally significant part of Dublin.	The Non-Technical Summary document summarises in non-technical language the Environmental Impact Assessment Report (EIAR), including the likely significant effects identified, the mitigation and monitoring measures proposed, as well as any residual effects arising from MetroLink that have been identified during the Construction and Operational Phases to inform the planning consent process. This document does not present the detailed assessments undertaken. The specific chapters of the EIAR present details on the impact assessment of the MetroLink Project on the receiving environment during the Construction Phase and Operational Phase. EIAR Chapter 26 (Architectural Heritage) describes and assesses the likely direct and indirect significant effects of the proposed Project on Architectural Heritage. The protected structure status of the building is known (see Table 26.25: Architectural Heritage Constraints from St Stephen's Green Station to Charlemont Station) hence your property has been subject to impact assessment and the results are presented in the Section 26.5.4.15 St Stephen's Green Station to Charlemont Station. According to the findings of impact assessment, no direct impacts on architectural heritage are predicted during Construction Phase in this section of the study area. Also, no direct or indirect impacts on architectural heritage are predicted during Operational Phase.

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Organisation Name or Name of Submitter			Leonard Kinsella	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metro Link Estuary to Charlemont via Dublin Airport) Order 2022Mr Leonard Kinsella 1 Harcourt Terrace Dublin 2 Ref: ML6EU16				
8	APPROPRIATE ASSESSMENT (paragraph 2)	3	In relation to Section 10.12 Soils and Geology, in the non-technical summary. It is our view that it is far too vague, so as to be of little use when considering possible impacts on our property. We would like to put on record that there is a granite rock seam which runs through the lands adjacent to Harcourt Terrace and our property which will in our view constitute a risk of damage occurring to our property, especially during the works. This would appear not to have been considered. We also note that there is an underground river called the river Steyne which flows below the Terrace, similarly, there has been no cognisance or consideration of this demonstrated within these proposals.	As stated in response item (7) above, the Non-Technical Summary document summarises in non-technical language the Environmental Impact Assessment Report (EIAR), including the likely significant effects identified, the mitigation and monitoring measures proposed, as well as any residual effects arising from MetroLink that have been identified during the Construction and Operational Phases to inform the planning consent process. This document does not present the detailed assessments undertaken. The local geological conditions were considered (including the presence of River Steyne/Stein) and presented in detail in EIAR Chapter 20 (Soils and Geology). EIAR Appendix A5.17, Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. The settlement contours calculated were used to undertake the buildings damage assessment. It is important to recognise that your property is a 'special' building (designated protected structure) and hence will be further assessed (Phase 3) at the detailed design stage to verify the impacts. Currently, the building is assessed at Damage category 2 or below. The damage categories are described in section 4.3.2 of the EIAR Appendix A 5.17, Building Damage Report. The Phase 3 assessment will take account of final design and construction methodology details. A detailed survey will be carried out as part of the Phase 3 assessment to provide the necessary additional information to inform this detailed analysis of how the individual elements of the building would be affected by the predicted ground movements. The method and extent of the detailed analysis will be determined on a case-by case basis and may include a more sophisticated semi-empirical or a detailed soil-structure interaction using finite element modelling methods. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. 1 Harcourt Terrace building is a designated protected structure and as referred to in EIAR Chapter 26 (Architectural Heritage), in all cases where the built heritage structures are in the vicinity of the proposed tunnelling these buildings will be included in the Property Owner Protection Scheme (POPS), whereby they are to have condition surveys carried out prior to the commencement of tunnelling and again after completion. In those cases where the POPS survey identifies that damage has occurred as a result of the tunnelling works repairs are to be to be prepared in accordance with method statements prepared by the POPS Conservation Architects and approved where necessary by the MetroLink Project Conservation Architect (PCA). It is currently envisaged that all such repairs will relate to the infilling of cosmetic cracking and will not constitute 'works'. Further detail on the POPS process can be found in Chapter 26 (Architectural Heritage), Chapter 21 (Land Take) and Chapter 11 (Population & Land Use) of the EIAR.
9	APPROPRIATE ASSESSMENT (paragraph 3)	4	For the reason stated above we feel that the Bord should reject the draft order as submitted and also on the basis that the acquisition of our lands would constitute a breach of my Clients constitutional right to the quiet enjoyment of their property.	This is a matter for ABP.
10	Conclusion	4	In conclusion we would request that in any decision the Bord makes they should direct that my Clients costs, incurred in dealing with this matter should be discharged by the TII.	See item 5 above.

Submission No.			168	
Organisation Name or Name of Submitter			Lesley Hewson (6 Prospect Square, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Observation relating to An Bord Pleanála Case Reference Number: NA29N.314724 - Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order [2022], as it relates to my home at 6 Prospect Square.				
1	Letter	1	The house is quite old, it was built in 1905/6 and stands on very shallow foundations on boulder clay as we have been informed by the IEE. There are underground waterways known as the Cemetery Drain to both the front and back of the houses here. As I have no idea what the effect of drilling is likely to have on the ground on which the ACA is built I will have to look hard at where I carry out any other work on the house for the foreseeable future. While the IEE has been helpful in explaining the different phases of assessing houses for potential damage, I don't know if my house will be included in a meaningful way in these assessments. If it is not included, and damage does ensue- and we should remember that far more robust houses in Marino were damaged by tunnelling there - then I possibly face many years of trying to get the State to acknowledge that responsibility, similar to residents in Marino. Given that I am 61 now I might be an elderly woman while still trying to deal with this. Such legal matters could potentially last a very long time into my old age.	Thank you for your submission and for sharing your concerns with regards to the MetroLink project to which we have responded below. A comprehensive Settlement Assessment has been undertaken to determine the potential impacts that construction of the proposed Project will have on sensitive receptors such as buildings and infrastructure from the advance of the TBM. The ground movement predictions and the building damage assessment methodology adopted for MetroLink is based on the approach adopted in most tunnel projects around the world, including London Crossrail and High Speed 2 in England. This is described in EIAR Section 5.4.11 (Ground Settlement Monitoring and Mitigation Works). EIAR Appendix A5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. Section 5.2 of this report sets out the rationale for the assessment of properties similar to yours. The results of the assessment provided in Table 5.2 shows that Ref B - 141, one of the representative properties selected which is located approximately 80m east of your property, has been assessed as falling within the 'Negligible' category. The building risk categories shown in Table 4-4 of the aforementioned report are used to define the degree of building damage related to the Risk Category. According to this Table, the Negligible damage category refers to hairline cracks. As your property is approximately 80m from the central tunnel alignment, lesser impacts are expected. As your property is within the negligible category no further assessment beyond the Phase 2a Building Damage Assessment is required. Appendix A5.17 Appendix C contains the predicted settlement contour drawings. Sheet 20 of 28, drawing ML1-JAI-EIA-Rout_XX-DR-T-21140 refers to the tunnel alignment relevant to your property. Information regarding relocation and financial compensation related to the proposed Project is provided in Chapter 11 (Population & Land Use) and Chapter 21 (Land Take) of the EIAR. The Property Owner Protection Scheme (POPS), committed to by TII, allows residential property owners to register with TII if their residential property is within thirty (30) metres of the edge of the MetroLink alignment or fifty (50) metres of station structures. The POPS comprises condition surveys of residential properties along the route of the proposed Project. The purpose of the condition surveys is to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether same may be attributable to the proposed Project, and subsequently to recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in swift and accurate verification of any property damage claims which may be received from property owners. The POPS is designed to cater for / address repair work which may be necessary for any damage (attributable to the proposed Project) to a qualifying residential property up to a threshold of €45,000. The POPS will be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. However, as your property is approximately 80m from the centre tunnel alignment, and therefore will have negligible impacts, you may not be eligible for this scheme. Further information on POPS is available in Chapter 11 (Population & Land Use). Useful information can also be found in the MetroLink Frequently Asked Questions document which can be found online at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/ , and this is where useful updates will be made available as the proposed Project progresses. In cases where parts of properties are occupied, access to the remaining unoccupied parts will be maintained, where it is possible and safe to do so. Protection such as hoarding will be used to ensure that the boundary of any construction site will be maintained, and damage would not occur outside of this boundary. Where damage could not be avoided, it would be repaired.

Submission No.			168	
Organisation Name or Name of Submitter			Lesley Hewson (6 Prospect Square, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Observation relating to An Bord Pleanála Case Reference Number: NA29N.314724 - Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order [2022], as it relates to my home at 6 Prospect Square.				
2	Letter	1 and 2	I am aware that damage occurs to properties throughout the world during drilling and that a certain amount of 'collateral damage' is inevitable. We can't make omelettes without breaking eggs of course. Nevertheless, given that the State has already spent in the region of €88m on this project and many billions more should it go ahead, then I am left wondering why it is the people who are going to live with the mess and the inconvenience and indeed the worry who are also expected to fully accept all risks to their property arising from the construction of a piece of infrastructure that is to benefit the entire nation. Given the scale of the spending on this project I suppose I am trying to figure out why it is the people who live, or own businesses close to the alignment, not directly above it, are the ones required to bear such a significant risk and why they, of all the myriad groups involved in a mega-project should be seen as an unnecessary cost while huge amounts of money are made available for its every other aspect!	Please refer to response item (1) above in relation to predicted impacts to your property. As noted, your property is approximately 80m from the centre tunnel alignment and therefore negligible impacts are expected. TII acknowledge the concerns you may have around the potential impact to your property during the construction of MetroLink. However, the various assessments and mitigation measures proposed in the EIAR raise only one slight negative impact for your location relative to the Project in relation to traffic management. The traffic assessment during the construction phase, as set out in EIAR Appendix A9.5 Scheme Traffic Management Plan, section 7.6 indicates an average of 50 construction vehicle movements to and from Glasnevin Station site per day during the main construction phase. The main HGV routing proposed to and from Glasnevin Station is along the Finglas Road (to the east of your property) to Junction 5 of the M50 (see Figure 7.22 of Appendix 9.5). The detailed work undertaken in the EIAR for Railway Order indicates that this will result in a slight increase in traffic flows in the area.
3	Letter	2	I therefore ask that ABP give full consideration to the provision of a very thorough risk assessment process for vulnerable properties, not just as is currently provided in the obvious place above the alignment and the zone of inclusion, but also for those further away from the line but who are realistically at risk also due to the type of ground and the age and structure of the property they own.	Please refer to response item (1) in relation to the predicted impacts to your property during the construction of MetroLink, and the compensation offered by TII to affected properties. Where a property has been identified in the assessment as impacted by the planned tunnelling operation, a programme of ground movement monitoring will be implemented. The Airborne Noise and Groundborne Noise Mitigation Policy (Appendix A14.6) sets out the construction mitigation measures to be implemented.
4	Letter	2	I also ask for enhanced monitoring of the drilling process when that occurs in vulnerable areas to allow corrections to be made that minimise damage and disturbance of the ground. Finally I ask for continued and prolonged monitoring of ground settlement after drilling has taken place so that problems can be addressed in a timely manner.	Please refer to response item (3) above in relation to the mitigation for noise and vibration impacts. Appendix A5.1 Outline CEMP details the minimum requirements with regards to the appropriate mitigation, monitoring, inspection and reporting mechanisms that need to be implemented throughout construction. Documents such as the Blasting Plan (including monitoring) and the Construction Noise and Vibration Management Plan will be provided by the contractor(s) and incorporated into the detailed CEMP. Mitigation and monitoring will be carried out in accordance with the requirements of the EIAR and Natura Impact Statement so that construction activities are undertaken in a manner that does not give rise to significant negative effects. Suitable monitoring programmes will need to be developed, implemented, documented and assessed in accordance with the specification outline in the detailed CEMP(s). The results of all environmental monitoring activities will be reviewed by the Environmental Manager on an ongoing basis to enable trends or exceedance of criteria to be identified and corrective actions to be implemented as necessary. The contractor(s) will be required to inform TII of any exceedances of criteria.

Submission No.			169		
Organisation Name or Name of Submitter			LIDL Ireland GmbH (represented by Tony Bamford Planning Consultants)		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Re: Submission on behalf of LIDL Ireland GmbH to “Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022”					
1	Over Station Development (page 5 and 6 of Submission)	6&7	The Draft Railway Order is silent on the potential for Over Station Development at this location which we consider a missed opportunity but one that can be rectified within the scope of Railway Order process as the key aspects are not policy based but rather technical in nature. The problem we foresee at this time is that the opportunity to forward plan now for OSD, if not taken, will close the door to it in future. Amongst the challenges identified in the report by the “Centre For London” associated with retrofitting OSD are: <i>“Engineering and Operations: Building over operational stations is complex, and this often influences development scale and shape, requiring costly and disruptive possessions of infrastructure”.</i> The solution to overcome these problems is to design in future OSD,	TII thank you for your letter, noting your support for MetroLink. We provide our responses to the matters raised by your representatives below. MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce “Guidance Note for Developers” that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.	
2	Response of the Project to the Impacted Land's (North Wood) Zoning (page 6 of Submission)	7	The submitted Planning report sets out a comprehensive response to various policies and objectives contained in National, Regional and local planning documents. The emphasis in our position is how the applicant is responding to the content of these. In particular what does the applicant propose as their position in respect of Over Station Development?	Please refer to response item number (1) above.	
3	Response of the Project to the Impacted Land's (North Wood) Zoning (page 7 of Submission)	8	The position in respect of Northwood station, where the applicant is silent on Over Station Development, is contrasted with responses in respect of the Dublin City Development Plan. In response to Dublin City Development Plan MTO 1, as referred to page 77 of the Planning Report, highlights that: <i>‘It is an objective of Dublin City Council to encourage intensification and mixed-use development along existing and planned public transport corridors and at transport-nodes where sufficient public transport capacity and accessibility exists to meet the sustainable transport requirements of the development, having regard to conservation policies set out elsewhere in this plan and the need to make best use of urban land. Dublin City Council will seek to prepare SDZs, LAPs or other plans for areas surrounding key transport nodes, where appropriate, in order to guide future sustainable development.’</i> The response of the applicant at page 77 of the Metrolink Planning Report is as follows: <i>The proposed Project will facilitate intensification and mixed-use development along its corridor, subject to the policies of the DCDP. In particular, the proposed Project, where possible, <u>facilitates the development of the station sites themselves for oversite development</u>, on those station lands and over the tunnel alignment that are zoned for such development. The future development of land above or surrounding the station sites, station lands or over the tunnel alignment will be subject to separate planning, assessment and consultation processes.</i>	Please refer to response item number (1) above.	

Submission No.			169		
Organisation Name or Name of Submitter			LIDL Ireland GmbH (represented by Tony Bamford Planning Consultants)		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Re: Submission on behalf of LIDL Ireland GmbH to “Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022"					
4	Response of the Project to the Impacted Land's (North Wood) Zoning (page 7)	8	The interesting aspect of this is that MTO1 as an example indicates, like the objective for the Metro Economic Corridor Zoning, the need for high density, mixed use, development along existing and planned public transport. However, the report we believe omits reference to over-station development for our client's site at Northwood, which is not explained or justified. The obvious question therefore is why in the specific case of the Northwood station is there not the same emphasis. We assume that this is an omission from the Planning Report that could be easily rectified.	Please refer to response item number (1) above.	
5	Conclusions (page 7 of Submission)	8	• We would therefore ask that over station development is specifically recognised in the Railway Order. • We also refer to the attending report from Transport Insights which sets out additional technical queries that need to be addressed during the application process.	Please refer to response item number (1) above.	
6	Transport Insights Report, Maximising Metro Economic Corridor Zoning Opportunity (page 4 and 5 of the report)	13&14	Our client would wish to maximise the usable area of their site and would ask that the proposed Northwood station design/ layout be reconsidered to ensure it does not restrict development of the areas to be handed back and that over station development be considered further on the subject site.	Please refer to response item number (1) above.	
7	Transport Insights Report, Discount Food Store Requirements (page 5 and 6 of the report)	14&15	As part of a potential future mixed-use development of the subject site, our client, would look to provide a discount Food store on the site. The MetroLink proposals indicate two areas for potential development adjacent to the proposed station but other sections, such as the northern portion of the site (which the track alignment passes through) do not indicate potential for future development. Vehicle access and car parking provision is an important consideration for a discount Food store (in conjunction with sustainable modes of travel). Vehicle access to the site would likely have to be taken from the Old Ballymun Road positioned towards the northern end of the site (as proposed in the 2013 planning application, see Figure 2), given the layout of the surrounding road network. In turn, this would predetermine access requirements for the car parking layout (both at surface and underground level) and the location of the loading servicing/ delivery facilities for a potential discount food store. As such, ABP in their consideration of the MetroLink proposals should seek to enable a larger area of the subject site be utilised for future development, allowing for the provision for a high-density mixed-use development.	MetroLink public realm has been designed in consultation with Lidl by taking Lidl's future development plans into consideration. As discussed in several consultation meetings, the proposed Northwood Station construction works will require the acquisition of the entire site on a temporary basis and the acquisition of the western part on a permanent basis as shown on the RO property plans . Upon completion of the MetroLink construction works, the retained lands in consultation with TII, can accommodate development in line with zoning objectives, proposed development plans. However, design for any future building or structure immediately adjacent to MetroLink station and tunnel must take cognisance of the MetroLink structures and avoid impact, with the intention of preserving and optimising the scale and value of the Adjacent Site Development recognising that the operational requirements of the station are the overarching priority.	
8	Transport Insights Report, Station Access Requirements (page 6 of the report)	15	The MetroLink proposal indicates access to the station is to be facilitated by two main entrance points, one on either side of the Ballymun Road, as well as separate emergency access points. It is unclear from the proposal drawing if there are other access requirements to the station or track which our client would have to consider when planning future development. As such, further consideration should be given by ABP at this planning stage, and if necessary, consultation undertaken with our client.	There are two main pedestrian entrances to the station. There are additionally lift locations either side of Ballymun Road each comprising 2 lifts with one for Dublin Fire Brigade. There are additionally surface penetrations for, inter alia, smoke, ventilation and draught relief. TII will require maintenance access to these locations. With regard to development adjacent to the station please refer to Item number (1) above.	

Submission No.			169	
Organisation Name or Name of Submitter			LIDL Ireland GmbH (represented by Tony Bamford Planning Consultants)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Submission on behalf of LIDL Ireland GmbH to “Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022”				
9	Transport Insights Report, Construction Considerations (page 6 of the report)	15	As set out in chapter 5 of the EIAR MetroLink Construction Phase, the Northwood station box and track alignment in its vicinity is proposed to be constructed using a cut and cover approach. Our Client would seek further consultation and input at this planning stage to better understand the potential limits construction using cut and cover methods may place on the future development potential of the subject site. Considerations such as (not exhaustive): o Maximum loadings (permanent and temporary) that can be imposed on the cut and cover. o Maximum excavation depths over and adjacent to the cut and cover, and Northwood station structure. o Minimum working clearances allowed from the proposed land acquisition extent. o How the station would be supported against external loads, would ground anchors be required.	The station structure and retaining walls, as well as the tunnels are designed and constructed to support future imposed loads. Please refer to response item (1).
10	Transport Insights Report, Site Condition Post Construction (page 6 of the report)	15	To construction and facilitate eventual operation of the MetroLink the subject site is to form part of one of the projects main construction compounds. The extent of temporary and permanent land take has been indicated in the proposals. Our client seeks further information on the condition to which area(s) of temporary land take are to be returned following completion of construction. Considerations such as (not exhaustive): o Contamination o Drainage o Site level o Boundary conditions such as fencing, walls etc. o Service connections (whether original or newly created during construction)	TII will consult with the landowner prior to land hand back to optimise the land hand back process. TII will (if no subsequent local agreements are reached) hand back land in the same condition in which it was received unless specified demolition works are undertaken. This will include removal of any surface treatments, temporary facilities and hoardings / fencing. A condition survey will be undertaken to record the existing condition prior to MetroLink occupancy of the land.

Submission No.			170	
Organisation Name or Name of Submitter			LOKRA Lower Kimmage Road Residents Association	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Submission to An Bord Planeala 16 th January 2023				
1	Introduction	1	LOKRA (Lower Kimmage Road Residents' Association) is fully supportive of the immediate implementation of the MetroLink Project from Estuary to St. Stephen's Green. Our concerns relate only to the portion of the proposal south of St. Stephen's Green to Charlemont / Mander's Terrace. In this regard LOKRA endorses the submission of MSWG (Metro South West Group), of which we are a member.	TII appreciates your endorsement of the MetroLink Project from Estuary to St Stephen's Green. TII also note your concerns regards the section of the alignment south of St Stephen's Green and your endorsement of the MSWG submission. TII have responded below to your observations raised, and separately to the submission made by MSWG.
2	Main Concerns Limitations of Charlemont as an appropriate terminus:	1	MSWG (along with many others) has clearly outlined the unsuitability of Charlemont as a terminus and a major city centre transport hub for MetroLink. We believe that if the tunnel boring machine is parked at Mander's Terrace, it seriously compromises the ability to include some highly populated city suburbs such as Portobello, Lower Rathmines, and Harold's Cross in any future potential extensions to the line. This creates an embedded bias in favour of east bound, over south west bound, projects from the perspective of cost / benefit analysis. We believe this can only be fairly balanced by evaluating a more neutral (central) starting point (eg. Saint Stephen's Green) for alternative south bound extension route analysis (south east or south west). On the decision to choose Charlemont as the MetroLink terminus, Frank McDonald (former environmental editor for the Irish Times), wrote in a recent Irish Times article: "<i>This issue was raised by An Bord Pleandla representatives during pre-application consultations with the National Transport Authority (NTA) and Transport Infrastructure Ireland (TII) when they queried "the appropriateness of the selection of Charlemont as the end-point in the light of the decision to omit the Luas Green Line upgrade ". That question has never been satisfactorily answered . "</i> Ref: Irish Times 2nd Jan 2023	TII do not agree with the observation that Charlemont is an unsuitable location for an interchange with the Luas Green Line for the reasons set out below. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to Metro with a Metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions. The proximity of the Metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and Metro at an altnative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. TII does not agree that a southern extension is compromised by locating a MetroLink interchange at Charlemont. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the Metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Any future extention of metro services to the locations decribed do not form part of the MetroLink Railway Order Application.

Submission No.			170		
Organisation Name or Name of Submitter			LOKRA Lower Kimmage Road Residents Association		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Re: Submission to An Bord Planeala 16 th January 2023					
3	Main Concerns Climate action	2	While the current climate-change budget calls for a massive reduction in carbon emissions from the transport sector, as Janies Wickham (Fellow Emeritus ofTCD and author of European Societies Today: Inequality, Diversity, Divergence (Routledge 2020)) states in a recent article: <i>"The lack of urgency involved in rail projects is exemplified by the continued delays of the MetroLink project. First suggested in the Dublin Transportation Office 's Platform for Change in 2001, a proposal was finally submitted by the National Transport Authority (NTA) to An Bord Planeala on September 30th, 2022 . "</i> and: <i>"Investment in public transport is investment in a public good and a public service... A serious expansion of rail-based transport in the greater Dublin area is the single most realistic method of shifting journeys away from the private car. Precisely because this requires substantial investment, the obvious need is to make the investment immediately so the benefits materialise as early as possible. "</i> Ref: Irish Times 14th December 2022. If climate action goals are to be achieved, LOKRA believes there is a huge opportunity with Metrolink and the initiation of an underground metro services for Dublin, to get the basics right at the start will allow for rapid and incremental roll-out of extensions to the service. A core element of this is the choice of a future-proofed city centre terminus and progression of cost / benefit analysis of future extensions in parallel with the initiation of the MetroLink project. Underground metro is the only serious option that will ensure a modal shift from car to public transport for the 320,000 population of the south west of Dublin between the Red and Green Luas lines - with nothing to look forward to but busses up to and beyond 2042.	In response to the observation ""The lack of urgency involved in rail projects is exemplified by the continued delays of the MetroLink project", TII as the Government Agency responsible for delivering MetroLink are committed to expediting the delivery of this transformative project on receipt of an Enforceable Railway Order and in accordance with Government direction. TII also agree with the points made by the observation with regards to investment, and climate action goals and a modal shift from private car use, key objectives of the MetroLink Project. However, for the reasons set out by response (2) above, TII are of the view that the choice of Charlemont Station as the preferred location for interchanging with the Luas Green Line is correct as it allows for future proofing whilst addressing current transport needs.	
4	Main Concerns Healthier Neighbourhoods:	2	LOKRA believes that an underground Metro service should be the backbone of any integrated, multi-modal, transport system that aims to free up precious and already seriously limited road space in order to enable a healthy urban living and working environment. Yet, according to James Wickham: <i>"In 2030 there will be more cars on the road in Ireland than there are at present. As a direct result of current climate change policy, the private car will be more embedded in Irish society than ever before. "</i> Ref: Irish Times 14th December 2022 The NTA has already accepted that even with the highest level of bus service provision possible, buses alone will be inadequate to support the forecast demand in south west Dublin and yet, as stated by James Wickham in a recent Irish Times Article: <i>"...the upgrading of Dublin's bus routes through the BusConnects project is presented by the NTA as obviating the need for other major rail investment for another decade "</i> Ref: Ref: Irish Times , 14th December 2022 The negative effects of extensive car usage are now well established. Low-traffic road environments optimise the efficiency and attractiveness of flexible public transport options (such as bus and shared modes of transport), cycling and other forms of micro-mobility as well as walking.	TII agree that MetroLink will play a key role in freeing up limited road space and deliver a healthier urban living and working environment. EIAR Chapter 3, Background to the MetroLink Project outlines how MetroLink will respond to issues of sustainable mobility and change the current reliance on private vehicles and congestion on the road network. MetroLink will provide significant benefits not only to those you choose to use it, but also to other transport system users, by reducing the demand for scarce road space, and so creates the opportunity for the road transport system to achieve optimum levels of efficiency and effectiveness. Through consideration of a number of alternatives as set out by EIAR Chapter 7, Consideration of Alternatives, it has been identified that MetroLink provides the best medium and long-term transport project for the Greater Dublin Area for a number of reasons, including its ability to deliver the highest level of transport benefits when compared to other options, and offering critical interchange with other modes of transport that will discourage the use of private vehicles. As noted by EIAR Chapter 3, MetroLink will divert 6.8 million car trips per annum in the early years, growing to 12million per annum by 2045. Subsequently, there will be strong modal shift along all sections of the alignment, with a 45-58% increase in public transport usage in trips to/from the AZ1 Northern Section (R132 area). Additionally, all stations have been designed to ensure maximum interchange with other modes, specifically sustainable modes of transport such as walking, cycling and public transport, rather than private vehicles. Through a combination of these modes, and the corresponding reduction in car usage, the MetroLink project will make a significant contribution in helping Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more liveable and sustainable city. For further details on the approach taken with the design of MetroLink, please refer to Chapter 3: Background to the MetroLink Project, section 3.4 MetroLink Response to Challenges.	
5	Main Concerns Healthier Neighbourhoods:	3	In the context of Kimmage Road lower, the NTA has proposed LUAS as the only possible additional option for services beyond 2042. The imposition of large capacity buses and / or LUAS lines on Kimmage Road Lower will do nothing to facilitate the aim of a healthier and safer neighbourhood and does not respect road user hierarchy. This proposal is still to be properly evaluated and LOKRA believes that a Metro option should be given equal and fair consideration and evaluation within the timeframe of the next Dublin Area Transport Strategy review, by 2028. An underground metro service for the greater south west Dublin area, would allow for the re- imagining of road space in residential areas and significantly improving the quality of life for residents and commuters alike.	Further to response (2) above, any future extention of metro services to the locations decribed do not form part of the MetroLink Railway Order Application.	

Submission No.			170	
Organisation Name or Name of Submitter			LOKRA Lower Kimmage Road Residents Association	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Submission to An Bord Planeala 16 th January 2023				
6	Recommendation:	3	We submit therefore, that An Bord Pleanala should approve the full implementation of the MetroLink plan as far as St. Stephen's Green and defer the authorisation of the final section of MetroLink beyond the St Stephen's Green station, pending further comprehensive and comparative analysis of St. Stephen's Green vs Charlemont stations as preferred city centre hubs and starting points for future possible extensions. This and the evaluation of future south Dublin extension options, to be carried out within the timeframe of the next Dublin Area Transport Strategy review (by 2028).	The above responses to the observations made explain why TII do not consider it is correct or appropriate that the MetroLink alignment should only extend as far as St Stephen's Green, and also demonstrates why the proposed Charlemont Station has been selected by TII as the preferred interchange with the Luas Green Line A scheme which terminates at St Stephen's Green would not be consistent with the Transport Strategy for Greater Dublin Area (2022-2042). In addition any decision to terminate the scheme at St Stephen's Green will significantly impact on the overall viability and benefits of scheme.

Submission No.			171	
Organisation Name or Name of Submitter			Lorraine Rooney (resident - 8 Saint Teresa's Place, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Intended Application by the NRA (Operating as TII Ireland) for te Railway (MetroLink Estuary to Charlemont via Dublin Airport) order (2022)				
1	Letter	1	I do not feel that this €50.00 fee should apply on a local level due to the nature and extent of the build. TII, An Bord Pleanála and the stakeholders are not taking into account that local residents are giving over the land in question without any meaningful exchange from any parties involved, including local representatives with regard to the extent, size and duration of this project. As per an entry of in the Law Society Gazette 31/01/2022 the total spend on this project is 88.1m since 2016. In this instance giving the fact that this amount of money can be spent on a project that has not even begun this fee should have been waived.	The application of the fee is a matter for ABP.
2	Communication from TII to local residents	1	TII have not been transparent throughout the planning process of this proposed project. There has been no effort to bring communities on board since the consultations held in March 2019. These were a PR exercise that failed to meet the needs of the areas that will be subjected to huge disruption caused by this mega construction project. The stakeholders do not seem to have any interest in consenting local communities to have any input into the process, addressing genuine concerns about the route, the loss of green spaces, closing off sections of local amenities, and design of stations. There should have been meetings specific to each area, like the Prospect ACA, GADRA, IDRA, D7 Allianz to name but a few. As a result of the change of the date for submission this shows that there is ineptitude within TII as how a large tract of documentation for a railway order of this size was omitted is beyond belief.	Chapter 8 (Consultation) presents an overview of all stakeholder and public consultation undertaken to inform the development of the MetroLink project. Consultation was undertaken throughout the project development, including but not limited to the Emerging Preferred Route (EPR) Consultation, Environmental Impact Assessment (EIA) Scoping Consultation, Preferred Route Public Consultation and the Albert College Park Local Area Consultation. As noted, early and continuous public participation has influenced the design and development of the MetroLink project. The MetroLink Project Team has responded to the submissions and feedback received during the above-mentioned non-statutory consultation periods. The MetroLink Project Team has at all times endeavoured to ensure the widest possible access for the public, stakeholders and landowners to information about the project at all stages of its pre-planning development. As detailed in Appendix A8.19 Meetings Register, numerous meetings have been held with GADRA, Prospect ACA and District 7 Community Alliance, with dates provided for evidence. The consultation period was extended to allow for review of an inadvertently ommitted document. The document was part of a larger compilation of documents in appendices, and was not intentionally omitted.
3	Provision of Detail	1 and 2	Provision of detail in lay terms is non-existent, it is scant to say the least. There is a wealth of technical detail in the various on-line reports. This involved many hours of trawling through different reports which is arduous and time consuming especially when there was such a tight deadline for the railway order. The stakeholders had all this knowledge well in advance of the deadline, giving them the advantage. And from meeting with the various groups the prospect ACA have liaised with this was the general consensus. That the stakeholders held the advantage and local representatives were not dealing with constituents concerns. I also believe that RINA are only completing their independent report so this railway order should not be going through until this report has been looked at in greater detail.	The EIA process has been undertaken in line with the EIA Directive, based on the guidance presented in the Environmental Protection Agency (EPA) 'Guidelines on the Information to be contained in EIARs' (EPA, 2022) and other relevant guidance. The Non-Technical Summary of the EIAR for the proposed MetroLink Project is provided in Volume 1 of the Railway Order. This document summarises in non-technical language the EIAR, including the likely significant effects identified, the mitigation and monitoring measures proposed, as well as any residual effects arising from MetroLink that have been identified during the Construction and Operational Phases to inform the planning consent process. Please refer to response item (2) above in relation to the engagement with local stakeholders in this area. TII confirm that the RINA report was issued to resident groups on the 9th November and 23rd December 2022.

Submission No.			171	
Organisation Name or Name of Submitter			Lorraine Rooney (resident - 8 Saint Teresa's Place, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Intended Application by the NRA (Operating as TII Ireland) for te Railway (MetroLink Estuary to Charlemont via Dublin Airport) order (2022)				
4	Monitoring of Foundations	2	The properties along this section of the route have the standard foundations which would attributed to a property build over 100 years ago. The house is sitting on boulder clay and monitoring must be carried out to the highest standard. This ACA area is referenced in the documentation but no studies appear to have been completed. Foundations under these homes, would realistically be effected by vibration and changes to the water table. "<i>Areas of Architectural Conservation (ACAs) like Prospect Square, De Courcey Square and environs must be treated with great care and sensitivity and the residents and the Local Authority consulted at every stage of development</i>". Above is has been taken from a TII report.	EIAR Appendix A5.17, Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. The settlement contours are presented in Appendix A5.17 Building Damage Report showing that 8 Saint Teresa Place is outside the 1mm contour and therefore is not impacted due to ground movement associated with MetroLink. Additionally a programme of area ground movement monitoring will be implemented, with the monitoring locations informed by further analysis to be undertaken during the detailed design stage. Refer to EIAR Chapter 5 generally and specifically section 5.4.1. TII reaffirm that the local geological and hydrogeological conditions were considered during the settlement assessment. Refer to Appendix 5.17 and Chapter 20 Soils and Geology. With regard to goundborne vibration, the calculated vibration levels from Mechanical Excavation and TBM Passage are below the threshold for structural damage for any building type. Refer to Chapter 14 Groundborne Noise and Vibration.
5	Monitoring of Foundations	2	An in-depth ground movement study must take place, and residents need to be involved throughout this process. There is a query over the 30M zone, which has been moved down from 50M. There is no way of predicting a zone for any property, as properties with varying ages, size, builds will all react differently to vibration. The distance of the zone may need to be irregular depending on the settlement calculations done for each building. International standards must be adhered to and be contractually imposed to the contractor. No consultation has taken place with prospect ACA as a group to alleviate concerns about the close proximity of properties to the tunnel, or properties directly over the bore.	Please refer to response item (4) above in relation to the ground movement assessment at your property. A full settlement assessment has been undertaken and presented in Appendix A5.17 Building Damage Report. The contours show the buildings potentially impacted by ground movement and assessed. The contours are calculated and not building specific, only buildings within the 1mm contour are potentially impacted. Your property is outside this zone. A programme of area ground movement monitoring will be implemented, with the monitoring locations informed by further analysis to be undertaken during the detailed design stage. Please refer to response item (2) in relation to the engagement with local stakeholders such as Prospect ACA.
6	Blast Risk Management	2	Risk management in blasting work is increasingly becoming more challenging as work inevitably occurs in more populated areas. Not only is the work closer to people and structures, but concern about blasting effects on utilities are also increasing. Sometimes it is possible to use mechanical methods to excavate rock, but these are slower, costly, and may still have vibration issues. Regardless of the scale of the blasting work, sometimes engineers and contractors underestimate the importance of preparing blasting controls and public relations programs. The consequences of this are often severe. There is limited information of the duration of blasting that will be required for the station area, will this be a duration of days, weeks. Advice we have been given that there could possibly be one blast per day going on for several weeks. Can information be provided in depth on the possible vibration effects of such a procedure? How will the buildings that are protected structures dotted around this section be managed during this work. All blasting projects— large or small— occurring near any concerned neighbours, require some level of public relations work. The level of this public relations (PR) work is a function of the blasting duration, timing, and the level of concern by the neighbours. The public should not be ignored and should be allowed a meeting to discuss their concerns over blasting close to their homes and the canal.	As presented in Chapter 14 (Groundborne Noise and Vibration) and Figure 14.4 Blasting Contours of PPV, no blasting activities will take place at Glasnevin Station and as a result no impact on the buildings will arise. In the cases where blasting will be used (at other station locations) mitigation measures will include a series of controls to reduce groundborne noise and vibration to acceptable levels, these include the following points: • Blasting will only take place at defined discrete times (maximum of two per day) during the daytime. • Suitable advanced warning will be given to anyone who may experience noise or vibration. • Vibration from each blast will be monitored to enable blasting parameters to be optimised and to ensure that damaging levels of vibration are not reached. • If necessary, alternative chemical or hydraulic splitting methods will be used. Please refer to response item (2) above in relation to the engagement with local stakeholders in this area.

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7	Subsidence	3	As this is a terraced street, where there is the potential for movement of the boulder clay. It is very possible one weaker structure on the terrace could negatively impact all the properties and cause issues with subsidence/cracking/issues with doors windows/roof/drains, or more serious damage there does not appear to have been any impact study done in this instance. There seems to be discrepancies regarding the zone of inclusion, some residents received information that the zone was 50m, TII reports now have a 30M zone, another householder has been advised that if one of the properties on a terrace falls into zone of inclusion should a property become effected as a result of ground movement the whole terrace/street will be covered. This zone should be extended much further due to the building layout of the area and the interconnection of many of the properties. There is one property in particular on the junction of DeCourcey Square and Prospect road that is noticeably subsiding which gives a clear indication that there is movement in the ground below this area. This happens to be close to an underground source of water which would indicate a full investigation of the quality of the boulder clay/substrata is required.	As stated above in response items (4) and (5) an assessment of impacts of construction generated ground movements and settlement on properties was undertaken with the results presented in Appendix A5.17. As presented in Chapter 20 (Soils and Geology), a geotechnical survey (including investigation boreholes) has been undertaken along the MetroLink route. Details regarding the geotechnical conditions were used for impact assessment of the construction works impact. In the area you refer to, two boreholes were made, NBH 213 and ABH35, at depth of 31 and 29 meter respectively with the resulting geological cross section being presented in Appendix A20.9 Geological Cross Sections. For the Phase 1 survey for the damage report, a zone of influence of the tunnel and other works was taken as 30m width on either side of the tunnel plus half the tunnel diameter. This is equivalent to a 45-degree influence line from the tunnel axis level at a depth of 30m. Please also refer to Item (4). Your property is outside the 1mm contour and unimpacted due to tunnelling induced ground movement. Additionally no buildings in the vicinity are assessed to suffer any structural issues due to MetroLink - i.e. no building is predicted to have greater than "Slight" damage. Please refer to Appendix A5.17 for details of the damage categorisation.
8	Insurance	3	If this type of damage occurs what is the plan if the property has to be vacated for a period of time if remedial work needs to be carried out. As with the current situation and the housing shortage there would not be a viable alternative to house people. Also there would need to be an assurance that all contents in the house needed to be adequately insured in the event the damage necessitates the vacation of the home. There is no clarity as to how private Home Insurance Policies will operate, how do TII/stakeholders propose indemnifying the house and contents for this period of time.	The Property Owner Protection Scheme (POPS), committed to by TII, allows residential property owners to register with TII if their residential property is within thirty (30) metres of the edge of the MetroLink alignment or fifty (50) metres of station structures. The POPS comprises condition surveys of residential properties along the route of the proposed Project. The purpose of the condition surveys is to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether same may be attributable to the proposed Project, and subsequently to recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in swift and accurate verification of any property damage claims which may be received from property owners. The POPS is designed to cater for / address repair work which may be necessary for any damage (attributable to the proposed Project) to a qualifying residential property up to a threshold of €45,000. The POPS will be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Further information on POPS is available in Chapter 11 (Population & Land Use). Useful information can also be found in the MetroLink Frequently Asked Questions document which can be found online at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/ , and this is where useful updates will be made available as the proposed Project progresses. In cases where parts of properties are occupied, access to the remaining unoccupied parts will be maintained, where it is possible and safe to do so. Protection such as hoarding will be used to ensure that the boundary of any construction site will be maintained, and damage would not occur outside of this boundary. Where damage could not be avoided, it would be repaired. Information regarding any situations requiring relocation and the process for financial compensation for property impacts directly related to the proposed Project is provided in Chapter 11(Population &Land Use) and Chapter 21 (Land Take) of the EIAR. Property owners will continue to be responsible for notifying their insurance provider, of any change in circumstance, which may impact their policy. TII do not a expect there to be any adverse impact on the insurability of residential properties arising from MetroLink.

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9	Speed of Remedial Work	3	How quickly would TII address the issues, in the event of damage would this immediately be assessed and repaired.	Please note that your property is outside the 1mm contour. As presented in Chapter 11 (Population and Land Use), condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in the swift and accurate verification of any property damage claims which may be received from property owners. Condition surveys to be undertaken will take the form of: •Pre-works condition surveys; •Interim-works condition surveys (if required); •Interim-works condition surveys (post repair works) (if required); and •Post-works condition surveys. The nominated panel surveyor will contact the property owner directly and agree a mutually convenient time to carry out an internal and external pre-works condition survey on the owner's property. The panel surveyor shall ensure the survey is carried out prior to construction work commencing following instruction from the proposed Project team. After the completion of the proposed Project works in the vicinity of a particular property, the property owner will be sent a letter by the proposed Project team advising that the proposed Project works have concluded and inviting them to allow a post-works condition survey to be carried out. Please refer to the POPs as noted above in Item 8. The same panel surveyor that carried out the pre-works condition survey, shall carry out the post-works condition survey to facilitate comparison of the property condition pre and post construction unless the property owner objects with good reason. Interim-works condition surveys may be instructed by the proposed Project team where there is a particular concern that a property has been damaged by the proposed Project works and where such an interim-works condition survey might mitigate future loss. It should be noted that where repair works are identified as required by an interim-works condition survey, a separate Repair Recommendation Report shall be provided. Following the repairs being carried out, a further interim-works condition survey (post repair works) shall be carried out by the panel surveyor. All condition survey reports will be issued by the panel surveyor to the property owner and the TII representative by post and email respectively on the same day. The property owner may submit an application to the POPS to have their property rectified where a survey report by the panel surveyor outlined in a Repair Recommendation Report identifies defects: •which have been caused to the property as a result of the proposed Project works; and •for which the estimated cost of rectification will not exceed €45,000.00 excluding VAT. This is detailed in section 11.6.1.1 of EIAR Chapter 11 (Population and Land Use).
10	Timeframe	3	The timeframe of the tunnelling close to this particular street and how far the vibration is expected to radiate from the bore sight.	The possible impact of noise and vibration from TBM Passage only relates to impact on residents as the calculated vibration levels from Mechanical Excavation and TBM Passage are below the threshold for structural damage for any building type. Refer to Chapter 14 Groundborne Noise and Vibration. The duration of this impact from TBM Passage will be in the order of up to two weeks as the TBM passes. TII will liaise with residents to ensure the timing of these impacts are known. Unfortunately, there are no effective methods are available to reduce groundborne noise from TBMs at source. The principal mitigation measures aimed at minimising impacts are as follows: • Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects during construction, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. • TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6).

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Letter Re: Intended Application by the NRA (Operating as TII Ireland) for te Railway (MetroLink Estuary to Charlemont via Dublin Airport) order (2022)				
11	Depth of Tunnel	3	The tunnel from ground to top level will be 15 metres. This is just short of 50ft which is not deep. The average depth of the underground in London is 24 metres, which would equate to 78ft.	The depth of the tunnel is suffcient and all assessments have been based on this depth. The assessments presented in Appendix 5.17 confirm the suitability of the alignment. Please refer to response item (4) and (5) above in relation to the assessment of the impact of ground construction activities at your property.
12	Drains & Water Table	3	There are several underground drains/culverts one that appears to run down the centre of St. Teresa's Place as on occasion the small drains have discharged water when there is excessive rain and the manhole cover at junction of Prospect Road and St. Teresa's place has lifted on occasion. In exceptionally heavy rain there is a channel of water running down each side of the street as there in an incline heading towards Botanic Road. Drains need adequate monitoring to ensure that no effluent is running into the surrounding ground.	The impact on water systems has been assessed and is presented in Chapter 18 (Hydrology) of the EIAR. As set out in Section 18.2.1 appropriate measures have been incorporated into the design of the proposed Project to avoid impacts where possible. Stringent mitigation measures are proposed and include for the management of the water regime within the vicinity of the Project as well as control of potential polluting activities associated with the Construction Phase. Refer to the Outline CEMP in Appendix 5.1 of the EIAR for proposed environmental mitigation measures. As noted, the contractor will produce a Water Management Plan that includes the objectives and information described in EIAR Appendix A5.1 which includes detail on the following: * The activities requiring water and the anticipated peak water demand for each site; * Where the water for each site will be sourced; * Strategies for minimising water use; * Strategies or conserving water; * Treatment of wastewater; and, * The means of disposal of wastewater. Under no circumstances will treated water be discharged to a watercourse without the respective water quality meeting the statutory limits as set out under the relevant EU Environmental Objectives for surface water. Detailed monitoring requirements will depend on discharge permit agreements put in place prior to any works commencing. The installation of continuous monitoring equipment may be required as part of the temporary discharge permit and/or license. This would include the installation field monitoring probes connected to telemetry system to continuously monitor parameters such as temperature, pH, TOC (Total Organic Carbon), total suspended soils (TSS), total disolved solids (TDS) and EC (Electrical Conductivity).

Submission No.			171	
Organisation Name or Name of Submitter			Lorraine Rooney (resident - 8 Saint Teresa's Place, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Intended Application by the NRA (Operating as TII Ireland) for te Railway (MetroLink Estuary to Charlemont via Dublin Airport) order (2022)				
13	Station Building	4	The building in the drawings does not enhance this area rather it detracts from what has the potential to be developed into a thriving business area, it is not in keeping with any of the local architecture. A building should grab people's attention, and become something that the community are proud of, are able to use as more than a station. This needs much more development as the Brian Boru is a landmark for anyone visiting the area with links to James Joyce's Ulysses, the mural on the side alone is something particular to the area. The station name is also very generic, and it if historic building are proposed for demolition there should be something kept in the memory banks, name the station the Brian Boru or similar. No one refers to this part of the city as Glasnevin it has been called Harts Corner since the 1920's when the Hearts Building was constructed. Is it the policy for large building projects to eliminate all connection with the previous history of an area? There is the possibility of a James Joyce Museum to be integrated into this building. This is a quote from document metrolink-concept-engineering-design-report.pdf. I fail to see where any of this has been incorporated in the station proposal for Glasnevin North.	TII disagree and believe the commissioning of internatially renowned architect Nicholas Grimshaw and Partners, has delivered a contemporary station design which is appropriate for a state of the art metro system such as MetroLink. Appropriately, significant emphasis is placed on the public spaces. Where feasible, the station concourse is a soaring space illuminated from above with natural light. Dublin's rich architectural heritage has been respected, but not copied in a pastiche imitation. In accordance with best conservation principles, as set out in the ICOMOS Venice Charter of 1964, the stations are architecturally distinguishable so as not to falsify the existing historic context. Reference and due respect to that context is made through the choice of high quality and appropriate materials and the scale of the interventions. The Project will deliver a robust and authentic design with a strong metropolitan identity, unique and sympathetic to Dublin. Concepts such as singular station volumes, use of natural light, intuitive wayfinding, robust and long-lasting materials, and contextual placemaking will be followed through all stages of development and construction, combining to form the very best in architectural vision. The 'Materials Palette' that has also been included with the Railway Order application further confirms the 'MetroLink Design Vision Principles', including the principle of achieving a 'Sense of Place' that reflects the local area, that are appropriate to the City, and the local context / character. Please refer to EIAR Chater 4. Unfortunately, due to the available land, combined with the construction challenges associated with providing this complex multi-modal interchange station that will deliver significant transport benefits by nature of its connectivity, there is no means of retaining the Brian Boru pub. TII acknowledge this is a significant impact. Before proposing the demolition of the Brian Boru pub, TII did carefully examine the alternative of locating a station at Drumcondra rather than Glasnevin as reported by EIAR Chapter 7, Consideration of Alternatives, section 7.6.5. Both options would require demolition of buildings with potential for significant impacts on architectural heritage, however, once the construction is complete, the proposed station location at Glasnevin offers a much better interchange station location for passengers, a key Project objective of MetroLink. The station is named Glasnevin Station for the purpose of the Railway Order Application. There are no current plans to change its name. The impacts of the Glasnevin works have been assessed and reported in the EIAR in Books 1 -4 of Volume 3. The Brian Boru pub will be recorded by means of photography and written description to English Heritage Level 3 standard prior to demolition. Please refer to Chapter 25 Archaeological and Cultural Heritage and Chapter 26 Architectural Heritage. A James Joyce Museum is not part of the Railway Order application.
14	Steering and Monitoring Group	4	A steering group needs to be set up; as there has to be a direct connection between the project developers with the local community and the residents, this has not been discussed. There needs to be full accountability and transparency. As we are to have to deal with a huge building project both underneath our homes and at a section of the community where our GP practice is and our chemists, what is the proposal if in the event of the station build these services have to be relocated.	Please refer to response item (2) in relation to the egagement that has been undertaken with local stakeholders in this area. As noted in Appendix A5.1 Outline CEMP, TII and the contractor(s) will take all reasonable steps to engage with stakeholders in the local community, especially those who may be affected by the construction works, including residents, businesses, community resources and specific vulnerable groups. The contractor(s) will be responsible for putting in place a Stakeholder Communications Plan which will be developed under the consent of a designated Public Liaison Officer appointed by TII. This plan will provide a two-way mechanism for members of the public to communicate with a designated member of the contractor(s)'s staff and for the contractor(s) to communicate important information on various aspects of the proposed Project to the general public. Regarding Prospect Medical Centre, this building is not on the list of demolition required for the construction of the Glasnevin Station. Additionally, during the construction of the station, pedestrian access to the Prospect Medical Centre will be assured at all times as presented in Appendix A9.5 Scheme Traffic Management Plan and the noise and vibration levels for Prospect Medical Centre (as presented in Appendix A14.5) will be below the threshold values thus a temporary relocation will not be necessary.

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15	Community Fund	4	A fund needs to be set up for the local community as this area has no community hall, no facilities for residents to have community groups/functions/meetings and this should be incorporated into the new station. The proposed station building can easily accommodate commuters and residents. It is important that something is given back to the community as we are giving a huge amount, from having the potential of property damage, to the problems that may be caused commuting to the city centre and the effect it will have on local amenities/services especially for the elderly person.	TII will work with established Community Groups through the local community liaison officers along the route to identify projects at local level that would involve the Community in the delivery of MetroLink and its legacy. Such projects could include: - A local school learning programme. - Enhancement of community amenity within agreed funding limits. - Engagement with final landscape and finishing options, including aspects of biodiversity. TII are willing to explore mechanisms for investing in local initiatives to support affected communities during the works, such initiatives will be subject to funding being made available. As detailed in Chapter 3 (Background to the MetroLink Project), MetroLink will contribue to addressing challenges of compact growth, sustainable mobility, enhanced regional connectivity, enhanced international connectivity, transition to a low carbon and climate-resilient society, enhanced amenity and heritage, maximising sustainability gains, strong economy supported by enterprise innovation skills, access to quality childcare, education and health services and stenghtened rural economies and communities.

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16	Employment Prospects	5	How many employees do the shareholders envisage in this large station, what way will security be monitored throughout the station and the large plaza planned for this tract of land. Unmanned zones like this are a mecca for anti-social behaviour especially at night. How safe would people feel in an unmanned station and if there is an incident how quickly can this be addressed, as in a medical emergency, assault, train incident as you have in London with people stepping/falling out on front of trains. People like to feel safe in stations, especially at night so I do not envisage any station in Dublin feeling safe without a security service/garda presence.	The numbers of staff required to operate MetroLink have been estimated in order to design the facilities required at Dardistown Depot, including the Operational Control Centre, at the stations, Estuary Park and Ride, and other installations. The staffing numbers are presented in EIAR Chapter 6 MetroLink Operations and Maintenance and specifically section 6.11.However, the actual workforce will be determined some years into the future by the operator of the proposed Project, who has not been appointed at this stage. As presented in Chapter 6 (MetroLink Operations & Maintenance) while the supervision, control and surveillance of the stations will largely be carried out from the OCC (Operational Control Centre), some tasks will be performed within the stations themselves. Staff directed to the stations would be able to supervise and operate various systems from the station control room such as, the operation of escalators and lifts, lighting, PSDs (Platform Screen Doors), ticket vending machines, video surveillance, attend to help points, make announcements over the public address system, and fire detection and firefighting. Station staff may be required to sort out incidents, for example, rescuing passengers from lifts and restarting the lifts and opening and closing the PSDs. Refer to EIAR Chapter 6. The staff working at the OCC will be responsible for supervising the service, train management, power supply, customer support and security. In the event of an incident, they will be able to direct the response through controlling aspects of the train service (such as opening and closing train doors, and controlling lifts and escalators), monitor events through CCTV (Closed Circuit Television) in the stations and on the trains, respond to fire detection systems and anti-intrusion alarms, direct staff working at the stations and present on the trains to mobilise to the incident site, and liaise with the emergency services. At each station there will be a station incident room, which will be unattended during normal operation. The station incident room can be staffed locally to operate and control station systems, including associated sections of tunnel, without connection to the OCC during any emergencies or incidents. In case of an incident the protocol for the evacuation of the station includes: (Section 6.6.5 of Chapter 6 refers) •Release of security-controlled doors to facilitate evacuation from the station e.g. unlocking accesses and the doors to the technical rooms in the BOH (Back of House); •Escalators operating in the opposite direction to the egress will be smooth stopped; •The PAVA (Public Address and Voice Alarm) system will broadcast pre-recorded messages to guide the evacuation and ask passengers to keep calm; •Any equipment which can interfere audibly or visually with the alarm will be deactivated; •All lights will be forced upwards; •All emergency lighting will be activated to provide maximum visibility for evacuation; and •MetroLink operational personnel will be moved to the affected station to guide and supervise the evacuation. If the incident is due to a fire in the station, then additional automatic procedures are: •Immediate notification to the emergency services; •Activating visual and audible alarms; •Activation of the gas extinguishing system if the fire starts in a technical room equipped with this feature; •The sprinkler system will be activated in the area where the fire has been detected; •Normal HVAC (Heating, Ventilation and Air Conditioning) operation will be stopped except in the technical rooms; •The emergency smoke exhaust system inside the station will be activated; and •The over-pressure system in the emergency stairs will be activated to keep them smoke-free. The proposed project has been designed to prevent access to the track, including the installation of Platform Screen Doors (PSDs) at all stations and security fencing around the surface sections of the alignment. Unauthorised access will be monitored by CCTV placed at key locations and via the Access Control and Intrusion Detection system (ACID). EIAR Chapter 6 refers. The proposed Project requires command and control systems to operate the train service in a safe, efficient and reliable manner. These systems provide remote control and monitoring of the stations and trains, voice and data communications, information to passengers and the security to ensure safe operation.

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17	Summary	5	So it is not just some old house to me, this street has witnessed the history of the area and has serviced many families since it was first built. It is not acceptable to put people in a situation that the house was so badly damaged it is deemed not fit for purpose what is the alternative proposed by the stakeholders in such a situation.	Please refer to response items (4), (5), (6), (7) above in relation to the assessment of construction generated ground movements and settlement. Please refer to response item (8) in relation to the proposed compensation offered by TII.
18	Summary	5	If we are to have a thriving area that people want to live in and visit we need to start to respect and appreciate our architecture which is considerably better and more durable than buildings that are going up today. They have a character that is an essential part of Dublin as a city and to allow a project to go ahead that may allow the demolition of some protected buildings and damage others is total lack of foresight on behalf of TII/Dublin City Council/other bodies involved with this project.	Please refer to response item (13) above in relation to the architectural design of te stations. TII's commitment to preserving Architectural Heritage is outlined in EIAR Chapter 26. As detailed, a Project Conservation Architect has been engaged to oversee the implementation of the Project. Prior to the establishment of construction compounds, the Project Conservation Architect (PCA) will undertake Structural and Condition Surveys of any built and cultural heritage constraints that will require removal to secure storage (followed by conservation and reinstatement) or protection in-situ. The PCA will also prepare specifications for these works. A specialist Heritage Works Contractor will be appointed to remove, store and conserve these constraints. The Main Construction Works Contractors will appoint Consultant Conservation Architects to implement required preservation of in situ works.
19	Summary	5	I do not believe that this metro will provide the income to cover the cost of building for decades to come and is another wasteful project that will take years to pay dividends.	In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.
20	Summary	5	There is also a total lack of communication from TII, a refusal to engage with the residents who are actually granting them permission to proceed, there is a huge displeasure within the area with the way TII/stakeholders and local representatives did not engage with residents. But this seems to be a standard procedure with these large construction projects which is a sad indictment for both our large infrastructure agencies and our local elected representatives.	TII disagree that there has been a total lack of communication and engagement with residents. Please refer to response item (2) above in relation to the engagement with local stakeholders including residents associations. Dates and details of these meetings have been presented in Appendix A8.19 Meetings Register.

Submission No.			173		
Organisation Name or Name of Submitter			Louise Broughton and Glenn Sharpe (114 Ballymun Road)		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Letter Re: Metrolink Submission Land Tag - ML4G-ULL Area Number - 304: The White House 114 Ballymun Road Glasnevin Dublin 9					
1	Concerns	2	Metrolink's plans for a tunnel that runs directly under our property (See Appendix E) has the potential to damage not only our windows (which are single pane glazing) but the entire structure of the house.	Buildings and Infrastructure - A comprehensive Settlement Assessment (see EIAR Appendix A5.17 Building Damage Report) has been undertaken to determine the potential impacts that construction of the proposed Project will have on sensitive receptors such as buildings of Architectural Heritage importance such as yours from the advance of the TBM. In the case of your building, we can confirm that it is not directly above the tunnel, and approximately 25 m away from the tunnel centre line. The ground movement predictions and the building damage assessment methodology adopted for MetroLink is based on the approach adopted in most tunnel projects around the world, including London Crossrail and High Speed 2 in England. This is described in EIAR Section 5.4.11 (Ground Settlement Monitoring and Mitigation Works). EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. Table 5.2 of this report shows that your property (Reference B-145) has been assessed as falling within the '<i>Negligible</i>' category currently. The building risk categories shown in Table 4-4 of the aforementioned report are used to define the degree of building damage related to the Risk Category. The assessment undertaken is considered moderately conservative and has taken into account the type and significance of the building. Despite the minimal impact, as your building has been categorised as a special building, it will have a further Phase 3 assessment undertaken by the contractor taking into account the final design and methodology. Phase 3 assessments typically demonstrate impacts will be less than that currently assessed. Prior to any works commencing on the station and tunnelling works, a programme of area environmental monitoring will be undertaken, that will include ground movement, with predetermined monitoring trigger levels set to ensure that environmental limits are not breached. See EIAR Chapter 5, MetroLink Construction Phase, Sections 5.4.1. and 5.4.2, and Chapter 31 Summaries of the Route Wide Mitigation & Monitoring Proposed.	
2	Concerns	2	We were promised that Metrolink would make available to us a conservation architect (Summer 2020) to discuss our concerns. To date no architect conservation or otherwise has been in touch with us.	As described in the EIAR Chapter 26, Architectural Heritage, Section 26.7, a Project Conservation Architect (PCA) has been engaged to oversee the implementation of the Project. Prior to the establishment of construction compounds, the Project Conservation Architect (PCA) will oversee Structural and Condition Surveys of any built and cultural heritage structures. While the current settlement predictions are falling within the 'Negligible' category, due to its Architectural Heritage importance and proximity to the tunnel, your property will still be subject to a condition survey undertaken by the Project Conservation Architect (PCA). The purpose of the condition surveys would be to ascertain the condition of the property before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the property surveyed and whether the same may be attributable to the proposed Project and it will recommend repairs as appropriate. The surveys need to be closer to the time when construction commences to ensure the existing condition of the property is up to date. The role of the PCA, and the condition surveys and specifications they are required to undertake, is outlined in the Draft MetroLink Cultural Heritage Strategy provided as Appendix A25.1 to the EIAR. TII would also note that private home owners within 30m of the proposed tunnel (as defined in EIAR Appendix A5,17, Building Damage report, Section 4.6) are eligible to subscribe to the Property Owners Protection Scheme (POPS). The Property Owners' Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor. Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/assets/downloads/MetroLink_FAQ.pdf	
3	Concerns	2 and 3	We require assurances that a conservation architect will be made available to us if the proposed construction of the tunnel and the current preferred route transpires.	As described in the EIAR Chapter 26, Architectural Heritage, Section 26.7, a Project Conservation Architect (PCA) has been engaged to oversee the implementation of the Project and TII confirm that the Project Conservation Architect will be made available to you. They will coordinate the necessary surveys and will compile a photographic record of condition.	
4	Concerns	3	In the event that construction does go ahead and our property is damaged in any way we formally call upon Metrolink/TII to make good that damage in the form of suitable compensation. In this regard we formally request that our property is registered with the Property Owners' Protection Scheme.	Please refer to Response (2) above related to the POPS scheme.	

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5	Intervention shaft location/ construction and operational impacts / zoning / protected structure	3	We have alluded to the additional submissions that we are supporting and in the context of the proposed location of the Tunnel Intervention Shaft we would have grave concerns given its close proximity to our house not only at construction stage but operationally also. If the shaft is constructed in its proposed current location we will be the closest property to the shaft. We feel that this shaft location is inconsistent with the Development Plan and the current zoning of our area. It seems incongruous to us that a protected structure would not be afforded the protection it surely deserves by the ill thought out construction of a ventilation shaft on its doorstep. We therefore call on the Bord to consider the prohibiting of a shaft at this location in favour of a station in the midway section of Albert College Park.	The Intervention shaft is approximately 50m north of your property boundary and due cognisance of the protected status of your property has been taken. Refer to Response (2). TII disagree with the statement that the location of the intervention shaft has been poorly planned. The rationale for the location, layout, access provision, finishing and landscaping of the proposed Albert College Park Shaft (ACP) are provided in the Report on the ACP Tunnel Intervention Shaft included as Appendix A8.16 of the EIAR Chapter 8, Consultation. The location of an intervention shaft needs to be in close proximity to the alignment in order to avoid the requirement for an elongated intervention tunnel. Diagram 7.39 of EIAR Chapter 7, Consideration of the Alternatives identifies the limited area within which it is possible to locate an intervention shaft at this location. The location assessment considered a number of factors including environmental impact, constructability, distance from the main tunnel and suitable road access. The intervention shaft should be no more than 1000m from either Collins Avenue or Griffith Park Stations. As a result, the intervention shaft must be situated either immediately north of Hampstead Avenue in the south-west corner of Albert College Park; or within the residential area immediately south of Hampstead Avenue. As set out in section 4.17.5 of the EIAR Chapter 4, Description of the MetroLink Project, and detailed on drawing ML1-JAI-SRD-ROUT_XX-DR-Y-03001 Plan Drawings ML-VT- 304 G-H, the shaft is located on the South West corner of Albert College Park. Access and egress has focused on resident feedback with both provided onto Ballymun Road. The EIAR sets out the mitigation measures to reduce the impact locally during construction phase and also in operation. In construction phase the appointed contractor will be required to prepare their plans for the delivery of the Works at ACP in accordance with the requirements set out in the Construction Environmental Management Plan (CEMP), an outline of which based on the EIAR is provided in Appendix A5.1 of the EIAR. Operational impacts have been offset by consideration of the design of the structure and buildings and the proposed landscaping. As referred to in Appendix A8.15, the outline details of the proposed shaft were shared during the Local Area Consultation in early 2020. Feedback taken from that consultation together with discussions with Dublin Fire Brigade and other stakeholders have influenced the development of site layout and the landscaping to mitigate any visual impact, with access and egress provision now provided of Ballymun Road. As set out in section 4.17.5 of the EIAR Chapter 4, Description of the MetroLink Project, and detailed on drawing ML1-JAI-SRD-ROUT_XX-DR-Y-03001 Plan Drawings ML-VT- 304 G-H, the shaft is located on the South West corner of Albert College Park. Access and egress has focused on resident feedback with both provided onto Ballymun Road. Chapters 27 (Landscape & Visual) and 15 (Biodiversity) set out the assessment into the potential impacts at Albert College Park. The proposed ventilation shaft lies within lands zoned Z9 in the Dublin City Development Plan 2016-2022 (in force at the date of lodgement) and the Dublin City Development Plan 2022-2028 which is now in force. As a structure considered to come within the description of Public Service Installation in the Dublin City Development Plan 2022-2028, it is considered that the Ventilation Shaft is a Permissible Use under the Z9 zoning and is therefore compliant with the zoning objective.	

Submission No.			174	
Organisation Name or Name of Submitter			Hanashoe Solicitors, on behalf of the Estate of John Quinn (Deceased) (Represented by Kevin J. Hamell & Associates - Consulting Architects)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Intended Application by the National Roads Authority (operating as Transport Infrastucture Ireland) for the Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order (2022).				
1	Introduction	2	I have been instructed by M.E. Hanahoe Solicitors of Sunlight Chambers, 21 Parliament Street, Dublin 2 to make a submission regarding the above on behalf of the Estate of John Quinn (Deceased) Apartment 10, Block A, Dalcassian Court, Dalcassian Downs, Finglas Road, Dublin 11. M.E. Hanahoe are Executors for the Estate of the said late John Quinn. The attached Title Map shows the location of Apartment 10 Block A and its designated car parking space. The proposed development will adversely affect the property in many ways. - The Railway Order itself as a threat to the property. - The proposed permanent land take. - The proposed temporary land take. - The construction works.	TII thank you for your response. We have reviewed the submission and provided detailed responses for the issues and concerns raised below.
2	The Railway Order Itself as a Threat to the Property (paragraph 1)	2	The very fact that the property is affected by a Railway Order means that even by now Apartment 10 Block A will have greatly depreciated in value. Potential buyers will not want to buy an apartment with no carparking and no open space during the 10 year construction period. Even when construction is complete there will be very little parking and very little open space.	Where an entitlement to statutory compensation exists, each claim will be assessed on its own merits. The assessment of compensation and relevant heads of claim are derived from a combination of statute, case law and established practices which are referred to as the compensation code. There needs to be casual connection between the loss and the acquisition due to the scheme, which should not be too remote. Claimants are expected to take reasonable steps to mitigate their loss and cannot claim any unavoidable losses. Experienced professionals should advise on the relevant heads of claim which commonly include the following: (i) value of legal interest in land e.g. freehold or leasehold (ii) severance or other injurious affection which relates to the devaluation of the retained lands (iii) disturbance and other matters including professional fees and losses sustained or expenses incurred by an owner as a result of the acquisition of land. While the duration of all works at Glasnevin are anticipated to take approximately 8.5 years to complete (EIAR Chapter 5, Diagram 5.4: Summary Construction Programme), the duration of temporary land possession outside Dalcassian Court will be approximately 6.5 years. Further, TII commit to procuring their contractor to further reduce this temporary land possession period during the construction phase.
3	The Railway Order Itself as a Threat to the Property (paragraph 2)	2	Apartment 10 currently has a designated car parking space in the area of the temporary land take. There is no certainty that this situation will still obtain when the construction works are completed and the temporary land take areas are returned to the apartment complex. Residents of Blocks A & B will have lost virtually all their amenity space as well as all their parking spaces.	On completion of the works at Glasnevin Station, TII intend to reinstate the existing carpark and amenity in a reconfigured layout. Please refer to Railway Order Plans\Drawings - Structures Details Book 2 of 3 MetroLink Stations Dublin City Council, sheet 21 of 61 (Drawing reference ML1-JAI-SRD-ROUT_XX-DR-Y-02057). Referring to land parcel reference ML 4N A2 - The permanent plot is referenced as it is the footprint of the underground station box where it is top down construction. TII can return surface rights, subject to any necessary restrictions, to the balance of ML 4N A2 lands not required permanently by MetroLink at surface level i.e. Fire brigade lift etc. In the case of The Court Dalcassian the property acquisition requirements are represented on the property plans and include, permanent and temporary elements together with substratum requirements in relation to the underground tunnel element. The above-mentioned drawing shows the reinstatement of large parts of the enclosed estate common areas at surface level, including the restoration of the equivalent number of demarcated car park spaces, landscaping and heritage items. In the intervening period, between the commencement of construction and subsequent reinstatement of car park spaces, temporary parking will be provided. TII are in discussion with the local authority and other parties to identify a suitable location in the immediate vicinity. This process will involve engagement with parties whose property interests may be directly impacted by the proposed works and it is the intention to communicate and outline all available options with as much notice as possible in advance of the works commencing within the grounds of the apartment development. See response (2) above where an entitlement to statutory compensation exists.
4	The Railway Order Itself as a Threat to the Property (paragraph 3)	3	The Metrolink Non-Technical Summary 7. 5.6.3.1 confirms that the Glasnevin Interchange Station is classed as Major Construction Works. Construction will include the new Glasnevin Station, new railway platforms for the Western Commuter Line and the Southwestern Commuter Line and a vast common concourse. There will be major alignment works to the existing Iarnrod Eireann track. There will also be extensive works to the Royal Canal involving closure of the canal and its walkways.	TII acknowledge that there will be extensive works required at Glasnevin Station for a prolonged period and that these works will be disruptive. The impacts of the works and the measures proposed to mitigate during construction and operation of the MetroLink are set out in the EIAR documents. It should be noted that the closure to the canal is temporary in nature, as is the walkway closure with suitable alternative provided as evidenced in Chapter 5 of the EIAR.

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5	The Railway Order Itself as a Threat to the Property (paragraph 4)	3	When completed Glasnevin Station will transform my client's environment from being a tranquil backwater to a bustling hub of activity. Many of the existing occupants of the apartments will choose to leave the area and thus destroy the feeling of community within the three blocks of apartments.	TII acknowledge that the surrounding environment will change with the implementation of this Project. The Dublin City Development Plan zoning for this area is" a district centre" Section 11.5.3.1 of Chapter 11 of the EIAR outlines the proposed Glasnevin Station shall positively facilitate the land use zoning 'District Centre' and will enhance the public realm. The impact on the local population post construction is considered to be positive, moderate, and long-term, as the proposed station will enhance the functioning of the area as a "district centre" allowing enhanced connectivity to the area, benefiting the local communities and businesses.
6	The Proposed Permanent Land Take. (paragraph 1/2)	3	I attach Map A showing the Dalcassian Court apartment complex outlined in red and the permanent Land Take Area coloured yellow. The yellow area comprises circa 1,445 sq. metres and is made up of 23 car parking spaces and a very large amount of visually attractive planted open space amenity area. The enclosed Map B shows the apartment complex outlined in red and the extent of landscaping that will be lost forever.	The existing landscape will be significantly impacted during the construction phase of the project requiring the felling of trees and the removal of other vegetation in this area (Refer to Chapter 27 Landscape). However, it is important to note that on completion of the construction phase, planting will be re-established within the garden area to be reinstated, although at a reduced size when compared to the existing area. For details of the proposed carpark and garden area reinstatement, please also refer to response item number (3) above.
7	The Proposed Permanent Land Take. (paragraph 3)	3	The development of the Dalcassian Court apartments was granted planning permission on foot of drawings showing these 23 car parking spaces and the full extent of the existing open space amenity.	The planning application for the site is no longer applicable as the site has already been developed, in line with that planning approval. Once granted, the Railway Order will authorise the land-take proposed in the application documents. During the construction phase, the loss of parking and landscape at the site will result in a significant impact. Following completion of the station works, the parking spaces will be reinstated and although reduced in size the vast majority of the landscaped area will also be reinstated in a new reconfigured layout. For details, please refer to response item number (3) above.
8	The Proposed Permanent Land Take. (paragraph 4)	3	To reduce both car parking and open space by the extent shown on the proposed land take would render the planning permission null and void. The apartments would then become unmarketable and would not constitute legitimate collateral in terms of raising finance.	Please refer to response item numbers (3), (6) and (7) above.
9	The Proposed Permanent Land Take. (paragraph 5)	3	At the completion of the construction period the residual land between Block B and the permanent land take area could only provide safe parking for about 6 cars. This would leave a permanent deficit of 17 car parking spaces as well as the loss of grassed and planted open space.	Please refer to response item numbers (3), (6) and (7) above.
10	The Proposed Permanent Land Take. (paragraph 6)	3	Perhaps additional parking could be provided by Transport Infrastructure Ireland on the land at the rear of the Brian Boru Pub.	As set out in the application documentation, the rear of the Brian Boru is required for construction and subsequently by the station and hence is unavailable.
11	The Proposed Temporary Land Take. (paragraph 1-3)	3	The extent of the temporary land take is shown coloured blue on the attached Map A. It comprises circa 1,054 sq. metres which currently contains 9 car parking spaces and a large tract of landscaped open space running from east to west across the full width of the land south of Blocks A & B. During the construction period neither Block A nor Block B would have any car parking spaces available to their residents. Blocks A & B combined comprise 12 Two Bedroom and 24 One Bedroom dwelling units. They are homes to circa 60 people. There is no other part of the apartment complex that could accommodate additional parking spaces.	Please refer to response item numbers (3), (6) and (7) above.

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12	The Proposed Temporary Land Take. (paragraph 4/5)	4	Transport Infrastructure Ireland haven't offered any alternative parking for the construction stage or post-construction. The north boundary of the temporary land take area is shown to be 5 metres from the south wall of Block A and 2 metres from the south wall of Block B. This situation might be tolerable for a very short period of say 3 months but it would be absolutely unbearable for a period of 10 years.	TII acknowledge the impact that the proximity of the construction site will have on these properties together with loss of parking during the construction phase. TII are actively engaged in sourcing suitable alternative parking for residents for the duration of the works. It is in anticipated that tempoary carparking arrangements will be secured in advance the commencement of tthe works. See also item (3) above. While the duration of all works at Glasnevin are anticipated to take approximately 8.5 years to complete (EIAR Chapter 5, Diagram 5.4: Summary Construction Programme), the duration of temporary land possession outside Dalcassian Court will be approximately 6.5 years. Further, TII commit to procuring their contractor to further reduce this temporary land possession period during the construction phase.
13	The Proposed Temporary Land Take. (paragraph 6	4	The south walls of Blocks A & B have 24 living room and bedroom windows and 6 balconies which will virtually touch the hoarding of the temporary land take area. This situation will have to be brought to the attention of the Health & Safety Authority. It simply cannot be permitted.	The positioning of Hoarding in such close proximity to the apartments at Dalcassian Downs is not considered by TII to be a health and safety risk and in fact is being proposed to protect the residents from the potential impacts arising from the construction of MetroLink. However it is acknowledged that the proximity of such hoarding will have the effect of reducing light to these properties and as such TII will be engaging with the owners and occupiers of the effected properties to arrived at appropriate alternative arrangements to mitigate these construction phase effects.
14	The Construction Works. (paragraph 2)	4	The Dalcassian apartments, as they adjoin the construction site, will suffer from heavy traffic, restricted vehicular access to their homes, loss of their tranquil open space amenity, loss of parking spaces, poor air quality and virtually non-stop demolition and construction noise and dust.	Access and Parking: Appendix A9.5 to the EIAR outlines an assessment of the potential traffic impacts in the area of Dalcassian Downs during the construction period. It has identified that there will be no restricted vehicular access to Dalcassian Downs and that impacts on traffic flows in the area will be minor, primarily occuring during the enabling works period. As referred to in response item number (12) above, it is acknowledged that reducing parking within areas of the estate will mean that people may need to walk further from their cars to their apartments. Noise and Vibration: As identified in the EIAR (Chapter 13 Airborne Noise& Vibration), the exceedence of noise limits at the majority of properties within Dalcassian Downs will be mitigated by the use of mitigation measures described in that chapter, including the use of hoarding. However further mitigation measures will be required in line with the TII Airborne and Groundborne Noise Mitigation Policy at 1-18 The Court Apartments and 19-36 The Court Apartments, Dalcassian Downs. Air Quality: In terms of dust generation there is potential for significant dust generation at Glasnevin as outlined in Table 16.44 of Chapter 16 Air Quality of the EIAR, if not miitgated. However Section 16.61 of Chapter 16 Air Quality and the Construction Environmental Management Plan outlines measures that will be undertaken to manage the effects of the generation dust. Consistent implementation of good dustmitigation practices will ensure that the impact from construction dust is not significant.
15	The Construction Works. (paragraph 3/4)	4	Paragraph 7.1.1 of the Metrolink Non-Technical Summary states that the normal working hours will be 07.00 to 19.00, with a 30 minute site preparation time either end. The site will therefore be in operation from 06.30 to 19.30, a total of 13 hours, every day except Saturday and Sunday. Saturday will have a working day of 7 hours, 06.30 to 13.30.	TII acknowledge that the wording within the Non Technical Summary is misleading when defining "normal working hours". For clarity, the proposed working hours at Glasnevin Station are set out in full within Chapter 5: MetroLink Construction Phase, section 5.2.4 Construction Working Hours, and table 5.5: Schedule of Working Hours at each Construction Compound. In terms of the definition of the standard working hours that would be applied at Glasnevin Station and elsewhere on the Project, we refer you to table 5.3 that allows for 30 minutes at the start and conclusion of each shift included within the standard working hours stated. For clarity the total normal working hours are 07.00 to 19.00 Mon-Fri and 07.00-13.00 on Saturday. (These times are inclusive of the site prep time at either end.)
16	The Construction Works. (paragraph 5)	4	In addition to this Paragraph 7.5.6.3.1 states that works to the Iarnrod Eireann infrastructure at the Glasnevin Station will operate for 24hrs every day.	This summary of the proposed working hours is correct, but the reference in the EIAR document for 24hour/7 day a week working is limited to some activities only. These activities are listed in Chapter 5: MetroLink Construction Phase, Table 5.5, stating as follows: - Sliding New Rail Bridge into position (GSWR). - Blockades or weekend possessions works required with Irish Rail, where works such as piling, structural or the installation of protection are next to the live operational railway lines. - MEP Works within the completed station structure.
17	The Construction Works. (paragraph 6)	4	Tunelling works will also operate for 24 hours every day.	This summary of the proposed working hours is correct. However, it should be noted that the passage of the Tunnel Boring Machine will only effect these properties for a short duration of time i.e maximum of up to 2 weeks (estimated)

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18	The Construction Works. (paragraph 6)	4	Residents of these departments are going to undergo a dreadful ten years of severe disturbance.	We note the concern. Mitigation measures will be put in place to minimise the construction impacts and disturbance to the residents as outlined in the EIAR and further referred to above in response item numbers (12), (13) and (14) above. In addition, the statutory compensation process will be available to all parties entitled to make a claim. Further information is available on the Compulsory Purchase Order (CPO) Guidelines available under the Your Property section of the MetroLink website. https://www.metrolink.ie/media/0jlpbyso/metrolink_cpoguideline_final_september-2022.pdf
19	Conclusion	4	The proposed works will greatly and adversely affect Apartment 10 Block A Dalcassian Court in terms of loss of value, loss of amenity and loss of tranquillity both during and after construction.	Please refer also to response item number (2) above. TII acknowledge that there will be extensive works required at Glasnevin Station for a prolonged period and that these works will be disruptive. The impacts of the works and the measures proposed to mitigate during construction and operation of the MetroLink are set out in the EIAR documents. During the construction phase, the loss of parking and landscape at the site will result in a significant impact. Following completion of the station works, the parking spaces will be reinstated and although reduced in size the vast majority of the landscaped area will also be reinstated in a new enclosed and reconfigured layout. For details, please refer to response item number (3) above. In addition, further mitigation measures will be required in line with the TII Airborne and Groundborne Noise Mitigation Policy and TII is committed to engagement with residents and the owners management company in relation to impacts to common areas during works and proposed mitigation measures, temporary car park options, and common area reinstatement post construction.

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1	(1) Metro North Proposal	2	An Bord Pleanála approved the original Metro North proposal in late 2011. Unfortunately the permission expired in 2021. Under that proposal there were 16 stations proposed from Belinstown to City Centre which is the same number being proposed for the Metrolink Project. We believe that there would be no impediment to a further application being made to An Bord Pleanála to extend the permission for a further period to facilitate approval from Government to proceed in respect of the Metro North proposal. This would mean that there would be a Metro from the airport to the City in a much quicker time scale than envisaged under the Metrolink proposal.	Thank you for your submission and for sharing your observations with regards to the MetroLink project to which we have responded below. EIAR Chapter 3 (Background to the MetroLink Project) presents a review of the need for the MetroLink project in the context of the historical development of a proposed metro system for Dublin as supported by transport and planning policy since 2001. The need for the proposed Project is discussed based on reference to the current challenges identified in relevant plans and policy documents and how these challenges would be met by the proposed Project. All policy documents referenced in this Chapter are publicly available documents and can be sourced from the documents authors. Alternatively, each of the documents cited below can be downloaded from the website www.MetroLink.ie/background information. Chapter 7 (Consideration of Alternatives) details the decision-making process that has led to the development of the proposed Project, including assessing the previous Old Metro North project. The proposed Project in its current form represents the same alignment as Old Metro North but includes for a number of significant variations such as shorter platforms, smaller stations, reduced rolling stock, fewer stations and vertical alignment changes. Therefore it presents an 'Optimised Metro North'. The assessment identified an Optimised Metro North (LR7) as the best medium- and long-term transport project for the Greater Dublin Area for the following reasons: * It was the most economically advantageous scheme when compared to other options, delivering the highest benefit to cost ratio (BCR) of 1.5, almost double the BCR of the next best scheme (Tunnelled Luas); * It generated the highest level of transport benefits when compared to other options, with the highest number of additional public transport trips generated in the morning peak travel period; * It provided a new strategic public transport corridor, avoiding reliance on either the existing heavy rail lines or the Luas Cross City line; * It delivered a connection right into the centre of the city, serving O'Connell Street and St. Stephen's Green; * It retained the opportunity to extend Luas Cross City to Finglas, which would not be feasible if the tunnelled LUAS options were selected, and it avoided reducing the service level on LUAS Cross City to Cabra and Broombridge; * Due to the high level of segregation, it was considered to significantly increase capacity to allow for potential future growth along the corridor, when compared to other options; * It could potentially be extended southwards in the longer term to alleviate high travel demand on the LUAS Green Line, and ultimately form a complete north south metro corridor traversing both the north and south city; and * This option delivered the highest safety benefits when compared to other options. The preferred route for MetroLink was published in 2019. The preferred route incorporates changes arising based on further design development and further assessment of alternatives arising out of consideration of the public feedback received on the 2018, Emerging Preferred Route. Significant changes included the termination of the route just south of Charlemont Station, a change from Twin Bore tunnel to Single Bore configuration, the replacement of the R132 elevated section to cut and cover running on the eastern verge of the R132. The preferred route also provided for a change of rolling stock from light rail vehicles (Luas Type vehicles) to Light metro vehicle and then introduction of automated trains to Grade of Automation 4 (GoA4). Refer to Chapter 7 (Consideration of the Alternatives) for details of alternatives assessed during this stage of design development.
2	(1) Metro North Proposal	2 and 3	It should also be noted that acquisition of property in the vicinity of Drumcondra Railway station, which was to be a Metro station under the Metro North proposal, has already been completed. Indeed the cost of property acquisition for the latter proposal equates to €23.2 million together with expenditure of €61.6 million on external consultancy fees. Information released in December 2021 by the National Transport Authority revealed that a total of €163.6 million has been spent to date on the Metro North Project, is this colossal sum now all to be wasted?	Please refer to response item (1) in relation to the development of the proposed Project from Old Metro North. The properties acquired for Metro North remain in the ownership of the state and have significantly appreciated since their purchase. The properties will remain in State ownership for the foreseeable future until such time as a decision on their future use is decided upon.

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3	(2) Glasnevin Station (a) commentary on claimed justification for station location	3	It has been claimed by TII that trip indicator/trip demand for a station at Glasnevin is greater than for a station at Drumcondra. We do not accept this for the following reasons: • Increasing use of Croke Park stadium for sporting and concert events surely justifies a Metro station nearby. • In terms of residential development, there are plans to construct over 1600 residential units in the grounds of Clonliffe College on Clonliffe Road which proposal was approved by An Bord Pleanála towards the end of 2021. The expanded population in the Lower Drumcondra Road area will require access to a proximate Metro station whereas there is little land available near the proposed Glasnevin station to facilitate residential development now or in the future so one wonders where the trip demands will emanate from. • In addition and in relation to educational establishments, St Patricks College in Drumcondra and All Hallows College in Church Avenue, both now part of DCU, create a bigger demand for student transport usage than the Glasnevin station option which has no similar facilities anywhere nearby. • It has also been acknowledged that during the previous public consultation phase that the Drumcondra Metro station location fared better than the Glasnevin Station location under the headings of landscaping, visual effect, archaeology, architectural issues and cultural and heritage items.	As outlined in Chapter 7 (Consideration of Alternatives), the Glasnevin Station location was chosen instead of Drumcondra as the provision of a station at Glasnevin will better meet the requirements of the Transport Strategy for the GDA for the following reasons: • It will facilitate a seamless transfer/interchange with both the Maynooth (Western Commuter line) and Kildare railway line (South-Western Commuter line) because the PPT and Maynooth lines are at their closest point horizontally and vertically at Glasnevin, thereby providing the opportunity for a MetroLink station to capture transfer to and from these lines more effectively than at Drumcondra. • The Glasnevin location also facilitates the construction of an integrated metro station as the two heavy rail lines are beneath the existing ground level, making it possible to connect via an underground concourse to all three rails in a short plan distance. At Drumcondra, the connection to both lines would require a connection of approximately 110m with more significant vertical connections between the two lines also required. • The further advantage of Glasnevin is that it is located approximately 1km to the west of Drumcondra. This saves over 2 minutes in journey time by offering the opportunity for passengers to transfer sooner from heavy rail to MetroLink at Glasnevin to access city centre locations to the south or to the Airport/Swords to the north. • Route options serving the Glasnevin station are forecast to have approximately 6000 additional passengers per day when compared to an interchange station at Drumcondra. This is largely due to the increased interchange opportunity at Glasnevin with the heavy rail network. • Passengers transferring from the Maynooth or Kildare lines to MetroLink and travelling on to Dublin city centre will experience shorter journey times (approximately 3 minutes).
4	(2) Glasnevin Station (a) commentary on claimed justification for station location	3	For all these reasons, the divergence of the Metrolink preferred route from the Metro North route, thereby necessitating a station at Glasnevin, has not been justified beyond transport impact. We believe there is also a deficiency in modelling assumptions and baseline data collation. We also believe that the plans and documentation as prepared fail to demonstrate that an adequate and compelling case has been put forward by TII in support of the significant deviation from the previously approved Metro North proposal which adequately fulfilled the main objective of the overall exercise which is to create speedy access to the City Centre from North County Dublin and Dublin Airport.	Please refer to response items (1) and (3) above related to the assessment of the proposed Project in comparison with Old Metro North, and selection of Glasnevin Station.

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5	(2) Glasnevin Station (b) impact on residential community at the Court Dalcassian Downs	4	The apartment development at The Court Dalcassian Downs was constructed around 1990 by Bovale Developments. The complex is well maintained and contains attractive gardens. It consists of 48 apartments of varying sizes in 3 blocks. The major issues of concern to residents include the following: • impact on quality of life • parking disruption with the loss of 32 parking spaces • health impacts on residents, especially young children and elderly people • stress and anxiety leading up to and during construction • reduction in natural light • sleep disturbance • noise and vibration • dust and fumes • vermin disturbance and encroachment • reduction in property values • potential damage to properties • no view outwards because of proposed hoarding line directly outside the front doors and apartments of Blocks 1 and 2 along the edge of the construction site • loss of amenity • loss of shared communal green space • restricted access for emergency services	TII acknowledge the environmental impacts on the residents of Dalcassian Downs and have engaged with them on the development of the proposals. The EIAR details in full the proposed environmental protection measures to be implemented during construction. One of the key aspects of environmental control during the construction phase is the requirement for the appointed contractor to prepare a detailed design and construction methodologies plan in the form of a detailed Construction Environmental Management Plan (CEMP) to ensure all environmental impacts are managed and mitigated in accordance with the EIAR and Railway Order, assuming an Enforceable Railway Order is granted. This detailed CEMP(s) will be provided to DCC for consultation and approval in advance of any construction works on site. An Outline CEMP is included in Appendix A5.1 of the EIAR that will be developed further by the appointed contractors. Monitoring instrumentation will also be used throughout the works to monitor potential environmental impacts, including those discussed above to ensure that acceptable limits are not breached. In addition, TII will appoint an Employer Representative to monitor compliance with the CEMP on their behalf. This will involve the appointment of temporary or permanent specialists with appropriate skills and experience as required to implement on-site procedures and monitor construction on behalf of TII to ensure impacts do not exceed those identified in the RO, i.e., competent experts in biodiversity, architecture, archaeology and cultural heritage, noise and vibration, dust, waste, soils, land, ground movements, contamination, and water. In addition, regulatory and statutory bodies may undertake site visits to monitor compliance with legislative and regulatory requirements. A Freephone (e.g., 1800) helpline service will also be maintained during the Construction Phase to deal with enquiries and concerns from the general public. Furthermore, as detailed in EIAR Chapter 5 (MetroLink Construction Phase) the programme for the construction of the proposed Project has been optimised to minimise the duration of the Construction Phase in order to lessen the duration of potential environment impacts, while ensuring that the areas surrounding the work sites remain operational and functional. Work will run concurrently at all MetroLink site locations to ensure the Project is delivered in an effective and timely manner. The potential impacts associated with the construction phase activities of the proposed Project on the residences and businesses are addressed in the EIAR Chapter 11 (Population & Land Use) with mitigation measures proposed where required. This includes potential noise and vibration impacts from construction activities as detailed in Chapter 13 (Airborne Noise & Vibration) and Chapter 14 (Groundborne Noise & Vibration) disturbances to the local road network as detailed in Chapter 9 (Traffic & Transport) and dust risk as detailed in Chapter 16 (Air Quality). Measures to mitigate and monitor impacts as a result of construction activity across the proposed Project are also detailed in Chapter 5 (MetroLink Construction Phase) and summarised in Chapter 31 (Summaries of the Route Wide Mitigation & Monitoring Proposed). Please refer to the responses below for further details on the issues you have raised.

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6	(2) Glasnevin Station (c) impacts during and post construction	5	It is unquestionably the case that a number of residents will suffer extreme stress and anxiety in the lead up and during the construction phase of the Project. This is not something that can be prevented by TII and proposals to deal with this are set out in Section 3 later in this document, under the heading of General Comments on the Metrolink Project including Necessary Mitigation Measures. In conclusion under the heading of impacts, it is a fact that apartments at the Court will be rendered unsaleable during the construction phase of the Metrolink. Indeed apartments are already being put up for sale as their owners are very concerned about the potential negative effect on property values and are trying to get ahead of the Project so to speak. The matter of compensation for individual owners during construction, therefore, needs to be adequately addressed by TII and this issue will be further alluded to later in this document.	In the EIA process, potential adverse effects on psychological health are often mentioned, for example, anxiety and stress experienced by people worried that they would experience a change in the environment in which they live. The potential for psychological effects is detailed in EIAR Chapter 10 (Human Health), section 10.3.5.1.5. Within the EIAR Chapters, human receptors that may experience annoyance from the temporary and short-term effects of the Construction Phase, such as noise or dust, are identified. Annoyance is not in itself a health effect, although it is recognised that there can be potential impacts on a person's overall psychological wellbeing. If someone develops a psychological illness such as anxiety or depression this becomes a medical impact. There are various degrees of psychological impact, and these can be both positive and negative. Although identifying the potential impacts is possible, quantifying them is difficult as there are no direct measurements available, and the same impacts may have different effects on different people. For example, for some individuals demolishing an old building could be viewed as removing an eyesore or making way for something better but alternatively for others, it can be seen as a loss of heritage. While some impacts on health are predictable, such as the impacts of increasing noise or decreasing air quality, the impacts on psychological health from the same situation can differ very significantly between people depending on their perspectives. This summary is presented in section 10.3.5.1.5 of Chapter 10 (Human Health). There will also be negative effects of varying degrees. These can be minimised by construction and operational mitigation measures and also by communication and provision of regular factual information. In terms of assessing the psychological impact, an impact is assessed as either positive or negative, if it is likely that the overwhelming majority of people will experience that effect. Where different psychological impacts are anticipated from the same scenario the assessed psychological impact is neutral. This summary is presented in section 10.3.5.1.5 of Chapter 10 (Human Health). TII acknowledge that it will be difficult for owners to sell their properties while MetroLink works are ongoing, however TII does not have powers of compensation for this scenario where a property is outside of the project red line boundary for the scheme. TII believe however that affected owners will benefit from an uplift in the value and saleability of the affected property once the MetroLink is operational.
7	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	5	Having examined the various documentation, we consider that the following mitigation measures and conditions need to be applied by An Bord Pleanala should it be decided to grant the Railway Order: • environmental limits need to be prescribed in specific conditions and in general at particular locations and at specific times of day.	Environmental limits will be prescribed by the Railway Order. A significant proportion of mitigation is already incorporated into the design of the proposed Project through mitigation by prevention. Where an impact to the environment has been deemed as unacceptable, mitigation has been embedded in the design or the unacceptable option has been ruled out. Mitigation measures have been proposed for all impacts resulting in a moderate significance or above. Furthermore, mitigation measures have also been proposed for some impacts with a lower significance where such measures are routinely applied (for example in the management of construction-related impacts) or where, based on professional judgement, there would be a material benefit to the receptor. EIAR Chapter 31 summarises the Construction and Operational Phase Mitigation and/or Monitoring Measures / Environmental Commitments outlined in the relevant EIAR technical assessments and should be read in conjunction with the mitigation outlined in the specific chapter. Appendix A5.1 Outline CEMP details that mitigation and monitoring will be carried out in accordance with the requirements of the EIAR and NIS so that construction activities are undertaken in a manner that does not give rise to significant negative effects. Suitable monitoring programmes will be developed, implemented, documented and assessed in accordance with the specification outline in the detailed CEMP. The results of all environmental monitoring activities will be reviewed by the Environmental Manager on an ongoing basis to enable trends or exceedance of criteria to be identified and corrective actions to be implemented as necessary. The contractor(s) will be required to inform TII of any continuous exceedances of criteria.

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8	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	5	specific mitigation measures are required to be included in detailed design e.g. screening and limitations on working hours etc.	Please refer to response item (7) above related to mitigation and monitoring measures. Specific mitigation measures or performance requirements needed to ensure Environmental Limits are adhered to, will be included in the contracts for the design and build contractors. Appendix A5.1 Outline CEMP details the requirement for reporting and environmental records which will require TII review and approval, including environmental inspection and audit reports (internal and external), and Health and safety records. Any restrictions to working hours associated with major events in the area of works will be agreed with Local Authorities. In addition, a Construction Noise and Vibration Management Plan will be included as part of the final CEMP, and this will include for specific working hour measures at sensitive locations. For example, works outside churches will need to take into consideration mass or funeral events.
9	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	5	conditions must be imposed regarding monitoring schemes for the major measurable impacts (eg noise, vibration, settlement, dust, air quality, etc. These need to be outlined and implemented before construction starts. Information from these monitoring schemes should be readily available to all stakeholders.	Please refer to response items (7) and (8) above related to mitigation and monitoring measures. As presented in the EIAR Chapter 13 (Airborne Noise and Vibration), a full monitoring and auditing programme will form part of the CNVMP (Construction Noise and Vibration Management Plan) which will be agreed with the Local Authorities prior to the commencement of the Construction Phase. As a minimum the monitoring programme will include an alert system for threshold exceedances, remote access and a platform for sharing monitoring results between the contractor, TII, DCC and FCC. Before commencing relevant works, an Air Quality Management Plan will be prepared and submitted for approval to the relevant local authority, in this case DCC. The plan will include all appropriate dust and emissions mitigation measures applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. A plan will be developed by the contractor for each worksite, including Glasnevin. Strict dust prevention will be in place at all times to minimise any potential emissions and these procedures will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations. Further details are provided in response item (14) below.
10	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	6	a means for obtaining a technical response in a speedy manner to enquiries and concerns for those affected, needs to be devised.	EIAR Chapter 5 (MetroLink Construction Phase) Section 5.12.4.5 sets out TII Plans for Community Engagement during the construction Phase. A Stakeholder and Community Engagement Plan has already been developed which has guided the frequency and means of communication to date. The proposed Project will continue to progress community engagement by: - Regularly reviewing and updating stakeholder and community engagement plans; - Actively maintaining partnerships and design focus groups established with the community; and - Communicating in a timely and open manner. Through the ongoing development of this plan, it is proposed that TII and its appointed contractor(s) will ensure that local residents, occupiers, businesses, local authorities and all other stakeholders affected by the proposed construction works, as outlined in this EIAR, will be informed in advance of work taking place. The plan will be developed under the consent of a designated Public Liaison Officer appointed by TII. This plan will provide a two-way mechanism for members of the public to communicate with a designated member of the contractor(s)'s staff and for the contractor(s) to communicate important information on various aspects of the proposed Project to the general public.

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11	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	6	• conditions need to be applied requiring TII to set up a complaints procedure and dispute resolution process relating to all significant impacts. This to be agreed and implemented before construction commences.	Please refer to response item (10) above in relation to the proposed engagement and Public Liaison Officer. As noted in response item (5), a Freephone (e.g., 1800) helpline service will also be maintained during the Construction Phase to deal with enquiries and concerns from the general public.
12	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	6	• conditions need to be imposed requiring TII to operate an adequate Property Protection Scheme to ensure that property owners who sustain damage to their properties will have the issue rapidly addressed. In this regard TII have stated that owners may avail of their own professional service provider but at their own expense. We believe that this is manifestly unfair and reasonable costs incurred by owners should be reimbursed by TII.	TII is committed to having a Property Owner Protection Scheme (POPS) in place prior to construction works commencing. The scheme allows residential property owners to register with TII if the property is within thirty metres of the edge of the MetroLink alignment or fifty metres of station structures. The POPS comprises condition surveys of private properties and other selected properties along the route of the proposed Project. The purpose of the condition surveys would be to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether the same may be attributable to the proposed Project and recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in the swift and accurate verification of any property damage claims which may be received from property owners. The POPS would be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/

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13	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	6	- the issue of noise generation during construction is a major problem. We believe that the following matters need to be covered in order to give absolute clarity: noise profiling, when noise is likely to happen, duration of same, exceedances of the limits set, full access to noise monitoring equipment, confirmation that a noise complaints procedure and response protocol will be established. - the issue of vibrations is also a major issue. A protocol and oversight process similar to noise monitoring is required for this.	TII understand the reasons for your concerns and would like to provide the assurance that the potential disturbance impact on your property as a result of the proximity of the proposed tunnel and station has been carefully assessed. This includes the impact of noise and vibrations from: the tunnel boring machine (TBM), mechanical excavation and blasting; construction generated ground movements leading to settlement and possible building and property movement; and the operation of MetroLink. All of which have been assessed and reported in the EIAR and are summarised below. With exception of a temporary disturbance when the TBM passes your property, TII are predicting a 'not significant' impact to the building occupants and your building, or risk to the integrity of your house. Construction Phase – Airborne Noise and Vibration EIAR Chapter 13 Airborne Noise and Vibration, Table 13.62 summarises the potential significant construction noise impacts from the construction of the proposed Glasnevin Station, which includes The Court, Dalcassian Downs. The predicted impact without additional noise mitigation is Significant to Very Significant during some of the work phases. Noise mitigation measures are detailed in section 13.6.1 and include for a proposed 4m high acoustic noise screen along the north, east and southern boundaries of the Glasnevin construction compound. With these mitigations the construction impacts are reduced to below significant. Construction Phase – Groundborne Noise and Vibration EIAR Chapter 14 Groundborne Noise and Vibration, Appendix 14.5 presents the predicted groundborne noise and vibration levels during the construction phase of the project for The Court, Dalcassian Downs: - The predicted level of groundborne noise during TBM passage is 49 dB LASmax, which is above the 45 dB LASmax threshold resulting in a significant impact on the occupants of the building for the relatively short duration of TBM passage. - The predicted level of groundborne vibration during TBM passage is 0.263 ms-1.75 day and 0.221 ms-1.75 night, below the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) Threshold Level of 1.0 ms-1.75 day and 0.5 ms-1.75 night, resulting in a not significant impact on the building. - The predicted level of groundborne noise during mechanical excavation at Glasnevin Station is 41 dB LASmax, which is above the 40 dB LASmax threshold resulting in a significant impact on the occupants of the building. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from the TBM at source but noting that the duration of this impact will be temporary and of the order of up to two-weeks as the TBM passes. TII will undertake advanced consultation and stakeholder engagement to prepare people for the passing of the TBM and ensure the timing of these impacts are known. TII's contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project as referred to in EIAR Appendix A5.1, Outline Construction Environmental Management Plan (CEMP). The CNVMP will be a live document and will include a full monitoring and auditing programme which will be agreed with the Local Authorities prior to the commencement of the Construction Phase, including predetermined monitoring trigger levels to ensure noise and vibration limits are not breached, noting that it is not possible to mitigate TBM groundborne noise and vibration at source. Table 6.2: Noise and Vibration Measures of the Outline CEMP outlines the monitoring programme requirements. The Transport Infrastructure Ireland (TII) Airborne Noise and Ground-borne Noise Mitigation Policy (Appendix A14.6 of EIAR Chapter 14) also sets out the construction noise insulation and temporary rehousing measures to be implemented where required.

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			Response (13) continued.	Construction Generated Ground Movements EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on your property and has been predicted to not exceed the 'Very Slight' category, an explanation for which can be found in Table 4-4 of the aforementioned report. With particular regards to Protected Structures, these properties have been designated as "Case A"- they are on shallow foundation and are within a distance from a retained cutting, shaft or box equal to the excavated depth of superficial deposits or 50% of the total excavation depth, whichever is greater. Therefore, a further Stage 3 refined assessment will be undertaken that will take account of final design and construction methodology details most likely utilising advanced numerical modelling techniques and further surveys of the building. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. Monitoring instrumentation will also be installed to monitor the performance of the works and potential environmental impacts, including those discussed above to ensure that acceptable limits are not breached. TII would also draw attention to the fact that residential property owners within 50m of the station excavation, or 30m of the tunnel are eligible to subscribe to the Property Owners Protection Scheme (POPs) which includes for pre and post-construction condition surveys and repair of damage.
14	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	6	• in relation to dust generation, conditions imposed for this need to be explicitly outlined and enforced including the covering of materials stockpiled and exposed to wind and the use of water misting or sprays to dampen down dust.	The EIAR has fully assessed the potential impacts on the local population, including dust and other air quality emissions impact assessment and proposed mitigation measures in Chapter 16 (Air Quality). The potential risk from dust emissions has been reviewed for the critical activities at each of the construction areas. The Construction Environmental Management Plan (Appendix A5.1) will be used to manage the construction phase dust emissions. In addition, before commencing works, an Air Quality Management Plan shall be prepared and submitted in advance to the relevant planning authority. The plan will include all appropriate dust and emissions mitigation measures applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. The plan will be developed by the Contractor and for each worksite shall include: - o An inventory and timetable of activities which may give rise to emissions or dust; - o Alert levels and system to be used (including notification process); - o Details of control measures; - o Details of dust monitoring arrangements, including the location of sensitive receptors, monitoring locations, and monitoring equipment to be used; and - o Details of the air quality reporting requirements. The types of measures that will be implemented to manage dust will include the following: •Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; •Any blasting will be completed by specialised contractors with a specific blasting dust management plan; •Liaison with local authorities and community groups; •Hoarding will be provided around the construction compounds; and •It is anticipated that methods of collecting rainwater and recycling for general site use, will be adopted where practical. Requirements for dewatering installations at deep station and tunnel portals can also provide a valuable source of water for general site use.

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15	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	6	We believe that An Bord Pleanala also need to impose specific conditions relating to the following items with regard to the impacts of the construction of the Glasnevin Station adjacent to The Court, Dalcassian Downs: • As stated earlier in this document, the grounds of our complex are a particular feature and conditions need to be applied to ensure that the protected railings and the grounds are restored to a high standard, post construction.	A Project Conservation Architect (PCA) has been engaged to oversee the implementation of the Project. Prior to the establishment of construction compounds, the Project Conservation Architect (PCA) will undertake Structural and Condition Surveys of any built and cultural heritage constraints that will require removal to secure storage (followed by conservation and reinstatement) or protection in-situ. The PCA will also prepare specifications for these works. A specialist Heritage Works Contractor will be appointed to remove, store and conserve these constraints. The Main Construction Works Contractors will appoint Consultant Conservation Architects to implement required preservation of in situ works. Chapter 26 (Architectural Heritage) details the potential impacts during construction at Glasnevin. The protected railings and gates at Dalcassian Downs lie within the work area for Glasnevin Station and a significant section is to be removed during construction and reinstated on completion of the works in this area. The railings and their plinth walls are to be recorded by photography and written description prior to its removal. The railings and walls are to be taken down in accordance with a specification to be prepared by the PCA and the materials removed into a secure storage pending reinstatement. At the appropriate stage of construction, the materials are to be returned to site and the railings and walls reinstated in accordance with a conservation method statement to be prepared by the PCA. All works of dismantling, protection, transportation and reconstruction are to be carried out by a dedicated heritage contractor. The impact would be imperceptible following mitigation.	
16	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	6	• As proposed, the hoarding line fronting Blocks 1-18 and 19-36 The Court is right up against the ground floor apartments and regardless of whether viewing panels are inserted a loss of natural light will arise for the entire construction period of 6 years. TII should be conditioned to move the hoarding back to alleviate the extreme physical and psychological discomfort resulting from a close up hoarding line.	TII acknowledge that the hoarding line is in close proximity to The Court apartment blocks, and the impacts are recognised in the EIAR. Hoarding is necessary to allow the construction of the works whilst minimising noise impacts to these blocks and hence cannot be realigned due to the site constraints. However, TII will work with the design and build contractors to minimise the duration that this hoarding line needs to remain at the proposed offset to the blocks and incentivise the contractor to relocate it at the earliest practical time. As detailed in the EIAR Chapter 5, MetroLink Construction Phase, the programme for the construction of the proposed Project has been optimised to minimise the duration of the Construction Phase in order to lessen the duration of potential environment impacts, while ensuring that the areas surrounding the work sites remain operational and functional. Work will run concurrently at all MetroLink site locations to ensure the Project is delivered in an effective and timely manner. Please refer to response item (6) above in relation to the anticipated impacts on psychological health during construction works.	
17	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	6	• As proposed, the location of the Bentonite silos and filtration plants within the construction site will lead to a large loss of natural light to residents. TII should be conditioned to move these temporary structures as far back as possible from the apartment blocks.	During procurement of the Contractor, TII will work with the contractor to optimise the site layout and seek to maximise the separation of these tall structures /equipment from the site boundary.	
18	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	6	• TII have indicated that they are in discussions with Dublin City Council with a view to extending the pay and display parking scheme which operates in the main Dalcassian Downs housing estate to residents of the Court whose 32 car parking spaces will be removed during the construction phase. No consultation took place with the Management Company Board prior to these discussions taking place between TII and Dublin City Council. This is contrary to the principles set out in the guidance document issued by DEPR in January 2019, in relation to public consultation.	It is recognised that locating suitable alternative parking for affected residents is challenging, however we continue to consult with DCC in identifying possible alternative parking for residents and are optimistic that such alternative parking can be confirmed in advance of the Oral Hearing.	

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19	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	7	We believe that imposing Court resident parking on the residents in the main estate will cause resentment among those residents when currently the relationship between both sets of residents is extremely friendly. Accordingly we believe that An Bord Pleanala should impose a condition in the Railway Order that alternative parking for displaced residents at the Court must be provided in a cordoned off area within the adjoining construction site. In this regard consideration should be given to utilising "vertical rotary parking systems" which can be constructed over 2 or 3 parking spaces and are operated via touch screens, apps or chip technology. Such systems are widely used in Europe and could be assembled and then disassembled by TII and used elsewhere by them.	Please refer to response item (18) in relation to the impact on parking at Dalcassian Downs.
20	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	7	As referenced earlier, we believe that TII should be conditioned to arrange and fund counselling services for those individuals at The Court, Dalcassian Downs, whose lives will be negatively transformed and who may wish to avail of counselling services. It should not be a matter for individuals to have to fund the help that they may feel they need.	Please refer to response item (6) above related to potential for psychological effects. TII will not be providing counselling services of the type suggested.
21	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	7	We also believe that TII should be conditioned to fund some form of basic health screening at regular intervals to ensure that the underlying physical and mental health of residents does not deteriorate discemibly during the 6 year construction phase. If TII are confident that no health issues will arise, then they should not oppose this suggestion.	Please refer to response item (6) and (20) above related to potential for psychological effects. As detailed in Chapter 16 (Air Quality), the construction phase assessment identifies a generally negligible or slight negative impact on air quality in the vicinity of the proposed Project during the Construction Phase post mitigation. No exceedances of air quality standards are predicted, therefore, no significant adverse human health impacts are predicted. TII are confident that no health issues will arise and as such do not proposed to provide health screening.
22	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	7	For those individuals who may wish to be temporarily rehoused during the construction phase, a scheme to cater for this possibility needs to be drawn up.	Please refer to response item (12) above related to POPS. In cases where parts of properties are occupied, access to the remaining unoccupied parts will be maintained, where it is possible and safe to do so. Protection such as hoarding will be used to ensure that the boundary of any construction site will be maintained, and damage would not occur outside of this boundary. Where damage could not be avoided, it would be repaired. Information regarding any situations requiring relocation and the process for financial compensation for property impacts directly related to the proposed Project is provided in Chapter 11 (Population & Land Use) and Chapter 21 (Land Take) of the EIAR. Please also refer to The Airborne Noise and Groundborne Noise Mitigation Policy which will facilitate relocation in certain circumstances.
23	(3) General Comments on the MetroLink Project including necessary Mitigation Measures	7	Finally, we believe that TII should be conditioned to provide compensation for individual owners at the Court Dalcassian Downs during construction to cater for the fact that their apartments will be virtually unsaleable during the lengthy and disruptive construction phase.	TII acknowledge that it will be difficult for owners to sell their properties while MetroLink works are ongoing, however TII does not have powers of compensation for this scenario where a property is outside of the project red line boundary for the scheme. TII believe however that affected owners will benefit from an uplift in the value and saleability of the affected property once the MetroLink is operational.

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24	(4) Compliance with Railway Order Conditions	7	We now wish to turn to the important subject of construction contract oversight of the Metrolink Project. In the documentation that we have examined there are copious references to contractors being obliged to adhere to the conditions laid down in the Railway Order. It is assumed that TII will apply sanctions or penalties for breaches of this arrangement. This is all very well but complications will arise if the Project falls behind schedule which is very likely. In that scenario it will benefit both parties if there are exceedances in working hours and traffic activity for example such that the Project gets back on schedule. The question needs to be asked as to which organisation will be overseeing adherence to conditions set down in the Railway Order? It will not be a matter for Dublin City Council planning enforcement section as they have no role in the oversight of major Infrastructural projects. We believe that the Environmental Protection Agency or some such body should be directed to oversee the compliance issues. The EPA already has national oversight of activities relating to water, waste water, waste, air, noise, radiation and chemicals. It makes no sense for An Bord Pleanala to lay down a range of conditions with TII self-administering the compliance issues as that approach is fundamentally flawed and inequitable for obvious reasons and does not provide for any sanctions on the Project sponsor.	As detailed in Appendix A5.1 Outline CEMP, independent external audits (either random or routine) will be conducted for the duration of the works to monitor the environmental performance of the contractor(s). Further, regulatory and statutory bodies may undertake site visits to monitor compliance with legislative and regulatory requirements. These site visits may occur randomly throughout the Construction Phase. The contractor(s) will facilitate these visits and the Environmental Manager will be available to provide information as required and deal with any issues that may arise during, or as a result of, these visits.
25	(4) Compliance with Railway Order Conditions	8	In the interests of transparency we also believe that a Local Liaison Group needs to be established by TII to include representatives of the various residents groups, contractor reps and TII reps. The Group should meet monthly, have an Independent Chair and have terms of reference agreed before it commences its activities. This should also be a condition of the Railway Order.	TII intends to establish a minimum of 3 local community liaisons offices along the MetroLink Route. It proposed to locate these offices in the city centre, Glasnevin and Swords Areas. The offices will be established at least 3 months prior to the commencement of Major Infrastructure works. Please refer to response item (10) in relation to the continued engagement throughout the construction phase.
26	(4) Compliance with Railway Order Conditions	8	Consideration should also be given to the creation of a Community Gain Fund by TII that could benefit local businesses and residents whose lives will be disrupted for quite a long time during the construction phase of the Project. The fund could also be used for Public Realm enhancements in the area post construction.	TII will work with all established Community Groups through the local community liaison offices along the route to identify projects at local level that would involve the Community in the delivery of MetroLink and its legacy. Such projects could include: - A local school learning programme. - Enhancement of community amenity within agreed funding limits. - Engagement with final landscape and finishing options
27	(4) Compliance with Railway Order Conditions	8	We also wish to formally request participation in the Oral Hearing which will undoubtedly be convened in respect of the Metrolink Project.	Thank you for the submission and request for Oral Hearing. We have reviewed the submission and provided response for the observations/ concerns raised in detail above. An overview of the Oral Hearing process is provided in the EIAR Chapter 8.9.2. An Bord Pleanála may, at its absolute discretion, hold an oral hearing on the Railway Order application. Given the scale and extent of the MetroLink project it is highly likely that an oral hearing will be held similar to past RO applications. The purpose of the oral hearing will be to allow issues relevant to an application for approval be examined. The oral hearing can be attended by anyone, but only those that have made a written application may make an oral submission at the oral hearing. The oral hearing is managed by the An Bord Pleanála.

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Letter Re: Building Transport Hub at Glasnevin					
1	Letter	1	Building Transport Hub at Glasnevin: 1. Building 7 meter hoarding a few meters from main door of block.	As noted in Table 13.85 of Chapter 13 (Airborne Noise &Vibration) the construction hoarding at Glasnevin will be up to 4m in height on the northern, southern and eastern boundaries.	
2	Letter	1	2. Going under block – so noise, vibration, and possible damage to same.	TII understand the reasons for your concerns and would like to provide the assurance that the potential disturbance impact on your property as a result of the proximity of the proposed tunnel and station has been carefully assessed. This includes the impact of noise and vibrations from: the tunnel boring machine (TBM), mechanical excavation and blasting; construction generated ground movements leading to settlement and possible building and property movement; and the operation of MetroLink. All of which have been assessed and reported in the EIAR and are summarised below. With exception of a temporary disturbance when the TBM passes your property, TII are predicting a 'not significant' impact to the building occupants and your building, or risk to the integrity of your house, with the implementation of appropriate mitigation measures. <u>Construction Phase – Airborne Noise and Vibration</u> EIAR Chapter 13 Airborne Noise and Vibration, Table 13.62 summarises the potential significant construction noise impacts from the construction of the proposed Glasnevin Station, which includes receptors for The Court, Dalcassian Downs. The predicted impact without additional noise mitigation is Significant to Very Significant during some of the work phases. Noise mitigation measures are detailed in section 13.6.1 and include for a proposed 4m high acoustic noise screen along the north, east and southern boundaries of the Glasnevin construction compound. With these mitigations the construction impacts are reduced to below significant. Where residual construction noise levels at The Court Apartments, Dalcassian Downs remain above the trigger values, application of TII Airborne and Groundborne Noise Mitigation Policy will be implemented where eligibility has been established. <u>Construction Phase – Groundborne Noise and Vibration</u> EIAR Chapter 14 Groundborne Noise and Vibration, Appendix 14.5 presents the predicted groundborne noise and vibration levels during the construction phase of the project for The Court, Dalcassian Downs: • The predicted level of groundborne noise during TBM passage is 49 dB LASmax, which is above the 45 dB LASmax threshold resulting in a significant impact on the occupants of the building for the relatively short duration of TBM passage. • The predicted level of groundborne vibration during TBM passage is 0.263 ms-1.75 day and 0.221 ms-1.75 night, below the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) Threshold Level of 1.0 ms-1.75 day and 0.5 ms-1.75 night, resulting in a not significant impact on the building. • The predicted level of groundborne noise during mechanical excavation at Glasnevin Station is 41 dB LASmax, which is above the 40 dB LASmax threshold resulting in a significant impact on the occupants of the building. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from the TBM at source but noting that the duration of this impact will be temporary and of the order of up to two-weeks as the TBM passes. TII will undertake advanced consultation and stakeholder engagement to prepare people for the passing of the TBM and ensure the timing of these impacts are known. TII's contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project as referred to in EIAR Appendix A5.1, Outline Construction Environmental Management Plan (CEMP). The CNVMP will be a live document and will include a full monitoring and auditing programme which will be agreed with the Local Authorities prior to the commencement of the Construction Phase, including predetermined monitoring trigger levels to ensure noise and vibration limits are not breached, noting that it is not possible to mitigate TBM groundborne noise and vibration at source. Table 6.2: Noise and Vibration Measures of the Outline CEMP outlines the monitoring programme requirements. The Transport Infrastructure Ireland (TII) Airborne Noise and Groundborne Noise Mitigation Policy (Appendix A14.6 of EIAR Chapter 14) also sets out the construction noise insulation and temporary rehousing measures to be implemented where required.	

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			Response (2) continued.	<u>Construction Generated Ground Movements</u> Excavation for the tunnels and other below ground structures could potentially lead to ground movements at the surface and below ground. An assessment of the effects of ground movements and potential impacts on existing buildings has been carried out as part of the Scheme Design. The EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. The results of the assessment provided in Table 5.4 shows that your property Ref AB-19 B-157a has been assessed as falling within the 'Very Slight' category of damage. The building risk categories shown in Table 4-4 of the aforementioned report are used to define the degree of building damage related to the Risk Category. According to this Table, the Very Slight damage category refers to fine cracks easily treated during normal redecoration, with perhaps isolated slight fracture in building. As your property is within the Very Slight category, it will be subject to a further assessment by the Damage and Buildings contractor as part of the Phase 2b assessment. The Property Owner Protection Scheme (POPS), committed to by TII, allows residential property owners to register with TII if their residential property is within thirty (30) metres of the edge of the MetroLink alignment or fifty (50) metres of station structures. The POPS comprises condition surveys of residential properties along the route of the proposed Project. The purpose of the condition surveys is to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether same may be attributable to the proposed Project, and subsequently to recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in swift and accurate verification of any property damage claims which may be received from property owners. The POPS is designed to cater for / address repair work which may be necessary for any damage (attributable to the proposed Project) to a qualifying residential property up to a threshold of €45,000. The POPS will be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Further information on POPS is available in Chapter 11 (Population & Land Use). Useful information can also be found in the MetroLink Frequently Asked Questions document which can be found online at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/ , and this is where useful updates will be made available as the proposed Project progresses.
3	Letter	1	3. Access to home.	Chapter 5 of the EIAR (MetroLink Construction Phase) explains that traffic management plans for the construction phase of the Project have been developed to minimise the impact on road users, and to maintain access to businesses and other premises. Prior to implementation, all traffic management measures will be agreed with DCC and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The design of traffic management measures and highways works is based on achieving the key objective of maintaining continual access to all properties during the works. Where necessary, a safe alternative route will be provided for pedestrians and vulnerable road users, such as children, and persons with restricted mobility, to maintain pedestrian access to premises. Where detour routes are required, these will be kept as short as possible and detour signage will be clear and easy to understand. All construction sites will be designed to be as unobtrusive as possible. During the Main Works for Glasnevin Station, no road closures or general traffic lane reductions are required, as noted in section 7.6.6.3 of Appendix A9.5 Scheme Traffic Management Plan. During the Enabling Works for Glasnevin Station, 90m of bus lane on Prospect Road northbound will be removed, with priority given to pedestrians, however there is no impact to local access in this area. In the general vicinity, local access to Royal Canal Way will be restricted however a diversion will be provided to maintain access to Coke Oven Cottages. As outlined in Appendix A5.1 Outline Construction Environmental Management Plan - CEMP, the appointed contactor(s) are required to implement the measures in relation to traffic and transportation during construction. Following the appointment, the contractor(s) will be required to develop an updated contract-specific CEMP which will detail all measures to be employed in relation to all potential impacts on traffic and transportation.

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Letter Re: Building Transport Hub at Glasnevin					
4	Letter	1	4. Rodent control.	As detailed in Chapter 10 (Human Health), rodent control, good sanitation, disinfecting contaminated work areas, worker education via tool box talks and using personal protective equipment (PPE) when handling infected animals are important actions for prevention of Leptospirosis (or Weil's Disease). While rodents will be temporarily displaced as a result of initial construction activities, there is nothing in the Construction Phase which would lead to an increase in the number of rodents. With the rodent control policies in place, it is possible that there will be a reduction in the level of rodents and the subsequent risk associated with Leptospirosis. As there will not be an increase in vermin numbers and more likely a decrease because of vermin control measures, there will be no increase in vermin transmitted disease over and no significant adverse effect on human health.	
5	Letter	1	5. Parking for cars.	Please refer to response above (3) related to the Traffic management during the Construction Phase and maintained access to your property. Temporary management measures have been developed to minimize the impact on parking and loading. Site specific mitigation measures will be developed through consultation with stakeholders, including local authorities, residents and business owners. These impacts will be monitored throughout the Construction Phase to assess if any disrupted bays can be reinstated. Prior to commencement, all traffic management plans will be presented to DCC and local stakeholders to minimise the severity of impacts to affected road users. A Project Construction Traffic Forum will also be established allowing affected residents and stakeholders to raise any concerns around traffic management in the area. All staff and workforce will be encouraged to make their way to site and home from site by public transport, by project specific transport (e.g. minibuses), by bicycle or on foot. Limited parking spaces will be provided for vehicles required for the construction activity and for employees. The nominated contractor(s) may provide a transfer pick-up and drop-off service from suitable public transport hubs, therefore not creating additional demand on the existing car parking in the area.	
6	Letter	1	6. Building to take 6-8 years!!	As detailed in EIAR Chapter 5 (MetroLink Construction Phase) the programme for the construction of the proposed Project has been optimised to minimise the duration of the Construction Phase in order to lessen the duration of potential environment impacts, while ensuring that the areas surrounding the work sites remain operational and functional. Work will run concurrently at all MetroLink site locations to ensure the Project is delivered in an effective and timely manner. Standard working hours will be complied with in the majority of cases, however 24/7 working is required in some instances at Glasnevin to maintain the construction programme. Please refer to response items (1)-(4) in relation to the predicted impacts in the vicinity of your property during the construction phase and associated mitigation measures. The EIAR details in full the proposed environmental protection measures to be implemented during construction. One of the key aspects of environmental control during the construction phase is the requirement for the appointed contractor to prepare a detailed design and construction methodologies plan in the form of a detailed Construction Environmental Management Plan (CEMP) to ensure all environmental impacts are managed and mitigated in accordance with the EIAR and Railway Order, assuming an Enforceable Railway Order is granted. This detailed CEMP(s) will be provided to DCC for consultation and approval in advance of any construction works on site. An Outline CEMP is included in Appendix A5.1 of the EIAR that will be developed further by the appointed contractors. Monitoring instrumentation will also be used throughout the works to monitor potential environmental impacts, including those discussed above to ensure that acceptable limits are not breached.	

Submission No.			176		
Organisation Name or Name of Submitter			Margaret Morrissey (22 The Court, Dalcassian Downs, Glasnevin)		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Letter Re: Building Transport Hub at Glasnevin					
7	Letter	1	There is already planning for Drumcondra which has a higher footfall with Mater Hospital, Croke Park, Teacher Training College and DCU so why change the new route.	EIAR Chapter 7 (Consideration of Alternatives) presents the decision-making process that has led to the proposed Project, including the selection of Glasnevin Station instead of Drumcondra. The choice of a station location at either Drumcondra or Glasnevin has been considered in the context of the achievement of the Transport Strategy for the GDA, having particular regard to maximising the interchange opportunities between different services and to provide fast and convenient access to major transport destinations such as Dublin City Centre and Dublin Airport. It is considered that the provision of a station at Glasnevin will better meet the requirements of the Transport Strategy for the GDA for the following reasons: *It will facilitate a seamless transfer/interchange with both the Maynooth (Western Commuter Line) and the Kildare railway line (South-Western Commuter Line) because the Phoenix Park Tunnel and Maynooth lines are at their closest point horizontally and vertically at Glasnevin, thereby providing the opportunity for a MetroLink station to capture transfer to and from these lines more effectively than at Drumcondra; * The Glasnevin location also facilitates the construction of an integrated metro station as the two heavy rail lines are beneath the existing ground level, making it possible to connect via an underground concourse to all three rails in a short plan distance. At Drumcondra, the connection to both lines would require a connection of approximately 100m with more significant vertical connections between the two lines also required. * Improved journey times via Glasnevin than Drumcondra, offering the opportunity to transfer sooner from heavy rail. * Route options serving Glasnevin are forecast to have approximately 6,000 additional passengers per day when compared to an interchange station at Drumcondra. This is largely due to the increased opportunity to interchange at Glasnevin.	

Submission No.			178, 179 and 195		
Organisation Name or Name of Submitter			Maria O'Connor, Marie Balfe & Monica Deering		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
MetroLink Railway Order - Case Reference Number NA29N.314724. Maria O'Connor, 26 Townsend Street, D02 E032					
1	Letter - concerns	1	I wish to object to the unacceptable decision by Transport Infrastructure Ireland to go ahead with the Metrolink plans involving the Tara street station redevelopment at the expense of 78 homes and apartments and the local sports & leisure centre.	Chapter 07 (Consideration of Alternatives) details the decision-making process that has led to the development of the proposed Project, including the route alignment and station locations. A station at Tara Street provides good interchange opportunities, serves important key trip attractors in the study area with high potential passenger trips. This option also takes a direct route through areas of high demand in the centre of the study area. As Dublin's public transport network grows through the implementation of higher capacity bus routes, more frequent heavy rail services and coverage, and the expansion of the light rail network it is critically important that to achieve the full benefits and capitalise on these investments that they are integrated fully where appropriate to attain “the network effect”. High quality interchanges can significantly broaden the transport offer for their catchment and add to the appeal and attractiveness of sustainable transport by ensuring that people can easily change services to access a wider range of places by these modes, and each scheme should be designed to ensure that these are as seamless as possible. Please refer to response (3) which details the alternative options that were considered for this location, and outlines the reasons why this location (involving demolition) was ultimately identified as the preferred option.	
2	Letter - concerns	1	My home is one of those under threat, I am a tenant of DCC (Dublin City Council) and I live at 26 Townsend street and my house is due for demolition according to the Metrolink plans at Tara street (along with the other 77 homes & apartments), My parents moved into this house in Townsend street when it was built back in 1992, I then took up residence in the house in 2004 and have lived very happily here in the area for the last 18 years. It is a very close community, everybody knows one another and look after one another, a lot of the tenants are elderly and they rely on each other so this is a very frightening and worrying time for all involved. Several of these tenants were already forced to move back in 1992 from nearby Moss street area to make way for a large building development.	TII wish to thank you for your submission and acknowledge the concerns you have around the demolition of your home as part of the construction of Tara Street Station. Please refer to response (1) in relation to the strategic need for the MetroLink Tara Street Station. Response (3) details the alternatives that were considered for this location to avoid the demolition, presenting the reasons why this location (involving the demolition) was selected as the preferred option.	

Submission No.			178, 179 and 195	
Organisation Name or Name of Submitter			Maria O'Connor, Marie Balfe & Monica Deering	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
MetroLink Railway Order - Case Reference Number NA29N.314724. Maria O'Connor, 26 Townsend Street, D02 E032				
3	Letter - concerns	1	It is like this close inner city community is being pushed out of their area as Dublin City Council is now prioritising selling land to make money, rather than housing people and keeping communities intact. There is a sense of shock, anger and bewilderment in the area at the moment due to this unnecessary decision to demolish 78 homes (right in the middle of the biggest housing crisis in Ireland's history). What makes this decision even more ludicrous is the fact that there are other options out there for the Tara Street stage of Metrolink which would not involve destroying people's homes, but these options have not been even been considered by Transport Infrastructure Ireland.	Chapter 07 (Consideration of Alternatives) details the decision-making process that has led to the development of the proposed Project, including the route alignment and station locations. Appendix A7.2 Tara Street Station Report presents in detail the various options that were considered by TII for this location. Concerns had been raised during the public consultation on the Emerging Preferred Route (EPR) regarding the demolition required for the station in the location proposed, and concerns were again raised during the consultation on the Preferred Route. A number of alternative station locations were considered to try and address these concerns. Option 0 is the proposed station location, with a further 11 options assessed. Three options as submitted by College Gate residents, with the station relocated either to the north or south of the EPR proposed location, have been reviewed in detail. In addition, other options developed through the Preferred Route design process including a mined option and realignment of the route to the east of Tara Street Station have also been reviewed. All were assessed against the EPR proposed station location (Option 0) as a base case, adjusted to suit the single bore and reduced station box length. The various options were taken through a Mutli Criteria Analysis to compare aspects of each different option. Assessment of options considered the viability of the rail alignment, the quality/ease of interchange with Tara DART Station (a key requirement given that this will be one of the busiest stations on MetroLink with high passenger interchange with the DART), demolition/construction impacts (including minimising impacts on the existing DART infrastructure/operations), other environmental and planning issues, including traffic and utility impacts, and urban integration, health and safety issues, and potential construction costs. This has identified that for a number of reasons including constructability, cost, and retention of a good interchange facility, that Option 0, including demolition of College Gate and Markiewicz Centre, remains the preferred station location. Following assessment of the 11 alternative options, Option 0 has been retained as the preliminary design. The main reasons are: * This location retains a good interchange facility with Tara DART Station; * It reduces risk to the overall construction programme; * It offers cheaper overall construction cost; * It retains opportunity for future adjacent development by others; * Mitigation for the loss of the College Gate apartments and other properties is being addressed as part of the Project with the support of DCC. In particular, TII, in consultation with DCC, will support rehousing and provide compensation for the loss of the residential units; * TII will continue to work with DCC in relation to the development of an alternative sports and recreational facility to replace the Markiewicz leisure centre and intends to fund the alternative. However, TII does not have control over that development, which is part of DCC's function to provide public sport and recreational facilities in its function area. DCC may or may not be in a position to deliver it in parallel with the MetroLink project. Accordingly, the Board should assess the MetroLink project on the basis that the alternative may not be available. The impact would then be significant, but nonetheless one that would not outweigh the strategic scale long term benefits that MetroLink will deliver.
4	Letter - concerns	1	We are also disappointed with DCC's role in this, despite being long and loyal tenants we have been given no support or back up. DCC appear to be working closely with Transport Infrastructure Ireland, the National Transport Authority and the MetroLink project, pursuing the demolition of our homes and the Sports Centre, rather than in any way opposing the demolition or seeking alternatives which would preserve this community.	As noted in response (3) above, TII will continue to work with DCC in relation to the development of an alternative sports and recreational facility to replace the Markiewicz leisure centre and intends to fund the alternative. However, TII does not have control over that development, which is part of DCC's function to provide public sport and recreational facilities in its function area. DCC may or may not be in a position to deliver it in parallel with the MetroLink project. Accordingly, the Board should assess the MetroLink project on the basis that the alternative may not be available. The impact would then be significant, but nonetheless one that would not outweigh the strategic scale long term benefits that MetroLink will deliver. Please refer to response (3) in relation to the alternative options considered for this location, and the reasons for selecting this location as the preferred option.

Submission No.			178, 179 and 195		
Organisation Name or Name of Submitter			Maria O'Connor, Marie Balfe & Monica Deering		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
MetroLink Railway Order - Case Reference Number NA29N.314724. Maria O'Connor, 26 Townsend Street, D02 E032					
5	Letter - concerns	1	I have done my own research into this matter and found that there was a lack of proper investigation by Transport Infrastructure Ireland and MetroLink into the alternative routes that could have been used instead of this one that requires demolishing all these homes, there was also a lack of proper investigation of alternative construction methods (underground construction, rather thanwhat they call cut and cover, for the Tara metro station) that would mean that our homes could be preserved.	Please refer to response (3) above in relation to the options considered for Tara Street, and the reasons for the selection of the proposed station location. As part of the options assessed, a mined option (Option 4) was considered. This option would reduce the demolition involved, retaining the College Gate apartment block and the leisure centre, compared to Option 0 (the proposed location). Additionally, the option retains similar benefits to Option 0 in terms of interchange opportunity, traffic impacts, utility impacts, rail alignment and future development opportunities. The mined option comprises the construction of two deep shafts either side and immediately adjacent to the College Gate apartments to provide construction access for mining the tunnel under College Gate apartments and to subsequently provide permanent access, ventilation and back of house facilities for the operation of the station. The mining operation would need to progress 24 hours a day, 7 days per week. This would be necessary to ensure the safety and security of the works. As the tunnelling would be by "open faced " non pressurised tunnelling techniques (i.e. excavation in advance of the installation of the subsequent sprayed concrete tunnel lining) it would be critical to advance and support the excavated face continuously - particularly as the excavation would be below the water table. If a face was left unsupported for a period, ground movements become more challenging to manage and hence increase the likelihood of tunnel instability and surface settlement. This would add increased risk of damage to third party property, noting that the DART is also in close proximity and movements to the rails risk impacting the running of DART services. To not mine the tunnel 24 hours day would mean that the face would need to be secured at the end of every day shift, and the timing of blasting would need to adhere to a strict predetermined schedule so that the tunnel face is always secured at the end of each shift. In simple terms if such an approach was adopted, the impact on the programme would more than double the duration of cavern construction as a result of the constraint of day time working together with the inefficiencies in working this way. The sequence of working would also import risk and cost escalation. Therefore 24-hour working is essential for constructing the mined cavern. The nature of the work, drill and blast with mechanical excavation, would generate a level of groundborne noise and vibration that would mean it would not be possible to inhabit the College Gate apartment block due to the disturbance caused, leading to the need to relocate residents for a minimum of two years. There are also risks that could extend this duration further. This option therefore has a similar impact to the cut and cover station on College Gate residents. TII consider that when balanced against the risks and direct construction cost increase compared to the preferred cut and cover option, that demolition and redevelopment of the area around the site of the proposed Tara Station as part of the wider integrated development and regeneration of the site provides a better option. Additionally, the preferred proposed cut and cover station provides a higher quality operational station that is consistent with the MetroLink architectural vision and operational and maintenance strategy which the mined option compromises.	
6	Letter - concerns	1	Another factor to consider is that the land on which our houses sit is extremely valuable and the MetroLink group has a remit, once the new underground station has been built -- to sell this land which would at that stage be empty above ground -- in order to raise funds for the project, this is a blatant and obvious conflict of interest on the part of the state bodies involved. Myself, my neighbours and the local community are all affected by this and we are determined to make a stand against it.	As noted in Appendix A7.2 Tara Street Report (appendix to Chapter 07 Consideration of Alternatives), one of the reasons, among others, for the selection of the preferred location is that it provides opportunity for future oversight development by others as part of an urban integration plan. TII does not have a remit to sell lands once the new station is completed in order to raise funds for the project. The preliminary Business Case for the project approved in July 2021 does not include funding arising from the sale of lands.	
7	Letter - concerns	2	Since Transport Infrastructure Ireland made this announcement, my own health has suffered and I feel under constant stress along with so many others whose houses and homes are in danger, 78 houses and apartments, the local sports centre and swimming pool which is used by adults and children alike are all to be demolished, this cannot be allowed to happen,	Please refer to response (4) in relation to re-housing and the position in relation to the Markiewicz Centre.	

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Organisation Name or Name of Submitter			Maria O'Connor, Marie Balfe & Monica Deering	
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MetroLink Railway Order - Case Reference Number NA29N.314724. Maria O'Connor, 26 Townsend Street, D02 E032				
8	Letter - concerns	2	I would like to finish by saying that I am not against Metrolink, I think a lot of the ideas and plans are excellent and Dublin city centre does need a rail link to the airport, and north county Dublin needs connection to the city. However the plans regarding the Tara street development of the Metrolink project must be stopped or changed, the country is in the middle of a housing crisis and there are other options for them to use which will not involve demolishing 78 homes and a sports centre.	TII wish to thank you for your submission and statement of support for the delivery of MetroLink. Response (1) outlines the strategic need for a station at Tara Street. Please refer to response (3) above in relation to the options considered for Tara Street, and the reasons for the selection of the proposed station location. Please refer to response (5) in relation to the mined option that was considered, and the reasons why this option was not progressed.
9	Letter - concerns	2	I love my house and I am very happy in this area in Townsend street and I appeal to An Bord Pleanála to please not let them destroy my home and so many other residents homes in the area, especially when it is not necessary as there are other alternatives out there, I thank you for your help.	TII have fully assessed the impacts of the construction of Tara Street Station and presented the assessment in the EIAR, including the obvious negative impacts on the local community. As noted above, TII have and will continue to work with DCC to mitigate these impacts. Response (1) outlines the strategic need for a station at Tara Street. Please refer to response (3) above in relation to the options considered for Tara Street, and the reasons for the selection of the proposed station location. Please refer to response (5) in relation to the mined option that was considered, and the reasons why this option was not progressed.

Submission No.			180	
Organisation Name or Name of Submitter			Marie McMahon (111 Botanic Road, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Metrolink North Project				
1	Letter	1	I wish to lodge my objection to the Metrolink North Project running under my house at 111, Botanic Rd. Glasnevin, Dublin 9. on the following grounds: 1. My house is over 100 years old and was built with little or no foundations as were the other houses on my terrace. Concrete was not readily available at the time of building these houses. 2. The depth of the excavations in my opinion is not nearly deep enough and this may cause subsidence and destabilize the house.	Thank you for your submission and for sharing your observations with regards to the MetroLink project to which we have responded below. Information about the tunneling works are provided in EIAR Chapter 5 (MetroLink Construction Phase) and Chapter 4 (Description of the MetroLink Project). The tunnel sections are provided to ensure that there is maximum operational efficiency of the proposed Project while also reducing potential impacts on the developed urban areas above the alignment. For the property at 111 Botanic Road, the following data is shown on the individualised property details plan (please refer to Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-03077, ML4L-U53): •Ground level to crown of tunnel (m) - 13.3 •Ground level to track (m) - 19.9 A comprehensive Settlement Assessment has been undertaken to determine the potential impacts that construction of the proposed Project will have on sensitive receptors such as buildings and infrastructure from the advance of the Tunnel Boring Machine (TBM). The ground movement predictions and the building damage assessment methodology adopted for MetroLink is based on the approach adopted in most tunnel projects around the world, including London Crossrail and High Speed 2 in England. This is described in EIAR Section 5.4.11 (Ground Settlement Monitoring and Mitigation Works). EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. Section 5.2 of this report sets out the rationale for the assessment of properties similar to yours. The results of the assessment provided in Table 5.2 shows that property Ref B-123, as one of the representative properties selected similar to your property, has been assessed as falling within the '<i>Slight</i> ' category. This category indicates that redecoration may be required, with several slight fractures inside the building and visibility of exterior cracks. The building risk categories shown in Table 4.4 of Appendix A 5.17 are used to define the degree of building damage related to the Risk Category. TII is committed to having a Property Owner Protection Scheme (POPS) in place prior to construction works commencing. The scheme allows residential property owners to register with TII if the property is within thirty metres of the edge of the MetroLink alignment or fifty metres of station structures. The POPS comprises condition surveys of private properties and other selected properties along the route of the proposed Project. The purpose of the condition surveys would be to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether the same may be attributable to the proposed Project and recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in the swift and accurate verification of any property damage claims which may be received from property owners. The POPS would be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. The Property Owners' Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor. Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/

Submission No.			180	
Organisation Name or Name of Submitter			Marie McMahon (111 Botanic Road, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Metrolink North Project				
2	Letter	1	3. Why was this particular terrace of houses chosen when much newer houses with proper foundations further up on next terrace were not chosen? The fact that this is presented to us with no choice in the matter is very upsetting .	EIAR Chapter 7 (Consideration of Alternatives) details alternative route options considered by TII in the development of the proposed Project and the rationale for ruling those options in and out, that included an assessment of the environmental impacts of each option considered, both positive and negative. Chapter 8 (Consultation) details that consultation has been undertaken throughout the project development, including but not limited to the Emerging Preferred Route (EPR) Consultation, Environmental Impact Assessment (EIA) Scoping Consultation and Preferred Route Public Consultation. EIAR Appendix A 5.17, Building Damage Report, describes the industry standard phased ground movement impact assessment process that is undertaken on tunnelling and underground projects around the world, and how it has been applied to the MetroLink project. The impacts on this terrace property have been assessed as 'slight' (refer to Table 5-2: Result of Phase 2a Building Damage Assessment – Representative Buildings for Building B-123) and therefore no protection works are anticipated to be required. The assessments undertaken at Phase 2a are considered moderately conservative. As part of the Phase 2b assessment, the Design and Build Contractor will review and refine the Phase 2a assessment results based on updated survey information, detail design development (increased design maturity) and finalising the construction methodology and planning. Please also refer to the response in Section 1.

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Organisation Name or Name of Submitter			Marie McMahon (111 Botanic Road, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Metrolink North Project				
3	Letter	1	4. I have a Bus stop outside my house for over forty years. The house rattles every time buses stop outside it. I can only imagine what further vibrations may do to it.	Potential impacts associated with noise and vibration during the construction phase of the proposed Project are addressed in Chapter 13 (Airborne Noise & Vibration) with mitigation measures proposed where required. The assessment of airborne noise and vibration during the construction of Glasnevin Station includes the consideration of the closest noise sensitive receptors to the works. The noise mitigation measures that will be put in place will also work to reduce potential noise impacts at this address which is approximately 125m from the works. Chapter 14 presents the assessment of Groundborne Noise and Vibration during Construction. The Appendix 14.5 Groundborne Noise and Vibration Blasting Modelling Results presents predicted groundborne noise and vibration levels during the construction and operation phases of the project. The predicted groundborne noise during passage of the tunnel boring machine (TBM) is 49 dB LASmax which is above the Threshold Level of 45 dB, indicating a significant adverse impact for the buildings occupants for a short-term duration of up to 2-weeks when the TBM is passing this address. Vibration levels are calculated as a Vibration Dose Value (VDV). The predicted vibration during TBM Passage during the day and night are 0.265ms^{-1.75} (VDV day) and 0.223ms^{-1.75} (VDV night). The results are shown in Section 14.4 of Appendix 14.5. Both of these values are lower than the VDV Threshold Levels of 1.0ms^{-1.75} (VDV day) and 0.5ms^{-1.75} (VDV night). These threshold levels have been established in relation to human response to vibration, and thresholds for building damage are much higher. As the predicted levels of vibration from TBM passage are below these thresholds then no impact from vibration during TBM passage is expected for this building or for occupants. Threshold levels for vibration impact assessment are considered in Section 14.2.1.2.3 of EIAR Chapter 14. Unfortunately, no effective methods are available to reduce groundborne noise or vibration from TBMs at source. The principal mitigation measures aimed at minimising impacts are as follows: • Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects during construction, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. • TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6). Appendix 5.1 of the EIAR contains an outline Construction Environmental Management Plan (CEMP) which outlines the proposed approach to noise and vibration mitigation during the construction phase in Table 6.2. A full monitoring and auditing programme will form part of the CNVMP which will be agreed with the Local Authorities prior to the commencement of the Construction Phase. The Transport Infrastructure Ireland (TII) Airborne Noise and Ground-borne Noise Mitigation Policy (Appendix A14.6 of Chapter 14) sets out the construction noise insulation and temporary rehousing measures to be implemented where required. During railway operation the predicted groundborne noise at 111 Botanic Road is 36 dB LASmax, which is below the threshold level of 40 dB LASmax indicating no significant impact to building occupants during railway operation. The predicted VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) during railway operation is 0.009 ms^{-1.75} (VDV day) and 0.005 ms^{-1.75} (VDV night). Both of these values are well below the VDV Threshold Levels of 0.8ms^{-1.75} (VDV day) and 0.4ms^{-1.75} (VDV night) indicating no significant impact for the building or for residents of this address.
4	Letter	1	5. All sorts of promises are being made that surveys of properties will take place and that ground in these areas will be accessed before construction. So far I've had no contact from anyone on this matter.	Property condition surveys will be undertaken at protected or identified vulnerable buildings and structures within 50m of the proposed surface working compounds, and 30m of the proposed tunnel alignment. Property condition surveys will also be carried out at buildings and structures considered appropriate relative to their proximity to the works depending on their potential vulnerability to vibration and settlement. With regard to the surveys, these will be undertaken in advance of construction but closer to the date by which impacts could be expected to ensure that the existing condition is recognised. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post construction condition surveys. (Refer to Table 6.2 Noise and Vibration Measures in the Outline Construction Environmental Management Plan, Appendix 5.1 of the EIAR). TII have undertaken extensive consultation across the route of MetroLink and have listened carefully to the concerns of stakeholders and the community, as documented within EIAR Chapter 8. Furthermore TII have undertaking a detailed and an extensive Environmental Impact Assessment that identifies and addresses environmental concerns as evidenced by the submitted EIAR, including proposed mitigations to reduce environmental impacts, that accompanies the MetroLink Railway Order application. Please note that as part of the consultation you were issued with an individual property information pack on the 20th September 2022 with details of the route directly below your property.

Submission No.			180	
Organisation Name or Name of Submitter			Marie McMahon (111 Botanic Road, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Metrolink North Project				
5	Letter	1	6. The fact that the historical value of the area is been ignored especially in the construction of the Glasnevin station is another worrying aspect of this Project.	Glasnevin Station will be a new multi-modal interchange station in Phibsborough, linking MetroLink, the two existing Iarnród Éireann heavy railway lines (Western Commuter Line and the South-Western Commuter Line), BusConnects, and connections by car, walking and cycling. Unfortunately, due to the available land, combined with the construction challenges associated with providing this complex multi-modal interchange station that will deliver significant transport benefits by nature of its connectivity, there is no means of retaining the Brian Boru pub. TII acknowledge this is a significant impact. TII also acknowledge that the architectural railings at Dalcassian will need to be temporarily removed. Before proposing the demolition of the Brian Boru pub, TII did carefully examine the alternative of locating a station at Drumcondra rather than Glasnevin as reported by EIAR Chapter 7, Consideration of Alternatives, section 7.6.5. Both options would require demolition of buildings with potential for significant impacts on architectural heritage, however, once the construction is complete, the proposed station location at Glasnevin offers a much better interchange station location for passengers, a key Project objective of MetroLink. The impacts of the Glasnevin construction works have been assessed and reported in the EIAR Chapter 25 (Archaeology and Cultural Heritage). The Brian Boru pub will be recorded by means of photography and written description to English Heritage Level 3 standard prior to demolition. (Refer to Table 25.9 and Section 25.6.1 of Chapter 25). The construction of the station will necessitate the removal of the historic railings at Dalcassian Downs. The railings and their plinth walls will be recorded by photography and written description prior to their removal. The railings and walls will be taken down in accordance with a specification to be prepared by the Project Conservation Architect (PCA) and the removed materials stored securely prior to cleaning, repair, and reinstatement. At the appropriate stage of construction, the materials are to be returned to site and the railings and walls reinstated in accordance with a conservation method statement prepared by the PCA. All works of dismantling, protection, transportation and reconstruction will be carried out by a dedicated heritage contractor with the assessed impact imperceptible following this mitigation. (Refer to EIAR Chapter 26, Architectural Heritage - Section 26.4.4.6: Glasnevin Station and Table 26.66: Proposed Mitigation).

Submission No.			181		
Organisation Name or Name of Submitter			Senator Marie Sherlock		
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Letter Re: MetroLink Railway Order Application submission REF - 314724					
1	1 Construction Management:	1	Construction of the three stations which are planned for Dublin 9 and 7 will have enormous impacts on the traffic flows in the area. Traffic management plans must be published, and consultation must take place with the local communities well in advance of any works commencing	Chapter 5 of the EIAR, MetroLink Construction Phase, explains that traffic management plans for the construction phase of the Project have been developed to minimise the impact on road users, and to maintain access to property. Prior to implementation, all traffic management measures will be agreed with DCC and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The design of traffic management measures and highways works is based on achieving the key objective of maintaining continual access to all properties during the works. Where necessary, a safe alternative route will be provided for pedestrians and vulnerable road users, such as children, and persons with restricted mobility, to maintain pedestrian access. Where detour routes are required, these will be kept as short as possible and detour signage will be clear and easy to understand. All construction sites will be designed to be as unobtrusive as possible. EIAR Appendix A9.5, Scheme Traffic Management Plan (STMP) also describes the methodology used to assess the impact of the construction of the Project on all transport users and provides details of mitigation techniques and the types of measures to be employed to minimise the impacts generated by the Project during the Construction Phase. TII confirm that traffic management plans will be published, and consultation will take place well in advance of any works commencing as noted in Chapter 9 Traffic and Transport and Appendix A5.1 Outline CEMP of the EIAR. TII's contractor(s) will be responsible for putting in place a Stakeholder Communications Plan which will be developed under the consent of a designated Public Liaison Officer (or equivalent officer) appointed by TII. This plan will provide a two-way mechanism for members of the public to communicate with a designated member of the contractor(s)'s staff and for the contractor(s) to communicate important information on various aspects of the proposed Project to the public. Prior to the commencement of construction, a comprehensive publicity and information campaign will take place.	
2	1.1 Glasnevin Station	1	During the peak construction period of year 3 and year 4, there will be up to 200 construction vehicles travelling in and out of this area on a daily basis. This is going to have dramatic and enormous implications for traffic flows in the wider Phibsborough area. In particular there is a specific concern regarding the ability of Cross Guns bridge to take such high volumes of plant and machinery.	Traffic impacts have been assessed and included within EIAR Chapter 9, Traffic and Transport. During the main works at Glasnevin Station, as the construction site boundary is located away from the traffic network, there is expected to be no significant impact on traffic flows throughout the Construction Phase while temporary traffic management (TTM) is implemented. Average lorry movements during the main works are 50 - 100 movements. The maximum number of daily movements of 200 vehicles only occurs for two days as per Appendix A9.5 STMP. Analysis shows that construction traffic movements will likely result in a minor impact on the nearby signalised junctions and on Prospect Road, however traffic flow will generally be unaffected. There will be some impact on Prospect Road where site vehicles routing from the north to the site will be required to take a right turn into the site, leading to an increase in HGVs in the area. TII and their contractor(s) will monitor the traffic flows during construction to ensure no undue disruption occurs. With regards Cross Guns Bridge there are no traffic restrictions on this currently. It should be noted that HGV haul routes are located from the M50 to Glasnevin Station so there is no current requirement to cross Cross Guns Bridge. In the event that MetroLink abnormal vehicle loads are required to pass through Cross Guns Bridge, TII will consult with the DCC and make necessary arrangements.	
3	1.2 Griffith Park Station	1	Local residents will also need a very clear picture of the traffic management system here, given such high levels of heavy plant and machinery that will be in the area on a daily basis over an extended period.	Please refer to response (1) above. TII will implement signage strategies for access traffic and through traffic, the public will be provided with advanced warning of any proposed diversions and disruption, and there will be continuous updates on construction progress on the project website and through various social media outlets. These measures, and others, are detailed in EIAR Appendix A 9.5 Scheme Traffic Management Plan.	
4	1.3 Mater Station	1	Along with the problems associated with construction traffic, there is also a very significant concern here about parking in the area, this and other issues will need to be considered in advance of construction.	TII confirm that parking has been considered as part the MetroLink environmental impact assessment. TII will work with the local community to mitigate so far as is reasonably practicable impacts on parking. EIAR Appendix A9.5, Scheme Traffic Management Plan, section 7.7, assesses that there will be a moderate impact to designated on-street parking due to the removal of parking bays on Eccles Street and Berkley Road. TII will seek to ensure parking bays are not used by construction staff and operatives by implementing the Construction Mobility Plan to ensure that numbers of employee vehicles travelling to and from construction sites on a daily basis will be managed through transporting workers to site via buses/mini-buses from designated collection points (such as Luas and DART stations or other appropriate locations).The full list of Mitigation Measures in the Construction Phase are summarised in EIAR Chapter 9, Traffic & Transport, Table 9.147.	

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5	2. Community Liaison	2	Given the major noise and physical impacts on the area, along with the high levels of plant and machinery that will be in the area, it is vital that there is a 24 hour help/liaison line put in place for the whole duration of the construction period.	As noted in Appendix A5.1 Outline CEMP, a Stakeholder Communications Plan will be developed under the consent of a designated Public Liaison Officer (or equivalent officer) appointed by TII. This will include for a 24 hour phonenumber during construction.
6	3. Vermin Control	2	Given that the works are in such close proximity to the Royal Canal, we ask that specific measures for vermin control are undertaken during construction works.	TII and their contractor(s) will implement rodent control measures. While rodents will be temporarily displaced as a result of initial construction activities, there is nothing in the Construction Phase which would lead to an increase in the number of rodents. With additional rodent control policies in place as a result of MetroLink it is possible that there will be a reduction in the level of rodents. Mitigation measures are outlined in A5.1 Outline CEMP - Table 6.6
7	4. Noise Protection	2	Given the significant levels of noise, we ask that there is greater detail given to residents living in Shandon and Dalcassian areas, along with those living along 'Berkeley Road, with respect to the construction of the Glasnevin and Mater stations.	Full noise assessments have been undertaken and presented in EIAR Chapters 13 and 14 that cover airborne and groundborne noise and vibration respectively. Chapter 13 considers noise impacts from above ground working, with some significant impacts remaining for receptors, that include some on Berkeley Road, adjacent to the construction of Glasnevin Station (Table 13.87 and 13.88 of the EIAR) and Mater Station (Table 13.89 of the EIAR) during piling works and track possessions at Glasnevin station and several work phases at Mater station. Chapter 14 considers groundborne noise and vibration identifies there will be exceedances of groundbourne noise thresholds for receptors closest to the tunnel route during the TBM passage. There will be no other exceedances of groundborne noise or vibration thresholds for receptors on Berkeley Road during construction. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from the TBM at source, but noting that the duration of this impact will be temporary and of the order of up to two-weeks as the TBM passes. TII will undertake advanced consultation and stakeholder engagement to prepare people for the passing of the TBM and ensure the timing of these impacts are known. TII's contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project as referred to in the EIAR Appendix A5.1, Outline Construction Environmental Management Plan (CEMP). The CNVMP will be a live document and will include a full monitoring and auditing programme which will be agreed with the Local Authority prior to the commencement of the Construction Phase, including predetermined monitoring trigger levels to ensure noise limits are not breached. The Transport Infrastructure Ireland (TII) Airborne Noise and Ground-borne Noise Mitigation Policy (Appendix A14.6 of EIAR Chapter 14) also sets out the construction noise insulation and temporary rehousing measures to be implemented where required. TII and the contractor(s) will engage further with stakeholders in the local community, especially those who may be affected by the construction works including residents, businesses, community resources and specific vulnerable groups. This will include residents in Shandon, Dalcassian and on the Berkely Road. The contractor(s) will be responsible for putting in place a Stakeholder Communications Plan which will be developed under the consent of a designated Public Liaison Officer (or equivalent officer) appointed by TII. This plan will provide a two-way mechanism for members of the public to communicate with a designated member of the contractor(s)'s staff and for the contractor(s) to communicate important information on various aspects of the proposed Project to the general public. Prior to the commencement of the Construction Phase, a comprehensive publicity and information campaign will take place.
8	5. Property	2	We wish to raise concerns about the limited nature of the POPS (Property Owner Protection Scheme) and the restriction of this to buildings within 30m - we believe that is overly restrictive and that other property owners who believe they will be affected should be allowed into the scheme.	TII do not consider that the POPS is overly restrictive. The 30m zone is designed to encompass the zone within which construction generated ground movements might be expected to occur that could have an impact on property. To provide further assurance, TII and their contractors will be undertaking comprehensive ground movement and vibration monitoring that will provide the data, that in the event a property owner considers their property may have been impacted by Metrolink construction, to determine whether that is the case.

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9	6. Ecological Protection and damage mitigation measures on the Royal Canal	2	It is extremely important that the impact of construction on wildlife habitats and on the biodiversity of the Royal Canal be minimised. We would like to see an ecological management plan in place for the period of construction to mitigate these risks.	EIAR Chapter 15, Biodiversity, Table 15.24 shows the residual impact significance on habitats and biodiversity for the Royal Canal (proposed Natural Heritage Areas, (pNHA)) and Canals (habitat type canals, FW3). Following mitigation this results in no likely significant residual effect. For the construction phase the contractor will be required to develop a site-specific Ecology and Landscape Management Plan, and a Non-Native Invasive Species Management Plan. The contractor will be legally obliged to ensure that procedures are implemented to control and minimise disturbance and damage to areas of conservation interest and legally protected and notable species, in accordance with the mitigation and control measures referred to above and as set out by Chapter 15.
10	7. Commitment to restoration of green space and planting:	2	In addition to the concerns about wildlife, we also want a commitment to ensure that any trees removed due to construction works will be replaced appropriately and any green space disturbed be re-planted.	TII and the MetroLink project are committed to minimising impacts on wildlife habitats and on biodiversity more generally. Proposals include for example, the provision of tree and woodland planting to replace trees unavoidably lost as a result of the alignment, design and construction of the proposed Project – this forms part of the embedded primary mitigation included within the landscape design. In most circumstances however, the designed planting as proposed is more appropriately scaled to the pertaining landscape context and is invariably more biodiverse than the baseline planting lost. These aspects of the proposed Project go beyond the requirements of mitigation and are in effect improvements over and above the baseline, and would therefore be considered “enhancements” as outlined in Chapter 27 Landscape & Visual. TII would also note that an Arboricultural Impact Assessment has been carried out (EIAR Appendix 27.3). This contains information on the existing tree conditions and the arboricultural impact of the proposed Project. EIAR Chapter 27 Landscape & Visual, Section 27.6.1 includes for a number of mitigation measures to reduce the impact of MetroLink, including: • Identification and retention of existing mature trees of good quality, through the adjustment of the alignment, location of structures/buildings and the outline design of the proposed Project; • Comprehensive proposals for hard and soft landscape works, including tree and hedgerow planting to offset the effects of net loss due to the proposed Project; • Where cut and cover sections of track and/or station boxes underground are to be planted over, the inclusion of sufficient appropriate substrate and adequate drainage to allow tree planting and growth for posterity. There is a general requirement for a minimum depth of 1.5m growing medium in such circumstances. • To improve biodiversity, the inclusion of species rich planting and wildflower meadows of primarily native species (and pollinator friendly plant species where deemed appropriate) as part of the planting strategy; • A detailed design of the incorporated biodiverse planting that will be developed with the project ecologist; • In sensitive locations, residual landscape and visual effects will be significantly reduced through the inclusion in the proposed planting of relatively mature specimen trees.
11	8. Station design	2	Given the high profile of the location of the Glasnevin station, we believe the opportunity should be taken to incorporate an eco-friendly, sustainable and imaginative design for the station, and that it be built on green building principles with consideration given to solar thermal systems, green roof and living walls.	TII confirm they are aligned with the observation made and this is enshrined in the overall project objective, as established by Transport Infrastructure Ireland (TII) and as outlined in the National Development Plan 2021-2030 (Government of Ireland, 2021a):‘<i>To provide a sustainable, safe, efficient, integrated and accessible public transport service between Swords, Dublin Airport and Dublin City Centre.</i>’. To achieve this ambition TII will procure the contractors to deliver the design based on specified environmental criteria and in line with TII's Sustainability Implementation Plan – Our Future (TII 2021), that sets out the vision to lead in the delivery and operation of sustainable transport, strengthen resilience to climate change, and maintain commitment to the environment. The Plan recognises the need to rethink, reimagine and redesign approaches to ensure sustainability is at the heart of everything that TII does, requiring it to be the leading provider of sustainable infrastructure. These provisions are contained within the EIAR Chapter 4 and specifically referenced in Section 4.6 Sustainable Design. The delivery of the Glasnevin Station design will follow these principles.

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1	1. Specific health risk to children	1	There are significant public health risks associated with the proposed works which I do not feel have been adequately described in the Environmental Impact Assessment Report (EIAR). Health risks described in the EIAR will be based on studies that explore adult health risk. There have not been adequate studies done to examine the specific risk to infants and children who have significantly different physiology and psychology. Long term disruption/ Long-term exposure to noise can cause a variety of health effects including annoyance, sleep disturbance, negative effects on the cardiovascular and metabolic system, immune system dysfunction, as well as cognitive impairment in children. Sleep disturbance has been shown to cause delay in reaching predicted growth centiles and developmental milestones and impair academic ability. (https://www.eea.europa.eu/articles/noise-pollution-is-a-major) Children have a higher respiratory rates, and smaller lungs, they are more susceptible to air pollutants. (https://journals.sagepub.com/doi/pdf/10.1080/1403495060Q677311) Children are more susceptible to airborne and groundborne noise due to a number of factors including their range of hearing (https://pubmed.ncbi.nlm.nih.gov/15129589/).	Thank you for your submission and for sharing your observations with regards to the MetroLink project to which we have responded below. As presented in EIAR Chapter 10 (Human Health) Section 10.3.4 Sensitive Receptors, some human beings are more sensitive than others, due to their age, health status or other reasons and in order to be conservative, and in keeping with the worst-case approach it has been assumed that there are vulnerable individuals at every receptor. In addition, the assessment is aided because Health Based Standards are derived to protect the vulnerable and not the robust. In terms of Human Health, all human beings are considered to be equally important. The use of the term 'importance' in this context refers to areas or buildings occupied by people. Their importance is considered to increase as the number of people increases and the duration of time spent there increases. Residential areas, public and private health facilities, workplaces, hotels and educational facilities are considered to be 'very important' areas because a number of persons usually spend a substantial amount of time at these locations. The sensitivity of an area or building in this context refers to the vulnerability of the population. Reasons for this include inherent vulnerability such as is the case for the very young or old. Residences, schools, workplaces, commercial areas and places of worship are considered 'highly sensitive'. This is because these areas will include populations of elderly, young people and people with health conditions. In conclusion the health impact assessment was done considering the most sensitive receptor, including children, and not simply the most healthy and fit adults. Noise and Vibration Health Impact <u>Construction airborne noise and vibration</u> As presented in EIAR Chapter 13, the airborne noise impact on the people living in The Court buildings during construction of the Glasnevin Station will be Significant to Very Significant. As a result, noise mitigation measures will be implemented according to TII Airborne and Groundborne Noise Mitigation Policy including a specific measure in the case of Glasnevin Compound -the site will have 4m high construction site hoarding on all boundaries instead of standard 2.4 m high. Where residual construction noise levels remain above the NI or TRH trigger values, application of TII Airborne and Groundborne Noise Mitigation Policy will be implemented with further control measures as Noise Insulation (NI) or Temporary Rehousing (TRH). Further details on the trigger values can be found in Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy Appendix A. The CNVMP (Construction Noise and Vibration Management Plan) will set out a detailed analysis of each construction compound relating to noise levels, durations and number of properties impacted and the planned approach for managing same. It is reiterated again that prior to any construction work commencing on any of the main work sites a detailed acoustic impact assessment will be undertaken which will involve a baseline noise study, model of the contractors final site layout, plant and equipment models, numbers and on-site location and the inclusion of all available on-site noise control measures. This is detailed in EIAR Chapter 13 (Airborne Noise and Vibration) section 13.6.1.2.7.

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			Response (1) continued.	<u>Construction ground borne noise and vibration</u> As presented in EIAR Chapter 14, the ground borne noise impact on the people living in The Court buildings during construction of the Glasnevin Station will be Significant due to the Tunnel Boring Machine (TMB) Passage and Mechanical Excavation. The noise impact will be noticeable to all and disturbing to some over a number of days. The vibration during construction will have no impact on the residents of The Court Buildings. The TBM passage will be a temporary impact. The duration of this impact will be in the order of up to two weeks as the TBM passes. As a result mitigation measures will be implemented such as advance public consultation, stakeholder engagement and application of TII Airborne Noise and Ground-borne Noise Mitigation Policy (appendix A14.6) as presented above. Further details can be found in EIAR Chapter 14 (Groundborne Noise and Vibration) section 14.5, and Chapter 13 (Airborne Noise and Vibration) section 13.6. <u>Operation noise and vibration</u> As presented in EIAR Chapter 14 (Groundborne Noise and Vibration), section 14.4.2.6, the noise and vibration resulting during the operation period of MetroLink will have no impact on The Court buildings and residents. Air Quality Health Impact As presented in EIAR Chapter 10 (Human Health), when the dust minimisation measures detailed in the mitigation section of Chapter 16 (Air Quality) are implemented, fugitive emissions of dust from the site are not predicted to be significant and to pose no nuisance to human health and there will be no residual Construction Phase dust impacts. The Construction Phase of the Air Quality assessment, as detailed in Chapter 16 (Air Quality), identifies a generally negligible or slight negative impact on air quality in the vicinity of the proposed project during the Construction Phase post mitigation. No exceedances of air quality standards are predicted, therefore, no significant adverse human health impacts are predicted. This is detailed in section 10.5.1.1. of Chapter 10 (Human Health).	

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2	1. Specific health risk to children	1 and 2	Any mitigation measures and modelling included in the EIAR are based on adult data, these studies don't include and cannot accurately predict risk to children, and therefore cannot be relied upon. Specifically, EIAR suggests 'Significant to Very Significant' Airbourne Noise and Vibration (NV4) for Dalcassian Downs Court post mitigation measures. Whilst TII have documented 'Potential annoyance and disturbance of sleep for residents' this does not describe the potential risk to infants and small children, or night workers related to disturbance of daytime sleep patterns. Construction traffic holds another risk for children in addition to the noise and dust and pollutants caused by construction traffic. As children are smaller, they may be more difficult to see from the cabin of large vehicles. Being less visible to these drivers puts them at increased risk of injury/serious incidents/near misses.	Please refer to response item (1) above regarding the sensitive receptors, including children, and noise and vibration impacts. Shift workers have been acknowledged and considered in the assessment, however as presented in EIAR Chapter 10 (Human Health), the ambient noise levels, during day time, are much greater at this time so it is less likely that an additional noise source will have a significant effect. The assessment of impact on sleep is therefore based on night-time noise. This is detailed in section 10.3.6.1.1. of Chapter 10 (Human Health). Construction traffic impact on noise and air quality was considered into the overall noise and air quality impact. This is detailed in section 16.5.2.1 of Chapter 16 (Air Quality). Prior to the enabling works and the main construction phase a Traffic Management Plan will be developed (Refer to Appendix A9.5 of the EIAR). The use of a traffic management plan is critical to the management of construction phase traffic and vulnerable road users such as cyclists and pedestrians. The assessment did not consider children as a separate road user group. The contractor will be legally required to adhere to the requirements of the plan on a day by day basis and so any such measures will be implemented with a focus on managing traffic movements to ensure that there are no accidents. In EIAR Appendix A 9.5 Scheme Traffic Management Plan, mitigation measures are presented: - Construction vehicles will be controlled in terms of the hours of operation (i.e., construction traffic may be prohibited during periods of very heavy traffic) and by imposing restriction on vehicle size and weight; - There will be controls at the entrance/exits of sites for construction vehicles in order to ensure the safety of other road users; - Pedestrian routes will be maintained throughout the construction period, either around or through the construction site, where safety risks to the general public will not increase as a result of construction activity; - In very sensitive areas, the designated access and pedestrian routes around the construction sites, particularly at and/or along the hoarding lines, must not be perceived as uninviting by pedestrians. The environment around the sites, therefore, will be designed to ensure that pedestrians and cyclists feel they are entering a safe and accessible environment. This will ensure that impact to businesses and shops adjacent to the works areas is minimised. - Temporary pathways and cycle ways will be installed where appropriate and provision will be made to ensure access for the mobility impaired is maintained; and - Where the existing level of service cannot be maintained in the vicinity of the construction sites, an alternative route will be designated, be clearly visible, be safe and be signed and have the level of service required to cater for the pedestrian demand.	
3	2. Quality of life	2	These are very formative years for infants and children, their physical health, their growth potential, and their academic performance have been shown to be negatively impacted by disruption to their sleep, being exposed to prolonged periods of noise. They will no longer be able to socialise in the common areas, speak to neighbours, invite friends over. This will hinder their emotional development.	Please refer to response item (1) above in relation to the assessment of health impacts on children.	

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4	3. Air Quality:	2	Air quality in the area already exceeds the World health organisation air quality guideline levels. There is a direct correlation between elevated pollutants and mortality. This is more significant on those with smaller lungs and higher respiratory rates such as children. (https://www.who.int/publications/i/item/9789240034228) Building a station/ transport system to reduce pollution in the future should not be offset by increasing the risk to the local population now. The proposed development will undoubtedly reduce the quality of life, the air quality, and the ability to use green spaces locally due to invasive/intrusive noise, dust.	Please refer to response item (1) above in relation to the impact on noise, vibration and air quality during both the construction and operational phases. As detailed in section 16.6.1.4 of Chapter 16 (Air Quality), the modelling of road traffic for impacts on human and ecological receptors has found no significant impacts that require mitigation measures with respect to the modelling of emissions. However, some mitigation measures can be put in place to minimise emissions: * Implement a policy which prevents idling of vehicles both on and off-site including HGV holding sites; * Construction Phase traffic should be monitored to ensure construction vehicles are using the designated haul routes; * Additional vehicular traffic will be managed through the CEMP and Temporary Traffic Management Plans for the proposed Project and stations as per Chapter 9 (Traffic & Transport); * Efficient scheduling of deliveries to minimise number of deliveries required, and in turn their emissions; and * Construction vehicles should conform to the current EU emissions standards and where reasonably practicable, their emissions should meet upcoming standards prior to the legal requirement date for the new standard. This will ensure emissions on haul routes are minimised. As detailed in section 16.6.1.4 of Chapter 16 (Air Quality), mitigation measures are required for the control of dust with respect of HGV moments on site and deliveries to/from the site: * HGV traffic leaving site will pass through a wheel wash; * Public roads outside the site will be regularly inspected for cleanliness and cleaned as necessary. If public roads are deemed to require additional cleaning where possible a suction device for road cleaning will be utilised which can access spaces around cars and other street furniture more effectively; and * During movement of materials both on and off-site, trucks will be stringently covered with tarpaulin at all times. Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for dust emissions. As detailed in Chapter 16 (Air Quality), section 16.7.2, the air dispersion modelling assessment has found that in 2035 no receptors will have ambient air quality exceedances of the ambient air quality standards for the Do Something (and Do Minimum) scenario as a result of the proposed Project.

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5	4. Air and noise pollution:	2	The has been no sustained collection of air or noise quality readings at the site of the proposed station. This is already an area of elevated noise and poor air quality. There is no evidence that any mitigation measures would be capable of reducing the increased risk to human health. EIAR Section 10.5.1.2 suggests that working at this site will be 24h per day, and that mitigation methods are predicted not to adversely affect human health. As described above - These predictions cannot account for infant and child health. The impact on children is immeasurable. Noise control targets/Noise emission limits for drilling- (<50dB at The Court, <45dB vibration from Mechanical excavation). These limits should be reduced in evening and night-time by minimum 5-10 decibels).	Please refer to response item (1) above in relation to the impact on noise, vibration and air quality during both the construction and operational phases. Both Air Quality and Noise baselining has been undertaken and presented in the EIAR. EIAR Chapter 13 Airborne Noise details in section 13.3 the baselined environment. This is based on circa 11 monitoring locations surrounding the Glasnevin Station - Figure 13.1 refers. Chapter 16 Air Quality section 16.4 details the baseline conditions of the 3 monitoring locations in close proximity to the station - Figure 16.2 refers. As presented in the EIAR Chapter 5, Section 5.2.4 Working Hours, the majority of works will be done during standard working hours, from 07:00hrs to 19:00hrs on weekdays (excluding Bank and Public Holidays) and from 07:00hrs to 13:00hrs on Saturdays. There are however some activities that will require 24h per day working program and in the case of Glasnevin station these are: • Sliding new rail bridge into position; • MEP station works; • Blockades or weekend possession work required with Irish railway (GSWR & MGWR). Regarding the threshold limits for TBM Passage and Mechanical Excavation, there are no statutory standards in Ireland relating to noise and vibration limit values for railway sources or construction works. In the absence of specific statutory Irish guidelines, the assessment makes reference to other national guidelines and standards, where available, in addition to international standards relating to noise and or vibration impact for environmental sources. The convention has been established that groundborne noise is assessed in terms of the maximum A-weighted sound level using the index LpASmax. This approach was subject to scrutiny by the specialist assessor in the Oral Hearings for Old Metro North and the Dart Underground and considered appropriate. It has also been used in the UK for schemes including Crossrail (Elizabeth Line) and High Speed 2 where it underwent scrutiny in Parliamentary Select Committees. This is detailed in section 14.2.4 of Chapter 14 (Groundborne Noise and Vibration). An impact has been considered significant if groundborne noise levels exceed 40 dB LAmax,S. This excludes the passage of the TBM, which is short term and transitory, as it would progress continuously, at a variable rate depending on conditions at a particular location. It would therefore be within range of any particular location for a very limited duration. Based on experience of the driving of the Dublin Port Tunnel and other major tunnelling projects the implementation of a consultation and public relations programme in advance of the works will allow for a higher threshold of acceptability than is the case for the permanent operating railway. As a result a threshold is proposed for groundborne noise from the passage of a TBM 5dB LAmax,S greater than the thresholds for other sources. This is detailed in section 14.2.1.1 of Chapter 14 (Groundborne Noise and Vibration). As a result, TII consider that the limits used for the assessment are appropriate.	
6	Further questions that should be answered	2	• Who will be responsible for measuring noise levels during construction?	As presented in the EIAR Chapter 13 (Airborne Noise and Vibration), during the Construction Phase, the contractor will be required to carry out noise and vibration monitoring at representative Noise Sensitive Locations (NSLs) to evaluate and inform the requirement and/or implementation of noise and or vibration management measures. As detailed in Appendix A5.1 Outline CEMP, for the duration of the contract(s), the environmental performance of the contractor(s) will be monitored through site inspections and audits by the Environmental Manager. The programme for monitoring, inspections and audits will be specified in the contract and it is likely to be a combination of internal inspections and independent external audits that may be either random or routine.	

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7	Further questions that should be answered	2 and 3	• How will the equipment and measurements be validated, and who is responsible for monitoring and reporting? - o This telemetry should be publicly available on a hosted website for public access to records. - o Monitoring should be continuous. Monitoring equipment should be maintained/ inspected at regular intervals. - o Breaches should have swift and significant penalties, that should not be seen as merely an additional cost. - o Repeated or sustained breaches will require more severe penalties.	As presented in the EIAR Chapter 13, a full monitoring and auditing programme will form part of the CNVMP (Construction Noise and Vibration Management Plan) which will be agreed with the Local Authorities prior to the commencement of the Construction Phase. At a minimum, the monitoring programme will include an alert system for threshold exceedances, remote access and a platform for sharing monitoring results between the contractor, TII, DCC and FCC. Please refer to response item (6) above in relation to the programme for monitoring, inspections and audits. Mitigation and monitoring will be carried out in accordance with the requirements of the EIAR and NIS so that construction activities are undertaken in a manner that does not give rise to significant negative effects. Suitable monitoring programmes will need to be developed, implemented, documented and assessed in accordance with the specification outline in the detailed CEMP. The results of all environmental monitoring activities will be reviewed by the Environmental Manager on an ongoing basis to enable trends or exceedance of criteria to be identified and corrective actions to be implemented as necessary. The contractor(s) will be required to inform TII of any continuous exceedances of criteria. This is detailed in section 4.2.2 of Appendix A5.1 Outline CEMP. Further, regulatory and statutory bodies may undertake site visits to monitor compliance with legislative and regulatory requirements.	
8	Additional considerations	3	Given that many people are working from home, there are implications to our working day. As someone working in healthcare remotely, this presents a significant barrier to normal working conditions, and could cause undue levels of stress.	Please refer to response item (1) in relation to the anticipated impacts on noise during the construction phase. The Court buildings were assessed as a residential property, and the threshold limits for noise were used accordingly. These levels as presented in Tables 14.2 and 14.3 in EIAR Chapter 14 (Groundborne Noise and Vibration), are identical for residential use and for office buildings. As such the impact on working from home is no different from the impact on the residential receptors.	
9	Additional considerations	3	Control of noise at work regulation is relevant here, as not only peak noises, but sustained noise can interrupt video calls, telephone calls.	Please refer to response item (1) and (8) above in relation to the anticipated impacts on noise during the construction phase. As stated in section 14.2.5.2.4 of Chapter 14 (Groundborne Noise and Vibration), the duration of the noise will depend on whether mechanical excavation is used as a full substitute for blasting or as a means of removing rock not dislodged after blasting has taken place.	
10	Additional considerations	3	The current EIAR report does not examine the welfare of children and thus is inadequate. This group is physiologically different form adults and thus the same findings can't be universally applied to all ages. The health and welfare of children and infants in the area cannot be sacrificed nor should they be used as case studies in the future to highlight dangers that can be predicted.	Please refer to response item (1) above in relation to the assessment of impacts on children.	
11	Additional considerations	3	As residents of The Court, Dalcassian Downs, this construction will be taking place outside our front door and our apartment window. We will be living on a building site, and do not feel that the plans that are suggested are safe or appropriate.	The Glasnevin Compound will be clearly delimited from the surrounding areas by a 4m high hoarding that will provide a noise and dust protection for the residential buildings in the vicinity and a safe barrier between working and residential areas. Through the design, embedded measures and additional mitigation measures, TII will seek to minimize any possible impact on the residents of The Court buildings. TII will continue to engage with the residents of The Court buildings during the next phases of the project. Please refer to response item (1) in relation to the anticipated impacts on noise, vibration and air quality during the construction phase. Please refer to response item (2) above which details the proposed traffic management to ensure the safety of pedestrians and other traffic users in the vicinity of the construction sites.	

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1	Letter	1	I am not convinced of the necessity for a rail link to the airport. I believe the airport is well served by a network of public buses and taxis. Just because we are the only European capital city without a rail link to its airport should not dictate that we need one.	EIAR Chapter 03 (Background of the MetroLink Project) details how the MetroLink will address challenges within the Greater Dublin Area. In section 3.4.4, Quality International Connectivity is recognised as a challenge within Ireland that MetroLink will address. As detailed, to achieve the best economic performance, Irish airport need to be served by an efficient and effective transportation network. The proposed Project will support the efficiency and growth of Dublin Airport by creating an additional passenger access opportunity and allowing for optimisation of the surrounding road and public transport networks. Dublin Airport had 30.7m passengers (excluding transfers) in 2019 (last full year for which pre-Covid-19 passenger numbers are available) and there are approximately 19,200 people employed within the larger airport campus. Outbound passengers also experience significant impact due to unreliability of their journey time to the airport. TII analysis demonstrates that the M50 / M1 Motorway system adjacent to Dublin Airport can at times experience unstable traffic flow patterns or a complete breakdown of flow. In response to the consequential journey time uncertainty, many travellers to the airport will factor in a significant buffer time to ensure that they arrive at the airport in time. Of inbound passengers, over 60% used a car, van, or taxi to leave the airport – contributing to road network congestion. Without the proposed Project the use of private vehicles will grow as populations grow and more people fly. Modelling shows that the proposed Project will reduce private vehicle journeys to and from the airport by between 10,200 and 13,200 per 12-hour period. The proposed Project will improve international connectivity as tourists will be able to arrive at Dublin Airport and then access the rest of the rail network efficiently and effectively, confident in the time their journey will take and when they will arrive. Business travellers will be able to access Dublin City Centre more easily, increasing and improving the likelihood that international businesses will continue to make Ireland their European base of operations.	
2	Letter	1	This area in which I live - the junction of Phibsboro, Glasnevin and Drumcondra - has had its challenges over the decades. All in all, I am not of the opinion that it has improved. I believe that the Metrolink- with its stations at Crossguns Bridge and Mobhi Road - will not represent a turnaround. The reality is that the area has been dragged down by the presence of Mountjoy Jail and the declining Phibsboro Shopping Centre.	EIAR Chapter 03 (Background of the MetroLink Project) details how the MetroLink will address challenges within the Greater Dublin Area. The proposed Project stations will support communities to improve the urban environment, as will the associated reduction in vehicle numbers. The attractiveness of the urban environment is also a key determinant in where people choose to live. As the proposed Project improves this in North Dublin it will help to attract both people, amenities and businesses into the area, further encouraging compact growth, job opportunities and sustainable housing developments. The proposed Project will, by way of modal shift and by taking significant volumes of passenger movement underground, support the transformation of the surface level urban environment, making it more attractive for people to engage with. The stations will also attract a wide range of businesses keen to take advantage of the projected footfall. This will help to boost economic activity and generate an improvement to the urban public realm. Evidence of this is presented in Chapter 03.	

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3	Letter	1	Standing proud above the incremental drabness are the Botanic Gardens, Mobhi Road and the Brian Boru Pub. The Metrolink Stations on Mobhi Road and Crossguns will significantly impact the former and will completely obliterate the latter. This is really sad. Mobhi Road would be destroyed. So many mature trees would be removed.	Please refer to response item (2) in relation to how the Project will enhance the urban environment around stations. EIAR Chapter 27 (Landscape) details impacts to tree loss and the landscape surrounding the stations. During the construction phase at Griffith Park, the proposed Project will result in a loss of existing trees on the boundary of the upper football pitch, however the existing trees along St Mobhi Road (at road level) will be appropriately protected and will remain unaffected by the works. Please refer to Appendix A27.3. During the operational phase, at Griffith Park Station, the planted retaining wall will be themed to relate to the nearby Botanic Gardens and references other notable large single specimen evergreen conifers planted in this general area. Details on the proposed landscaping at Griffith Park can be found in Chapter 27 (The Landscape) section 27.5.4.18. The impact on Botanic Gardens is anticipated to be not-significant as it is outside of the Project Boundary, however it will face temporary severance impacts during the construction phase. At Glasnevin Station, whilst there will be removal of existing tress and landscape at this location, overall, the potential effects on the visual environment and on visual amenity during the Operational Phase will be significant and positive. Details on the proposed landscaping at Glasnevin station can be found in Chapter 27 (The Landscape) section 27.5.4.19. As detailed in Chapter 26 (Architectural Heritage) section 26.5.4.6.2, it is noted that the licensed premises, the Brian Boru' are to be demolished to facilitate the construction of Glasnevin Station. However, to mitigate the impact of this, the licensed premises are to be recorded by means of photography and written description to English Heritage level 3 prior to demolition. As detailed in Chapter 9 (Traffic and Transport) section 9.6.2.2.4.2, the existing road network layout at Griffith Park Station will be maintained in the Operational Phase, with one lane of vehicular traffic in each direction on St Mobhi Road. As part of the BusConnects Core Bus Corridor proposals, the future street level layout at Glasnevin station reduces the current road network to one lane in each direction to accommodate a designated bus lane and bus stop along R108 Prospect Road. As part of the proposed Project, a taxi/drop-off area will be provided to the north of the station entrance in lands currently occupied by the Brian Boru car park. A new access road from Prospect Road to these facilities will also provide access to the bicycle parking.
4	Letter	1	In particular, the plans to scrub the Brian Boru from the area is so crude. It's such a beautiful building. It features in James Joyce's Ulysees and it's the only pub in Ireland with a crucifix on the front! Could the station not be built down the road on the site of Phibsboro Shopping Centre? What an opportunity to get rid of an eyesore? Some good lateral thinking there?	EIAR Chapter 07 (Consideration of Alternatives) details the decision-making process that has led to the proposed Project, including station locations. The selection of the location for the Glasnevin Station has primarily been based on facilitating direct interchange between the Project and the heavy rail network. The rail lines are at their closest at the Cross Guns Bridge, therefore locating the station away from the existing heavy rail lines at this location would not meet the project's overall objective of providing for interchange. As such, the location of the Phibsboro Shopping Centre would not allow for the Project to meet its objectives. As Dublin's public transport network grows through the implementation of higher capacity bus routes, more frequent heavy rail services and coverage, and the expansion of the light rail network it is critically important that to achieve the full benefits and capitalise on these investments that they are integrated fully where appropriate to attain "the network effect". High quality interchanges can significantly broaden the transport offer for their catchment and add to the appeal and attractiveness of sustainable transport by ensuring that people can easily change services to access a wider range of places by these modes, and each scheme should be designed to ensure that these are as seamless as possible. Please refer to response item (3) in relation to the proposed mitigation for impacts to the Brian Boru.
5	Letter	2	In addition to the Brian Boru, three beautiful neo-Georgian houses are also slated for destruction. They too are lovely features on that street. It will be a shame if they go.	Please refer to response (4) in relation to the location of Glasnevin Station, and please refer to response (3) in relation to the requirement for the demolition of the Brian Boru. EIAR Chapter 26 (Architectural Heritage) details the impacts to buildings and the proposed mitigation measures to reduce the severity of impacts. The houses to be demolished as part of the construction of Glasnevin Station are to be recorded by means of photography and written description to English Heritage level 2 prior to demolition (a descriptive record of the exterior and interior of a building), reducing the significance of the impact. Please refer to response item (1) in relation to how MetroLink will contribute to improvements in the urban environment.

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6	Letter	2	The construction of the Metrolink stations at Crossguns and on Mobhi Road would add to the congestion in the area. It is important to note that permission has already been granted for a massive number of housing units a Crossguns/Royal Canal and further away on Botanic Road. These developments are in themselves unsuitable because proper provision has not been made for cars, retail, school and green play areas. The addition of Metrolink stations would draw significant amount of additional vehicular traffic - set-down and passing.	EIAR Chapter 09 (Traffic and Transport) details the modelling works that have been undertaken to assess the impact of the Project on traffic. A key input to the traffic modelling has been the provision of Planning Datasheets from the NTA, which determines forecasts for population, employment and education. The foundation of this planning sheet is heavily based on published policy documents. The NTA have also worked with the Regional Assemblies and the Local Authorities to incorporate their housing and growth priorities in the planning sheet. Distribution is also based on existing patterns, and zoning within the development plans. Therefore, future residential developments that are built on zoned lands have been accounted for, as best as possible. Details on the planning datasheets can be found in Appendix A9.6 Data Collection Report section 3.1. As detailed in Appendix A9.5 Scheme Traffic Management Plan section 7.5.5.3.1, analysis has been undertaken to assess the impact of the traffic management measures on the road network during the construction phase at Griffith Park, which primarily consists of the removal of the southbound bus lane in both the Enabling Works and Main Works. As a result, there will be a slight impact for general traffic and a subsequent slight increase in driver delay, however this is only a matter of seconds. The assessment of the impact of the construction works on general traffic at Glasnevin is presented in Appendix A9.5 Scheme Traffic Management Plans section 7.6.5.3.1. As detailed, the Enabling Works will result in a slight impact for general traffic at this location, with a driver delay on Prospect Road of approximately 40 seconds. During the main Works, there are no proposed lane closures, and therefore there will be no significant impact on traffic flows at this location. It is incorrect to say that the addition of the stations will draw significant amounts of additional traffic. Traffic modelling at this location in the operational phase indicates that whilst the R108 Prospect Road may see slight increases in AADT (Annual Average Daily Traffic) (up to an additional 250 AADT during the AM peak hour), there is a negligible impact on journey times and delays at this location, indicating that MetroLink will not contribute to vehicular congestion in the area. This is detailed in Chapter 9 (traffic and Transport) section 9.6.2.2.4.2 (Table 9.141). The proposed Project has been designed to ensure maximum interchange with other modes of transport, specifically more sustainable modes of transport such as walking, cycling and public transport. At Glasnevin Station, the direct interchange with the heavy rail network, and the proximate location of BusConnects services on the R108 will reduce the demand for access via car. Disability only drop-off facilities will be provided at this station, limiting the possibility for increased congestion. These details are presented in Chapter 6 (MetroLink Operations and Maintenance).	
7	Letter	2	Assuming that the Metrolink station does go ahead at Crossguns, has any consideration been given to preserving at least part of the Brian Boru? Could it be incorporated into the station? Could the building be uplifted and moved to an adjacent area? I believe one or both of these options could be viable.	From a construction perspective the retention of the Brian Boru would be problematic. Physically the station structures cut right through the building with deep diaphragm walling and secant piling through this location. Please refer to the Glasnevin Construction Report in Appendix A5.5. Once demolished this area is the entrance and exit to and from the site. This arrangement precludes retention of the Brian Boru facade. This entrance will have to be relocated a number of times to facilitate phased working on the site. Further constraints could make this unworkable. The proposed construction site is already very constrained and in order to carry out the works, multiple phasing of activities will be required. This is detailed in Appendix A5.5. Glasnevin Construction Report in section 2.1. Minimal site office and welfare complexes can be located within the site area and offsite facilities will need to be procured to allow the works. Any further reduction in available area will impact on the constructability of this station. As part of the proposed mitigation measures detailed in EIAR Chapter 26 (Architectural Heritage), the licensed premises are to be recorded by means of photography and written description to English Heritage level 3 prior to demolition. Level 3 is an analytical record and will comprise an introductory description followed by a systemic account of the building's origins, development and use. The record will include an account of the evidence on which the analysis has been based, allowing the validity of the record to be re-examined in detail. It will also include all drawn and photographic records that may be required to illustrate the building's appearance and structure to support a historical analysis.	

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Letter Re: Railway Order Application- Metro North: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin				
1	Introduction	1	I welcome the provision of more frequent, reliable, affordable, and environmentally efficient public transport service. The MetroLink has the potential to have a transformative effect on our capital city, the significant investment in the MetroLink project must provide users with a service that is future proof, accelerates climate action and supports sustainable economic and social development of our capital city and surrounding county.	TII wish to thank you for taking the time to make this submission. Your upport is gratefully appreciated, and for the reasons you have set out. TII is committed to realising the MetroLink Project and the benefits it will bring. We also note your observations to which we have responded below.
2	Station Design and Architecture, 1 st bullet	1	All stations and Metro stops must be designed for universal access, maximum safety and be architecturally sympathetic to Dublin’s rich architectural heritage and style.	EIAR Chapter 4, Description of the MetroLink Project, outlines TII's vision. The Project will deliver a robust and authentic design with a strong metropolitan identity, unique and sympathetic to Dublin. Concepts such as singular station volumes, use of natural light, intuitive wayfinding, robust and long-lasting materials, and contextual placemaking will be followed through all stages of development and construction, combining to form the very best in architectural vision. The overarching principle of universal design aims to make the proposed Project accessible for everyone to use, regardless of their age, gender, physical capabilities or cultural background. TII's 'Sustainability Implementation Plan – Our Future (TII 2021)' sets out the vision to lead in the delivery and operation of sustainable transport, enabling their networks to drive inclusive growth, create job opportunities and enhance the well-being of all persons, including vulnerable groups, strengthen resilience to climate change, maintain commitment to the environment and continuing to prioritise safety. The 'Materials Palette' that has also been included with the Railway Order application further confirms the 'MetroLink Design Vision Principles', including the principle of achieving a 'Sense of Place' that reflects the local area, that are appropriate to the City, and the local context / character. TII would also like to provide the assurance that the underlying significance of the historic city and suburbs is respected and has been taken account of by the EIAR, in particular Chapter 26 Architectural Heritage. The proposed route is entirely below ground through the historic city and its suburbs, with the exception of necessary above-ground elements at stations such as access points, ventilation shafts and skylights. These elements have a very localised presence. In some cases, such as Collins Avenue, Mater and St. Stephen's Green stations, the ground above is to be reinstated following construction, while at other locations, such as O'Connell Street, Tara Street and Charlemont Stations, the above-ground development would be carried out by others. In all cases, reinstatement and landscaping will be required to integrate the MetroLink above ground elements sympathetically with the existing environment. The stations are designed with safety in mind. Outside the station entrances the provision of bollards and planters provide security from errant vehicles whilst landscaping and public lighting ensure good visibility for station users. Inside the stations, the adoption of universal design principles ensures appropriate safety standards are provided for access and use of the stations. Passenger modelling as part of the preliminary design ensures the stations provide sufficient space to avoid overcrowding and stair and lift provision meet fire safety requirements.
3	Station Design and Architecture, 2 nd bullet	1	The proposed stations are anonymous, unimaginative, cheap and unworthy of Dublin's rich architectural heritage and leading European capital.	TII disagree, and believe the commissioning of internationally renowned architects, Nicholas Grimshaw and Partners, has delivered a contemporary station design which is appropriate for a state of the art metro system such as Metrolink. Appropriately, significant emphasis is placed on the public spaces. Where feasible, the station concourse is a soaring space illuminated from above with natural light. Dublin's rich architectural heritage has been respected, but not copied in a pastiche imitation. In accordance with best conservation principles, as set out in the ICOMOS Venice Charter of 1964, the stations are architecturally distinguishable so as not to falsify the existing historic context. Reference and due respect to that context is made through the choice of high quality and appropriate materials and the scale of the interventions. For example, at Mater station, the canopy entrance evokes the scale of park structures. At St Stephen's Green, the materials of the ventilation structures are chosen to respect the surrounding 18th century Georgian brick architecture. The aesthetic values of all eras, including our own, have cultural validity, and therefore the brick is used in a contemporary way reflecting contemporary aesthetic idioms derived from 21st century technology. TII believe the current station and surface level designs greatly enhance the public realm at all locations along the MetroLink route. There is a unifying commonality in the design of all stations, providing a consistent and coherent architectural language, which assists with orientation and wayfinding, and contributes a new architectural lexicon to the cultural iconography of the city.

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4	Station Design and Architecture, 3 rd bullet	1	The proposed architectural design for the MetroLink stations should be rejected. They are modern, unimaginative, poor and bare no relation to the local architectural heritage of Dublin city, O'Connell Street, The Mater, the Royal Canal, Shandon Mills, Glasnevin cemetery.	Please refer to Response (2) above.	
5	Station Design and Architecture, 4 th bullet	1	The proposed stations on O'Connell Street/Moore Street, Eccles Street/Berkeley road, Cross Guns/Prospect Road and Mobhi Road should be architecturally designed to reflect and speak to the history of the area. Materials and finishes should complement and not detract from the rich architectural surrounds of redbrick, granite and slate.	Please refer to Response (2) above.	
6	Station Design and Architecture, 5 th bullet	1	All stations' structures, signage or any other associated architectural treatment should reflects the local architectural character.	As for the design of the stations themselves, the station signage will be developed in accordance with best conservation practice, and while respecting the surrounding and varying context, will utilise the benefits of contemporary graphic design and iconography. It will be consistent with Transport For Ireland's transport signage guidelines.	
7	Station Design and Architecture, 6 th bullet	1	Much of the MetroLink will be buried underground but the stations and the above ground elements of the project must respect the existing architectural heritage, be sympathetic to and enhance the traditional streetscape, reflect the character of Dublin and the localities surrounding the respective stations.	Please refer to Response (2) above.	
8	Station Design and Architecture 7 th bullet	1	At present, the proposed architectural aesthetics are anonymous, devoid of any connection with Dublin's heritage, culture, or distinctive architecture. The Metrolink has the potential to bring Dublin into the future, but it is of utmost importance that it maintains a connection with the city and its traditional characteristics.	Please refer to Response (2) above.	
9	Station Design and Architecture, 8 th bullet	1	The proposal to demolish Hedigans' Brian Boru pub, remove or tamper with the architectural railings at Dalcassian must be rejected. A new architectural proposal must be developed for this station that incorporates the existing building. This station will be a major city station for decades to come and it is imperative that it is consistent with and complimentary to the local residential architectural conservation area.	Glasnevin Station will be a new multi-modal interchange station in Phibsborough, linking MetroLink, the two existing Iarnród Éireann heavy railway lines (Western Commuter Line and the South-Western Commuter Line), BusConnects, and connections by car, walking and cycling. Unfortunately, due to the available land, combined with the construction challenges associated with providing this complex multi-modal interchange station that will deliver significant transport benefits by nature of its connectivity, there is no means of retaining the Brian Boru pub. TII acknowledge this is a significant impact. TII also acknowledge that the architectural railings at Dalcassian will need to be temporarily removed. Before proposing the demolition of the Brian Boru pub, TII did carefully examine the alternative of locating a station at Drumcondra rather than Glasnevin as reported by EIAR Chapter 7, Consideration of Alternatives, Section 7.6.5. Both options would require demolition of buildings with potential for significant impacts on architectural heritage, however, once the construction is complete, the proposed station location at Glasnevin offers a much better interchange station location for passengers, a key Project objective of MetroLink. The impacts of the Glasnevin works have been assessed and reported in the EIAR. The Brian Boru pub will be recorded by means of photography and written description to English Heritage Level 3 standard prior to demolition. The railings and their plinth walls will be recorded by photography and written description prior to their removal. The railings and walls will be taken down in accordance with a specification to be prepared by the Project Conservation Architect (PCA) and the removed materials stored securely prior to cleaning, repair, and reinstatement. At the appropriate stage of construction, the materials are to be returned to site and the railings and walls reinstated in accordance with a conservation method statement prepared by the PCA. All works of dismantling, protection, transportation and reconstruction will be carried out by a dedicated heritage contractor with the assessed impact imperceptible following this mitigation.	

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10	Construction and Operations, 1 st bullet	2	The applicant must clearly demonstrate the benefit and rationale behind the decision to go from twin bore to single bore and how this will future-proof the infrastructure.	The EIAR provides the rationale and benefits of a single bore tunnel. Future proofing of MetroLink infrastructure is not dependent on the selection of a twin bore or single bore configuration. A detailed comparative analysis of twin versus single bore tunnel has been undertaken, that has included consultation with Barcelona Metro that currently successfully operates a single bore configuration. EIAR Chapter 7, Section 7.7.2.2.1 Overall Conclusions, notes that this analysis identified that a single bore tunnel option offered significant benefits for the proposed Project when compared to the twin bore solution that was proposed at the Emerging Preferred Route (EPR) stage. These benefits include: <u>Passenger Evacuation and Incident Management</u> • The single bore configuration enables faster passenger evacuation from the ends of the train directly onto tracks, rather than more challenging lateral evacuation on to an elevated walkway along the sides of the tunnel required for a twin bore configuration. • The single bore provides increased space for emergency services access and working space adjacent to a train in the tunnel. • Conditions can be created within a larger single bore diameter tunnel that facilitates smoke stratification at a high level in the bore for a longer period of time when compared to that in a twin bore configuration. Therefore, the single bore configuration facilitates enhanced evacuation conditions and provides better tunnel visibility during fire events when compared to the twin bore solution. • The single bore configuration offers a more flexible system throughout the life cycle of the asset in that it allows operational adjustments such as additional track crossovers without the need to build new infrastructure / tunnels. <u>Programme and Cost</u> - A single bore tunnel can be constructed at lower cost and quicker than a twin bore configuration due to: • The overall reduced volume of structure to be constructed i.e. twin bore tunnels will require more concrete and steel, and an overall greater volume of excavation. • Not only can the single bore tunnel itself be constructed more quickly, and hence reduce the construction programme as less overall volume of material needs to be excavated, but also there is no requirement for cross-passages, which are slow to construct and need to be mined as separate construction activities after the main tunnel has been built, adding time to the programme and a complex activity dependency to be managed.. • There is no requirement to construct extra mined/cut & cover sections required to accommodate track crossovers since these can be accommodated in the single bore tunnel, that the twin-bore cannot accommodate. (It is recognised that the single bore configuration unlike the twin bore arrangement means there is a need for intervention shafts where the distance between stations is greater than 1000m. This only occurs at one location on the Project between Griffith Park and Collins Avenue stations and overall is offset by the benefits listed.) • As there is only one TBM to drive or pull through stations under construction, the station programme durations are reduced together with schedule interface risks with other programme critical construction activities. <u>Environment</u> • The reduction in excavation means spoil, quantities, handling and disposal is reduced and hence traffic on the roads and the follow on volume of land fill disposal is reduced. • The reduction in concrete and steel that will be used to manufacturer the tunnel lining precast segments will be reduced for a single bore tunnel and will therefore reduce the traffic on the roads. • There is an overall reduced environmental impact since the construction programme is quicker, less materials are needed for construction (reduced use of natural resources and traffic to transport materials to site), less excavation (spoil disposal volumes are reduced resulting in less traffic on the roads and reduced landfill), and an overall reduction in embedded carbon as a result of the reduced volume of material (steel and concrete) required compared to a twin bore configuration. <u>Future Proofing</u> Whether the tunnels are twin bore or single bore does not impact the future proofing of the infrastructure. The proposal for MetroLink to use automated driverless trains provides the flexibility to easily increase train frequency to address rising demand in the future.

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11	Construction and Operations 2 nd bullet	2	Amend the application to include an actual Metro Stop at Albert College instead of the proposed intervention shaft to maximise the benefit of the infrastructure for Albert College Park and surrounding area.	A station located at Albert College was considered, but as outlined in EIAR Chapter 7, section 7.7.10.7, the assessment undertaken at the Emerging Preferred Route (EPR) stage identified a preferred route and station location in this area at the proposed Collins Avenue Station location. It would not be necessary or economical to provide a further station at Albert College Park, and for the reasons summarised below, the proposed location for Collins Avenue Station is preferred since it increases the benefits that can be delivered by a MetroLink station in this area. The proposed location for Collins Avenue Station provides a number of advantages when compared to other location options: (1) It allows the project to achieve a core project objective of providing public transport that is integrated into the existing and future proposed transport network, providing for interchange between bus routes both on Collins Avenue and on Glasnevin Road. A station location further south at the northern section of Albert College Park would not provide a good level of interchange as there would be over 500m separating potential bus stop locations on Collins Avenue and the MetroLink station. (2) The proposed Collins Avenue Station will have a significant catchment area, noting the analysis undertaken at the Emerging Preferred Route (EPR) stage identified this route option had the highest potential passenger numbers when compared with other route options. (3) Construction traffic impacts associated to constructing a station at this location rather than an intervention shaft would be more significant due to the increased size of that works site and longer construction duration.
12	Construction and Operations 3 rd bullet	2	Outline plans and arrangement to prevent and minimise negative impact if at any point construction must be halted or abandoned.	If the works were halted temporarily, for example if monitoring of a particular environmental impact showed results were trending towards a breach of acceptable limits (note the monitoring is designed with pre-determined trigger levels designed to ensure acceptable levels are not breached) or a safety concern was identified, then the area of the works concerned would be secured and temporarily suspended until TII are satisfied the works can resume following an investigation, consideration of lessons learnt, and actions to be implemented to avoid any reoccurrence. Such plans will be set out by the contractor's Monitoring Action Plans (MAPs) and associated contingency plans. If in the highly unlikely event construction must be abandoned, in the first instance, all works would be made safe and secured, and then it would be a decision for Transport Infrastructure Ireland to determine to what extent further work should be undertaken. It must be stressed that abandoning MetroLink main works once underway is viewed as a highly unlikely event. The main works procurement and governance process that will determine whether MetroLink main works should proceed will be rigorous and robust to ensure that a future risk of abandonment of the Project is extremely unlikely / improbable.

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13	Construction and Operations 4 th bullet	2	Detail what measures will be implemented to mitigate any structural and settlement damage to properties located within 1km of the MetroLink route.	TII are unaware of any requirement to assess structural and settlement damage to property within 1km of the MetroLink route, however In accordance with best international practice, TII have within a zone of 30 metres either side of the MetroLink centreline assessed the potential impact of MetroLink construction on property, including vibration, and construction generated ground movements leading to settlement and possible building and property movement. EIAR CHAPTER 14, Groundborne Noise and Vibration, presents predicted vibration levels arising from tunnel boring, mechanical excavation and blasting. In all cases, vibration levels will be maintained within limits that do not cause damage to property. EIAR Appendix A5.17, Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. TII's assessment provided in EIAR Appendix A5.17, Table 4-4 shows that currently no properties will experience a greater impact than Damage Category 2, defined as '<i>Cracks easily filled. Redecoration probably required. Several slight fractures inside building. Exterior cracks visible some repointing may be required for weather tightness. Doors and windows may stick slightly</i>'. There are a number of properties that will be progressed to a more detailed Phase 3 assessment due to particular features or for example due to their cultural or historical value. The Phase 3 assessment will take account of final design and construction methodology details, most likely utilising advanced numerical modelling techniques and further surveys of the building. The results of this refined assessment typically show that earlier assessments are conservative and over-estimate the likely impact of construction generated ground movements. Monitoring instrumentation will also be installed throughout the works to monitor the performance of the works and potential environmental impacts, including those discussed above to ensure that acceptable limits are not breached. A Property Owners Protection Scheme (POPS) is being made available to all property owners within the 30m Zone of the tunnel, or 50m of a cut and cover station excavation. Property owners can avail of the services of a panel of surveyors who will carryout pre and post condition surveys on the building concerned. Any damage deemed attributable to the MetroLink works (up to a value of €45,000) will be repaired by a Repair Contractor selected by the property owner from a panel of TII Repair Contractors. The POPS is in addition to a property owner's statutory rights to compensation under standard compulsory purchase order rules.
14	Construction and Operations 5 th bullet	2	Independent noise, vibration and structural monitoring during and post construction for minimum period of 20 years.	Monitoring of potential construction impacts will be continued until the completion of MetroLink construction works in each area of the route. Monitoring of potential operational environmental impacts will continue for the lifetime of the Project to ensure acceptable limits are not breached.
15	Construction and Operations 6 th bullet	2	Provision of independent experts throughout the construction period and post construction period to provide residents with both real time information and independent expert advice and consultation.	The services of the Independent Engineering Expert (RINA) are due to be concluded on completion of the Railway Order process (expected in 2024). The continuation of provision of independent engineering advice for residential stakeholder groups throughout the enabling works and main construction stages of the MetroLink project is currently being considered as part of an overall comprehensive community engagement plan, which will include amongst other initiatives, the appointment of dedicated MetroLink liaison representatives and local community forums which will provide detailed updates on construction activities in their areas.

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16	Construction and Operations 7 th bullet	2	Permission should require NTA to demonstrate the necessity for removing green spaces like parks, park facilities, recreation areas and local heritage and clearly outline compensatory mitigation measures to be introduced.	As evidenced by the work presented in the EIAR, TII have demonstrated the necessity, and importantly the compensatory mitigations, for all the environmental impacts identified in the EIAR. Removal of green spaces like parks, park facilities, recreation areas and local heritage are necessary due to the specific locations of MetroLink infrastructure, the space required to construct this infrastructure, and the land required for compounds to facilitate MetroLink construction. The selection of each station location has been the subject of a detailed Alternatives Assessment. This commenced with the MetroLink Route Options study in 2018 which determined the Emerging Preferred Route for the scheme and with further assessment carried out as part of the identification of the Preferred Route for MetroLink in 2019. The proposed location for each station, intervention shaft and construction compounds were chosen following an alternatives comparison as detailed in EIAR Chapter 7 Alternatives, taking account of the following variables: - Compliance with transport and land use strategy; - Minimising environmental impacts, including congestion and associated pollution problems; - Generating social and economic benefits; - Delivering good quality transport integration; - Optimising capital and operating costs; - Delivering a safe and operationally efficient system; and - Achieving efficiency and minimising risk during construction. The environmental impact assessment of alternatives considered: - Air Quality; - Protected Structures; - Archaeology; - The Natural Environment; - Townscape and landscape; - Noise; and - Human Beings. This impact assessment and proposed compensatory mitigation measures are presented in specific EIAR Chapters 9 to 31.

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17	Construction and Operations 8 th bullet	2	A traffic management plan must be agreed with residents, Dublin City Council and the NTA for the period during and post construction. Residents already living in heavily congested areas will be significantly negatively impacted by a major multi-annual construction project on their doorsteps.	EIAR Chapter 5, MetroLink Construction Phase, explains that traffic management plans for the construction phase of the Project have been developed to minimise the impact on road users, and to maintain access to property, businesses and other premises. Prior to implementation, all traffic management measures will be agreed with the relevant local authority (FCC or DCC) and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The design of traffic management measures and highways works is based on achieving the key objective of maintaining continual access to all properties during the works. Where necessary, a safe alternative route will be provided for pedestrians and vulnerable road users, such as children, and persons with restricted mobility, to maintain pedestrian access to premises. Where detour routes are required, these will be kept as short as possible and detour signage will be clear and easy to understand. EIAR Chapter 9, Traffic and Transport, section 9.7.1.2 includes for a Scheme Traffic Management Plan (STMP) to manage traffic movements during the construction phase to ensure traffic congestions is minimised. The Plan will include measures such as the establishment of Local Community forums which will cover areas local to each station, where stakeholders will have an opportunity to inform the traffic management element of the project. Other measures include the control of construction vehicles in terms of their hours of operation and restrictions on vehicle size and weight. During the operational phase of the Project, as outlined in EIAR Chapter 9, Traffic and Transport, notable reductions in traffic flow will be seen along key routes south of Dublin Airport, including along the M50 Motorway, and along most radial routes into Dublin City Centre. National roads such as the N11, N7, N4, M3 and M2 will also see reductions in traffic flows when the Project is operational. In all modelled scenarios, the number of car trips reduces when the Project is in place and operational, with car mode share also reducing in all model scenarios. As such, the reduction in private vehicles will reduce congestion on some road links and junctions, resulting in journey time savings on the road network. During the operational phase, minimal volumes of HGVs will be associated with the Project and overall traffic conditions will be improved.
18	Construction and Operations 9 th bullet	2	A permanent community liaison office must be established for the duration of the project.	TII intends to establish a minimum of 3 local community liaison offices along the MetroLink Route. It is proposed to locate these offices in the city centre, Glasnevin and Swords Areas. The offices will be established at least 3 months prior to the commencement of major infrastructure works.
19	Construction and Operations 10 th bullet	2	Measures and arrangements must be put in place at each Metro Station to limit and prevent anti-social behaviour associated with structures like metro stations.	Safety and Security is addressed by EIAR Chapter 6, MetroLink Operations and Maintenance. Section 6.6.5.8 specifically addresses managing the risk of "Vandalism or Anti-Social Behaviour on the Trains or within the Stations", and the wider chapter also addresses the broader design proposals for managing security challenges, including: •The architectural and urban realm design is designed to discourage anti-social behaviour, for example through the attractive setting, use of public lighting, open sight-lines, and avoidance of areas where individuals and groups of people can hide. •The Operational Control Centre (OCC) will be the central communications and operational hub, located in the administrative building at the Dardistown Depot. The role of the OCC will include monitoring and managing passenger safety and security and antisocial behaviour. The OCC will direct and deploy staff to manage incidents when required. •The access control and intrusion detection (ACID) system will identify intruders trying to enter locations where unauthorised access is prohibited. •CCTV will be installed throughout the MetroLink system including at station entrances, public realm and on trains to provide general security and surveillance of all the public areas, and to inform, if required, the directing and sending of staff to manage the situation. •There will be a MetroLink staff presence along the route for assisting passengers, security and deterring anti-social behaviour.

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20	Construction and Operations 11 th bullet	2	Metro stations and services must operate 24 hours a day, 7 days a week	As set out by EIAR Chapter 6, MetroLink Operations and Maintenance, section 6.4.3, "It is anticipated that services will operate between 05:30 and 00:30, every day". At this time there is no economic justification for a service running 24 hours day, 7 days a week, however as with any transport system, the future development and needs for serving the Dublin population may change in time, and this would be considered if such a situation arose requiring extended MetroLink operating hours.
21	Construction and Operations 12 th bullet	2	Park & Ride facilities must be provided at the stations beyond the M50 to discourage private vehicle traffic entering the city.	TII disagree that Park & Ride (P&R) facilities must be provided at stations beyond the M50 to discourage vehicle traffic entering the city. MetroLink is not designed just to discourage vehicles entering the city, but to also reduce the use of private cars overall and thus deliver the benefits this brings to the wider environment. It is also of note that the local environmental impact on areas around the stations were they to include for station specific P&R facilities would be considerable. Attention is also drawn to the EIAR sections noted below that explain the strategic thinking and design applied to achieve the objective of discouraging private vehicle use, a key objective and benefit of the MetroLink Project. EIAR Chapter 3, Background to the MetroLink Project, explains the intent of MetroLink to provide a frequent and reliable public transport alternative to the private car, and that it is predicted to achieve significant modal shift to public transport along the corridor. EIAR Chapter 9, Traffic and Transport, presents an assessment of the modelled reduction in car trips, and the associated change in modal shift when the Project is in place. The model indicates that notable reductions in traffic flow will be seen along key routes south of Dublin Airport, including along the M50 Motorway, and along most radial routes into Dublin City Centre. National roads such as the N11, N7, N4, M3 and M2 also see reductions in traffic flows entering the city when the Project is in place. In the AZ4 section (From Northwood to Charlemont), there is a reduction of over 6,000 car tips over the 12 hour period. A reduction in car mode share can be seen in the model zones around the alignment, with a corresponding increase in public transport mode share and trips. EIAR Chapter 6, MetroLink Operations and Maintenance, explains that the proposed Project has been designed to ensure maximum interchange with other modes of transport, specifically more sustainable modes of transport such as walking, cycling and public transport, and therefore Park and Ride or drop-off facilities have not been provided at all stations, further discouraging private vehicles from entering the city. At the P&R facility planned for Estuary Station, over 3,000 car spaces will be provided, with 694 electric charging facilities, 208 accessible spaces, 2,139 standard parking spaces and 10 staff parking spaces. In addition, cycle access and bikes stands will be provided.

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1	Cover Letter	4	In terms of its infrastructure, parts of the Hospital date from the 1860s. The relevant wing of the Hospital that will be most impacted by TII’s works is known as the Misericordiae wing and it is a protected structure. It is thus particularly sensitive to impacts from construction works.	TII and its consultants have undertaken surveys of the hospital building and discussed the operation of the hospital with the hospital managers in order to ensure that appropriate mitigation can be put in place during the construction phase of MetroLink. The architectural heritage importance of the Mater Hospital (building reference BH-469) is acknowledged, and the building is included in the impact assessment on the Architectural Heritage in Chapter 26 of the EIAR. According to the assessment, during the Construction Phase, an indirect impact on the building will occur due to the presence of the construction site directly in front of the protected structure. The magnitude of this impact will be 'medium', whilst the architectural heritage value is 'high'; the resulting impact is thus assessed to be 'very significant'. On completion of the works, the impact will be 'not significant'. A direct impact will arise from deep excavation to within 8.5m of the hospital boundary and 14m from the hospital building, together with works to divert utilities away from the site to accommodate the station. Mitigation measures for noise and air quality, and occupants' health, may require a hierarchy of repair and conservation works to the front façade windows of the hospital as assessed in Chapter 10 Human Health Sections 10.5 & 10.6 along with standard mitigation measures outlined in Chapters 13, 14, 16 & A5.1 CEMP. Chapter 26 Architectural Heritage Section 26.5.4.8 notes the magnitude of the impact will be 'medium', whilst the architectural heritage value is high, with the resulting impact assessed to be 'very significant'. As a result, mitigation measures will be implemented as follows: - Following the Metrolink Project Conservation Architect (PCA) condition surveys of the windows, a hierarchy of mitigation measures for necessary interventions will be agreed with the property owner and noise and air quality specialists, to mitigate impact on building occupants. The impact would decrease to 'slight' following mitigation. - The methodology for the construction of the D-wall for the station box to the front of the Mater Hospital is to be devised in conjunction with the PCA and is to take into account the nature of the construction of the retaining wall and boundary wall at the front of the hospital, and the nature of the hospital building. Vibration and settlement monitors are to be provided in the hospital building in the vicinity of the works, with alarms to identify any vibration that exceeds acceptable levels. In the event of the alarms being triggered, works would cease until the cause of the vibration is identified and systems modified to prevent recurrence. - The boundary walls are to be protected by means of hoardings to be erected prior to the commencement of construction.
2	Cover Letter	4	There is also a significant amount of sensitive and highly calibrated equipment throughout the Hospital and the buildings are operating at capacity.	Equipment at the Mater Hospital buildings was assessed for electromagnetic interference, based on the lists of equipment potentially sensitive to EMI supplied by the owners, with the results presented in Chapter 12 of the EIAR. During the construction phase, the significance of the effects of Electromagnetic Emissions and Stray Current on the equipment has been determined as 'Imperceptible', and the quality of effects is classed as 'Neutral', resulting in no impact on their operation. During operation of MetroLink, the impact on Mater Hospital is assessed as follows: 1 - Significance of effects from DC magnetic fields has been determined as 'Slight' with a quality of effects classed as 'Neutral'; 2 - Significance of effects from AC fields has been determined as 'Imperceptible' with a quality of effects classed as 'Neutral'; 3 - Significance of effects from RF and Microwave fields has been determined as 'Slight' with a quality of effects classed as 'Neutral'. As a result, the sensitive equipment at Mater Hospital will not be affected by either the construction or operation of Metrolink.

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3	Cover Letter	4	Our clients are broadly supportive of the proposed Metrolink project, which has potential benefits for the Hospital and its patients. However, they remain concerned about potential impacts on the Hospital's operations both during construction and operation of the proposed project, and also about the extent of the permanent land take proposed to facilitate the scheme.	When MetroLink is operational, the operation of Mater Hospital will not be affected. During construction of MetroLink, with the proposed mitigation in place, the operation of Mater Hospital will not be affected with the exception of airborne noise and ground borne noise from the TBM passage. With the proposed mitigation, the residual impacts will be: 1 - Airborne noise – this may cause annoyance to patients and staff but as areas of the hospital primarily affected are the upper floors that do not contain wards, no residual health impact is predicted. 2 - Ground borne noise - this may cause annoyance to patients and staff, users and others, but with mitigation including potential temporary relocation, no residual health impacts are predicted. See also Responses (1), (2), and further Responses below for more detail on the mitigation and assessed impacts. Regarding permanent land take please see Response (17) below.
4	Cover Letter	4	It is hoped that continued engagement by TII with our clients' concerns will enable those concerns to be addressed to the satisfaction of our clients and then reflected in any Railway Order ultimately granted by the Board.	TII confirm their commitment to further engagement and consultation with the Hospital to address its concerns
5	Cover Letter	5	It is acknowledged that the application recognises that there are potential impacts on the Hospital. Based on the information provided, however, our clients remain concerned about a number of issues which will need to be addressed during the assessment of the application. The Hospital provides a vital public service which must be allowed function and develop both during and after the construction of the Metrolink Project. In brief, concerns arise under the following headings: 1 . Traffic impacts including access for emergency vehicles. 2. Construction impacts including noise, vibration and air quality impacts. 3. Operational impacts. 4. Extent of the proposed land take.	TII have responded to each of these concerns in turn below.

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6	1. Traffic Impacts	5	1. Traffic Impacts It is, of course, essential that access to the Hospital be maintained at all times for staff, patients, patient visitors, suppliers as well as goods and services. In addition, the main entrance to both the emergency department and the underground car park is off Eccles Street. It is noted that Chapter 9 of the EIAR (Traffic and Transport) confirms that during Phase 2 works, Eccles Street will be closed to all traffic except emergency vehicles. This will clearly have very significant operational difficulties for the Hospital- and impact on its services for patients and staff wishing to access services including the emergency department; the dialysis unit; the underground car park; consultants’ rooms; the Hospital creche; the centre for nurse education (which is situate at 15, 16, 19 and 20 Nelson Street); the institute for cancer research etc. In addition, the Hospital's logistics and warehousing facilities for stock items are located on Eccles Street. It is further noted that TII’s anticipated opening date for the Metrolink Project is 2035, which indicates a potential for impacts on the Hospital over an extended period. During this time, there will be ongoing developments at the Hospital, including the new Major Trauma Centre, which is a development of national importance. The limitation proposed by TII on access to Eccles Street is a matter of particular concern in this regard. Clearly, the question of phasing of the construction works for the Metrolink Project and related implications for any future works on the hospital site needs careful consideration. It is absolutely essential that there be no interference with the ability of emergency vehicles to enter and leave the Hospital. In addition, as is clear from the above, there is concern as to how the Hospital can manage its day to day activities in light of essential areas of the Hospital being left with restricted access onto Eccles Street. It is far from clear how TII proposes to maintain unrestricted access for emergency vehicles in light of the proposal to close Eccles Street to traffic or how it is proposed that the Hospital will re-route patients, staff and deliveries to it. More generally, the impact of construction traffic on patients and the Hospital Building itself is a matter of concern and will need to be addressed comprehensively in conditions imposed on any Railway Order granted by the Board.	EIAR Appendix A9.5 section 7.7 details the construction traffic management associated with Mater Station. As identified, in Phase 2 and Phase 3 of the construction works, general traffic will not be able to access Eccles Street from Berkeley Road, however Emergency Vehicle access will be maintained from this location therefore ensuring there is no interference with the ability of emergency vehicles entering or leaving the hospital. As presented in EIAR Appendix A9.5, Figure 7.32 Proposed Traffic Management Phase 3, the road width available on Eccles Street adjacent to the junction with Berkeley Road will be locally reduced to a single lane due to the construction footprint requirement and which will be used for Emergency Vehicles only. The remainder of Eccles Street will be retained for general traffic use with access for all traffic as far as the area of reduced width, thus maintaining access to hospital buildings/services. General traffic access to the hospital will be maintained through the detailed diversion proposals. To clarify, general traffic access to Eccles Street will be maintained via the N1. Vehicles seeking to route from Berkeley Road to Eccles Street will be diverted and approach Eccles Street from the N1 via either North Circular Road or Blessington Street. Vehicles travelling away from Eccles Street will be diverted southbound along Nelson Street and from there can continue to travel along Berkeley Street, Mountjoy Street or Blessington Street. Therefore, access to the hospital is maintained at all times for staff, patients, patient visitors, suppliers and goods and services vehicles. Similarly, access to the emergency department and underground car park is maintained, and can be accessed from Eccles Street via the N1. Therefore, there should be minimal impact on the Hospital's operations throughout the works. It should also be noted that construction works on Eccles Street will be complete in advance of 2035 as seen in the Construction Programme (Appendix A5.2) TII will continue to work closely with Mater Hospital throughout the duration of the construction works to ensure minimal impact to the delivery of the new Major Trauma Centra, which is of national importance. TII will closely monitor all road closures to determine if they are required at all points of the works, or if they can be reinstated temporarily. As noted, access to Eccles Street will be maintained from the N1 direction, with the closure to non-emergency vehicles only impacting on the western junction with Berkeley Road. All diversions and closures will be displayed on appropriate signage, and a comprehensive publicity and information campaign will take place prior to the commencement of the Construction Phase. A Project Construction Traffic Forum will be formed, including representatives from key stakeholders such as Mater Hospital to ensure any issues or concerns can be addressed quickly and efficiently.	
7	2. Construction impacts	7	It is welcomed that the sensitivity of the Hospital is recognised in this way. However, our clients remain concerned that the extent of impacts have not been clearly identified, nor, more importantly, have the mechanisms for ensuring that adverse impacts on the Hospital and its patients can be avoided.	All potential impacts (air quality, noise, vibrations, settlement, human health etc.) on Mater Hospital along with their respective mitigation measures were assessed and presented in the relevant chapters of the EIAR. Refer to: Chapter 10 Human Health; Chapter 14 Ground-borne Noise and Vibration; Chapter 16 Air Quality; and Chapter 05 MetroLink Construction Phase - Appendix A5.17 Building Damage Report.	
8	2. Construction impacts	7	It is critically important that all patients are given the best possible environment from a health perspective. In Chapter 10 of the EIAR (Human Health), this is reflected in the description of the Hospital as a Very Highly Sensitive Receptor. It is noted that psychiatric services as well as the National Isolation Unit are provided in the part of the Hospital closest to the Mater Station construction works and to the tunnel alignment, thus patients potentially the most sensitive to disturbance from construction activities may be the most likely to be affected. In addition, the Hospital's research and training facilities are situate in the Misericordiae wing as well as the entire finance team for the Hospital.	The location of sensitive receptors (psychiatric patients, research facilities etc.) was considered during the impact assessment for Mater Hospital. The assessment of impacts on these patients and facilities is reported in Chapter 10 of the EIAR. Mitigation Measures will include: - Noise barriers up to 4m tall - Noise insulation in some locations within the hospital - Advanced communication and notification of works - Standard dust mitigation measures outlined in the Dust Management Plan (Appendix A16.4) - Standard construction mitigation measures outlined in Appendix A5.1 CEMP	

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9	2. Construction impacts i. Noise	7	Although the sensitivity of the Hospital, and of psychiatric patients in particular, is recognised in the EIAR, there is a lack of clarity with regard to how noise impacts will be mitigated during the construction phase. It does not appear as if construction noise levels which reflect the sensitivity of the receptor, or which are designed to suit the hospital environment, have been proposed. Increased noise levels will lead to negative consequences for patients and staff within the Hospital. In this regard, the Hospital is concerned that the proposed mitigations for airborne noise will not be effective to mitigate any impacts from ground borne noise. Noise monitoring and controls will be needed for the entire construction period.	TII note that within Chapter 10, Section 10.5.1.3 it is stated that along with standard mitigation measures, coordination with sensitive receptors such as Mater Hospital will be required and is an important mitigation measure to prevent adverse impacts for patients and staff within the hospital. TII will liaise closely with the hospital for the duration of works to ensure minimal impacts insofar as possible. Further detail on impacts/mitigation is provided in the below paragraphs. Airborne Noise EIAR Chapter 13 Airborne Noise and Vibration, Section 13.7.1.1.4 AZ4: Northwood to Charlemont, presents the airborne noise levels and mitigations measures proposed for Mater Hospital during construction. Construction noise levels at the rear of 39 – 51 Eccles Street (Mater Hospital) are calculated to exceed the Noise Insulation (NI) trigger value for a number of construction phases associated with the Mater Station construction activities, and a very significant effect is determined without further mitigation intervention. In this instance, NI is proposed to the rear facades of this building in accordance with the TII Airborne and Groundborne Noise Mitigation Policy (see EIAR Appendix A14.6). The residual effects are determined to be negative, moderate and short-term. Construction noise levels at the upper floors of the main Mater Hospital are calculated to exceed the NI trigger value, during one phase only when piling/D-wall activities are occurring for the north section of the station box. In this instance, NI or temporary relocation is proposed in accordance with the TII Airborne and Groundborne Noise Mitigation Policy. Ground borne noise and Vibration Threshold levels for the assessment of groundborne noise and vibration have been determined for buildings with different uses and sensitivities. The threshold levels used for Mater Hospital are based on guidance for hospital buildings, as indicated in EIAR Chapter 14, Table 14.3 from groundborne noise and Table 14.7 for vibration. In Section 14.4.1.8 AZ4 – Groundborne Noise during Construction, Table 14.29, are presented the predicted noise levels during the TBM passage compared to the threshold values for noise for various sensitive receptors (including Mater Hospital). The calculations are presented for the closest part of the building to the works, as this is where noise and vibration levels can be expected to be the highest. According to the calculations in Table 14.29, the LAm_{ax} for TBM passage at Mater Hospital has a value of 48 dB while the Threshold Level for this building is 45 dB, resulting in a significant impact on the buildings operation for an approximate 2 week duration during the TBM passage. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from TBMs at source. The principal mitigation measures aimed at minimising impacts are as follows: • Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. • TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6). In Section 14.4.1.8 AZ4 – Groundborne Noise during Construction, Table 14.30, the predicted noise levels during mechanical excavation are presented compared to the threshold values for noise for various sensitive receptors (including Mater Hospital). At Mater Hospital the LAm_{ax} for mechanical excavation has a value of 33 dB compared to the Threshold Level for this building of 40 dB, resulting in no significant impact on the buildings operation. In Section 14.4.2.6.1 AZ4 - Groundborne Noise from Railway Operation, Table 14.44, the predicted noise levels during railway operation are presented compared to the threshold values for noise for various sensitive receptors (including Mater Hospital). At Mater Hospital, the LAm_{ax} for operation has a value of 29 dB compared to the Threshold Level for this building of 40 dB, resulting no impact on the buildings operation.

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Metrolink Railway Order Application & Supporting Documentation, Our Clients: Mater Misericordiae and the Children's University Hospitals Company Limited by Guarantee and Mater Misericordiae University Hospital, Address: Eccles Street, Dublin 7. Ref Nos: ML5B-A4, ML5B-U32, ML5C-U3, ML5C-U4 and ML5C-U5				
10	2. Construction impacts ii. Vibration	0	Given the sensitive nature of the health care equipment within the Hospital, the vibrations from construction activity and tunnelling are a major concern. Sensitive equipment may be negatively impacted by vibrations from construction activity and from the proposed tunnelling. Any impact on sensitive equipment will have critical implications in relation to patient care. It will also impact the Hospital's training and teaching department which uses sensitive equipment. Ensuring equipment remains calibrated will also be of vital importance. It is noted that vibration monitoring is proposed, but specific commitments regarding monitoring, calibration and the consequence of exceedance must be included in any Railway Order. In this regard, it is essential that the Order provide for a cessation of activities which may affect sensitive equipment before any such effect takes place, i.e. that thresholds are set at a level which entirely avoids the risk of exceedance. In addition, ongoing monitoring of vibrations will be needed throughout the operation of the proposed Metrolink.	Refer to EIAR Chapter 14, Section 14.4.1.9 AZ4 – Groundborne Vibration during Construction Table 14.32, presents the predicted vibration levels during TBM Passage compared to the threshold values for vibration for various sensitive receptors (including Mater Hospital). The VDV (Vibration Dose Value) for TBM Passage at Mater Hospital has a value of 0.249 m/s-1.75, which is lower than the VDV Threshold Level for this building of 0.4 m/s-1.75, resulting in no significant impact on the buildings operation. Table 14.33, presents the predicted vibration levels during Mechanical Excavation compared to the threshold values for vibration for various sensitive receptors (including Mater Hospital). The VDV (Vibration Dose Value) for Mechanical Excavation at Mater Hospital has a value of 0.001 m/s-1.75 much lower than the VDV Threshold Level for this building of 0.2 m/s-1.75, resulting in no significant impact on the buildings operation. Table 14.34, presents the predicted vibration levels during blasting compared to the threshold values for vibration for various sensitive receptors (including Mater Hospital). The PPV for blasting at Mater Hospital has a value of 3.1, much lower than the PPV Threshold Level for this building of 8, resulting in no significant impact on the buildings operation. In Section 14.4.2.6.2 AZ4 – Groundborne Vibration from Railway Operation, Table 14.45, are presented the predicted vibration levels during Railway Operation for various sensitive receptors (including Mater Hospital). The VDV (Vibration Dose Value) for Railway Operation at Mater Hospital has a value of 0.005 m/s-1.75, resulting in a 'not significant' impact on the buildings operations. With regard to vibration effects on the use of sensitive equipment, as outlined in Chapter 8 of the EIAR, consultation has been ongoing with the Mater Hospital since 2018. The hospital has been asked to identify sensitive equipment that may be impacted by groundborne noise and vibration, but to-date no locations of any such equipment have been identified within proximity to the works. However, It is understood that the locations of sensitive equipment could change over time, and in advance of the works an in-depth consultation exercise will be carried out with the Mater Hospital to re-confirm the location of sensitive equipment. The programme for the TBM will be planned by the contractor and there is potential to plan the passage of the TBM during weeks when critical use of sensitive equipment can be avoided.
11	2. Construction impacts ii. Vibration	8	Construction hours including use of the tunnel boring machine ("TBM") is of greater significance in this case. The standard construction hours set out in the EIAR will likely not be appropriate in relation to minimisation of adverse impacts on the Hospital, when medical or surgical training procedures are in session. Consideration should be given to establishing the most appropriate times to use the TBM and blasting of rock.	The progress of the TBM is a continuous operation throughout the 24-hour period and it is not proposed to introduce temporary stops in the progress due to risks associated with additional settlement above the TBM. However, as the programme for the TBM will be planned by the contractor, they will be able to give advance notice of the periods of time that the TBM will be passing in proximity to the hospital . There is thus the potential to plan use of sensitive or critical equipment around the passage of the TBM. Vibration from blasting has been considered, predicted levels of vibration are below the threshold for significant impact (see Response (10). Nonetheless, during consultation with Mater Hospital, there will be potential for the contractor to agree timing of blasting operations.
12	2. Construction impacts ii. Vibration	8	Section 7.53.2 of the Non-Technical summary highlights the potential use of 'blasting' to enable rock excavation as well as drilling. The Mater Station is noted as a location for blasting. This will likely generate higher levels of noise and vibration, however, the period of disruption will be over a shorter duration. The potential impact of the blasting must be carefully considered, in particular for potential damage to the fabric of the Hospital's Misericordiae wing as well as to the houses on Eccles Street.	The potential impacts of blasting have been addressed within the EIAR with predicted vibration levels during blasting given in EIAR Chapter 14, Table 14.34 for Mater Hospital. The predicted PPV from blasting at Mater Hospital is 3.1 mm/s, which is lower than the PPV Threshold Level for this building of 8 mm/s, resulting in no significant impact. The predicted Air Overpressure from blasting at Mater Hospital, given in Table 14.35, is 105.6, which is lower than the PPV Threshold Level for this building of 125, resulting in no significant impact.

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Metrolink Railway Order Application & Supporting Documentation, Our Clients: Mater Misericordiae and the Children’s University Hospitals Company Limited by Guarantee and Mater Misericordiae University Hospital, Address: Eccles Street, Dublin 7. Ref Nos: ML5B-A4, ML5B-U32, ML5C-U3, ML5C-U4 and ML5C-U5				
13	2. Construction impacts ii. Vibration	9	Section 7.5.5 of the Non-Technical Summary suggests a boring rate of 'about 70m per week. As such, it is reasonable to think the actual boring works in the vicinity of the Hospital will be in the order of a number of weeks. Clearly, the construction of the Mater Station box will take a considerable period of time. TII's documents suggest that the disruption due to noise will be mitigated by its proposed top down construction sequence. While this will mitigate much of the airborne noise, it will not mitigate the impact of ground borne noise and vibration and it is far from clear how it is proposed to mitigate this impact.	The passage of the TBM is anticipated to impact upon buildings above its passage for a period of approximately 2-weeks. For proposed mitigation for groundborne noise from TBM passage see Response (9) above.
14	2. Construction impacts iii. Air Pollution and Dust Control	9	It is obvious that any impact on air quality in proximity to a major hospital could have adverse implications for patient care. In addition, the creation of dust from construction activities could have adverse impacts, particularly if it leads to elevated levels of aspergillus. Although this risk is identified in the application documents, our clients consider that insufficient attention has been paid to the nature of the Hospital buildings in assessing this risk. The Misericordiae wing of the Hospital is an old building relying mainly on natural ventilation from open windows. The proposal to “seal windows” in order to mitigate risk from construction dust and aspergillus is simply not feasible. In the circumstances, our clients will require that mitigation measures capable of being put in place at the Hospital are proposed and assessed as part of the consideration of the application. Specific dust control and monitoring will be needed on an ongoing basis and precise commitments will be needed in this regard.	As noted in EIAR Chapter 10 Human Health, Section 10.5.1.1.1 Very Highly Sensitive Receptors, in the vicinity of the Mater Hospital there are considerable earthworks and the dust emission magnitude for the proposed site area is classified as large. However, with the extensive mitigation measures proposed for the construction process, including measures for dust suppression, it is predicted that dust emissions from the construction sites will not be significant. Therefore, no exceedance of air quality standards is expected at the façade of the Mater Hospital and consequently no significant adverse effects to human health. In relation to aspergillus, survey and prevention works will take place before construction commences by a competent contractor in proximity to any sensitive buildings and in particular in proximity to the Mater Hospital site which utilises passive ventilation on Eccles Street. The National Guidelines for the Prevention of Nosocomial Invasive Aspergillosis During Construction/Renovation Activities (National Disease Surveillance Centre 2002) and National Guidelines for the Prevention of Nosocomial Aspergillosis (HSE 2018) will be taken into consideration by the competent contractor as a source for the Aspergillus Prevention Plan. The National Guidelines for the Prevention of Nosocomial Aspergillosis (HSE 2018) provide a risk assessment for aspergillus, preventative dust mitigation measures and, in Appendix B of the document, pre-project planning and contractor advice. If the resulting mitigation measures require interventions such as sealing windows to the Mater Hospital building, consultation with a Conservation Architect will be undertaken. In terms of biological risk, there may be vulnerable patients in the Mater Hospital and there are extensive guidelines in relation to how this risk can be managed and reduced. Vulnerable patients will typically be people with decreased immune systems due to illness or treatments for illnesses such as bone marrow transplants or haematological diseases. These, however, will be typically in wards that are designed to prevent Aspergillus build up in the area. These wards will have HEPA (High Efficiency Particulate Air) filters on windows and ventilation systems and controls in relation to items such as flowers or plants being on site. In this protected environment there are no significant increased risks because of the additional activity related to construction.

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Metrolink Railway Order Application & Supporting Documentation, Our Clients: Mater Misericordiae and the Children’s University Hospitals Company Limited by Guarantee and Mater Misericordiae University Hospital, Address: Eccles Street, Dublin 7. Ref Nos: ML5B-A4, ML5B-U32, ML5C-U3, ML5C-U4 and ML5C-U5				
15	2. Construction impacts iii. Air Pollution and Dust Control	9	In addition, given the nature and context of the building, any agreed protection measures should be undertaken in consultation with a Conservation Architect. TII need to agree with the Hospital the proposed purpose and nature of the protection measures to ensure that the patient wards, the administration offices as well as the teaching/training spaces can be maintained in use for their current function. As this part of the Hospital is a protected structure, any interventions to the building fabric, including the window protection measures need to be agreed with the appropriate planning authority. TII need to carry out detailed condition surveys of the adjacent Hospital buildings prior to the works commencing. These should have detailed sections on the building fabric, including windows, stonework etc. and include both external and internal elements. Similarly, it has been recommended to the Hospital that TII carry out condition surveys of all public realm areas adjacent to the works that may be susceptible to settlement due to the construction activities. Having regard to the protected status of the structure, the uses to which they are being put, and the vulnerability of those who use its services, our clients have very limited flexibility in relation to how they can absorb impacts. It is noted that proposed mitigation of construction impacts at sensitive locations involves temporary re-housing of sensitive locations or people where mitigation is not possible. It is not clear what “re- housing” is proposed, or whether it will be appropriate or even feasible in a very busy hospital. Precise details of what is proposed will be required in order for the Hospital and the Board to assess the merits of this proposal. More generally, a detailed condition survey of the Hospital will be required before any works commence and, in the event the Railway Order is granted, detailed conditions regarding the timing of any works will need to be imposed.	Regarding protection measures to the building during construction, as outlined in EIAR Appendix A5.1 (CEMP), temporary or permanent specialists with appropriate skills and experience will monitor on-site construction on behalf of TII, where required. In terms of Architectural Heritage, this will include a Project Conservation Architect. A Cultural Heritage Strategy (see EIAR Appendix A25.1) has been prepared by TII’s Project Archaeologist and Conservation Architect, who will remain involved during the duration of the project. Where any specific works are considered necessary to the fabric of the building these would be agreed with the Planning Authorities. Regarding settlement, in EIAR Appendix A5.17 Building Damage Report Table 5.2 the Mater Hospital assessments to date indicate that the building falls into the 'Negligible' damage category and hence further assessment is not required. That said, due to the age and importance of the building, it has been designated "special" and hence a further assessment will be undertaken by the main works contractor. This further assessment will pick up on the building's condition close to the time when the building will be impacted. TII are happy to engage further with Mater Hospital regarding the works programme and timing before the construction works start. In relation to "temporary re-housing" it is noted that at Mater Hospital, the psychiatric ward is impacted by TBM passage which could require the relocation of patients to either another part of the hospital or to an alternative hospital for the period of time. It is noted in Chapter 10 that a best case scenario would be three days and a worst case scenario would be for two weeks. TII will work with Mater Hospital in consultation with hospital authorities in relation to this measure. In EIAR Chapter 13 (Airborne Noise & Vibration) Section 13.7.1.1.4 it notes for Mater Hospital that ‘Construction noise levels at the upper floors of the main Mater Hospital are calculated to exceed the NI trigger value for one phase when piling/D-wall activities are occurring for the north section of the station box. In this instance, NI or temporary relocation is proposed in accordance with the TII Airborne and Groundborne Noise Mitigation Policy’. It should be noted that this area is not used as a ward nevertheless TII will continue to consult with the Mater Hospital management regarding the most appropriate mitigation measures to be adopted regarding this mitigation.

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Metrolink Railway Order Application & Supporting Documentation, Our Clients: Mater Misericordiae and the Children’s University Hospitals Company Limited by Guarantee and Mater Misericordiae University Hospital, Address: Eccles Street, Dublin 7. Ref Nos: ML5B-A4, ML5B-U32, ML5C-U3, ML5C-U4 and ML5C-U5				
16	3. Operation of Metrolink	10	In addition to our clients' concerns regarding the potential construction impacts, the operation of Metrolink, and in particular Mater Station, has the potential to permanently affect the Hospital and its operations. Although this clearly has the potential to benefit the Hospital, it will be necessary to ensure that the project is operated and managed in a manner which does not compromise the Hospital's operations. Commitments and safeguards will be required as part of any Railway Order.	During the Metrolink operation phase there are no predicted impacts affecting the Hospital's operations, as noted below. Airborne noise: During operation the Metrolink will be in tunnel within the Mater Hospital section of the proposed Project. As noted in EIAR Chapter 13, Section 13.5.3.2.3 Ventilation Systems, the primary operational noise sources will relate to the station and tunnel ventilation systems. The specific noise level from ventilation systems will be calculated as part of the further design development. Specifically, the operational noise level from each shaft and surface grill will be calculated to the nearest sensitive areas to each and specific attenuation designed for each system so as to not exceed the relevant design criteria for each location. As such, no mitigation will be required at the Hospital building itself. Ground borne Noise and Vibration: EIAR Chapter 14, Section 14.4.2.6.1, Table 14.44, presents the predicted noise levels during railway operation compared to the threshold values for noise for various sensitive receptors (including Mater Hospital). The predicted groundborne noise level for railway operation past Mater Hospital has a value of 29 dB LAmax,s which is below the Threshold Level for this building of 40 dB, resulting in no impact on the buildings operations. In Section 14.4.2.6.2 AZ4, Table 14.45, are presented the predicted vibration levels during railway operation for various sensitive receptors (including Mater Hospital). The VDV (Vibration Dose Value) for railway operation past Mater Hospital has a value of 0.005 ms-1.75, which is well below the 0.2 ms-1.75 VDV threshold level of for this building resulting in no significant impact on the buildings operations. Air Quality: The air dispersion modelling assessment has found that in the 2035 opening year no receptors will have ambient air quality exceedances of the ambient air quality standards for the Do Something (and Do Minimum) scenario as a result of the proposed Project. There is a single slight adverse effect but no moderate or substantial adverse effects expected as a result of the Operational Phase of the proposed Project. Therefore, overall, it is considered that the residual effects are within the EPA Guidelines (EPA 2022) with the likely effects considered overall as 'Neutral, Not Significant and Long-Term'. Electromagnetic Interference: The Radiology Department of the Mater Hospital is located in the Whitty Wing on Level 2. It is more than 100m from the proposed alignment and therefore modelled levels at this distance are such that no significant effects are likely to be experienced in the operation of the on-site MRI, CT and PET-CT scanning equipment. Accordingly, the significance of effects on the Mater Hospital from DC magnetic fields has been determined as 'Slight' with a quality of effects classed as 'Neutral'. Traffic: The Berkeley Rd/Eccles Street junction will be reinstated to provide for general traffic use.

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17	4. Acquisition of Lands	10	Our clients are, ..., very concerned about the proposal to acquire permanently the Four Masters Memorial Park..... There is little or no recognition in the application documentation as to the historical import of this Park or that the Park is within our clients' ownership and used by them periodically for the benefit of the Hospital and its patients for symbolic and historical Hospital occasions - this is not recognised in the Planning Report accompanying the documentation at all. Our clients' understood that the Park would be required temporarily during the construction of the proposed project, but that it would be returned to our clients' use and ownership thereafter. The necessity for a permanent acquisition has not been explained in the application documentation and a basis for confirmation of the CPO element of the Railway Order has therefore not been made out.	According to Chapter 21 Land Take - Permanent land take is required at the proposed stations and along the surface, retained cut, and cut and cover sections of the proposed Project alignment. The acquisition of lands for cut-and-cover sections (including for the underground stations) has been considered as permanent land acquisition during the Construction Phase, although following construction, all or part of this land may have the potential to be returned (or the surface level made available for use) subject to agreement with the landowner. In addition to land take required for the footprint of the permanent works, lands will also be required temporarily for the construction of the project. In the context of this Chapter, temporary means land that is utilised for a period of time to facilitate the construction of the proposed Project but is then returned to its former, or another (non-MetroLink) usage. It is envisaged that the park will be re-instated upon completion of works albeit with modifications to landscaping and alignment. In the case of the Four Masters Memorial Park, the EIAR Chapter 27, (The Landscape) notes in Section 27.5.4.20 that - 'The proposed works will necessitate the removal of a substantial area of the park on a temporary basis, along with the perimeter railings, the nineteenth century memorial cross (The Four Masters Cross) and the sculpture (Healing Hands), dating from 2000. Whilst the station will be below ground, it will have a number of elements on the surface, including ventilation grilles, air intake shafts, fire access lift, emergency escape stairs and the main entrance to the station. These will be placed along the Berkeley Road frontage, mainly within the park. Following the completion of the station box, the Park will be reinstated on the surface to a shape and form similar to the existing Park with updated planting, including new trees along each side of the triangle. The railings and gates, the Four Masters Cross and the sculpture will all be reinstated to slightly amended alignment and locations. The existing garden and grotto adjoining and within the grounds of St Joseph's Church will also be reinstated on the existing footprint and in similar style to the Four Masters Park proposals with proposed trees. This allows the accommodation of the introduced elements of the station which will now be expressed at surface level'. So in the case of the Four Masters Memorial Park, whilst permanent land take is considered as permanent land acquisition during the Construction Phase, a significant part of this land will be able to be returned to use as a park after the reinstation works are finished. The intended compulsory purchase of the park as part of the Railway Order Application will allow TII to open the reinstated and improved park to the wider public who will be able to fully avail of its extraordinary amenity value.
18	Conclusion	11	It looks forward to the opportunity to engage further on these and other issues at an Oral Hearing and our clients are more than willing to have a preliminary meeting of the parties and observers In advance of the main oral hearing.	See Response (4).

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Organisation Name or Name of Submitter			(Hughes Planning & Development Consultants on behalf of) Maureen O'Scanaill (Milton Fields, Pinnock hill, Swords, Co Dublin)	
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Letter Re: ABP Ref. No. NA29N.314724 Railway (MetroLink - Estuary to Charlemont via Dublin Airport) Order				
1	1.0 Introduction 7.0 Conclusion	1, 8	...this submission requests that An Bord Pleanála duly consider the negative implications arising on our client's residence. It is strongly contended that the proposed development has had no regard to our client's property, specifically access to and from her home. The proposed railway has been designed without due regard to our client's existing residential amenity at her dwelling at Pinnock Hill Roundabout. The impact of the proposed route on our client's lands would be detrimental to the amenity and would be a traffic hazard. Our client is also concerned about the impacts on the viability of the O'Scanaill Veterinary Clinic to the north of her dwelling which is run by her family.	TII thank you for your input and responses are provided below.
2	2.0 Site Description	1	Access to the property is provided from the north and northwest via an exit from the Pinnock hill roundabout. The access is used both by members and visitors to the dwelling, as well as by members of the public who avail of the services provided by the veterinary clinic. The proposal will disrupt access to the site during construction and operational stages which will impact on our client's property and family's veterinary practice (Swords Veterinary Clinic).	TII recognise the disruption likely to be caused to land, property and business owners along the route as a consequence of the delivery of MetroLink. As will be the case with all third party landowners/business, and in agreement with the respondent, TII and their appointed Contractors will maintain access to this business to ensure its ongoing viability during the course of the construction work and to minimise any further impacts that could affect the amenity of the location. See EIAR Appendix 9.5 Scheme Traffic Management Plan, Section 2.1.
3	2.0 Site Description	2	Our client is committed to its future in Fingal but are of the strong belief that an alternative location will have to be sourced for the family enterprise should the Railway Order be approved and subsequently carried out. It is requested that An Bord Pleanála note that... the impacts on viability of this business are considered (...the O'Scanaill Veterinary Clinic has been part of the Fingal commercial community for over seventy years, generating employment and revenue for the Fingal Area, providing an essential service to animal and pet owners in Swords and surrounding area and, in turn, supporting the region's growth...).	Please refer to response number (2) above.
4	2.0 Site Description	2	Additionally, our client had lived in the area for a number of years, since 1954 when the dwelling was first built and the proposal will gravely reduce the amenity which she has benefitted from in her time living here.	Refer to response number (2) and (3) above.
5	3.0 Proposed Railway Order Figure 5.0	4	...the extent of our client's premises which will be subject of acquisition. The blue hatch indicated lands to be temporarily acquired. As is shown, a large proportion of lands relating to the lands will be lost. This includes access to our client's home, as well as lands associated with the veterinary practice. As indicated above (in Figure 5.0) the proposal directly interferes with our clients' premises and the operational requirements of the family-run veterinary clinic.	The details of the proposed temporary and permanent landtake around this property are detailed in the following document within the Railway Order: Property Drawings - Property Details Book 1 of 2 Fingal County Council: Sheet 24 of 66, detail 301 ML-P-301 S-T. These details are also presented in the respondents correspondence figure 9.0. TII confirm that the area of temporary landtake shown on this document is the minimum area needed to provide the room necessary to maintain access into the business while the construction works are progressed.
6	5.0 Planning Policy	4	The relevant development plan against which any planning application at our client's premises would be assessed against is the Fingal Council Development Plan 2017-2023. We note, as per the provisions of the Fingal County Development Plan 2017-2023, that the subject site is subject to the 'HT - High Technology' zoning objective. The purpose of which is to 'Provide for office development and high technology/ high technology manufacturing type employment in a high quality built and landscaped environment'	MetroLink is fully compliant with all relevant development plans as is outlined in the Planning Report submitted as part of the Railway Order application. In particular section 3.6.1.2 of this document addresses the FCC Development Plan 2017-2023 and MetroLinks compliance with same.
7	6.0 Concerns on Submitted Application	6, 7	The application is a clear infringement on the existing standard of access as it will be significantly impacted at construction and operational stages of the development, if approved.	Refer to response number (2) and (3) above.

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Letter Re: ABP Ref. No. NA29N.314724 Railway (MetroLink - Estuary to Charlemont via Dublin Airport) Order				
8	6.0 Concerns on Submitted Application	7	The full impact of the proposal on our client's premises has not been adequately demonstrated in the submitted documentation. Our client's access routes and gates will be the subject of temporary acquisition during the constructional stage of development. While these lands are stated to be temporarily acquired, no finite amount of time has been provided, creating an uncertainty on the length of time our clients will suffer from the loss of their lands. As stated, construction is anticipated to take upwards of 5 years along this specific area and this would impact the amenity afforded to our client's dwelling, as well as having severe implications on the existing business,	TII acknowledge that the landtake, both temporary and permanent, proposed for the MetroLink Works will have an impact on this business, particularly maintaining access. Please refer to response numbers (2) and (3) above. Where landtake is of a temporary nature, its primary function is to provide room to facilitate access to the business and property as well as to install hoarding and site demarcation. TII will agree the details of the full treatment for reinstatement with the owners on completion of the works. We understand that the duration of any disruption during the construction phase is a matter of concern for your business. We acknowledge that the current anticipated timeline for the impact may appear excessive. However, TII want to assure you that we are fully committed to minimising this duration to the best of our ability. See EIAR Chapter 5, MetroLink Construcion Phase, section 5.2.2.
9	6.0 Concerns on Submitted Application	7	As demonstrated in the following image, the access to our client's dwelling will completely be impacted by the proposed route. It is indicated that the existing entrance will be 'reinstated' for use by the owners, staff and clients of the veterinary clinic. However, this access will entail traversing the railway line to the premises which is quite a hazard. This issue is further worsened by the frequency of the route, with the Planning Report submitted by the Applicant noting that the trains will be operating 19 hours per day, 365 days a year; with 20 no. trains operating per hour at a frequency of three minutes in the opening year operations between trains. The trains are expected to be 64m long trains running up to every 100 seconds at peak demand. This will cause unsurmountable levels of disruptions and to accessing and existing the site and may result in clientele of the veterinary clinic seeking alternative veterinary practices, thus damaging the viability and vitality of the premises. This impact has been neglected by the planning application.	Access to and from the Surgery are to be reinstated. As this section of railway is below ground and in a cut and cover structure (and thus grade separated from the entrance road) and finished with an appropriate vehicle restraint barrier, there is no hazard nor conflict between the Veterinary practice entrance and MetroLink operations. See Plan Drawing No. ML-RO-301 S-T where hatched lines indicate below ground (tunnel) sections including across the property entrance.

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Letter Re: ABP Ref. No. NA29N.314724 Railway (MetroLink - Estuary to Charlemont via Dublin Airport) Order				
10	6.0 Concerns on Submitted Application	8	Our client is also concerned with the extent of works located along the northern boundary of the veterinary clinic lands, including any required excavations, tunnelling and rail laying that will occur. Such works will have significant disturbances on our clients' property including by way of, for example, noise, vibration and dust generation.	Chapter 13 Airborne Noise and Vibration includes an assessment of airborne noise and vibration from the construction of the project. Chapter 13 presents the potential significant airborne noise impacts, with Table 13.44 summarising potential significant noise impacts during construction of the cut and cover and retained cut sections of the route. The predicted magnitude of impact at this location is Significant to Very Significant, prior to the consideration of any noise mitigation (included below). In order to mitigate airborne noise, an outline Construction Environmental Management Plan (CEMP) has been prepared and is included as Appendix A5.1. This is a working document that will be updated by the contractor prior to commencement of construction and regularly as the project progresses. The key principals for mitigation measures for airborne noise & vibration impacts are as follows: - Noise control at Source: Selection of quiet plant, site layout, attenuation at source, operational control (hours and periods); - Noise Control along Pathway: Localised screening to plant items on site, enclosures, site buildings, site hoarding and noise barriers; and - Noise Control at Receiver: Noise Insulation (NI) - Hoarding is proposed at this location with a height of 4m. - Prior to the commencement of the construction works at each compound, the Contractor will conduct an individual site assessment to verify the height and position of screening to control noise impacts based on the most up to date construction methodologies and input data. - An outline CEMP was prepared as part of the EIAR and it will continue as a live document for the appointed contractor to use throughout the construction of the project. Chapter 14 Groundborne Noise and Vibration considers the assessment of groundborne noise and vibration from the construction and operation of the project. Groundborne vibration from piling along this section of the route is discussed in Section 14.4.1.1 which concludes that there will be no significant vibration from works at any buildings, including at this location. As provided in the Outline Construction Environmental Management Plan (CEMP) within Volume 5 Appendix 5.1, standard working hours will apply at this location. In preparation for the construction phase, the appointed contractor will prepare their Construction Environmental Management Plan (CEMP) in accordance with the requirements set out in the outline CEMP in EIAR Appendix A5.1 addressing all construction environmental issues such as noise and dust generation. The contractors CEMP will include a Construction Noise & Vibration Management Plan (CNVMP). The contractor will consult with and obtain the approval of the CEMP from Fingal County Council prior to commencing the works. TII will utilise best practice techniques to curtail dust generation including: hoarded compounds, wheel wash facilities and dust suppression for all areas prone to dust (damping down, water misters / sprays, local extraction and filtering). Public health impacts are not anticipated as the dust levels on site will be controlled to strict levels for protection of the workforce in accordance with statutory health and safety legislation.

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Organisation Name or Name of Submitter			Metro South West Group	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Case reference: NA29N.3 14724- MetroLink. 314724 Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin. 22nd November 2022				
1	Statement	1	For the avoidance of any doubt we are fully supportive of the project from Estuary to St. Stephen's Green, which we consider is long overdue.	TII note and appreciate the submission and the positive endorsement of the MetroLink Project.
2	Observations of Metro South West Group	1	We submit, however, that Bord Pleanala should defer the authorisation of the section of MetroLink beyond the St. Stephen's Green station, other than to create a turning section similar in length to that which is currently proposed beneath Manders Terrace.	In regards to the observation that MetroLink should not extend beyond St Stephen's Green, for the reasons set out below TII disagree. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to Metro with a Metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the Metro in all the above directions. The proximity of the Metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the Metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).

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3	Observations of Metro South West Group	1	We further believe that the decisions made now will affect the provision of necessary rail infrastructure, for South West Dublin for generations to come and, we respectfully request you to consider, carefully, the content, findings and analyses contained in this submission to support our case.	The proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) in which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future Metro extensions to serve the south west, south or south east of the city region should sufficient demand arise. Please also refer to response (2) that explains why Charlemont is preferred to St Stephen's Green for making future provision to the south.	
4	Observations of Metro South West Group	2	1. Limitations of Charlemont terminus for radial extensions to south city and the consequences for south west Dublin We believe that if the tunnel is bored as far as Manders Terrace, it seriously compromises the ability for a southern extension to include the highly populated city suburbs of Portobello, Lower Rathmines, and Harold's Cross. We would submit that proper planning requires a proper evaluation of the options for extension and, that it is not consistent with proper planning to permit a station at Charlemont with would compromise the options.	TII disagree that a southern extension is compromised by locating a MetroLink interchange at Charlemont for the reasons set out by responses (2) and (3) above. The GDA Transport Strategy 2022-2042 (published in January 2023), section 12.3.8 Additional Luas Lines Post-2042, further notes that the analysis undertaken for the Transport Strategy indicates that a number of corridors in the GDA will, in the longer term, generate travel demand above that which can be catered for by higher capacity bus systems and are likely to require upgrading to light rail in the period after 2042. The planning and design work associated with this longer term framework can commence during the strategy period. The Green Line Reconfiguration is proposed to provide a city centre line to Bray via UCD and Sandyford, however this is subject to the detailed appraisal, planning and design by the NTA. TII therefore consider "proper planning and proper evaluation" has been undertaken that is appropriate for informing the wider GDA strategy. Further, as noted by response (2) above, by extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the Metro. Future Metro services south of Charlemont do not form part of the Metrolink scheme. TII's role is to deliver Metrolink as supported by the Transport Strategy for Greater Dublin Area (2022-2042) and Dublin City Development Plan 2022-2028. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy. The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport, and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the southwest, south or southeast of the city region should sufficient demand arise."	
5	Observations of Metro South West Group	2	2. Failure to consider an alternative routing, notably towards Rathmines as outlined by Metro South West Group We would submit that the Rathmines, or Portobello, area would be a far more suitable location for a terminus, including linkage with BusConnects corridors. TII has wholly failed to consider this. The south side terminus became relevant once it was decided not to convert the Green Line Luas to Metro.	Response (4) above explains why a MetroLink interchange with the Luas Green Line at Charlemont is preferred.	
6	Observations of Metro South West Group	2	3. Potential Environmental/Climate Action benefits of an alternative extension route. We believe that a metro extension as far as Rathmines would, initially, yield immediate benefits environmentally for South West Dublin, and avoid adverse environmental impact on the Grand Canal.	Response (4) above explains why a MetroLink extension south of Charlemont has not been considered.	

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7	Observations of Metro South West Group	2	4. Inadequate plan for the supply of Public Transport to SW Dublin, and the critical need, at this juncture, for correct decisions to be made in relation to the MetroLink trajectory into South Dublin in the future. A proper feasibility study for continuing MetroLink to South West Dublin needs to be carried out.	As previously noted by response (4) above, the GDA Transport Strategy 2022-2042 (published in January 2023), section 12.3.8 Additional Luas Lines Post-2042, notes that the analysis undertaken for the Transport Strategy indicates that a number of corridors in the GDA will, in the longer term, generate travel demand above that which can be catered for by higher capacity bus systems and are likely to require upgrading to light rail in the period after 2042. The planning and design work associated with this longer term framework can commence during the strategy period. The Green Line Reconfiguration is proposed to provide a city centre line to Bray via UCD and Sandyford, however this is subject to the detailed appraisal, planning and design by the NTA. TII therefore consider "proper planning and proper evaluation" has been undertaken that is appropriate for informing the wider GDA strategy and the decisions made, that include where MetroLink interchanges with the Luas Green Line, with provision made for further planning and design work to build on the analysis undertaken to date that has informed the Transport Strategy.

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8	Observations of Metro South West Group	2	5. Many practicalities of linking MetroLink with the Luas Green Line at Charlemont have not been addressed. Many practicalities have not been addressed including passenger conflict on platforms and stairs; turning of trams.	This observation is incorrect. EIAR Chapter 4, Description of the MetroLink Project details the urban realm and landscaping design at Charlemont Station, including the key architectural design principle to 'improve the Luas connection at the ground level through additional stairs and lifts.' As noted, the Charlemont MetroLink station will have surface connectivity to the Luas Green Line along Grand Parade and has two entrances/exits from the station, one onto Grand Parade and one onto Dartmouth Road. The Grand Parade exit provides connectivity to the Luas stop with additional path width provided between the two modes of transport to minimise conflict between passenger movements. The path widths and circulation routes are improved between the entrance and Luas stairs and access lift on the western side of the Charlemont Luas Stop, mitigating passenger conflict. The Luas and MetroLink trams will not conflict as the Luas Green Line is elevated at this location, whereas the MetroLink station will be underground. A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers. Please refer to Chapter 9: Traffic & Transport, Appendix A9.2-B Traffic and Transport Assessment Charlemont Station, section 6.1.3. Pedestrian Impact Assessment. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. Chapter 9: Traffic & Transport, Appendix A9.2-B Traffic and Transport Assessment Charlemont Station, section 6.1.3. Pedestrian Impact Assessment refers. The proposed pedestrian crossing on Grand Parade will have minimal impact on the traffic flow along Grand Parade and can be programmed to operate in sync with the existing signalised junction at Grand Parade /Charlemont Street to maintain the flow of traffic movements. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Chapter 9: Traffic & transport, Appendix A9.2-B Traffic and Transport Assessment Charlemont Station, Section 6.1.2. refers. Furthermore, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus. As referred to in EIAR Chapter 6 section 6.8.1 , the proposed Project has been designed to ensure maximum interchange with other modes of transport, specifically more sustainable modes of transport such as walking, cycling and public transport. To ensure that MetroLink provides sufficient capacity, and as outlined in EIAR Chapter 6, MetroLink Operations and Maintenance, the operational strategy of the proposed Project is driven by the forecasted passenger demand. Passenger demand modelling has been used to predict the numbers of passengers boarding and alighting at each station, and the resulting passenger load on the whole Project, for up to 30 years after opening. Passenger modelling identified that passenger numbers may peak at over 18,000 passengers for the AM peak hour southbound . As is common practice, MetroLink has been design to accommodate these peak hour levels irrespective of when they may occur. On the basis of the modelling prepared for the proposed Project and allowing for future growth in capacity beyond the projection year, the proposed Project is designed to accommodate 20,000 passengers per hour per direction and a train fleet comprising 40 trains for the Forecast Year (2065).

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9	Observations of Metro South West Group	3	6. Break of Aarhus Convention. We believe that the lack of consultation on important changes is a breach of the above.	EIAR Chapter 8, Consultation details how early and continuous public participation has influenced the design and development of the MetroLink project, including the identification of the Preferred Route. The chapter documents the extent and nature of public, stakeholder and landowner consultation and participation that has taken place over the course of the Project's development. It also addresses how the MetroLink Project Team responded to the submissions and feedback received during the non-statutory consultation periods. The MetroLink Project Team has at all times endeavored to ensure the widest possible access for the public, stakeholders and landowners to information about the project at all stages of its pre-planning development. Further, EIAR Appendix A8.19 Meetings Register provides a record of 9 No. meetings held with Charlemont and Dartmouth Square residents spanning a period from May 2019 to May 2022. In this regard, it is intended that the consultation undertaken in respect of the MetroLink Project will, when the railway order application process is complete, fully meet the requirements of the Aarhus Convention, Codified EIA Directive and Irish national legislation.	
10	Observations of Metro South West Group	3	7. Continuing MetroLink beyond St. Stephen's Green to Charlemont and Manders Terrace is unnecessary and premature. We believe that investigation now into the MSWG's suggestion of choosing an alternative terminus e.g.: Portobello / Cathal Brugha Barracks in Rathmines * Could bring Transport User Benefits and Revenue from a station at Portobello. * Cost approx. €650m (matching cost to Charlemont) * Lay the foundation of the Metro to the south west * Aid climate actin in the south west.	TII do not agree with the statement that "Continuing MetroLink beyond St. Stephen's Green to Charlemont and Manders Terrace is unnecessary and premature." for the reasons set out by TII's responses to the observations made by this submission. TII have also responded to why Charlemont is preferred for reasons of providing the best interchange with the Luas Green Line, whilst future proofing the Green Line by bypassing the capacity constrained Luas on-street running section and ensuring potential future connectivity options are enabled, either to the Green Line or for extensions of the metro.	

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Organisation Name or Name of Submitter			Michael A Doyle and Carmel Smith Doyle	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Metrolink Railway Order 2022, Estuary to Charlemont, Reference Number NA29N.314724				
1	Letter	1	I live at 34 Dartmouth Road..... Firstly, in general, I am in favour of the broad aim of the Metrolink project to connect Dublin's city centre to our national airport. However, as a resident living in the Dartmouth/Charlemont area, I wish to set out a number of observations, for the Board's consideration, regarding the proposal to locate the Terminus station at Charlemont-Dartmouth. My family home is in the midst of the community where the Terminus station at Charlemont is proposed to be located, and is dangerously close to the proposed very deep pile insertions and deep station box excavations. I would request that An Bord Pleanála give very serious considerations to the important issues raised in this submission, and, in consequence, mandate Planning Conditions appropriate to the nuisance value inherent in this application for a major transport hub located in a heretofore quiet Victorian residential location.	Thank you for taking the time to make a submission and your overall endorsement of the MetroLink Project generally. We have reviewed your submission and responded to the observations made below. TII would like to assure you that at no time will the safety of this property and its occupants be placed at risk, noting that the construction of the station and tunnels will be monitored, including surrounding ground and building movements, with predetermined trigger levels aligned with action plans to ensure movements do not exceed acceptable levels.
2	SETTLEMENT ZONE	4	SETTLEMENT ZONE The calculated size of the Settlement Zone is based on the centre line of the tunnel, or the secant wall, and extends for a distance of 1 to 2.5 times the depth of excavation, that is 30 to 75 meters, either side of the tunnel centre line. Projected settlement will be at maximum values close adjacent to the tunnel/secant wall centre line, and will taper away to zero at the edges of the Settlement Zone, forming a Settlement Slump Trough. Houses spanning the edge of the settlement zone, (which might appear to be at lesser risk) are apparently at increased risk, due to differential settlement, producing a hinge effect, and consequently, more serious cracking.	TII would like to provide assurance that the impacts of construction generated ground movements on 34 Dartmouth Road have been assessed. The approach taken by TII for assessing the impact of construction generated ground movements reflects the industry standard three-phased ground movement impact assessment process that is undertaken on tunnelling and underground projects around the world, that includes Channel Tunnel Rail Link (CTRL), Dublin Port Tunnel, Crossrail and High Speed 2. EIAR Appendix A 5.17 Building Damage Report, covers; how the zone of influence for ground movements has been determined for both tunnel and cut and cover construction (illustrated by the 1mm contour shown on the drawings in Appendix C, with further detail provided by response (3) below), the assessment methodology and parameters used, and the assessed impacts of construction generated ground movements and settlement (that includes account being taken of differential movement), that includes for the assessed impact on 34 Dartmouth Road. EIAR Appendix 5.17 refers. Despite this property being in close proximity to the station box excavation, the Phase 2 assessment of the assessed impact on this building is "slight" (an explanation for which can be found in Table 4-4), please refer to building B151 (32 Dartmouth Road) in table 5-2 of that appendix. As your property is in close proximity to the station box excavation, the assessment work undertaken for the EIAR has determined that your property along with other similar neighbouring properties have been designated as "special" (please refer to section 4 Subsidence Damage Assessment Methodology of Appendix A5.17). Consequently, the property will be subject to a further Phase 3 refined assessment (despite the impact only being assessed as 'slight') to take account of final design and construction methodology details. The Phase 3 assessment will most likely utilising advanced numerical modelling techniques and further surveys of the building. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. Monitoring instrumentation will also be installed in the area to monitor the performance of the works and potential environmental impacts, including ground movements to ensure that acceptable limits, determined as part of the Phase 3 assessment, are not breached. TII would also draw attention to the fact that private properties within 50m of the station excavation, or 30m of the tunnel are eligible to subscribe to the Property Owners Protection Scheme (POPs). The Property Owners' Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor.

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3	EXTENT OF SETTLEMENT	5	EXTENT OF SETTLEMENT The maximum settlement to be expected is extremely difficult to predict accurately, and will be influenced by, amongst other things, construction methods adapted, secant wall deflection, ground conditions, soil composition, and inevitable changes to the existing water table. Some engineering research would suggest that, even with the employment of modern best practice, settlement of 7mm to 15mm could be expected. Research by Moormann and Moormann, 2002, suggests little improvement has been made in the amount of settlement behind the wall, and that displacements in the range of 1% of the excavated depth should be expected. Other research (Peck, 1969) suggests settlement behind secant walls averaged at 0.2% to 0.4% of excavated depth, which in this instance is 90mm! Compounding the alarming settlement projections caused by the deep secant wall, and subsequent excavations, wall deformations, and disturber water table, the whole of the residential stock within the established slump zone will be subjected to further compounding settlement disruptions with the arrival, and departure, of the TBM tunnelling process, some two years later. Engineering research experience has shown that projection of accurate expected settlement is usually unreliable, and results usually fall within certain ranges above or below the expected. Expect the unexpected.	EIAR Appendix 5.17, section 4.2 explains the methodology, empirically based and industry recognised approach to estimate the predicted ground movements generated by tunnel, and cut and cover construction, taking account of the design, construction methods and ground conditions. TII agree with the observation that ground movements can be challenging to predict and hence the parameters used by TII to predict ground movements are intentionally conservative, and are based on documented empirical data. Settlement and horizontal movements for retaining wall construction and bulk excavation associated with the station box and retaining walls have been undertaken based on the case history data documented in CIRIA Report C760 “Embedded retaining walls – guidance for economic design”, taking account of the ground conditions, proposed design and construction methodology. Further details for which can be found in EIAR Appendix 5.17, section 4.2.5. The TBM will be of the type that maintains positive pressure to the face and surrounding ground while the segmental tunnel lining is installed, thereby allowing ground movements to be closely controlled and minimised. TII would also note that TBM entry and exit from the station box will be sealed, with possible ground treatment to further stabilise the ground if required, to manage ground movements within acceptable limits. The prediction of tunnelling generated ground movements has been undertaken in accordance with the volume loss methodology outlined in CIRIA PR 30. This is an empirical method based on the percentage of tunnel volume excavated that is over and above that required for the tunnel itself. The calculation of the resultant settlement trough requires the derivation of a number of ground factors, these are explained in EIAR Appendix 5.17, sections 4.2.2. to 4.2.4. Similar to the cut and cover ground movement predictions, conservative volume and trough width parameters have been selected to ensure the ground movements predictions at this stage are robust.	
4	EFFECT OF SETTLEMENT ON VICTORIAN HOUSES	5	EFFECT OF SETTLEMENT ON VICTORIAN HOUSES The compounding effects from very deep pile boring, very deep excavations, driving a TBM tunnel, and changing water tables, all in immediate proximity to Victorian houses without proper foundations, are likely to present enormous problems in accurately predicting settlement. All of the buildings under consideration are dangerously close to the projected centre line of the Settlement Slump Zone, some no more than 7 meters away from the bored piles. Settlement of 10mm, probably the minimum disturbance to be expected, will have profound effects on old buildings, built without proper foundations. Greater displacements than 10mm are to be expected. This will result in cracks to internal walls, to brickwork in facades, over window openings, door openings, and structurally weak building fabric links. The effects of settlement, following the driving of a TBM below residential property, have been well observed. The following periods of displacements have been documented. Ahead of approaching TBM face, Slight upward rise/deformation. At TBM cutter face, 6% of expected settlement, At TBM cutter shield, 30% of expected settlement, At TBM ring build, slurry fill to gap, 46% of expected settlement. Major settlement should be established by 10 days, to 8 weeks, but could be longer lasting, subject to local conditions. As old, more flexible, brick-built housing respond to imparted stress and strain, deformation of building fabric could take years to manifest.	Responses (2) and (3) above explain the conservative approach and methodology that has been taken by TII to estimate construction generated ground movements, and therefore why TII consider this ground movement impact assessment to be robust. The concern around foundations is noted, however TII would note that the ground movement impact assessment assumes the building flexes and follows the greenfield settlement profile. This is conservative since the building will have some inherent stiffness, but it provides a worst case for assessing the risk of damage to the property. EIAR Appendix 5.17, section 4.3 provides further detail on the approach taken to assess the impact of ground movements on buildings, noting as observed, that differential settlement and the point of inflection of the tunnel generated settlement trough are key points of note when assessing the impact of ground movements on buildings. As noted by response (2) above, movement monitoring will be undertaken. This will cover the pre-construction phase to establish a movement baseline, construction phase movement monitoring, and close-out movement monitoring. During the construction phase this will be linked to pre-determined trigger values and response plans to ensure movements do not exceed unacceptable levels. Condition surveys will also be undertaken pre and post construction, and will be linked to movement monitoring to establish when construction generated ground movements have ceased to cause potential impact.	

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5	SETTLEMENT, SUMMARY	6	SETTLEMENT, SUMMARY Tunnel engineering and secant wall design is a sophisticated and vastly complex endeavour, demanding the services of teams of greatly skilled and experienced professional engineers, across many fields of specialty. It is something we, as a community, know nothing about. What is obvious, however, is that this project will have an enormous impact on our lives, our properties, and our community. It has the potential to greatly disrupt and destroy our lives and our community, and cause great and permanent damage to our homes. Information on the effects of all of the above, insofar as they are included at all, were presented only in The Railway Order Submission, which was lodged far too late to enable us, or our advisers, to carry out any suitable or comprehensive analysis, or draw any satisfactory conclusions. We would request of An Bord Pleanála to insist of full clarification of engineering data, in the form of a formal written response, including all drawings, graphs, calculations, and clear and precise explanations of the following;	Responses (2), (3) and (4) above explain the robust and conservative construction ground movement impact assessment that has been undertaken, and how this will be supported by pre and post construction condition surveys and a monitoring programme to ensure ground movements do not exceed acceptable limits, so that "great and permanent damage" is not caused to your home. TII acknowledge that MetroLink is a significant project, and your particular and understandable concerns regards the proximity of 34 Dartmouth Road to the construction of the proposed Charlemont Station, and while TII are of the view that the construction environmental impacts can be mitigated, relocation is an available option during peak construction. TII are available to discuss this option if that is something the property owner would like to explore and consider. TII understand the complexity and voluminous nature of the material submitted under the Railway Order Application. However TII would note that the statutory time limit in relation to public consultation have been adhered to.
6	SETTLEMENT, SUMMARY	6	1.1 ACCURACY OF DEPICTION OF BORED PILES ON DARTMOUTH ROAD, Drawings do not accurately reflect actual position of bored piles.	The drawings do depicted the location of the station structure in relation to Dartmouth Road. Please refer to the submitted Railway Order drawings, Structures Details, Book 2 of 3, drawing ML1-JAI-SRD-ROUT_XX-DR-Z-02090, which indicates the outline of the station external walls (Diaphragm Wall piles) in relation to the properties along Dartmouth Road.. The EIAR Chapter 5, MetroLink Construction Phase, Section 5.10.13 and Appendix A5.3 Section 8.14, also indicates the position of the station wall and explains the proposed construction of Charlemont Station. Further information of the depth of the proposed station structure is provided on station floor level structural plan drawings ML1-JAI-SRD-ROUT_XX-DR-Z-02092 to 02095 together with associated longitudinal section Drawings ML1-JAI-SRD-ROUT_XX-DR-Z-02096.
7	SETTLEMENT, SUMMARY	6	1.2 SOIL CONDITIONS, Soil analysis of complete zone of excavation. Soil analysis of zone of tunnel boring. Soil analysis of proposed zone of ventilation tunnel.	Soil baseline conditions and soil analysis are described in EIAR Chapter 20 (Soil and Geology). Please also refer to Appendix A20.2 where a summary of the relevant exploratory boreholes are included, Appendix A20.4 which includes geological models for each station and Appendix A20.8 which presents a land contamination report. Further data in relation to Charlemont is also available within appendices A20.1 to A20.9. Specific data for Charlemont, refer to: *Appendix A20.2 - Table 20.2.4: List of Exploratory Hole Locations in AZ4, 'Charlemont' ('Within Works Area' and within '250m of Works Area'). and Table 20.2.5: Summary of Groundwater Monitoring Locations 'AZ4 - Charlemont'. *Appendix A20.4 - Page 18 of 18 refers to Charlemont Station, including areas of main and proposed ventilation tunnels.
8	SETTLEMENT, SUMMARY	6	1 .3 PROJECTED SOIL SUBSIDENCE, Engineering review of projected subsidence, Review of proposed remediation.	These matters are refer to in responses (2), (3) and (4) above.

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9	SETTLEMENT, SUMMARY	6	1.4 WATER TABLES, Review of existing established water table, water courses. Projection of future water table, changes, and consequences.	Baseline assessments were undertaken for surface water and groundwater along the proposed project alignment from Estuary Station to Charlemont Station. Details of watercourses along the route of the proposed project can be found in EIAR Chapter 18 (Hydrology). The proposed alignment will cross beneath the Grand Canal at Grand Parade, with baseline conditions presented in section 18.4.3.4.6. The River Dodder was used as a monitoring point for surface water near Charlemont. Baseline conditions for the River Dodder can be found in Section 18.4.3.4.7. Other water features identified near Charlemont are Ranelagh Gardens and Swan River, which is mostly culverted (Table 18.10). The alignment will be tunnelled beneath these watercourses. The potential impacts on hydrology (surface water) during both the construction phase are presented in Section 18.8, with mitigation measures presented in Section 18.6, and residual impacts once mitigation measures have been implemented in Section 18.7. With mitigation included as part of the design, the magnitude of impact on Charlemont is temporary and not significant. There are no negative residual impacts on surface water near Charlemont. There is no increased flood risk and no significant impacts to canal / river / stream morphology. Full data supporting Chapter 18 is provided with Appendices A18.1 to A18.5. A review of the baseline groundwater quality is presented in Section 19.4 of EIAR Chapter 19, Hydrogeology. An assessment of potential impacts on groundwater, mitigation measures and residual impacts following the implementation of measures are also presented in EIAR Chapter 19. Further detailed information on groundwater quality, flow, and "barrier effect" assessments are presented in the appendices to Chapter 19. Results and summery text are presented in EIAR Appendix A19.1. Following the implementation of mitigation measures there are no negative residual impacts predicted on groundwater at Charlemont. Full data supporting Chapter 19 is provided with Appendices A19.1 to A19.11.
10	SETTLEMENT, SUMMARY	6	1.5 PRECISE TUNNELLING SYSTEMS PROPOSED, TBM proposed. Shield procedure, Ring erection, Gap grouting and time scale. Remediation procedures and face pressures.	Further to response (3), the EIAR Chapter 5: MetroLink Construction Phase, Section 5.5.3 Tunnelling describes the tunnelling requirements proposed to deliver the Project. Further details of the Tunnelling Systems and Operation for MetroLink is contained within EIAR Appendix A5.13, TBM Tunnels Construction Report. This document sets out the strategy and outline methodology for the construction of the TBM tunnels on MetroLink providing the details necessary for the completion of the assessments for the EIAR. The precise tunnelling systems deployed on the project will be subject to further detailed tunnel design, including the selection of the TBM and the development of final tunnelling plans by the MetroLink appointed Contractor. The methods and control of the TBM operation will be set out to meet the requirements of the Construction Environment Management Plan (CEMP), as referred to in Chapter 5, Appendix A5.1 Outline CEMP. The Contractor CEMP is subject to DCC review and approval in advance of construction commencement.
11	SETTLEMENT, SUMMARY	6	1.6 PROJECTED SECANT WALL DEFORMATIONS. Projected secant wall deformation at east boundary. Projected wall deformation at south boundary. Projected soil settlement in consequence thereof. Remediation proposals.	Please refer to responses (2), (3) and (4) above that explains the approach taken by TII to assess the impact of construction ground movements, and the assessed impact. Ground movement as a consequence of piling has been accounted for in the assessments. Please refer to A5.17, section 4.2.5 Ground Movement Due to Station Boxes and Retaining Walls, including reference to top down construction method chosen, minimising local settlement as excavation progressed.
12	SETTLEMENT, SUMMARY	7	1.7 ZONE OF SETTLEMENT. Precise maps of projected zone of settlement. Settlement slump trough graphs. Precise indication of properties to be effected. Scale of projected settlements.	All of these items are contained within EIAR Chapter 5, Appendix A5.17.
13	SETTLEMENT, SUMMARY	7	1.8 RANGE OF PROJECTED SETTLEMENT. Range of projected settlement for individual houses in slump zone. Projected settlement of 45mm is alarming for Victorian houses.	The predicted settlement is shown on the settlement contours in Appendix 5.17, Appendix C. Please also refer to responses (2), (3) and (4) above that explains the approach taken by TII to assess the impact of construction ground movements, and the assessed impact. Whilst the concerns of property owners is recognised, the impact on overlying properties has been assessed based on the predicted settlement and the results have concluded that no structural impacts will occur. It is further of note that the assessment to date is moderately conservative and over estimates the impact.

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14	SETTLEMENT, SUMMARY	7	1.9 CHARACTER OF ADJACENT BUILT ENVIRONMENT. The existence of foundations. Analysis of foundations for all effected properties. Projections for settlement for all effected properties. Remediation proposals for all effected properties.	Please refer to response (2), (3) and (4) above.	
15	SETTLEMENT, SUMMARY	7	1.10 PROJECTED DURATION OF SETTLEMENT, Precise projections for duration of TBM pass. Projections for settlement at shield pass, Projections for settlement at ring erection. Projections for duration of damage and settlement in future years.	TII will be able confirm the schedule for the TBM upon award of the main works construction contracts and finalisation of the construction programme, noting that the TBM will only take a day or two to pass your property. TII and their contractor will consult with residents to ensure they are aware of the time the TBM will pass. As noted by the above responses, in particular (2) and (3), a ground movement impact assessment has been undertaken in accordance with recognised industry best practice. It is expected that ground movements will occur almost immediately as the tunnel is excavated. When the TBM is approaching, typically the construction monitoring period will commence 100m ahead of the TBM face, and will continue until it is clear that the immediate ground movement is complete. Typically, this is once the tunnel has progressed 50m beyond that asset. Thus, for TBM tunnelling the construction period relating to any monitoring point is unlikely to exceed 4 weeks for each tunnel drive, but noting that follow-on 'close out' monitoring will continue until MetroLink generated ground movements can be demonstrated to have reached a level that will have no impact on the surrounding environment. For the construction of the station (cut and cover construction), construction movements will be considered to have ceased sufficiently when the wall together with any permanent props or diaphragms are complete, and immediate construction movements have ceased, at which point construction period monitoring will cease. Upon which follow-on 'close out' monitoring will continue in the same manner as described for tunnelling above. As noted above, condition surveys will also be undertaken pre and post construction, and will be linked to movement monitoring to establish when construction generated ground movements have ceased to cause potential impact.	
16	SETTLEMENT, SUMMARY	7	1.11 EVALUATION OF DAMAGE, COMPENSATION DISTURBANCE, AND DEVALUATION OF PROPERTY. Precise details for evaluation of damage to property. Precise details of evaluation of compensation. Precise details for evaluation of permanent devaluation of property Implications for house insurance/damage. Caretaking of abandoned houses during re-locations. Security of houses during re-locations.	Responses (2), (3) and (4) above have outlined the assessed impacts of construction generated ground movements on your property. As noted by response (2), private properties within 50m of the station excavation, or 30m of the tunnel are eligible to subscribe to the Property Owners Protection Scheme (POPs) which includes for pre and post-construction condition surveys and repair of damage. TII would also draw attention to the Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) where there is a process in place whereby further mitigation measures can be implemented at individual properties should this be merited. TII also confirm that while of the view that the construction environmental impacts can be mitigated, relocation is an available option in certain circumstances during peak construction. TII are available to discuss this option if that is something the property owner would like to explore and consider. TII would also confirm that in the event of relocation, TII would be responsible for caretaking and securing of any property from which persons have vacated as a result of choosing to relocate. TII do not agree that the development will have a long term and permanent negative affect on the value of your property. In fact there is evidence to suggest that property values will in fact increase in close proximity to public transport infrastructure and that local residents will greatly benefit from having a world class metro system providing access to the city centre, airport and north city at their door step. The benefits of the project for all communities along the MetroLink route are described in Chapter 3: Background to the MetroLink Project, section 3.4 MetroLink Response to Challenges.	

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17	2. CONSTRUCTION STAGE, DUST, NOISE, AND VIBRATION.	8	2. CONSTRUCTION STAGE, DUST, NOISE, AND VIBRATION. Severe disruption from construction traffic, pile boring, excavation, tunnelling and on-going construction activities are a given, quite probably lasting for up to 9 years. This is an intolerable proposal, for us personally, and all the residents of Dartmouth Road.	TII acknowledge that the Project will cause disruption to residents, particularly during the partial and full closure of Dartmouth Road. While the duration of the Project will take 9 years to complete at Charlemont, the main activities contributing to the most significant impacts are anticipated to be completed in the first 5 to 6 years. The EIAR and associated appendices present the proposed mitigation measures for the Project. Chapter 13 and Chapter 14 of the EIAR identifies the required mitigation measures for noise and vibration associated with the Project, Chapter 16 provides mitigation measures associated with dust, and EIAR Appendix A9.5 Scheme Traffic Management Plan provides details of the proposed traffic management during the construction phase. Further detail on mitigation measures are provided in Appendix A5.1 Construction Environmental Management Plan (CEMP) and Appendix A16.4 Dust Management Plan. In summary: Dust / Air Quality Construction Phase EIAR Chapter 16, Air Quality, section 16.6 Mitigation Measures. The potential risk from dust emissions has been reviewed for the most important activities and each of the construction areas. Before commencing relevant works, an Air Quality Management Plan (referred to in section 16.6.1 Construction Phase) will be prepared and submitted for approval to the planning authority. The plan will take account of all relevant dust and emissions applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. The plan will be developed by the contractor and for each worksite shall include: - An inventory and timetable of activities which may give rise to emissions or dust; - Alert levels; - Alert system to be used (including notification process); - Details of control measures; - Details of dust monitoring arrangements, including the location of sensitive receptors, monitoring locations, and monitoring equipment to be used; and - Details of the air quality reporting requirements. In order to ensure that no dust nuisance occurs, a series of measures will be implemented, as detailed in Appendix A16.4. In summary, the measures will include: - Material handling systems and site stockpiling of materials designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; - Any blasting will be completed by specialised contractors with a specific blasting dust management plan; and - Hoarding will be provided around the construction compounds.

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			Response (17) continued.	Strict dust prevention will be in place at all times to minimise any potential emissions and these procedures will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations. Consistent implementation of good dust minimisation practices will ensure that the impact from construction dust is long-term, localised, reversible and not significant when considered with respect to the Environmental Protection Agency (EPA) description of effects (EPA 2022). Construction Noise and Vibration Potential impacts identified due to airborne noise and vibration are presented in EIAR Chapter 13. Noise mitigation proposed for works at Charlemont Station are summarised in Section 13.6.1 of the EIAR and include for boundary hoarding around the working area, including a 4m high hoarding at the southern boundary. In addition, the above ground support works for below ground sprayed concrete tunnelling works will be enclosed within an acoustically clad steel framed building to control noise breakout to surrounding receptors. On the implementation of these measures the residual impacts at 34 Dartmouth Road, are predicted to be Moderate to Significant. EIAR Appendix A14.5, Groundborne Noise and Vibration and Blasting Modelling Results, 14.4 Section AZ4 Northwood to Charlemont presents the predicted vibration levels during TBM passage for various sensitive receptors and outlines the predicted VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) for TBM Passage during the day and night at 34 Dartmouth Road are 0.251ms-1.75 (VDV day) and 0.211ms-1.75 (VDV night) respectively. Both of these values are lower than the VDV Threshold Levels of 1.0ms-1.75 (VDV day) and 0.5ms-1.75 (VDV night). Levels of vibration during mechanical excavation of Charlemont Station are predicted to be 0.003ms-1.75 and 0.003ms-1.75 for day and night-time respectively. The threshold levels have been set in relation to human response to vibration, and thresholds for building damage are much higher. As the predicted levels of vibration from TBM passage and mechanical excavation are below these thresholds, no impact is predicted for either the building or for residents of this address. Predictions of vibration during blasting at Charlemont Station have also been made. For 34 Dartmouth Road an exceedance vibration level of 9.3mm/s PPV (Peak Particle Velocity) is predicted compared to the threshold level for this building of 8mm/s resulting in a potential significant impact. As a result, mitigation measures will be implemented to reduce the risk to buildings as outlined in EIAR Chapter 14, Section 14.5.1.2, including measures to reduce the impact of blasting through the preparation of specific blast design at each location, minimisation of the maximum instantaneous charge weight or alternatives to blasting. With the implementation of appropriate mitigation to reduce vibration from blasting the residual impact is predicted to be reduced to not-significant. The predicted level of groundborne noise during TBM passage is 48 dB LASmax at 34 Dartmouth Road, which is above the 45 dB LASmax threshold, resulting in a significant impact on the occupants of this address for the relatively short 2-week duration of the TBM passage. Unfortunately there are no effective methods available to reduce groundborne noise from TBMs at source and therefore the principal mitigation measure is advance consultation and engagement to inform residents of the timing of the TBM passing to allow building occupants to prepare for the temporary elevated noise levels. As outlined in Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (EIAR Chapter 14, Appendix A14.6) there is a process in place whereby further mitigation measures, including temporary relocation, can be implemented at individual properties should this be merited. Traffic Construction Phase (please see response (18) below regards particular access to 34 Dartmouth Road) EIAR Appendix A9.5 Scheme Traffic Management Plan presents the analysis undertaken to assess the impact of the traffic management measures on the local road network surrounding the proposed Charlemont Station during the construction phase. At the local level the following parameters have been used to assess impacts on general traffic and on pedestrians: • Increase in walking distance/quality of service for pedestrians (through removal of footpath, reduction of quality of service, removal of a pedestrian crossing or relocation of crossing by more than 100m); • Increase in driver delays at junctions; • Changes in traffic flows on surrounding streets; and, • Additional distance travelled due to diversions.

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			Response (17) continued.	The analysis undertaken at this location indicates that the increased volume of traffic on Grand Parade and Northbrook Road does not translate into any significant increase in driver delay. The largest increase in driver delay of 12 seconds is registered on the westbound approach on Grand Parade to the Ranelagh Road signalised junction. During the construction phase, pedestrians will experience a reduction in quality of pedestrian infrastructure and space. The construction site boundary will encroach upon footways in the local area, including the northern side of Dartmouth Road, and the southern side of Grand Parade. However, a temporary signalised crossing will be provided west of the Luas to maintain pedestrian access to and from the Stop. Whilst there are partial closures on Dartmouth Road and Grand Parade, pedestrian movements will be maintained on appropriately sized footways through the area. Overall Assessment TII understand your particular concerns regards the proximity of 34 Dartmouth Road to the construction of the proposed Charlemont Station, and while TII are of the view that the construction environmental impacts can be mitigated, relocation is an available option during peak construction. TII are available to discuss this option if that is something the property owner would like to explore and consider. Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (EIAR Chapter 14, Appendix A14.6) there is a process in place whereby further mitigation measures, including temporary relocation, can be implemented at individual properties should this be merited.
18	2.1 SCALE AND TIME-FRAME FOR CONSTRUCTION COMPOUND.	8	2.1 SCALE AND TIME-FRAME FOR CONSTRUCTION COMPOUND. The scale and scope of the proposed construction compound is totally unacceptable, and will result in intolerable living conditions for us as residents of 34 Dartmouth Road. It is proposed to close off the road, and erect a large high hoarding on the footpath outside our front door. Access to Dartmouth Road will be completely restricted, with no possibility parking anywhere near our houses, no facilities for delivery, collections, emergency services, and bin collection. Access will be extinguished, possibly for up to 9 years. Loss of daylight, light pollution and unbearable noise levels are proposed.	Response (17) above explains how during construction, dust, noise, vibration and traffic impacts will be mitigated. With regards to the following: Construction compound: The size of the main construction compound at Charlemont (4,200m3) is required to construct the Station. Please see section 5.3.1 of Chapter 5 for further information on construction compounds. The construction compound will be fully secured with fencing and hoarding surrounding all works areas to ensure there are no health and safety risks for local residents, and environmental impacts are managed to acceptable levels. Hoarding: This is necessary to secure the construction site, mitigate impacts on the landscape by concealing the construction site and activities, and as noted above, as a mitigation measure for noise.
			Response (18) continued.	In some locations, TII accept that the hoarding may cause annoyance due to disruption of sunlight but this is a necessary mitigation for noise and providing a secure and safe site. Road closure: It is correct that Dartmouth Road will be closed between Dartmouth Place and Dartmouth Square West during enabling works and construction works but diversions will be put in place for local access, including deliveries, emergency services, bin collection, and pedestrian access maintained to your property. The impacts on parking will be monitored during construction to reinstate any disrupted areas as soon as practicable. The impact on traffic around Charlement has been assessed within Chapter 9: Traffic & Transport, Appendix A9.5 STMP, with Figure 7.57 describing the closure of Dartmouth Road and diversions proposed. Lighting: This will be designed to ensure that artificial light emitted from the construction compound does not cause a nuisance to residents. Lighting will be positioned and directed so as not to intrude unnecessarily on adjacent properties. For further information on site lighting, see section 5.12.9 of Chapter 5 and EIAR Appendix A5.18 (Site Lighting Plan).

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19	2.1 MANAGEMENT OF INTERACTIONS WITH IMPACTED PROPERTIES.	8	We would request of An Bord Pleanála to insist of full clarification, in particular, of the following issues; 2.1 MANAGEMENT OF INTERACTIONS WITH IMPACTED PROPERTIES. How will this issue be addressed? Who is responsible? When will process be initiated? Who will be appointed to mediate between parties? Can RINA provide reference information, including international precedence, in this regard?	Please refer to Section 5.12.4.5 of the EIAR which outlines that a Stakeholder and Community Engagement Plan will be used to guide community and stakeholder engagement during the construction phase. Both TII and their contractors will be responsible for ensuring that local residents are informed with regard to works on an ongoing basis. The reference to RINA providing reference information, including international precedence is not understood, however TII can confirm that the services of an independent engineer will be made available during the construction stage to provide independent advice to affected stakeholders. The services of the Independent Engineering Expert (RINA) are due to be concluded on completion of the Railway Order process (expected in 2024). The continuation of provision of independent engineering advice for residential stakeholder groups throughout the enabling works and main construction stages of the MetroLink project is currently being considered as part of an overall comprehensive community engagement plan, which will include amongst other initiatives, the appointment of dedicated MetroLink liaison representatives and local community forums which will provide detailed updates on construction activities in their areas.
20	Impact on properties	8	2.2 MONITORING AND SURVEYING OF IMPACTED PROPERTIES. What is precedence in other countries for impacted properties? What monitoring and surveying of properties will take place during construction - frequency etc and mitigation, if issues arise, particularly secant/boring implications?	As described in the outline Construction Management Plan (Outline CEMP) (Appendix A5.1), the appointed contractor(s) will be required to develop and implement an Environmental Management System (EMS) that follows the principles of ISO 14001. The EMS will include an environmental policy, operational, monitoring and auditing procedures to ensure compliance with all environmental requirements and to monitor compliance with environmental legislation and the environmental management provisions outlined in the relevant documentation. Mitigation and monitoring will be carried out in accordance with the requirements of the EIAR and NIS so that construction activities are undertaken in a manner that does not give rise to significant negative effects. Suitable monitoring programmes will be developed, implemented, documented and assessed in accordance with the specification outline in the detailed CEMP(s). The results of all environmental monitoring activities will be reviewed by the Environmental Manager on an ongoing basis to enable trends or exceedance of criteria to be identified and corrective actions to be implemented as necessary. The contractor(s) will be required to inform TII of any continuous exceedances of criteria, noting that trigger levels will be set with pre-determined action plans to ensure acceptable limits are not breached. It will be possible to contact the site 24 hours a day to report an incident occurring. TII and its appointed contractor(s) will ensure that local residents, occupiers, businesses, local authorities and all other stakeholders affected by the proposed construction works, as outlined in this EIAR, will be informed in advance of work taking place. The notifications will detail the estimated duration of the works, the working hours and the nature of the works. In the case of works required in response to an emergency, local residents will be advised as soon as reasonably practicable. A local helpline number will also be provided and will be available to call 24 hours a day. Please also refer to response (2) and (4) above that outlines the approach to ground and building movement monitoring and condition surveys.
21	2.3 RELOCATION - SECURITY OF ABANDONED PROPERTIES.	8	2.3 RELOCATION - SECURITY OF ABANDONED PROPERTIES. If impacted residents need to be relocated what is the proposal regarding security, insurance, maintenance, and upkeep of existing properties.	Please refer to response (16) above. In the event that it agreed that resident moves out of their property during the construction, reasonable costs incurrent in relation to the vacated property will be borne by TII and the MetroLink project.

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22	3. OPERATIONAL STAGE, NOISE, AND VIBRATION.	9	3. OPERATIONAL STAGE, NOISE, AND VIBRATION. Noise and vibration from operational activities are a far more serious concern, in that this disruption will be permanent, and persistent. Once established, it will be impossible to have remedied - for instance, noise from Luas, of which we all have bitter experience. In this light, the following issues have some major relevance.	Operational Noise and Vibration EIAR Chapters 13 and 14 present a comprehensive and detailed assessment of operational airborne and groundborne noise and vibration. No residual noise impacts are identified at this location during operation. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and result in a not significant to slight impact when added to the prevailing noise environment. EIAR Chapter 13, sections 13.2.3.2 and 13.5.3.2.3 recognise that ventilation systems if not designed and mitigated effectively are potential noise sources. Section 13.6.2.3 outlines the detailed considerations that will be included in the design to ensure that the ventilation systems do not exceed limits as per BS 4142, including: • Reduction of induct flow rates; • Reduction of elements in the airflow; • In duct attenuators; • Orientation of grilles and louvres away from sensitive receptors; • Acoustic louvres; and • Anti-vibration mountings and couplings will be incorporated into the design to control vibration. Measures to mitigate noise from the use of public address systems is also detailed in Chapter 13 (sections 13.5.3.2.4 and 13.6.2.4). Best practice design principles will be employed to minimise noise breakout at the surface from these systems via escalators, lift shafts and stairwells. There are no significant impacts associated with this source.
23	NOISE AND VIBRATION FROM TRAIN MOVEMENTS.	9	NOISE AND VIBRATION FROM TRAIN MOVEMENTS. The problem of transmission of vibration and noise from passing trains in direct proximity to the Gate Theatre, and the Rotunda Maternity Hospital, is accepted as an issue in the Preferred Route Development Report 2019. It is noted (Appendix L. O'Connell Street Station, Page 12) that 'with appropriate mitigation this is not envisaged to introduce significant impacts' This would suggest that, under normal circumstance, significant impact could be expected. It is acknowledged that the type of track support, amongst other things, chosen for the metro system can have a significant impact on the level of vibration transmitted to receptors - for example, High Density Floating Track Systems offer best practice and best protection. This system is, however, more expensive to install. It is noted that High Density Floating Track Technology measures would be implemented at the Gate Theatre and Rotunda Hospital, as mitigating measures, suggests that the remainder of the track, and ordinary receptors, would be afforded no such luxury. <u>Attending at the Gate Theatre in an optional leisure activity.</u> <u>Trying to sleep in your own house is not.</u> It is anticipated trains will operate at up to 45 second intervals.	Airborne noise from trains within the tunnel and station will not be audible at ground level. The principal noise source associated with operational trains is groundborne noise which has been fully assessed in Chapter 14. No significant impacts are determined. Noise and vibration mitigation measures for trains are only proposed at locations where very sensitive equipment would be vulnerable from interference arising from the passage of the trains. The predicted levels of noise and vibration at Charlemont are well below limits that will effect residents and therefore the installation of floating track slab is not proposed at this location. Further information on the how these requirements were set is available in Chapter 14: Groundborne Noise and Vibration, section 14.5.2 Operational Phase, with proposed locations set out in Table 14.47. Further details on setting the requirements is provided in Appendix A14.3 Track Support Systems Assumptions.
24	NOISE FROM VENTILATION SHAFTS, EXTRACT FANS, AND FIXED PLANT.	9	NOISE FROM VENTILATION SHAFTS, EXTRACT FANS, AND FIXED PLANT. No proper assessment of the potential for permanent noise pollution from massive shaft excavation fans and fixed plant, located just below ventilation grills, at ground level, at Dartmouth Road and Dartmouth Square West, is presented. These fans will presumably run continually day and night. This is an intolerable proposal, for a quiet residential area, and we would request of An Bord Pleanála to insist on alternative methodology.	Please refer to response 22) above that outlines the approach that will be taken to ensure fans do not cause disturbance and nuisance.

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25	NOISE AND NUISANCE FROM ESCALATORS.	10	NOISE AND NUISANCE FROM ESCALATORS. Escalators are noisy - they rattle and groan continually, and grow noisier with age, as parts naturally age with usage. The escalator proposed for the Dartmouth Road exit/entry is exceptionally long, by any standard. These escalators will run continuously from early morning, probably 0530hr, to midnight, or later. The operation of roller shutter enclosures at escalator entrances is also a cause of concern, as such operations will always, by their nature, be very early in the morning, or very late at night. They are proposed to be located in direct proximity, in front of our house at Dartmouth Road. Again, we consider this to be an intolerable proposal, for a quiet residential area, and we would request of An Bord Pleanála to insist the removal of the second entrance to the station proposed for Dartmouth Road.	Escalators located within the stations will be modern equipment and will therefore not rattle or groan, or generate unacceptable noise levels. MetroLink assets such as escalators will also be subject to a maintenance regime detailed in a Maintenance Plan that will be developed by the operator as noted in Chapter 6, Table 6.5. Mechanical elements associated with escalators are housed below ground and are fully enclosed. The station entrance to the south of Charlemont station is located approximately 30m from the properties along Dartmouth Road. The operation of escalators do not generate any notable noise sources during operation and will not be audible above the prevailing noise environment to the adjacent residential properties across Dartmouth Road which is dominated by road traffic. The station entrances are enclosed with gates, there are no roller shutter doors proposed at the station entrances. Finally, noise levels arising from the station during the operational phase will be required to adhere to limits to ensure that there are no significant effects and a BS 4142 (BSI 2014 +A1 2019) assessment will be carried out to compare the external background sound level in the absence of plant items (such as an escalator) to the background sound level with the plant items when operational as noted in Chapter 13, Section 13.2.6.2.4.
26	4. NOISE, AND ACOUSTIC CALCULATIONS.	10	4. NOISE, AND ACOUSTIC CALCULATIONS. No proper analysis of the effects of noise pollution has been carried out for the houses at Dartmouth Road. This is an alarming omission, as these houses are the closest located adjacent the station entrance, permanently running escalators, late night traffic and travellers, and general anti-social behaviour generally associated with metro stations. (International evidence for same in general circulation).	It is not correct to say that "No proper analysis of the effects of noise pollution have been carried out". Assessments of airborne and groundborne noise during both the construction and operational phases have been undertaken for houses on Dartmouth Road, as presented within chapters 13 and 14 of the EIAR, and summarised by responses (22) to (25) above. The predicted noise from escalators is addressed by response (25) above. With regards to stations entrances, these are transient areas for passengers entering and exiting the station. These activities are not the source of significant noise generation and form part of the existing soundscape in the existing prevailing environment. It is acknowledged footfall numbers will increase in the vicinity of the station entrance, however this activity does not translate to significant noise impacts. TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus and pick-up point. With regards to the management of anti-social behaviour please refer to response (29) below.
27	LUAS EXPERIENCE.	10	LUAS EXPERIENCE. Many people in this area have suffered permanent disruption to their lives by the introduction of the Luas. Much legal wrangling ensued, but the experts could produce calculations in court, proving their figures averaged out to non- disturbance levels, over selective timeframes. The residents continue to live with the results.	TII believe the opening of the Luas line has benifited the local community. Previous proceeding in respect of its environmental impact are not a matter for this Railway Order Application.

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28	5. TRAFFIC PROJECTIONS.	10	5. TRAFFIC PROJECTIONS. A look at the map of South Dublin will reveal only one probable scenario - everybody heading to the airport from South Dublin will descent on Dartmouth Road for passenger drop-off, private transport, taxis, and buses. Foot passengers, with their rattling suitcases, will descent on the area, both day and night. Taxis will loiter. It is hard to image a more lucrative set-down area for a taxi to linger, day and night, than that proposed for Dartmouth Road. (There is ample space for a set down taxi bay, inset into the wide footpath at the office building entrance on Grand Parade, yet this location was not chosen for a set down bay!)	Transport modelling undertaken by TII does not show that "everybody heading to the airport from South Dublin will descend on Dartmouth Road for passenger drop-off, private transport, taxis and buses.", for the reasons explained below. The MetroLink forms part of an integrated public transport network. The system is designed in an integrated manner so that people travelling from the area south of Dublin to access locations north of Charlemont, such as Dublin Airport, Mater, Swords etc. will utilise public transport to interchange with the MetroLink, or will walk or cycle to access their local station. The system is not designed to encourage people to drive to stations within the City, and TII actively discourage people from doing so other than the Park & Ride station at Estuary. As noted in Appendix A9.2-B Charlemont Traffic and Transportation Assessment, when the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car trips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usage/trips and will facilitate walking and cycling to the station, without significantly impacting on the operations of the road network in the area. As a result, significant increases in traffic flow to or on Dartmouth Road are not anticipated. The number of active modes trips (walking and cycling) to and from the station is shown to increase when the Project is in place, demonstrating a shift towards sustainable modes at this location. This also reinforces that a proportion of passengers at this station will originate from, or have destinations, within the walking catchment of the station, as opposed to originating from South Dublin. Appendix A9.2 B Charlemont Traffic and Transportation Assessment section 5.1.1.4 indicates that Charlemont Station is served by the Luas Green Line which runs every 15 minutes or better, with bus services located within a 5-minute walking distance. As a result, Charlemont passengers are characterised by high levels of public transport interchange, rather than 'foot passengers'. A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase to assess the impact of the increased number of pedestrians at this location. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the Project station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator would also be provided at this location. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade would be repositioned to the front of the Hines Building. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. As noted in Chapter 06 (MetroLink Operations and Maintenance), the Project has been designed to ensure maximum interchange with other modes of transport, specifically with sustainable modes such as public transport, walking and cycling, over cars. Furthermore, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus. As noted above, there will be reductions in the number of car trips to and from the surrounding zones when the Project is operational. An area for drop off for limited mobility passengers is provided on Grand Parade.	
29	6. ANTI SOCIAL BEHAVIOUR.	11	6. ANTI SOCIAL BEHAVIOUR. The likely scenario of noisy inebriated passengers disgorging from the MetroLink station on Dartmouth Road, at midnight, is not hard to imagine. Combined with taxis waiting for fares, this all paints a disquieting picture.	The interchange will certainly increase the number of people passing through the area, however it is important to note that people will be using MetroLink, similar to Luas as a transport hub, moving quickly in and out of the area. The station will not be a destination attracting people to remain in the area. As noted above, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus.	

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30	7. REMOVAL OF CHARLEMONT STATION FROM RAILWAY ORDER.	11	7. REMOVAL OF CHARLEMONT STATION FROM RAILWAY ORDER. It is our contention that the proposed Metrolink should be terminated at St Stephen’s Green West, and should not be at Charlemont location. St Stephen’s Green west is a perfect opportunity to make proper interconnectivity with Luas, and proposals for the Dart underground system. Charlemont is a totally unsuited location, being a quiet residential area.	Arising from the decision to postpone the future upgrade of the Green Line to metro services, it is being argued that Charlemont station effectively becomes a terminus station in the short to medium term. In this regard, it is true to say that the Metrolink trains will terminate and turn back at Charlemont station, however the public transport service offering for passengers does not terminate, it transfers from Metrolink to LUAS as part of the integrated transport network. The terminus station for MetroLink is located at Estuary where all of the activities normally associated with a terminus (train sideways, car parking etc) take place. At this location the high capacity public transport offering terminates and the public transport offering transfers to a completely different mode, i.e. Bus or car. The environmental effect of the Metrolink terminus are accordingly assessed in the EIAR. Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a “system turn back location”. Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. The associated environmental impacts for the turnback and station at Charlemont have been fully assessed in the EIAR. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services, as outlined above. The section of the line between St Stephen’s Green and Charlemont generates considerable benefits for the scheme in terms of increased patronage. Operationally, the Station will see people moving quickly in and out of the area, noting that it will act as an interchange, and has been deliberately designed with minimum set down space or room for taxis so that it does not encourage the Station to be used as a terminus. All operational environmental impacts are mitigated so they are not significant, while the impact on amenity will be permanent and positive. TII do not agree that Charlemont is the incorrect location for an interchange with the Luas Green Line for the reasons set out below, noting that the above responses have addressed how the environmental impacts will be managed and mitigated where required, during both the construction and operational phases of the Project. A number of route options were considered in the process of identifying the Emerging Preferred Route (EPR). Route alignments from St. Stephen’s Green West that would also provide an interchange with DART at Tara Street Station would require an intervention shaft between these locations and would also need an undesirable horizontal reverse curve and so are not favoured. As outlined by EIAR Chapter 3, Background to the MetroLink Project, one of the key objectives of the Project is the integration of it with the wider transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more liveable and sustainable city. The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant.	

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			Response (30) continued.	The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all any of the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at the St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location.

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Organisation Name or Name of Submitter			Michael A Doyle and Carmel Smith Doyle	
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			Response (30) continued.	The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). As stated above, it is important to note that the proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) in which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.

Submission No.			191	
Organisation Name or Name of Submitter			Michael B. Barry (7 Frankfurt Avenue)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022				
1	Letter	1	Just to begin, in a general sense, I want to say, that in my opinion, the Metrolink is an excellent initiative. Dublin needs a substantial investment in improving public transport - and this is an essential part of this.	Thank you for taking the time to make this submission and your positive endorsement of the MetroLink Project.
2	Letter	1	Location of Southern Terminus I suggest that the terminus of this Phase 1 (northern) of the project should be located at St Stephen's Green, as opposed to the present plan to end the line at Charlemont (with the 200 m run-on). The route for the ongoing continuation of the Metro (a Phase 2) to the south of the canal has not been determined, and I understand it is under study. There is a strong possibility (and in my opinion, it makes sense) that the southern part of the Metro will swing south west to cover Rathmines, Terenure, Templeogue etc. (in other words the south-western quadrant of Dublin city where, uniquely, there is no rail-based public transport to meet transport needs - demand there is solely provided by buses). Putting the terminus at Charlemont predetermines the outcome of the study of options for Phase 2, as if the Metro does swing over to Rathmines direction, in that case it would have to take an abrupt turn westwards.	TII do not agree that MetroLink should end at St Stephen's Green for the reasons set out below. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at the St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. See EIAR Ch7 Section 7.7.8, Table 7-16 (Passenger interchange section) The section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). See EIAR Ch7 Section 7.7.8, Table 7-16 (Passenger interchange section) The GDA Stategy 2022-2042 confirms that " The south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.

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3	Letter	1	Additionally, If the Luas Green Line is allowed to continue as is, and not being subsumed by the Phase 2, southern, Metro, there is logic in choosing St Stephens Green as the interchange between the Metro and The Luas Green Line (for both its northern and southern directions).	Please refer to response (2) above that explains why the interchange with the Luas Green Line at Charlemont is preferred to St Stephen's Green.
4	Letter	1	Thus locating the terminus of Phase 1 at St Stephen's Green, would allow for all future options. Just a comment on the location in St Stephen's Green: it would better to move the Metro Station to the western side of the Green, nearer the existing Luas stop to make it easier for interchange with the Luas Green Line.	St. Stephen's Green West was ruled out as the alignment between the proposed Tara Station and a station on St Stephen's Green West would result in an undesirable horizontal reverse curve and an alignment greater than a 1000m long that would necessitate an intermediate intervention shaft located somewhere between these stations to comply with the MetroLink Fire Strategy. Further, as a potential station location, St Stephen's Green West itself is a very constrained location due to the presence of buildings, Luas and St Stephen's Green Park. Maintaining the Luas operational during station construction would be complex and challenging with significant disruption expected, whilst the impacts on St Stephen's Green Park would be greater for a station in this location compared to the proposed location on St Stephen's Green East. This would be the result of; the likely need to place more of the station in the Park compared to the proposed station on St Stephen's Green East; it would impact an area of the Park that has greater amenity value than St Stephen's Green East due to the nearby Park entrance adjacent to the southern end of Grafton Street, and there would be a risk of impacting the existing Park lake. In summary, an alignment that links the proposed Tara, St Stephen's Green East and Charlemont stations is a more direct and economic alignment, does not require additional intervention infrastructure, avoids a complex engineering interface with the Luas Green Line, impacts the Park less and has less potential for disruption during the construction phase. As outlined by EIAR Chapter 3, Background to the MetroLink Project, one of the key objectives of the Project is the integration of it with the wider transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more liveable and sustainable city.

Submission No.			192	
Organisation Name or Name of Submitter			Senator Michael McDowell	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
2023 Metrolink Railway Order Planning Observation - Senator Michael McDowell, Leinster House, Dublin 2 - 16 th of January 2022				
1	Introduction	1	Metrolink risks damaging a lot of Dublin's transport resources. This submission focuses primarily on the problems of locating the terminus in Charlemont for both residents and commuters. As an advocate for preserving historical structures, I am particularly concerned about how many buildings will be destroyed due to Metrolink's construction.	Thank you for taking the time to make a submission. TII have reviewed your submission and responded to the observations made below. TII do not agree that "Metrolink risks damaging a lot of Dublin's transport resources" and in fact does the opposite. EIAR Chapter 3, Background to the MetroLink Project, explains how the proposed Project will provide significant benefits not only to those who choose to use it, but also to other transport network users, by generating a modal shift from private car use, thereby reducing the demand for road space and creating the opportunity for the road transport system to achieve optimum levels of efficiency and effectiveness. Also as outlined in Chapter 3, the proposed Project is part of an integrated transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more liveable and sustainable city. Whilst MetroLink is a standalone project that is not dependent on any other projects for its delivery or effective operation, it is nonetheless a critical part of the proposed integrated transport network for the Greater Dublin Area. With regards the destruction of buildings, TII would first of all note that the destruction of buildings, taken in this context to mean demolition, is always regrettable and TII fully appreciate and acknowledge the very significant impact this has on owners and tenants. Where demolition has been proposed, this has only been done so after careful consideration and evaluation of the impacts and benefits. In most cases TII have been able to preserve the architectural heritage of property, as outlined in EIAR Chapter 26 Architectural Heritage. TII also appoint a Project Conservation Architect (PCA) to oversee the MetroLink works. Considering the significant length of the proposed alignment through a primarily urban area, the number of buildings to be demolished is considered to be minimal (refer to EIAR Chapter 21, Land Take, Table 21.5) reflecting the efforts TII have taken in the design to achieve this. As outlined in Chapter 26 of the EIAR, properties of architectural heritage value that are to be demolished will be recorded by the Project Conservation Architect (PCA) by means of photography and a written description to English Heritage level 2 prior to demolition.
2	Problems for Commuters and Local Residents Near Metrolink Stations	1	The roads in the Charlemont area are very narrow. If drivers want to drop off or collect commuters from the terminus, it will cause congestion and other traffic-related issues.	TII have undertaken detailed transport modelling, further details below, that shows MetroLink will not cause congestion and related traffic issues. TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus, and instead as intended, as a through transport corridor. The MetroLink is designed to form part of an integrated public transport network with Charlemont selected as the preferred interchange location in order to maximise the potential interchange with the existing Luas Green Line. In overall terms, Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers.
			Response (2) continued.	In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. The proposed pedestrian crossing on Grand Parade will have minimal impact on the traffic flow along Grand Parade and can be programmed to operate in sync with the existing signalised junction at Grand Parade /Charlemont Street to maintain the flow of traffic movements. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. The EIAR Chapter 9: Traffic & transport, Appendix A9.2-B Traffic and Transport Assessment Charlemont Station, Section 6.1.2. refers.

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3	Problems for Commuters and Local Residents Near Metrolink Stations	1	The construction of the interchange at Charlemont will involve tunnelling deep enough to avoid the Grand Canal and the main sewerage line serving Tallaght that runs alongside it. This will continue southwards for 360 metres in order to create a “turnback facility” for an underground station located beside Dartmouth Square.	Yes this observation is correct.
4	Problems for Commuters and Local Residents Near Metrolink Stations	1	Most of the bus routes nearby run through Rathmines, Ranelagh and Terenure. Many commuters will have to walk for at least 10 minutes. This causes significant difficulties for people with disabilities and others with mobility issues. For this reason, transport routes must overlap. The Metrolink Station for St Stephen’s Green also presents similar problems.	The choice of Charlemont as a station location and interchange point is based on robust analysis that has identified that this location provides significant passenger numbers for the proposed MetroLink. Passengers using MetroLink will arise from (1) The ability for an immediate interchange with Luas (which is one of the key project objectives), (2) passenger demand modelling which identified significant demand within the catchment served by this station, and (3) It should also be noted that the proposed station is within a 5-minute walk distance of the Bus Connects proposed A Spine and E Spine routes. The proposed Project has been designed on the principle of Access for All and as outlined above there will be a drop off location at Charlemont station for people with restricted mobility only. The location of the St Stephens’ Green station was chosen as it will provide interchange with DART at Tara Street. One of the key project objectives is to maximise interchange opportunities with other public transport and a station location at St. Stephen’s Green West did not allow for the key interchange with DART services. A number of route options were considered in the process of identifying the Emerging Preferred Route (EPR). However these options were ruled out primarily on the basis that they did not allow for an economic alignment that would allow for interchange with other public transport. Further it should be noted that there is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen’s Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers.
5	Problems for Commuters and Local Residents Near Metrolink Stations	1	The Green Line of the Luas will have to be closed for two years as the Charlemont Station is being constructed. This will no doubt put a strain on Dublin’s transport infrastructure. Metrolink will also cause other problems for commuters living on the Green Line in the Ranelagh area.	The construction of the MetroLink Charlemont Station will not interfere with the operation, or require the closure of the Luas Green Line.
6	Problems for Commuters and Local Residents Near Metrolink Stations	1	College Gate apartments, Townsend Street, Markievicz Leisure Centre, and Ashford House on Tara Street will all have to be knocked down to build Metrolink. Local residents have been left in a state of limbo as a result of these decisions.	As noted above, TII regret any demolition of property, and fully appreciate and acknowledge the very significant impact this has on owners and tenants. Where demolition has been proposed, this has only been done after careful consideration and evaluation of the impacts and benefits. TII appreciate that this is a worrying time for owners and residents and will offer compensation to property owners for land that is deemed to be acquired land in accordance with the general compulsory purchase code through the Compulsory Purchase Order (CPO) process. This is set out in EIAR Chapter 21 Land Take, section 21.6.1.2 Compensation for Compulsory Purchase. TII are committed to working with the residents who will be affected to find an agreeable resolution. While it regrettable that demolition of properties is required to enable the construction of MetroLink, TII believe that in the longer term station greatly enhance and improve the local area and will ultimately bring benefits to those living in proximity the proposed station.

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2023 Metrolink Railway Order Planning Observation - Senator Michael McDowell, Leinster House, Dublin 2 - 16 th of January 2022					
7	Demolition of Historical and Protected Structures	1	Building the Metrolink terminus in Charlemont will cause damage to the historic Dartmouth Square residential quarter by the imposition of a deep interchange.	TII acknowledge the architectural and historical significance of the Dartmouth Square buildings and recognise that the properties are also designated Protected Structures. Hence the properties are included in the impact assessment and presented in the EIAR Chapter 26 (Architectural Heritage), Table 26.26, BH-581 to BH-617. TII can provide assurance that structural damage will not be caused to Dartmouth Square properties. Both the impact of construction generated ground movements and vibration have been assessed. EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on Dartmouth Square where the prediction for settlement is not to exceed the 'Slight' category, an explanation for which can be found in Table 4-4 of the aforementioned report. The assessment work undertaken for the EIAR has determined that properties adjacent to the site along Dartmouth Square have been designated as "special" and hence a further Phase 3 refined assessment will be undertaken that will take account of final design and construction methodology details most likely utilising advanced numerical modelling techniques and further surveys of the building. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. Monitoring instrumentation will also be installed to monitor the performance of the works and potential environmental impacts, including those discussed above to ensure that acceptable limits, set as part of the Phase 3 assessment, are not breached. TII would also draw attention to the fact that private properties within 50m of the station excavation, or 30m of the tunnel are eligible to subscribe to the Property Owners Protection Scheme (POPs) which includes for pre and post-construction condition surveys and repair of any damage attributed to the scheme. As outlined in chapter 26, the only impact on architectural heritage during construction or operation of Metrolink will be on the "BH-581 and BH-582: Dartmouth Square and Environs ACA and granite kerbing at Dartmouth Square" due to provision of utilities along Dartmouth Square West that will impact the steps leading down from Grand Parade to Dartmouth Square, with potential impact on granite steps, granite kerbing and historic concrete lamp standards. Following mitigation, which will be prepared by the Project Conservation Architect (PCA), the residual impact will be reduced to slight.	
8	Demolition of Historical and Protected Structures	1	Under the current plans, the Carlton Cinema dating from 1938, will be demolished. This was a landmark in O’Connell Street for decades until its closure in 1994. Other neoclassical and art deco buildings will also be destroyed.	Before submitting the Railway Order application with proposals for demolition, TII have carefully considered and evaluated options and associated impacts and benefits, details of which are provided in EIAR Chapter 7, Consideration of Alternatives. Unfortunately, due to the available land, combined with the construction challenges associated with providing O’Connell Street Station, there is no means of retaining the Carlton Cinema structure, however the facade is retained in recognition that the property is on the Dublin City Record of Protected Structures (RPS) and the National Inventory of Architectural Heritage (NIAH). Prior to the demolition of number 52-54 O’Connell Street Upper, the building is to be recorded to English Heritage level 3. The recording of associated coal cellars to facilitate propping of the facades, the demolition, and the propping of the facade will be carried out in accordance with a method statement approved by the Project Conservation Architect (PCA). As referred to in response (7) above, to ensure the protection of the facade during construction, vibration and settlement monitoring equipment will be installed and monitored to ensure that at no time do vibrations or settlement exceed given limits. As covered in response (7) above, in the event of predetermined trigger limits (set through the Phase 3 assessment process) being breached, all work in the vicinity will to stop until the cause of the issue is identified and resolved.	
9	Suggestions	2	South Dublin County, in their Tallaght Town Centre LAP (2020-2026) proposed running a light rail transport facility through the area. Although some feasibility studies have said relying on Bus Connects is the best for Dublin South West, many have noted that the existing public transport infrastructure underserves the area.	TII's role is to deliver Metrolink as supported by the Transport Strategy for Greater Dublin Area (2022-2042) and Dublin City Development Plan 2022-2028 . The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy. The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise."	

Submission No.			192	
Organisation Name or Name of Submitter			Senator Michael McDowell	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
2023 Metrolink Railway Order Planning Observation - Senator Michael McDowell, Leinster House, Dublin 2 - 16 th of January 2022				
10	Suggestions	2	At an Oireachtas Committee earlier this year, Mr Hugh Creegan said one of the reasons for choosing Charlemont as a terminus is that it would allow the Metrolink to be expanded to Dublin South West at a later point. If there were a plan to have a Metrolink Station in Dublin South West now, this would likely cause fewer transport disruptions after Metrolink is built. It's not plausible that there is no space to build a Metrolink terminus in either Terenure, Rathfarnham, Templeogue, Knocklyon or Firhouse. There are also no plans to run the metro through Portobello, Rathmines, Harold's Cross or the Cathal Brugha Barracks site, which will be a large residential area in years to come. Rethink Metrolink drafted a transport strategy consultation submission. This should be reviewed so adequate changes can be made. Peter Twamley Railway Order application for the MetroLink Project submitted 30 September 2022 also makes important points that should be considered.	As noted by response (9) above, the location of the interchange at Charlemont does not preclude onward extension south. TII therefore do not agree that MetroLink proposals require a rethink, and TII also confirm they have responded to the submission made by Peter Twamley, noting also that the connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport.
11	Suggestions	2	Metrolink will not be built until 2032 at the earliest. However, it's development is likely to be delayed. It won't be operational until 2042, in all likelihood. The budget for Metrolink initially was €4 billion; it has grown to approximately €20 billion within the last five years. The money being spent on Metrolink could be invested in other areas of our transport infrastructure such as light-rail, which would not be as disruptive.	The Board is not responsible for any decisions in relation to the funding the Project. It is solely responsible for assessing whether the Project is consistent with proper planning and sustainable development and that its effects on the environment are acceptable. The responsibility for funding the Project lies with the NTA, the Government and ultimately the Oireachtas. It has received all necessary approvals, including under the Public Spending Code for the making of a Railway Order. It will undergo further scrutiny and approvals, including under the Public Spending Code, before it is funded. It is not appropriate for the Board to make findings in relation to value-for-money that are outside its statutory functions and would cut across those arrangements. Members of the public are entitled to make representations to their TDs in relation to the value-for-money of any element of the Project. In any case, as noted by response (1) above, MetroLink will deliver significant benefits and thus return on its investment, by generating a modal shift from private car use and the associated benefits that brings with it. Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision. The opening of MetroLink is currently forecast for 2035, not 2042 as stated.
12	Conclusion	2	Significant changes are required to the plans for Metrolink. Situating the terminus for the Metrolink in Charlemont will cause significant problems for both commuters and residents. The city's southwest will continue to be underserved even after its construction. Given the cost, disruptions, and time it will take to build, it would be better for the government to focus on developing surface Luas-like tram lines in the medium to long term. This could be developed quicker and will cause minimal disruptions by comparison.	TII do not agree that "Significant changes are required to the plans for Metrolink". TII have undertaken detailed transport modelling, that shows a MetroLink station at Charlemont will not cause congestion and related traffic issues, and in overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Future possible extension of the metro has been considered as reflected by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." Finally, MetroLink will deliver significant benefits and thus return on its investment, by generating a modal shift from private car use and the associated benefits that brings with it. This was reflected in July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII.

Submission No.			193	
Organisation Name or Name of Submitter			Michael Quinn (resident - 20 Saint Teresa's Place, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Railway Order Application - Metro North: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin - 20 Saint Teresa's Place, Glasnevin				
1	Letter	1	Having been a resident of the area since 1984 I am objecting on the strongest possible grounds to the proposed works that could be involved if the project were to go ahead in its current format. One of the many reasons that I have remained living in the area and in such a contended manner is because of the importance of the local community to me. The area has always been a vibrant place to live that is welcoming in equal terms to both strangers and locals. The environs of Phibsboro and Glasnevin could be described as being multi-cultural and self- supporting in many ways. The sporting facilities available to those of that age with an interest in same are numerous and very well used. Living here we have free access to the second largest green space (Glasnevin Cemetery and The National Botanic Gardens) in Dublin. This feature has and continues to be a major attraction to me. I believe that the work that would be involved in creating Glasnevin Station at Cross Guns Bridge would have a major impact on the infrastructure and fabric of this quiet, low profile and well established residential area.	TII wish to thank you for your submission and understand the concerns you may have around the construction of Glasnevin Station. We have reviewed the submission and provided a response below in relation to impacts that are anticipated in your residential area. Your broad concerns of potential impacts of the Project on the local community are noted. While regrettable, where impacts of significance do occur, these are mitigated through the EIAR, with details provided further in this response below. Access to the local green space amenity referred to in your response is unaffected by the Project. Where sporting facilities have been impacted, alternatives have been considered in the EIAR planning, as referred to in Chapter 21, section 21.6.1.5 Protection of Sports and Leisure Facilities. The benefits of the Project locally, such as improved air quality, the stimulation of economic activity and the enhancement of amenity around Glasnevin, as with other proposed stations of the MetroLink and the city of Dublin generally, is provided in EIAR Chapter 3: Background to the MetroLink Project, section 3.4 MetroLink Response to Challenges. Station Construction: The EIAR Chapter 5: MetroLink Construction Phase, Appendix A5.5. Glasnevin Construction Report describes the sequencing and methodology required to construct the proposed Glasnevin Station. TII recognise that the Glasnevin Station development is a complex project with key interfaces with other infrastructure stakeholders and is proposed to be located in proximity to residential areas. However, appropriate mitigations have been proposed to minimise the impact of the construction works as much as practicable within the local environment. The programme for the construction of the proposed Project has been optimised to minimise the duration (102 months) of the Construction Phase, where possible, in order to lessen the duration of potential environmental impacts, while ensuring that the areas surrounding the works sites remain operational and functional. Due to the construction of the station and the two commuter platforms for Iarnród Éireann, there is a requirement to modify the track layout and alignment at Glasnevin, which involves lowering a large section of the track by circa 2m and modification to the existing junction. A coordinated approach for the track lowering is proposed to avoid closing both railways at the same time for the station construction works, in order to minimise the severity of the impact. Following consultation with Iarnród Éireann, closure of the Sligo/Maynooth (MGWR) line for a period of 21 months is proposed, reopening before the immediate closure of the Newbridge/Hazelhatch (GWSR) line for 5 months. For further information, refer to the EIAR Chapter 5: MetroLink Construction Phase, Appendix A5.2 Construction Programme and Appendix A5.3 Construction Sequence Report (section 8.7. Glasnevin). Working Hours: As presented in EIAR Chapter 5, Section 5.2.4 Working Hours, the majority of works will be done during standard working hours, from 07:00hrs to 19:00hrs on weekdays (excluding Bank and Public Holidays) and from 07:00hrs to 13:00hrs on Saturdays. There are however some activities that will require 24h per day working and in the case of Glasnevin station these are: •Sliding new rail bridge into position; •MEP station works; and •Blockades or weekend possession work required with Irish railway Great Southern and Western Railway (GSWR) and Midland Great Western Railway (MGWR). Construction Environmental Management Plan: EIAR Appendix A5.1 Outline Construction Environmental Management Plan (CEMP) details the proposed programme for monitoring and mitigation to be implemented on the Project to ensure construction work thresholds are not exceeded. Detailed plans for air quality management, traffic management, and construction noise and vibration management, among others, will be prepared by the contractor(s) for the approval of Dublin City Council (DCC) before the commencement of works. Details of the requirements and approval process of the CEMP for construction are further set out in section 1.3 of Appendix A5.1. Given the distance from your residential area to the construction site at Glasnevin, not all impacts related to the construction site is anticipated to affect your residential area. Traffic and Transport: Chapter 9: Traffic & Transport, Appendix A9.5 Scheme Traffic Management Plan, section 7.6 Glasnevin Station, details the impact of the temporary traffic management measures on all road users. There will be slight increases in traffic flow on the R108 Prospect Road during the Enabling Works, with minimal traffic delays of 40 seconds. During the Main Works, the current traffic layout on R108 Prospect Road will be maintained, with no lane closures proposed. Royal Canal Way will be closed to local access, pedestrians, and cyclists; however, diversions are proposed to maintain access for all affected users, minimising the level of disruption within the community.

Submission No.			193	
Organisation Name or Name of Submitter			Michael Quinn (resident - 20 Saint Teresa's Place, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Railway Order Application - Metro North: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin - 20 Saint Teresa's Place, Glasnevin				
			Response (1) continued.	Noise and vibration: Details regarding noise and vibration levels for individual buildings near Glasnevin Station can be found in Chapter 13 (Airborne Noise and Vibration) and Appendix 13.7 (Construction Phase Modelling). A number of residences in Glasnevin in close proximity to the site have been identified with the potential to have significant noise impact during the construction phase. These are referred to in identified on Table 13.87 Glasnevin Station – Residual Significant Construction Noise Impacts – Daytime, and Table 13.88 Glasnevin – Track Possession works - Potential Residual Night-time Significant Construction Noise Impacts. Mitigation measures proposed include 4m high hoarding to the north, south, east, and west construction site boundaries which will significantly reduce any effect from noise. Given the distance from your residential area to the construction site, no airborne noise and vibration related to the construction site is anticipated at your residential area. At your property, noise impacts will arise from the TBM passage when the noise value (as presented in Chapter 14: Groundborne Noise & Vibration, Appendix 14.5 of the EIAR) of 46 dB will be above the threshold value of 45 dB resulting in a significant impact on residents for the limited duration during TBM passage. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from TBMs at source but noting that the duration of this impact will be in the order of up to two weeks as the TBM passes. TII will liaise with the residents to ensure the timing of these impacts are known. In any case where residual noise impacts remain during the construction phase the application of Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy will be implemented where eligibility has been established. Please refer to Chapter 14, Appendix A14.6. Air quality: Chapter 16 (Air Quality) details that there will be a generally negligible or slight negative impact on air quality in the vicinity of the proposed project at Glasnevin during the Construction Phase post mitigation. However, no exceedances of air quality standards are predicted once the measure set out in section 16.6 Mitigation Measures are implemented; therefore, no significant adverse human health impacts are predicted.
2	Letter	1	Concerns I have centre around the many unknowns as to what affect such works would have on the foundations of my house, what the likelihood of subsidence might be, what affect it would have on the insurability of my property as well as the impact that any additional traffic, noise and construction would have on the locality. I would ask that cognisance be taken of this submission and of the others that will be received from District 7 at this very important juncture in the future of our locality.	TII recognise and have considered the concerns raised in connection with the possible impact on the foundations of your property within the assessments undertaken within the EIAR supporting this Railway Order. EIAR Appendix A5.17, Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. As presented in Table 5.2, the assessments to date of 20 Saint Teresa Place indicate that the building (representative building B-141 on Table 5.2) falls into the Negligible damage category and hence further assessment is not required. The Negligible damage category assumes hairline cracks (< 0.1 mm width). Additionally a programme of ground movement monitoring will be implemented, with the monitoring locations informed by further analysis to be undertaken during the detailed design stage. Please refer to EIAR Chapter 5: MetroLink Construction Phase, section 5.4.11 Ground Settlement Monitoring and Mitigation Works. Setting aside the completion of the building assessment on your property as stated above, TII is committed to having a Property Owner Protection Scheme (POPS) in place prior to construction works commencing. The scheme allows residential property owners to register with TII if the property is within thirty metres of the edge of the MetroLink alignment or fifty metres of station structures. As part of this scheme, conditions surveys of applicable properties are undertaken in advance of construction activities that are likely to impact, which for this property will be the arrival of the TBM. Further details on this scheme is provided in Chapter 21: Land Take, section 21.6.1.4 Property Protection. TII confirm that the local geological and hydrogeological conditions were considered during the settlement assessment. For the geological conditions anticipated, the predicted impacts and mitigation measure are referred to in Chapter 20: Soils and Geology, sections 20.4 and 20.6 respectively. While the Hydrogeology assessments and mitigation plans are referred to in Chapter 19: Hydrogeology, sections 19.5 and 19.6 respectively. TII are not aware of any undue impact to insurability of individual properties arising from MetroLink works. We would not expect there to be any insurance considerations arising as was confirmed by Dublin Port. Similarly Insurance Ireland (representative body for Insurers) has not expressed any concerns at any time going back to 2008 when MetroNorth was first proposed. Please refer to response item (1) above for details for the impact of construction traffic and noise around Glasnevin Station and your property.

Submission No.			194	
Organisation Name or Name of Submitter			Ambassador_Millenium Theatre Company (MTC)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
MTC Cover letter - Re: Application by the National Roads Authority (operating as TII) for the Railway (Metrolink Estuary to Charlemont via Dublin Airport) Order [2022] Case Number. ABP-302010				
1	1. Introduction 1.7	4	There has been little substantive engagement by TII or discussion on mitigation measures prior to the submission of its application, and consequently MTC has had little time to consider the possible implications of the proposed development and to agree such mitigation measures in advance.	All mitigation measures have been carefully identified and assessed. Efforts were made to contact the landowner on more than one occasion prior to submission of the RO. TII continues to engage with landowners relative to their submissions
2	1. Introduction 1.8	4	MTC would welcome constructive engagement over the coming months so that the concerns outlined in our Report, are addressed by the TII as soon as possible.	TII have responded to all issues raised below but remain available if clarifications are require.
3	2. Proposed Development by TII 2.2	5	From what we can establish the proposed tunnel sits between around 16-1 8m below the ground level as it runs from Parnell Street, beneath the Ambassador Theatre. However, there are extensive below ground vaults at the Ambassador, and consequently the tunnel could be a little as 12m below the vaults in place. This does not appear to have been noted by TII in its application documentation. This raises immediate issues arise in connection with the possible construction impacts on the building structure at the Ambassador.	The Ambassador Theatre was surveyed in 2007 and the basements as noted were picked up on that survey together with the existing condition. These surveys have educated the damage assessment undertaken and TII are content that the assessment undertaken to date is robust, incorporating conservative parameters. On the MetroLink Project, the approach to ground movement and building damage assessment follows the industry standard three-phased ground movement impact assessment process that is undertaken on tunnelling and underground projects around the world, that includes Channel Tunnel Rail Link (CTRL), Dublin Port Tunnel, Crossrail and High Speed 2. The MetroLink tunnel has been assessed going under these properties at the depth and on the alignment proposed and TII are satisfied that the assessed movements will not lead to structural damage to these properties. EIAR Appendix A 5.17, Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. Table 5-2 of this report shows that your building has been assessed as falling within the "Slight damage" category currently (building reference B -81), an explanation for which can be found in Table 4-4 of the aforementioned report. Despite no structural impacts (only cosmetic damage) being assessed, as your building has been designated a "special" building it will therefore be subject to a further detailed assessment. Refer to EIAR Appendix A5.17. The Phase 3 assessment will take account of final design and construction methodology details. For the Phase 3 assessment, each building will be subject to detailed assessment on an individual basis. A detailed survey will be carried out as part of the Phase 3 assessment to provide the necessary additional information to inform this detailed analysis of how the individual elements of the building would be affected by the predicted ground movements. The method and extent of the detailed analysis will be determined on a case-by case basis and may include a more sophisticated semi-empirical or a detailed soil-structure interaction using finite element modelling methods. It is likely that the Phase 3 assessment will yield further improvement to the damage category determined by the Phase 2b assessment. The results of this refined assessment typically show that earlier assessments are conservative and over estimate the likely impact of construction generated ground movements. Details on the subsequent Phase 2b and Phase3 building damage assessments are presented in the EIAR Appendix A 5.17, Building Damage Report.
4	2. Proposed Development by TII 2.3	5	In addition to the construction impacts the potential long term zone of influence of the tunnels extends over the entirety of the Ambassador Theatre as set out on the drawing below.	The assessment noted above has taken all predicted movement in to account. Please note that once operational no further settlement impacts are anticipated.
5	2. Proposed Development by TII 2.4	6	The application, if granted, will also include powers for TII to acquire compulsorily land or rights in, under or over land or any substratum of land specified in the order: we understand that this will include substratum lands at the Ambassador although the MTC has not been advised of the extent of the lands this will impact.	TII wrote to the Millennium Theatre Company (letter reference CAP_ML_1175_48 dated 20th September 2022) and included all details with regard to the extent of subsurface acquisition proposed. Please refer to drgs ML-P 305 E-F and ML-5E-U16 included in this property pack.

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Organisation Name or Name of Submitter			Ambassador_Millenium Theatre Company (MTC)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
MTC Cover letter - Re: Application by the National Roads Authority (operating as TII) for the Railway (Metrolink Estuary to Charlemont via Dublin Airport) Order [2022] Case Number. ABP-302010				
6	2. Proposed Development by TII 2.5	6	In summary MTC is very concerned that the proposals submitted by TII will have significant adverse impacts on buildings and on the provision of services at the Ambassador, and that these impacts have not been addressed by the TII in the proposals as currently submitted to the Board.	The impacts on the Ambassador Theatre have been full assessed and included with the EIAR. The assessment of airborne noise during the construction phase for works being undertaken at O’Connell Street Station has been presented within Chapter 13 Airborne Noise and Vibration of the EIAR. The Ambassador Theatre also falls within the study area for groundborne noise and vibration, and calculations of groundborne noise and vibration during the construction and operation phases have been carried out and presented in Appendix 14.5 to Chapter 14 Groundborne Noise and Vibration of the EIAR. As noted in response (1) the impacts of ground movement has been assessed and included within EIAR Appendix A5.17 Building Damage Report.
7	3. MTC Property and Substratum Lands at the Ambassador 3.1,3.2	6	The application drawings submitted by TII indicate the area of Ambassador Theatre substratum lands may be compulsorily acquired as part of the development. The Ambassador Theatre MTC has advised that it has received no prior notice from TII, and is unaware of, the extent of substratum lands impacted by the Railway Order.	Substratum land take is detailed drawing ML-P 305 E-F and that we are willing to engage with them in repect to the impact the substratum acquision on any furture developments that they are planning.
8	3. MTC Property and Substratum Lands at the Ambassador 3.3	6	The Ambassador Theatre / MTC has advised that it is unaware of, and has received no information from TII on, the impact of any such acquisition on possible future developments at the Ambassador. [	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce “Guidance Note for Developers” that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.
9	4.1 Impacts of Proposed Development on Ambassador Theatre - Noise & Vibration (a)	7	It is not clear that the applicant has assessed the Ambassador Theatre; however, we would submit, having regard to the national importance of the structure, (as confirmed by the NIAH), that this needs assessment needs to be urgently carried out by the applicant.	The relevant assessments have been undertaken and clearly articulated in the EIAR. The status and use of this building is known and has been used to assess impacts. Please refer to response (6).

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Organisation Name or Name of Submitter			Ambassador_Millenium Theatre Company (MTC)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
MTC Cover letter - Re: Application by the National Roads Authority (operating as TII) for the Railway (Metrolink Estuary to Charlemont via Dublin Airport) Order [2022] Case Number. ABP-302010				
10	4.1 Impacts of Proposed Development on Ambassador Theatre - Noise & Vibration (b)	8	Threshold limits set out by the applicant are dependent on Building Categorisations which need to be clarified— we believe this may need reconsideration and assessment + appropriate mitigation accordingly.	The assessment approach does not need reconsideration. In Chapter 14 Ground borne Noise & Vibration, Section 14.2.1 Appraisal Method for the Assessment of Impacts presents the assessment methods undertaken. It is acknowledged that the assessment is complex due to the consideration of groundborne noise and vibration arising from different activities such as the progress of the TBM, mechanical excavation etc. For the purposes of assigning a criteria for Groundborne Noise and Vibration, please refer to table 14.3. The Ambassador Theatre was considered a theatre in this assessment and so was assigned a noise assessment threshold of 25 dB LAmax,S above which groundborne noise impacts would be considered significant. For the purposes of assessing the progression of the TBM, the assessment criteria were different, due to the very short duration of this activity at any single location. As a result a threshold is proposed for groundborne noise from the passage of a TBM is 5dB LAmax,S greater than the thresholds for other sources shown in Table 14.3 i.e. 30 dB LAmax,S. In the assessment of vibration, a number of different assessment thresholds were used as outlined in section 14.2.1.2. The Ambassador Theatre was considered a particularly sensitive to groundborne noise and vibration impacts along with buildings like libraries, lecture theatres, auditoria, hospitals, churches, schools.
11	4.1 Impacts of Proposed Development on Ambassador Theatre - Noise & Vibration (c)	8	The applicant notes “Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from TBM at source” and notes such impacts are of a Temporary nature (while TBM passes). This is a significant issue of concern in connection with services at the Ambassador.	Unfortunately, there are no effective methods are available to reduce groundborne noise or vibration from TBMs at source. However the following mitigation measures are proposed in the EIAR aimed at minimising the effects are as follows: •Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. •TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 of the EIAR). It is important to note that the advancement of the Tunnel Boring Machine will be for a very short duration over a matter of days. TII and their contractors will engage with the Millennium Theatre Company regarding the potential impacts of these works and the proposed programme for the same once this information is available.
12	4.1 Impacts of Proposed Development on Ambassador Theatre - Noise & Vibration (d)	8	The application references some mitigation measures primarily around Consultation and pre-Planning of activities; however, MTC has confirmed that no such consultations have taken place, and we are unaware of any mitigation measures.	As noted in Response 1, TII have made a number of efforts to engage with the Owners but were unsuccessful in getting a response from the site owner. TII are happy to engage further with Millennium Theatre Company regarding the potential impacts of these works and the proposed mitigation measures for Ambassador Theatre.

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Organisation Name or Name of Submitter			Ambassador_Millenium Theatre Company (MTC)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
MTC Cover letter - Re: Application by the National Roads Authority (operating as TII) for the Railway (Metrolink Estuary to Charlemont via Dublin Airport) Order [2022] Case Number. ABP-302010				
13	4.1 Impacts of Proposed Development on Ambassador Theatre - Noise & Vibration (e)	8	The construction of the deep underground O'Connell St. station is in close proximity to the Ambassador Theatre, and it is unclear to what extent this has been assessed for potential impacts on the Ambassador Theatre.	Construction Phase Firstly, the assessment of airborne noise from above ground construction activities at O'Connell Street station, as presented in Chapter 13 of the EIAR, has predicted airborne noise levels at Ambassador Theatre below the construction noise threshold level of 75 dB LAeq,T and are therefore considered Not-Significant. Secondly, the Ambassador Theatre was also assessed for potential groundborne noise and vibration impacts from the construction of the O'Connell St. station. Groundborne Noise and Vibration and Blasting modelling results are given in Appendix 14.5 of the EIAR. The predicted L_{Amax,s} during mechanical excavation (from O'Connell St Station) at the Ambassador Theatre has a value of 21 dB while the Threshold Level for this building is 25 dB, resulting in no significant impact on the buildings operation arising from proposed mechanical operation. Levels of groundborne vibration during construction at the Ambassador Theatre are predicted to be 0.262 m/s-1.75 during TBM passage and 0 m/s-1.75 during mechanical excavation, which are below the VDV Threshold Level for this building of 1.0 m/s-1.75, resulting in a not significant impact on the buildings operation. Operational Phase During railway operation the predicted L_{Amax,s} at Ambassador Theatre is 34 dB while the Threshold Level for this building is 25 dB, resulting a significant impact on the buildings operation in the absence of mitigation. However, in recognition of the sensitivity of the Gate Theatre and the Ambassador Theatre it is proposed in Section 14.5.2 of the EIAR, that for the operational phase specific mitigation measures will be to use a Floating Slab Track system between Chainage 16+400 to Chainage 16+600, resulting in a residual impact considered not significant. Groundborne Vibration from Railway Operation is predicted to be 0.008 m/s-1.75, which i.e. below the threshold value of 0.8 m/s-1.75 resulting a not significant impact on the buildings operations.
14	4.1 Impacts of Proposed Development on Ambassador Theatre - Noise & Vibration (f)	8	The applicant should be requested to incorporate and extend the "Floating Slab Track" for the entire Ambassador Theatre and well beyond as mitigation and to protect the building and to mitigate the impact on services at the Ambassador.	According to Chapter 14 Ground-borne Noise and Vibration, Table 14.47, Floating Slab Track will be used between Chainage 16+400 to Chainage 16+600. As the Ambassador Theatre building is located at Chainage 16+440 we consider that this length and positioning of the Floating Slab Track is adequate.
15	4.2 Impacts of Proposed Development on Ambassador Theatre - Potential Settlement & Building Damage Assessment	8	The Ambassador building is a protected structure dating back to the 1700's. It is a masonry construction, typical at the time, and is highly sensitive to movements. Such potential movements (particularly if differential settlements of the order per the Phase 1 were to realise) have the potential to cause damage across the Ambassador, and also impact on service delivery. We submit that the applicant should be requested to carry out a more detailed Phase 3 building damage impact assessment immediately, prior to any planning decision by ABP on the overall application.	Please refer to response (3). The Ambassador Theatre due to the age and importance of the building it has been designated "special" and hence a further (Phase 3) assessment will be undertaken by the main works contractor. This further assessment will pick up on the building's condition close to the time when the building may be impacted
16	4.2 Impacts of Proposed Development on Ambassador Theatre - Potential Settlement & Building Damage Assessment	9	It is essential that the Ambassador Theatre is consulted and kept well informed on outcomes and potential impacts of these further assessments together with details on any proposed mitigation measures for agreement.	Please refer to response item (1) above.

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Organisation Name or Name of Submitter			Ambassador_Millenium Theatre Company (MTC)		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
MTC Cover letter - Re: Application by the National Roads Authority (operating as TII) for the Railway (Metrolink Estuary to Charlemont via Dublin Airport) Order [2022] Case Number. ABP-302010					
17	4.3 Impacts of Proposed Development on Ambassador Theatre - Monitoring	9	Subject to satisfactory resolution of the above noise, vibration and settlement issues, we recommend that a comprehensive suite of settlement, noise and vibration monitoring equipment be installed at and within the Ambassador building to: i. Assess current background levels to inform appropriate “Trigger” levels ii. Monitor during the Construction Works iii. Monitor during Operation Appropriate “trigger” levels on a traffic light system basis should be established and agreed based on background levels together with best practice and industry standards referenced and predicted within the EIAR. The instrumentation should be logged in "real-time” basis and if/when trigger levels are exceeded, ALL Stakeholders are contacted, and pre-agreed mitigation proposals implemented.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans in accordance with EIAR Appendix 5.1. These plans will help assure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation. Operational groundborne noise and vibration monitoring will be undertaken during the commissioning phase to demonstrate the efficacy of the mitigation measures and to ensure thresholds are not breached. The monitoring systems will employ suitable trigger level alerts and notification in case of breach of threshold.	
18	4.4 Impacts of Proposed Development on Ambassador Theatre - Consultation	9	MTC and its advisors have not been consulted by the applicant in any meaningful way prior to the application, and have had little time to review the potential consequences and implications of this significant project. It asks the Board to direct TII to engage immediately in discussions in connection with the Ambassador Theatre, and to set out proposals and mitigation measures on potential impacts to the buildings and services at the Ambassador. MTC request to be kept informed by ABP throughout the remainder of the application process, reserving the right to seek further information and comment on the construction and operation of the Metrolink.	Please refer to response item (1) above.	
19	5. Impacts of Proposed Development on Ambassador Theatre - Engagement with TII	10	Notwithstanding the fact that TII has not engaged in any meaningful way on such matters with the MTC reading the Ambassador Theatre to date, MTC would welcome engagement with TII, even at this late stage in the process. MTC confirms it will facilitate engagement in advance of any potential Oral Hearing the Board may wish to convene. MTC would be grateful if the Board would also encourage and invite TII to engage regarding the Ambassador Theatre and to set out clear proposals to mitigate potential impacts to the building and to ensure and protect the continuing provision of services at the Ambassador Theatre.	Please refer to response item (1) above.	

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Organisation Name or Name of Submitter			Mouna Unlimited Company (represented by Stephen Ward Town Planning & Development Consultants Limited)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: RAILWAY (METROLINK-ESTUARY TO CHARLEMONT VIA DUBLIN AIRPORT) ORDER 2022 - LANDS AT SILLOGUE GREEN LANE AND BALLYSTRUAN LANE, SWORDS, CO. DUBLIN				
1	Introduction (page 1 and 2 of submission)	2&3	In this regard, our client seeks: • Relocation of the Dardistown Depot and associated services lines. • Realignment of the Metrolink route to avoid the infringement onto its lands. • Recognition of the permitted and established use of its sites as an abattoir which is a sensitive receptor as part of the Environmental Impact Assessment. • Unencumbered and unrestricted access and egress to the site and unrestricted and unencumbered operational capabilities at the site and the WWTP during the course of construction and during the operational phase of the scheme.	Please refer to the specific responses below to these concerns.
2	Introduction (page 3 of submission)	4	2.2 Our client has engaged with Transport Infrastructure Ireland at every opportunity during the non-statutory consultation process In 2018 and 2019 when submissions were made clearly Identifying the use of the established and permitted factory building as an abattoir. The use of part of the site by Frylite is temporary. The temporary planning permission under which Frylite operate will lapse in 2024.	TI thank you for your continued engagement with the Project. The proposed Project has taken into consideration the use of the site, and as such the Railway Order application incorporates measures to ensure the continued use of the site during construction and operational phases.
3	Introduction (page 3 of submission)	4	It Is therefore essential that the plant retains full and unencumbered access, egress and operational capability during the construction and operational phases of Metrolink. Our client Is very concerned that the assessment of the chosen route for Metrolink and the Dardistown Depot has not taken this sensitive use Into consideration in the Environmental Impact Assessment for the project.	As identified in Response (2) access will be maintained to the factory at all times during both the construction and operation phase. During the determination of an appropriate location for the proposed depot (and alignment into the depot), consideration was taken of the location of this facility in order to identify the potential for a direct impact on the facility or an indirect impact in terms of potential impacts on the access to the site. The chosen depot location was chosen (partially) on the basis of ensuring that the facility could remain operational during both the construction and operational phase. Standard mitigation measures as identified in the CEMP (Appendix 5.1 to the EIAR) will be implemented to ensure that there are no significant environmental effects during the construction phase. There are no anticipated significant effects identified to this site during the operational phase of the proposed Project. Chapter 7 (Consideration of Alternatives) section 7.7.4 presents the two-stage assessment for the identification of a location for the depot. As part of the environmental assessment of both Estuary and Dardistown locations, Population and Land Use was considered, with 'local sensitivities' identified. It is considered that the population at Dardistown would be less sensitive to disruption during the Construction Phase and/or the Operational Phase when compared to Estuary as there are fewer sensitive locations in close proximity to the proposed site and those that are present are already exposed to high levels of noise from Dublin Airport and the M50 Motorway.
4	Proposed works affecting the subject lands (page 4 of submission)	5	The Identification of 'temporary lands' takes no account of future servicing of the line or wayleaves associated with the operating line which would prevent future development. In addition, the change in the lands to accommodate future possible development as a result of the metro line, while they may be 'reinstated' at the surface, are essentially severed from surroundings lands that have no subsurface development. It is submitted that the lands either side of the tracks and particularly between the tracks should be seen as permanent as they effectively create a no development zone.	Maintenance of the line is to be undertaken from the permanent railway corridor, with wayleaves included within the Railway Order application where otherwise considered necessary. Where the track alignment is provided as cut and cover sections, these will facilitate the provision of access across the line where required in the future, limiting severance of land areas and avoiding the need for unnecessary land take.
5	Proposed works affecting the subject lands (page 4 of submission)	5	The statutory compensation process is considered a mitigation measure under the assessment of Land Take. As such the extent of land take and potential long term impact Is a material consideration of the EIA process.	As presented in Chapter 21 (Land Take), the acquisition of the various specified rights and interests in land and property, is necessary in order to ensure the delivery of the MetroLink project in its entirety. Land owners who have land acquired will be entitled to apply for compensation in accordance with the general compulsory purchase code. Property owners who have properties that are subject to short-term and/or temporary acquisition can also apply for compensation. Compensation will be provided through the Compulsory Purchase Order (CPO).

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6	Note 1 to proposed works affecting the subject lands (page 4 of submission)	5	We note there appears to be a discrepancy between the figures contained within able 21.5 of Chapter 21 of the EIAR and the Railway Order Book of Reference Second Schedule (Land which may be acquired) and Fourth Schedule (Land of which temporary possession may be taken). The total area of lands affected In both cases is 8,569sq.m.	Table 21.6 (not 21.5) in EIAR Chapter 21 (Land Take) states an area of 8569m2 required, comprising Plot ML39-T2 6742m2 (Temporary); Plot ML39-T3 1496m2 (Permanent); Plot ML3E-T21 225m2 (Temporary); and Plot ML38-T3 106m2 (Temporary).
7	Grounds of submission (page 4 of submission)	5	In particular, the position of the Dardistown Depot will have a long term Impact on this sensitive receptor that has not been adequately assessed as part of the documents submitted with the application for a Railway Order.	TII disagree with the statement that the long term impact on the receptor has not been adequately assessed. The EIAR provides a comprehensive and detailed assessment of the potential impacts, mitigation measures and residual effects on sensitive and non-sensitive locations along the entire alignment. Industrial facilities are generally not considered particularly sensitive, so long as the proposed Project does not impact the operation of the facility (such as severed access). As detailed in Chapter 11 (Population and Land Use), sensitive receptors are considered to include homes(houses as well as case homes and residential facilities) and social infrastructure, including medical, educational, rehabilitation and recreational facilities (i.e. sports, leisure and recreation) along with tourism and economic facilities such as businesses and visitor attractions recognised for their cultural or historic significance and/or natural assets. However an assessment has been undertaken under a number of relevant headings identifying the potential impacts on this facility as outlined here. Air quality impact during construction and operation phases of MetroLink was assessed in Chapter 16 Air Quality of the EIAR. According to the assessment there will be no impact on the Mouna Unlimited Company’s operation during construction or operation period of MetroLink as follow: “The Construction Phase of the assessment identifies a generally negligible or beneficial effect on air quality in the vicinity of the proposed Project. Therefore, overall, it is considered that the residual effects with the EPA Guidelines (EPA 2022) and considering the likely effects of emissions from the proposed Project construction, the likely effects are considered overall Neutral, Not Significant and Medium-Term.” and “Therefore, overall, it is considered that the residual effects with the EPA Guidelines (EPA 2022) and considering the likely effect of emissions from the Operational Phase of the proposed Project, the likely effects are considered overall Neutral, Not Significant and Long-Term.” Ground-borne noise and vibration impact during construction and operation phases of MetroLink was assessed in the EIAR Chapter 14 Ground-borne Noise and Vibration. According to the assessment there will be no impact on the Mouna Unlimited Company’s operation due to ground-borne vibrations and no significant impact due to ground-borne noise during construction and operation phases. Airborne noise and vibration impact during construction and operation phases of Metrolink was assessed in Chapter 13 Airborne Noise and Vibration. The facilities operated by Mouna Unlimited Company are assessed as industrial buildings. According to British Standard BS 5228 – 1: 2009+A1:2014 – Fixed Limits, the noise limit is “75dB (LAeq,T) daytime (12hr) & Saturday AM (6hr)”. According to the assessment in EIAR Appendix 13.7 Construction Phase modelling and Appendix 13.8 Operational Phase Modelling, this threshold will not be reached during the construction or operation of Metrolink, resulting in no impact on Mouna Unlimited Company operations. Furthermore access to the site will be maintained throughout but the construction phase and the operational phase of the project to ensure that the site can continue to operate. During the construction phase, it is considered that mitigation measures as outlined in the EIAR and the CEMP will provide sufficient protection to ensure that there are no impacts on the operation of the facility. There are no significant impacts predicted here during the operational phase of the project.
8	Grounds of submission (page 5 of submission)	5	4.2 It is submitted the proposed site for the depot and associated tracks and infrastructure Is not the optimum location for the delivery of the Metrolink Project and servicing of the trams. There are adequate lands available to the west and north that could facilitate the metro line and service depot that are more suited and which also avoid land take from our client and the relocation of the depot would negate the need for the two depot access lines which sever a key proportion of the factory site. It is our client's preference to have the Metrolink line moved to the west and the depot moved to an alternative location to avoid our client's property and lands.	Options for the location of the depot and the associated access lines into the depot have been extensively assessed as part of the development of the proposed Project. The proposals incorporated in the RO application are considered to provide the best balance between operational requirements; compliance with planning designations (with the majority of the proposed site within 'General Employment' rather than 'High Technology' zoned land area; environmental impact; and retention of the ability for future adjacent land development as envisaged in local plans. Further details are provided in EIAR Chapter 7 (Consideration of Alternatives (Section 7.7.4.2 to 7.7.4.5) and EIAR Appendix A7.6 (Depot Location Options Report).

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9	Proposed Works and Impact on ABP Industrial Plant (page 6 of submission)	7	Our client does not consent to any measure proposing the loss of land occupied by the Industrial facility and/or the WWTP. Any intrusion into these works has the potential to Impact upon the operating capacity of ABP business group. It is submitted that the route of the MetroLink and construction zone should be repositioned to adjacent undeveloped lands where no concerns re access to a working facility or protection of a food safe facility exists.	Please refer to response item (8) above regarding the selection of depot location and track alignment. The proposed track alignment and depot do not impact or require land take from the Waste Water Treatment Plant (WWTP) site. Permanent land take from the industrial facility area is limited to a small area of open land on the north-west corner of the site, away from the industrial buildings.
10	Services (page 6 of submission)	7	Our client is gravely concerned that the proposal has the potential to impact on pipelines and other buried services crucial to the operation of the facility due to the proposal to provide the MetroLink below ground level in the vicinity of the submission lands. Our client requests cross sections, longitudinal sections and drainage proposals to fully assess the potential impact on essential services.	The proposed Project has incorporated utility diversions where necessary to accommodate the proposed construction works and operational railway. For the Dardistown area these are indicated on the RO drawings in Utilities Diversions Book 1 of 4 Fingal County Council; see Ballymun Sheet 9 of 11 (Plan Drawing No ML-UC 303 9-10) and adjacent drawings with a summary of Residual Infrastructure and Utility Impacts Post Mitigation provided in EIAR Chapter 22 (Infrastructure and Utilities) Table 22.12. The requirement for utility diversions and protection is noted in EIAR Chapter 5 (MetroLink Construction Phase), section 5.4.10. Utility diversions known to be required at this time have been agreed in principle with the relevant statutory undertakers and the designs are included within the RO application. Following the grant of any RO all utility diversions and protection measures will be finalised and agreed with the relevant utility stakeholders (and relevant agencies). The assessment methodology, impact assessment and proposed mitigation measures are contained in EIAR Chapter 22 (Infrastructure & Utilities).
11	Sillogue Green Road Re-alignment (page 6 of submission)	7	There are no details provided for the realignment of Sillogue Green Road that serves the subject lands. The Railway Order documents contain only a plan with no dimensions. The realigned road would appear to be on fill as it passes the subject lands. Our client requests further detail to ensure that the proposed road and junctions are sufficient to cater for the HGV movements that are generated by the existing activities on site.	Detailed design of the road will be undertaken at subsequent design stages subject to RO approval. The road will be designed in accordance with normal highway and junction standards, compatible with expected traffic use including HGVs. All road design will be subject to agreement with the relevant local authority and affected landowners where appropriate, as noted in EIAR Chapter 4 (Description of the MetroLink Project) Section 4.13.1.
12	Grounds of submission 4.7 (page 6 of submission)	7	There has not been adequate consideration of the potential Impacts from the construction and operational phases of the proposed development on the ABP Plant which is a very sensitive commercial receptor.	Please refer to response item (7) above.
13	Grounds of submission 4.8 (page 7 of submission)	8	The proposal does not outline potential access routes to the subject lands during construction stage of MetroLink. Our client must be able to maintain unimpeded operating capacity during construction with full 24/7 accessibility and operational capability. The WWTP must also be accessible at all times for maintenance.	Please refer to EIAR Chapter 4 (Description of MetroLink Project) Section 4.13.1. This states 'Where access to private or public property will be disrupted by the proposed Project, temporary/permanent alternative access is included in the design based on replacement on a like-for-like basis, subject to agreement with the affected landowners and the relevant local authority. The RO will apply for the replacement of any access arrangement extinguished on a like for like basis'. Typical construction details associated with both temporary and permanent roadworks are summarised in EIAR Chapter 5 (MetroLink Construction Phase) Section 5.5.1.

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14	Grounds of submission 4.9 (page 7 of submission)	8	The preliminary construction management plan that forms part of the EIAR does not provide details relevant to our client's property. Appendix 5.3 Construction Sequence Report highlights that a "full temporary road diversion" is required for Sillogue Green Road (Section 6.2 p.46 of 195) but no details are provided. Drawing ML1-JAI-EIA-ROUT_XX-DR-Y-O5013 appears to include an access road through the adjacent construction area from the Naul Road via lands to the west but no description is provided of this intent. This access road crosses four separate sections of metro tracks and is also proposed as a haul route. A detailed construction management plan should identify how access will be maintained throughout the construction of the metro lines and the realigned Sillogue Road.	EIAR Chapter 9 Traffic and Transport, Appendix A9.5 Scheme Traffic Management Plan provide details of Phase 1 and 2 of the proposed Temporary Traffic Management plans at Dardistown, see Section 6.5.6.2, Figures 6-13 and 6-14. The contractor(s) to be subsequently appointed subject to future progression of the project will be required to prepare a more detailed Construction Environmental Management Plan (CEMP) for each specific package of works as required, building on the draft CEMP information contained in EIAR Appendix A5.1. There will thus be a specific CEMP prepared for the development of the depot and Dardistown station, which will include details of the construction programme and associated temporary works, including site haul routes, associated safety requirements and local diversions required to maintain access to properties while the works are progressed.
15	Grounds of submission 4.10 WWTP (page 7 of submission)	8	The route as illustrated alters the existing access to the WWTP and provides a new access road from Sillogue Green Road. The new access road and associated construction zone falls within the WWTP lands. We note the comment at Page 51 of Volume 2 Book 1 Chapter 7 (Consideration of the Alternatives) which states ' <i>At Dardistown required demolitions would be dependent on precise location of the depot location, but the only potential demolition and relocation of a private wastewater treatment plant</i> '. No part of the WWTP lands have been identified as necessary for the Metrolink project in the documents submitted with the Railway Order application.	It is correct that the RO application does not require the acquisition of any lands from the WWTP site. The comment in the text referred to relates to the initial comparison of depot locations as described in the Preferred Route Design Development Report, with the depot location preferred at that time potentially impacting on the WWTP. The subsequent more detailed appraisal of depot location options as described in EIAR Appendix A7.6 revised the depot location with the location as included in the RO application not impacting the WWTP. Please refer to response item (2) regarding continued access during the works, which will be either on the existing Sillogue Green road; a temporary road or via the permanent realignment of the access road.
16	Grounds of submission 4.11 (page 7 of submission)	8	Our client is concerned that proposals made as part of this Railway Order will result in the inclusion of ABP lands that are not Identified as part of the documents submitted and without its consent. As already stated above, our client does not consent to any measure proposing the loss of land occupied by the industrial plant and WWTP and/or associated infrastructure, pipelines or other buried services.	Please refer to response item (15) above.
17	Grounds of submission 4.12 Dardistown Depot (page 7 of submission)	8	The proposed depot to the north of our clients' lands has the potential to generate negative impacts with regard to dust and particulate matter, light, odour, noise and vibration that could result in a decline in the quality/quantity of product from the existing plant and loss of business which in turn would have a negative impact on the wider business of ABP and related companies. The depot is of a large scale and if approved would result in a material increase of traffic using the surrounding road network. The increase in traffic has potential to negatively impact on plant related traffic. There is potential for unacceptable noise levels at the lairage area from the trams being tested and also from the operation of the depot. The depot will likely operate on a 24/7 basis (as per para. 6.11.2 of the EIAR) and would clearly generate noise, dust, odours and light spill during hours of darkness.	The light impact of the Dardistown Depot was assessed in EIAR Chapter 27 (The Landscape). The proposed depot will include extensive lighting of the facility which will introduce a significant change to the night-time characteristics of the site, given the current virtual absence of lighting across the site. Overall, the potential effects on the visual environment and on visual amenity during the Construction Phase will be moderate and negative. Overall, the predicted effects on the visual environment and on visual amenity during the Operational Phase will be slight and negative. Appropriate mitigation measures will be taken to mitigate the visual effects as follows: - Details of fencing, mesh netting etc used within the project which includes the use of darktoned, neutral colours (dark grey/black) and non-reflective finishes (if appropriate/practical) in order to ensure these elements are visually recessive. This assists significantly in reducing visual impact; - The lighting strategy proposed for the public realm, particularly in respect of lighting intensity, timing control/periodicity, colour temperature and control of light spillage. This should include details of the lighting elements within the public realm associated with each station, particularly in respect of luminaire and column type, height, finish etc. Following mitigation measures the impact on visual effects will be Slight & Negative.

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			Response (17) continued.	With regard to the Dardistown Depot and the area zoning see Response (26). Relating to traffic impact on the Mouna Unlimited Company’s operation during construction or operation period the assessment is detailed in Appendix 9.5 Scheme Traffic Management Plan. According to Appendix 9.5, access to Mouna Unlimited Company’s will be provided at all times due to a temporary access road whilst the permanent access road is not available. Traffic impact during construction, taking into consideration proposed traffic management, predicts an increase in HGV volume in the local area. This will be primarily on the R108 north of the M50 junction, of between 2% and 3% during the morning peak and with an increase of 3% in HGV volume along the R108 during the evening peak. Along Sillogue Green the predicted increase in HGV volume is higher, at 12% in the morning peak and 30% in the evening peak, however, this increase only equates to a minimal increase in actual HGV movements during both the morning and evening peaks. The impact on traffic during operation of MetroLink according to Chapter 9 Traffic and Transport, Table 9.136, will be Long-term Moderate and Slight Positive due to traffic reduction on the M50 and R108 Ballymun Road. Regarding the impact on Air quality, Noise and Vibration please refer to response item (19) below.
18	Grounds of submission 4.13 (page 8 of submission)	9	It is submitted that the proposal has not taken proper account of the plant as a very sensitive commercial receptor. The site is continually identified as 'FryLite' in the documentation submitted. The planning history detailed at section 4.4.2.5 of the Planning Report states the construction activities will not affect the temporary use of the site by Frylite but do not mentioned the abattoir.	Please refer to response item (7) above.
19	Grounds of submission 4.13 (page 8 of submission)	9	The construction and operational phase will cause a significant negative impact in terms of inter alia, air quality, noise, ground borne noise and vibration. The potential environmental and operational impacts have not been adequately considered as part of the public consultation document. It is submitted that without the relocation of the depot and with clear, specific, defined and acceptable mitigating measures, the proposed development would result in a decline in the quality/quantity of product from the plant and loss of business which in turn would have negative impacts on the wider business of ABP and related companies and the ability of the Plant to operate properly.	Please refer to response to item (7) above.
20	Grounds of submission 4.14 and 4.15 (page 8 of submission)	9	According to section 7.7.4.1.1 of the EIAR, the reasoning behind the location of a depot at Dardistown is it <i>"has potential for less significant environmental effects when compared to the proposed site at Estuary. It is also possible to mitigate the majority of the potential Impacts Identified utilising the proposed mitigation measures outlined In the relevant chapters of the EIAR"</i>. The location of the Depot cannot be justified on this basis as the abattoir has not even identified let alone assessed and therefore no appropriate mitigation measures are included.	Please refer to response items (3) and (7) above.
21	Grounds of submission 4.16 (page 8 of submission)	9	It is submitted that there is Inadequate Information submitted to support the assessment of alternatives contained within the EIAR. Documents are referred to in the EIAR that do not appear to form part of the application. For example, the Metrolink Preferred Route Design Development Report (TII, 2019) and the Preliminary Design Report (PDR) for Metrolink published by Jacobs/Idom In 2020 (Appendix 7.6-refers).	The MetroLink Preferred Route Design Development Report (TII, 2019) is a document that was part of the 2019 public consultation on MetroLink and the document remains available on the TII MetroLink website. It describes alternatives considered to the previously published Emerging Preferred Route (EPR) information. The present EIAR contains information for all relevant design alternatives assessed, and provides the evidence supporting the selected location of the depot as included in the RO application. Please refer to EIAR Chapter 7 (Consideration of Alternatives). Section 7.7.4 of Chapter 7 presents the assessment and identification of a preferred site for the depot for the proposed Project. It includes an assessment of an option to locate the depot at Estuary and an alternative site at Dardistown, and the assessment of localised alternative locations within the Dardistown area. Links to the aforementioned reports are also provided within the documentation. Appendix A7.6 also presents the Depot Location Options Report.

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22	Grounds of submission 4.17 (page 8 of submission)	9	According to the EIAR, a multi-criteria analysis was undertaken to review nine main options and various sub options. Diagram 7.7 illustrates alternative positions numbered 1-9 however the multi-criteria analysis does not appear to form part of the EIAR or have been submitted with the Railway Order application document. This Is a key document to understand why the position as proposed was selected.	Diagram 7.7 in the EIAR Chapter 7 (Consideration of Alternatives), shows all initial options considered for the depot location at Dardistown and justification is provided for the selection of Option 8a as the proposed depot location (Section 7.7.4.2 to 7.7.4.5). EIAR Appendix A7.6 provides further details on the assessment including comparison against a further depot option.
23	Grounds of submission 4.18, 4.19 and 4.20 (page 9 of submission)	10	Section 7.7.4.3 jumps straight to the fact that the preferred site is Option 8a and provides arguments for this position. The only other option considered in any detail was a further position, called Option 10 that was put forward by 'a major landowner in the Dardistown Area' and discussed at section 7.7.4.5 of the EIAR and assessed at appendix 7.6. It is submitted that without the detailed analysis presented to An Bord Pleanála it cannot be concluded that the position of the Dardistown Depot is the best available option. The previous position of the Dardistown Depot was approved in 2011 and demonstrates that a depot can be facilitated without access lines affecting our client’s lands. Our client notes that Option 10 would have a significant impact on its lands and operation of the existing and established industrial businesses on site and that would result in the demolition and relocation of the WWTP. Option 10 would clearly have severe detrimental impacts on the WWTP and by definition also on the factory.	Please refer to response item (21) and (22). Note that depot Option 10 was not progressed and does not form part of the RO application. Option 8A was identified as the preferred site option for the location of the Depot, following a detailed environmental analysis, presented in section 7.7.4.3 of Chapter 7 (Consideration of Alternatives). As detailed in section 7.7.4.5, following consultation with a major landowner in the Dardistown area, further analysis was undertaken to review whether an alternative site location proposed by that developer would be a feasible option for the proposed depot. This option is referred to as Option 10 and is at a similar location to Option 1 previously assessed. However, Option 10 is located approximately 200m further west than Option 1 and extends into the Dublin Airport Public Safety Zones (PSZs). It is important to note that Option 1, which is like Option 10 was not previously selected as the preferred option for key reasons relating to planning and the interface with the proposed alignment for the Greater Dublin Drainage (GDD) sewer. Nonetheless, a further multicriteria analysis was undertaken, which compared Option 10 to the previously identified preferred option (Option 8a).
24	Grounds of submission 4.21 (page 9 of submission)	10	When reviewing the documentation submitted with the Railway Order application, it appears that the map contained in the Railway Order Application Documentation relating to the Fingal Development Plan 2017-2023 zoning map 11 does not take account of Variation 1 which altered the noise zones around Dublin Airport adopted on the 9th of December 2019. We also note the LAP for Dardistown no longer applies and there is no objective to prepare a new LAP in the draft FDP 2023-2029.	The figures in the Planning Report relate specifically to the land use zonings that apply to lands along the alignment of the project in both the Fingal Development Plan 2017-2023 and the draft plan as of the date of lodgement of the Railway Order. For clarity, other mapped objectives, including Noise Zones were not shown. The Noise Zones incorporated into the plan in 2019 have been considered and are described in the text of the Planning Report where appropriate. The status of the Dardistown LAP and the requirements of the draft Fingal Development Plan 2023-2029 in this regard are noted in the Planning Report.
25	Grounds of submission 4.22, 4.23 and 4.24 (page 9 of submission)	10	According to the Report by Jacobs/Idom contained at Appendix 7.6 of the EIAR, the principal reason for the location of the Depot (Option 8a) "was that compared to other options. Option 8A was located mostly in the planning zone for "General Employment’ and it had no interface with the planned GDD Sewer project"(p31). When comparing the two options (Option 8A and Option 10), Option 8A was noted as being largely (c.70%) in the General Employment Zoning. Table 6-1 states, "<i>Connecting lines are in the "High Technology Zone" but should not restrict development because they are In retained cut and can be easily slabbed at ground level"</i> (Table 6-1 of Appendix 7.6). <i>30% of the land take required for the Dardistown Depot is zoned HT High Technology. This is a substantial area of high value land and will affect its future development both in terms of capacity and urban design. There are ample lands north of the proposed location that are zoned GE which would be more suitable for this land use.</i>	As detailed in section 7.7.4.3 of Chapter 7 (Consideration of Alternatives), land-take for Option 8a would be from agricultural land and sports pitches. The footprint of this option is large, as the railway access route into the site would sterilise a significant area of land between the Metrolink line and the depot lines and buildings. However, this option would be largely in the “General Employment” zoning area, leaving more of the land with higher development potential (High Technology). It should also be noted that the depot at this location would be in the “ Outer Public Safety Zones”, which restrict high density development in proximity to the Dublin airport runways. The depot development is appropriate for this restricted area. This proposed location for the Dardistown Depot has a number of advantages over alternative site locations including the following: * This site has more limited encroachment on lands zoned for “High Technology” development in the Dardistown Local Area Plan than other site options assessed. The majority of the proposed site occurs within areas designated for “General Employment” development. It is preferable that the site occupies the “General Employment” area as this area is more limited in terms of its future development potential than the “High Technology” zoned land as it is restricted by the presence of Outer Public Safety Zones which restricts the density of development allowed due to proximity to the runways at Dublin Airport. * The approach tracks to this option does not sterilise as much land when compared to other options. This means that there is a reduced land area required for this Depot site option including lands effected by the access tracks. This means that impacts on development land in the area is reduced (when compared to other options); * Operation of the depot is enhanced by allowing additional tracks and switches accessing the stabling area. Please refer to Depot Location Options Report in Appendix A7.6 for details of the full assessment.

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26	Grounds of submission 4.25, 4.26 and 4.27 (page 10 of submission)	11	As acknowledged in the consideration of alternatives at section 7.7.4.1 of the EIAR, “Under the Fingal Development Plan 2017-2023, a metro depot is not Identified as “Permitted In Principle" or as “Not Permitted" under either of the zoning objectives. However it goes on to say, ‘in this regard, it is considered that a Depot is permissible at this location, particularly given the recognition of the depot within the Dardistown LAP." It is submitted that this statement does not in fact reflect the provisions of the zoning objective. The Use Classes related to the zoning objective of 'High Technology* as contained in both the current Fingal Development Plan 2017-2023 and the draft Fingal Development Plan 2023-2019 list the following as 'Not Permitted': • Vehicle Servicing/Maintenance Garage • Road Transport Depot In comparison, lands zoned General Employment permit these uses. According to the Planning Report ‘the proposed Depot is consistent with the Vehicle Servicing/Maintenance Garage, permitted in GE zoned lands’ (para. 4.4.2.6). It is submitted therefore that it cannot be consistent with the HT zoning objective.	The proposed depot comprises a number of related uses, including vehicle stabling, storage, maintenance, offices and administration. The depot is concentrated on the General Employment lands with some of the overall site extending to the High Technology zoned lands. The stabling, maintenance and servicing takes place on the General Employment lands. In this regard, the works on the General Employment zoned land comply with the permitted uses for this zoning objective. In respect of the High Technology zoning the proposed uses under the proposed Railway Order relate to track routing and ancillary works and not of the nature of maintenance or servicing. The works on the High Technology zoning are therefore, not specifically identified as Permitted or Not Permitted. The Fingal Development Plan notes that ‘Uses which are neither ‘Permitted in Principle’ nor ‘Not Permitted’ will be assessed in terms of their contribution towards the achievement of the Zoning Objective and Vision and their compliance and consistency with the policies and objectives of the Development Plan.’. The vision of the ‘HT’ zoning objective will be fulfilled by the proposed Project, as in the long term it will deliver a high quality and highly accessible station that opens the lands to higher intensity employment uses.
27	Grounds of submission 4.28 and 4.29 (page 10 of submission)	11	The overall conclusion of the Planning Report submitted with the Railway Order application states, ‘<i>in two locations, the proposed Project does not comply fully with the current zoning objectives of the lands through which, or under which, it passes. The two locations are at the Intervention Shaft at Albert College Park and St. Stephen’s Green, in both locations under the current DCDP 2016-2022.</i>’. No aspect of the project is found to be contrary to the zoning objectives of lands that fall within the FDP 2017-2023. <i>It is recognised that, whilst in certain circumstances An Bord Pleanála has the power to grant permission to a Railway Order even if it is in material contravention of a Development Plan this power is not unlimited. However, it is submitted that the applicant should accurately identify the aspects of the development plan, particularly the zoning objectives it will contravene.</i>	The Fingal Development Plan notes that ‘Uses which are neither ‘Permitted in Principle’ nor ‘Not Permitted’ will be assessed in terms of their contribution towards the achievement of the Zoning Objective and Vision and their compliance and consistency with the policies and objectives of the Development Plan.’ As set out in the Planning Report, the Proposed Project contributes towards the zoning objectives and vision of each of the areas through which it passes and, therefore, does not contravene the zoning objectives of the Fingal Development Plan 2017-2023 or the Fingal Development Plan 2023-2029.
28	Grounds of submission 4.31 (page 10 of submission)	11	Land take for this the chosen option 8A would sterilise a significant area of land between the Metrolink line and the depot lines and buildings due to Its circuitous alignment.	Please refer to response item (4).
29	Grounds of submission 4.32 (page 11 of submission)	12	The outer public safety zone has been deemed appropriate for the location of the Dardistown Depot. It is submitted that the entire depot should be located within lands zoned GE to allow for more sensitive land uses to be located on the more valuable lands zoned HT.	Please refer to response item (8).
30	Grounds of submission 4.33 (page 11 of submission)	12	The depot location adjacent to the Dardistown station limits the potential for the station to be centrally located in a highly valuable development area. The depot effectively cuts off 50% of the station’s development potential which is dominated by the depot. Any future commercial development would be one sided and offer poor urban integration.	Please refer to response item (8) and response item (26)
31	Grounds of submission 4.34 (page 11 of submission)	12	Architects Henry J. Lyons and Company has prepared an indicative masterplan attached at appendix C. The analysis of the potential impact of the depot on the proposed Metro station at Dardistown clearly demonstrates the missed opportunity that would result If the depot is located in Dardistown and the negative impact it would have on the future development of the High Technology zone and opportunities for placemaking. As identified in the EIAR, “the design of Dardistown Station is complicated by the need to provide rail links into the Depot”{4.16.3.3). By removing the depot from Dardistown a more efficient and successful masterplan can be achieved.	Assessment of the depot location between a site at Estuary and a site at Dardistown concluded that a location at Dardistown for the depot was preferable - see EIAR Chapter 7 (Consideration of Alternatives) Section 7.7.4 for details.

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32	Grounds of submission 4.38 (page 12 of submission)	13	It is submitted that the detailed design of the Dardistown Station and lands required for its operation should have been considered as part of the Railway Order application.	The RO application provides for the detailed design of the station appropriate for its future use although initial use will be restricted for MetroLink access to the depot only. Pending future development of the Dardistown lands, the RO proposals provide for adjacent local landscaping and appropriate road access to the station, which could be enhanced as part of future development plans by others, subject to necessary planning approvals. Please refer to EIAR Chapter 4 (Description of the MetroLink Project), Section 4.16.3.
33	Grounds of submission 4.39 (page 12 of submission)	13	Dardistown is one of the 16no. stations listed as part of Metrolink. There has been no provision made for a public access road or car parking for passengers using this station in the future. It also would appear that there has been no assessment of the potential impact of this additional loading on the surrounding road network, including the M50. It is submitted that a sensitivity analysis of the future scenario should include Dardlstown as an operational station.	Please refer to response item (32). In addition, car parking is not proposed at any MetroLink station (including Dardistown) except for Estuary where an adjacent park and ride site is proposed. The station locations are intended to support pedestrian and cycle access together with public transport interchange. See also EIAR Volume 5 Appendix A9.2 Overall Project Traffic & Transportation Assessment, Section 2.7, Dardistown Depot.
34	Grounds of submission 4.40 (page 12 of submission)	13	The location of the depot at Dardistown station will curtail the options for a public access road and car parking in the future due to lands to the north being cut off and sterilized leaving a single sided station. Locating car parking on lands to the south or south east would represent an inefficient use of limited high value lands to the south zoned for High Technology uses.	Please refer to response item (33).
35	Conclusion, point 5.1 (page 14 of submission)	15	It is clear that the route as now proposed will have significant negative impacts on the submission lands during the construction and operational phases. It is submitted that the project does not take account of the plant as a very sensitive commercial receptor.	Please refer to response item (7).
36	Conclusion, point 5.2 (page 14 of submission)	15	The existing plant and its associated infrastructure should be a central consideration of the Environmental Impact Assessment Report for this part of the route as the results will be crucial in determining the potential Impact on the viability and operational capacity of this industrial facility. At this stage the preference of Mouna Unlimited/ ABP Ireland would be to reposition the line of the tracks and relocate the proposed depot elsewhere so the potential impacts on our client's business are removed, rather than attempt to mitigate such Impacts.	Please refer to response item (7).
37	Conclusion, point 5.3 (page 14 of submission)	15	ABP remain willing to engage in a constructive manner with MetroLink and Transport Infrastructure Ireland to reach an amicable position that accommodates the requirements of the permitted and established ABP facility and WWTP whilst at the same time accommodating the development of the MetroLink Project.	Please refer to response item (8) and (26) in relation to the compliance of the proposed Project with zoning objectives at this location.
38	Appendix B, Waterman Moylan Consulting Engineers Limited Submission, Engineering Related Concerns, Sillogue Green Road (page 2)	24	The details contained within the railway order provide plan images only of the proposed road with no details in terms of vertical profile, broad cross section or dimensions. The road is shown to be straight with a new priority junction to serve our Clients property. This road is used by Heavy Goods Vehicles (HGVs). There is no Information provided to demonstrate that the road is suitable for HGVs turning. Our Clients would seek to receive full details for the design of this access road so that it can be properly assessed in term of suitability to serve the existing facility on our Clients property and indeed to serve the future development of the property in accordance with the current land zoning contained within the Fingal County Council Development Plan.	Please refer to response item (11).

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39	Appendix B, Waterman Moylan Consulting Engineers Limited Submission, Engineering Related Concerns, Construction Management (page 2 and 3)	24&25	There are limited details contained within the railway order which set out how access to our Clients property will be maintained. Details of our Clients property, which contains two parcels of land and which both require access are shown on Figure 2. It is imperative that access to our Clients property is maintained at all times. We would seek to receive full details of the proposed temporary access which should clearly demonstrate how access (vehicular/Pedestrian/Cycle) will be maintained at all times. This will enable us to properly assess the proposals for access to our Clients property during the construction stage of the project. Details of the proposed temporary junction onto the existing R108 together with an appropriate Road Safety Audit of the junction and the temporary access road should be provided. The temporary access road would also appear to be intended for use as one of the main access points for construction traffic. The safety issues associated with using this access to serve our Clients property, whilst also as a primary access for construction traffic, needs to be properly considered.	Please refer to response item (11) and (14).
40	Appendix B, Waterman Moylan Consulting Engineers Limited Submission, Engineering Related Concerns, Existing Services (page 3 to 5)	25 to 27	Existing services which currently serve our Clients property need to be maintained at all times. The current MetroLink proposals are likely to impact upon this foul water rising main which has been acknowledged in the Environmental Impact Assessment Report (EIAR). It is suggested in the EIAR that the rising ain can be decommissioned and diverted. No details are provided in respect of the decommissioning or diversion. Details should be provided so that the potential impact on the operation of our Clients property can be properly assessed. The Figures contained within the EIAR which illustrate the existing utilities with the Metro Line overlaid do not appear to have any regard for the proposed Dardistown Depot or for the rail lines which are required to access the depot. The proposed Depot and associated rail lines are likely to impact existing utilities which currently serve our Clients property.	Please refer to response item (10).
41	Appendix B, Waterman Moylan Consulting Engineers Limited Submission, Engineering Related Concerns, Noise & Air Quality (page 5 and 6)	27&28	Our Clients would have concerns regarding noise and air quality arising from the works and how they might impact upon to the operation of our Clients property, both during construction stage and during operational stage. In this regard there is an existing business operating from the property and the lands are zoned to facilitate future development, both of which need to be considered when assessing the noise and air quality impacts.	Please refer to response item (19).
42	Appendix B, Waterman Moylan Consulting Engineers Limited Submission, Conclusion (page 7)	29	a) Sillogue Green Road (also referred to as Ballystruan Lane) - Proper details for the proposed road realignment have not been provided and should include dimensioned road cross section, Longitudinal Section showing proposed levels, Auto tracking for HGV's and a Road Safety Audit.	Please refer to response item (11).
43	Appendix B, Waterman Moylan Consulting Engineers Limited Submission, Conclusion (page 7)	29	b) Construction Management/Temporary Road Access - Proper details for the proposed temporary road access have not been provided which should include details of road alignment and levels, pedestrian and cycle access, junction details onto the R108 and Road Safety Audit. The intended use of this temporary access for both our clients property and as a primary construction traffic access needs to be properly considered and the risks that this could pose to pedestrians and cyclists accessing our Clients property. Access to all of the property owned by our Clients' needs to be provided at all times. In this regard there are two parcels of land that require access to be maintained.	Please refer to response item (11) and (14).

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44	Appendix B, Waterman Moylan Consulting Engineers Limited Submission, Conclusion (page 7)	29	c) Existing Services - It is imperative that the existing services to our Clients property are maintained at all times. Our Clients have concerns regarding the intention to decommission and divert their private foul water rising main which currently serves the property. No details of the decommissioning/diversion appear to be contained within the Railway Order documents submitted.	Please refer to response item (10).
45	Appendix B, Waterman Moylan Consulting Engineers Limited Submission, Conclusion (page 7)	29	d) Noise and Air Quality - Our Clients have concerns regarding noise and air quality arising from the works and how they might impact upon to the operation of our Clients property, both during construction stage and during operational stage.	Please refer to response item (19).
46	Appendix C, Colliers Report, Planning Recommendation	33&34	In consideration of land use, planning, and environmental impacts we do not consider that TII have presented a scheme that aligns with the zoning objectives contained in the Fingal Development Plan 2017-2023 and the emerging Draft Fingal Development Plan 2023-2029. Moreover, the proposed scheme will result in significant negative consequences for the proper planning and sustainable development in the area In which it is proposed to carry out the railway works. In particular, the proposed depot and ancillary service lines will negatively impact the surrounding lands.	Please refer to response item (8) and (26).
47	Appendix C, Colliers Report, Sustainability	34	We note reference to the Climate Action and Low Carbon Development (Amended) Act 2021 in the MetroLink Planning report. We note no comment regarding carbon emissions that relate to the construction phase, only references to the reductions into the future. The main sections in the planning report relating to Greenhouse Gases 1 .2.1 .2 page 5, Project Response 3.4.1. 1 page 24, Climate Action Plan 2021 3.4,7 page 31. All references are to the future Public Transport reduction in emissions. We note that no assessment has been included to have specific regard to emissions during the construction phase.	The assessment of emissions during the construction phase is presented (along with emissions for operation period) in Chapter 17 (Climate) of the EIAR. For more information regarding carbon emissions please refer to Section 17.7 Residual Impacts (17.7.1 Construction Phase). The proposed Project with mitigation measures will result in total Construction Phase GHG emissions of 1,1149Kt CO2eq over an 9.25-year period equivalent to an annualised total of 0.37% of Ireland’s non-ETS 2030 emissions target or 2.0% of the 2030 transport sector carbon budget. Over the predicted 60-year lifespan the annualised emissions due to the initial Construction Phase and ongoing maintenance of the proposed Project will reach at most 0.049% of Ireland’s non-ETS 2030 emissions target or 0.27% of the 2030 transport sector carbon budget. The significance criteria for impacts (IEMA 2022) states that the impact significance must be taken from the project as a whole over its lifecycle rather than individual phases. Over the predicted 60-year lifespan the annualised emissions due to the proposed Project will reach at most 0.013% of Ireland’s non-ETS 2030 emissions target or 0.071% of the 2030 Transport Sector Carbon Budget (Department of the Taoiseach 2022). The increase occurs due to the considerable Construction Phase embodied carbon, which will be further mitigated during detailed design, and is not as a result of operational emissions as this phase is beneficial with respect to carbon emissions.
48	Appendix C, Colliers Report, Depot Location	36	The TII state that the benefit of locating the depot at a central location on the network (Dardistown) rather than at the end of the route at Lissenhall enables efficient train operations limiting empty coach stock running. The location of the depot in Dardistown is not aligned with those policies of Fingal County Council and will have significant negative consequences on the proper planning and sustainable development in the area and will have a significant negative impact on proper planning and sustainable development of the area (see details of the concerns at page 34 and 35)	Please refer to response item (26) regarding compliance of the proposed Project with zoning objectives. The selection of location of the depot at Dardistown, rather than at Estuary, is described in the EIAR Chapter 7 (Consideration of Alternatives) Section 7.7.4. It was also initially presented in the 2019 Preferred Route public consultation, with assessment and recommendation for the depot to be at Dardistown rather than at the end of the line at Estuary described in the Preferred Route Design Development Report, Appendix C, and which is available on the TII website. In addition to the specific points in the Respondent’s letter, this report also noted that a depot at Dardistown: - will provide a better operational location, much more central to the overall MetroLink and thus providing easier and more efficient accessibility for addressing incidents on the line; - from a maintenance perspective it provides more flexibility and longer maintenance periods overnight than a depot at Estuary; and - The Depot’s location at Dardistown has less environmental impacts than the location at Estuary, with reduced potential for impacts on biodiversity and other sensitive receptors having regard to noise, air quality and water. Furthermore, there would be less impact on properties and a reduced potential for impact on traffic.

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49	Appendix C, Colliers Report, Business Interruption	36	No Information has been provided regarding continuation of operation of the business during the scheme and into the future and an extinguishment of the business In those circumstances must be considered. (see details of the concerns at page 35)	Please refer to response item (3).
50	Appendix C, Colliers Report, Access and Egress	35	There are no details of the realigned Sillogue Green Road that serves the subject site. We would need to be able to ensure that the proposed road and junctions are sufficient to cater for the HGV movements during and post construction that are generated by the existing activities on the property.	Please refer to response item (11).
51	Appendix C, Colliers Report, Proposed Temporary & Permanent Acquisitions	35&36	The nature of both the Permanent Take and Temporary Take have not been provided and the method of implementing those acquisitions has not been provided. Lands identified as "Temporary Acquisitions" when returned may not be capable of development or use and may also have a negative impact on the adjacent lands. The proposed scheme will result in significant complications Into the future regarding provision of suitable access and services to the subject site which will require that any future upgrades to access or services will need to take into account the presence of the proposed depot rail line which will be in open-cut and subterranean construction. In the absence of satisfactory detail of mitigation measures and a method statement for the implementation of the proposed scheme of works that will ensure continuation of operations during the scheme and into the future then the extinguishment of the business will occur at this location based on the proposed scheme and a significant loss to the property owner / operator will occur.	Please refer to response item (3).
52	Appendix C, Colliers Report, Accommodation Works	35 & 36	No details of Accommodation Works have been provided for consideration of the Impacted parties to assess the potential impact of the scheme and suitability or otherwise of those works. We recommend that further clarification in this regard is requested from An Bord Pleanála.	Please refer to response item (10) and (11).
53	Appendix D, Henry J Lyons Report, Concerns regarding Depot Proposals (page 7 of the report)	45	The proposed depot location, by way of its mass, location and orientation severely hinders the orderly development of the subject site and the surrounding area. Whilst the benefits of the Metrolink mainline are noted and appreciated with regards to unlocking the full development potential of the site, the presence of spur lines within the redline and wider context substantially limits potential for development.	Please refer to response item (8) regarding depot location and response (4) regarding interface between spur lines and land use.
54	Appendix D, Henry J Lyons Report, Loss of development lands (page 8 of the report)	46	Dardistown causes a significant portion of the larger of the two sites to be impinged upon. 14% of the larger landholding will be subject to either temporary or permanent sterilisation. The corner of the site effected by this sterilisation is in a prominent position, with the revised proposal significantly impacting on a potentially high density portion of the site. In addition, the proposed combination of temporary landholdings (ML 3E T3, T19 & T21) along the front of the site risk denying access to either of the sites existing frontages. This will effectively landlock the site, making the existing uses inaccessible and jeopardising future development potential as the duration of control of these lands is not specified.	Please refer to response item (3).

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55	Appendix D, Henry J Lyons Report, Zone Usage & Sterilised Areas (page 9 of the report)	47	Such significant areas of sterilisation may affect the economic viability of proposals within the subject site and adjoining lands under separate ownership to the extent that this entire area may fail to launch. We note significant lower value lands to the north, closer to the airport, may be more suited to such use cases and land consumption.	Please refer to response item (8).
56	Appendix D, Henry J Lyons Report, Maximising Opportunity (page 10 of the report)	48	However, the proposed siting of the depot consumes large quantities of this prime area, and serves to diminish the potential of the remainder.	Please refer to response item (8).
57	Appendix D, Henry J Lyons Report, Proposed Railway Design (page 12 of the report)	50	The 2022 Railway Order proposal includes additional areas of land acquisition on a variety of terms - terms that as yet seem to not be fully defined. It would be to the betterment of the entire development zone if the road provided as a replacement to the current access road be built in a manner that aligns with the LAP, and that benefits alt local land users. We have shown this shared 50/50 with the land owner to the north in our studies which follow.	The proposed access road from the R108 (realigned Sillogue Green) provides access to both the Dardistown Station and the existing industrial facilities in the area. This road could in the future development plans for the area be upgraded and incorporated as part of a main access to the development if required and approved through the planning process.
58	Appendix D, Henry J Lyons Report, Full development potential (page 17of the report)	55	We note that we do not have details on the ability to build on or close to the CPO lands, either during or after Metrolink construction, or the impact this may have on routing services to the site - which poses a serious viability risk for the entire scheme.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce “Guidance Note for Developers” that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.
59	Appendix D, Henry J Lyons Report, Partial development potential (page 17of the report)	55	The identity of the development is partially diluted. One 10 storey HQ grade building lost. We have been advised by Mouna Unlimited that the CPO of and positioning within of mainlines in the red and orange areas would constitute a fair and balanced agreement between both sides - Mouna Unlimited noting that the introduction of Metrolink and the Dardistown stop has benefits to their landholding. Alongside this, the lands in yellow would need to be excluded from CPO and available for free and unencumbered development.	Please refer to response item (8) and (26).

Submission No.			196	
Organisation Name or Name of Submitter			Mouna Unlimited Company (represented by Stephen Ward Town Planning & Development Consultants Limited)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: RAILWAY (METROLINK-ESTUARY TO CHARLEMONT VIA DUBLIN AIRPORT) ORDER 2022 - LANDS AT SILLOGUE GREEN LANE AND BALLYSTRUAN LANE, SWORDS, CO. DUBLIN				
60	Appendix D, Henry J Lyons Report, Restricted development potential (page 17of the report)	55	The potential of an ‘unfinished’ corner to the site makes it difficult to market to tenants and potentially serves as a risk to its commercial viability. A further 8 story HQ grade building lost. The loss of a further key building will have an impact on the economic viability of the scheme.	Please refer to response item (8) and (26).
61	Appendix D, Henry J Lyons Report, Conclusion (page 19 of the report)	57	The siting of a Depot and the associated spur lines in this area largely sterilises the ability of Mouna Unlimited and adjacent landholders to develop the area in an orderly, well considered and viable manner. The proposal will create in excess of 7ha of sterilised, vacant land within the High Technology zone, with further sterilised land in adjacent zones. Similarly, any collective ambitions of all landholders to create a meaningful sense of place are substantially curtailed by the construction of a single sided station. There is great opportunity here to create a destination on par with those currently being developed around the southern Luas Green Line extension, however the locating of the depot here would all but eliminate the potential for similar north of the MSO. By moving the depot out of the High Technology Zone, all stakeholders will have the freedom to create a critical area of national and global importance, supported by Metrolink, but not handicapped by same.	Please refer to response item (8) and (26).

Submission No.			198	
Organisation Name or Name of Submitter			The National Disability Authority (NDA)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter RE: NDA submission for Metrolink Railway Order				
1	Introduction	1	The NDA looks forward to being involved in future consultations on this project. We understand that TII is going to adopt a 3 pronged approach to consultation on this project and we welcome this approach. We would suggest for these consultations TII make use of the recently published <i>Participation Matters: Guidelines on implementing the obligation to meaningfully engage with disabled people in public decision making</i> as well as the CEUD’s <i>Customer Communications Toolkit for the Public Service - A Universal Design Approach</i> which will help to produce universally designed written, verbal and digital communications that can be easily accessed, understood and used by everyone. It is also vital that all information on websites is accessible. Public body websites must comply with the accessibility criteria laid out in the <i>EU Directive on Web Accessibility 2016/2102</i> . It should be noted that a textual description of technical drawings and proposed station designs should be provided as these are often inaccessible by persons who use screen reading technology.	TII is committed to following best practice in terms of consultation with disability groups, Disabled Persons Organisations and other relevant stakeholders, as well as to continued engagement with the National Disability Authority. TII undertake to make use of Participation Matters: Guidelines on implementing the obligation to meaningfully engage with disabled people in public decision making and to CEUD’s Customer Communications Toolkit for the Public Service – A Universal Design Approach. TII’s websites are regularly monitored for compliance with the EU Directive on Web Accessibility 2016/2102. Nevertheless, we acknowledge that textual descriptions of technical drawings and imagery pertaining to the project can be improved and enhanced and it is the intention of the project team to apply best practice in this regard to both the website and to ongoing consultation.
2	Introduction	1	The NDA has previously advised TII that a Universal Design approach needs to be adopted and implemented on transport projects to ensure the provision of services that are easy to access, easy to understand and easy to use by everyone regardless of age, size, ability or disability. We continue to advise the same for this project.	TII agree and have included within EIAR Chapter 4 (Description of the MetroLink Project) the overarching principle of universal design and aims to make the proposed Project accessible for everyone to use, regardless of their age, gender, physical capabilities or cultural background. Design measures considered the following seven principles: - Equitable Use – The proposed Project has been designed for use by people with diverse abilities, by providing the same means of use for all passengers without segregating or stigmatising any users. - Flexibility in Use – The design accommodates a wide range of individual preferences and abilities, providing choice in the methods of use and adaptability to the passenger’s pace of travel. - Simple and Intuitive Use – The layout of the facilities is easy to understand, regardless of the passenger’s experience, knowledge, language skills, or current concentration level. - Perceptible Information – Information is communicated effectively to the passenger, regardless of ambient conditions or the passenger’s sensory abilities. Information will be provided in different modes (pictorial, verbal, and tactile). - Tolerance for Error – The design minimises hazards and the adverse consequences of accidental or unintended actions by providing warnings of hazards. - Low Physical Effort – The design can be used efficiently and comfortably and with minimal fatigue. - Size and Space for Approach and Use – Appropriate size and space is provided for approach, reach, manipulation and use regardless of the passenger’s body size, posture, or mobility. The design provides a clear line of sight to important elements for any seated or standing passenger.
3	Delivering Universally Designed transport services	2	The NDA strongly advises that TII project should consider planning approaches that ensure that each element regarding the development and delivery of Metrolink includes accessibility as a key component to support all users to access transport services so they can participate in mainstream society. This includes persons with disabilities, older people and families with young children. As such, the NDA advises that TII adopt and implement a Universal Design approach for every aspect of the Metrolink project as set out in this submission.	Please refer to response item 1 and 2. Furthermore, Chapter 6 (MetroLink Operations and Maintenance) details how the proposed Project has been designed on the principle of Access for All. The design has been developed to meet all legislative requirements relevant to accessibility including the Disability Act 2005 and in turn the Sectoral Plan for Accessible Transport under the Disability Act 2005 (DTTAS 2012).
4	Delivering Universally Designed transport services	2	The NDA is aware that TII continues to consult with the Luas Disability User Group on the Metrolink project. The NDA welcomes this consistent engagement and recommends continuing this engagement. However, the NDA would also encourage consistent engagement with as wide a range of users as possible. The NDA would like to stress that user testing (piloting) is an important part of this sustained engagement process. This should be a key consideration for design of the interior and exterior of stations, car parks, cycle lanes and other infrastructure surrounding stations. User testing will also be key to assessing the design of the Metrolink carriages. Temporary infrastructure should be considered as well, for example as part of any shared spaces, to facilitate user testing and implementation of improvements.	Appendix A8.18 (in relation to Chapter 8 Consultation of the EIAR) summarises the questions raised by all stakeholders, including the National Disability Authority which requested 'Commitment in EIA Scoping Report that TII will have a sustained engagement process with a diverse set of users'. This led to the development of the Luas/MetroLink user Group, as identified in Appendix A8.18, with details of impacts assessed in Chapter 10 (Human Health) in the EIAR. Chapter 8 (Consultation) demonstrates the diverse range of users and stakeholders that TII have engaged throughout the Project. TII will continue to engage with the National Disability Authority, Luas/MetroLink Disability User Group, and all other stakeholders throughout the delivery of MetroLink to ensure a consistent engagement with as a wide a range of users as possible and include for user testing. As identified in response item 3, the design of the Project has been developed to meet all legislative requirements relevant to accessibility, however TII will undertake user testing (piloting) of all facilities prior to operation to ensure they are fit for purpose.

Submission No.			198	
Organisation Name or Name of Submitter			The National Disability Authority (NDA)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter RE: NDA submission for Metrolink Railway Order				
5	Delivering Universally Designed transport services	2	Accessible services are one of the key criteria in the provision of universally designed services. Every aspect of the service including: the design of Metrolink stations; the location of Metrolink stations; the design and location of the proposed pedestrian level crossings; the pedestrian pathways; interchanges; way finders; tactile surfaces; the built environment; the number of transfers a person may need to make in one journey; and the exterior and interior design of the trains, need to be easy to access, easy to understand and easy to use for everyone regardless of age, size, ability or disability.	The overall project objective for the proposed Project, as established by the National Transport Authority (NTA) and Transport Infrastructure Ireland (TII) and as informed by planning policy context, MetroLink, is to: ‘<i>provide a sustainable, safe, efficient, integrated and accessible public transport service between Swords, Dublin Airport and Dublin City Centre</i>’. (National Development Plan 2021-2030, Box 9.1). Please refer to response item 1 and 2 regarding design principles. Chapter 6 (MetroLink Operations and Maintenance) details Passenger Movement and Wayfinding to the stations, within the stations, and at platform level.
6	Station and Infrastructure Design	3	Following a review of the available station design drawings there are a number of concerns which the NDA wishes to raise. The first concern is around access to stations for persons with disabilities. Many of the station designs provide details of proposed bollards outside of the front of the station where they are facing a road. It is unclear to the NDA the intended space between these bollards, and we would like clarification on the intended spacing, as bollards can present a barrier to access for wheelchair users, persons who use mobility aids, persons who are visually impaired as well as those who are pushing prams or travelling with luggage.	The provision of bollards (or a suitable equivalent) around the stations is part of an overall Hostile Vehicle Mitigation (HVM) strategy. HVM measures are necessary to reduce the risk of a terrorist attack and associated damage to MetroLink infrastructure. The design of HVM measures requires a balance between the technical requirements of any measures and the aesthetics, accessibility and functionality of the urban realm. The standards used as part of the design included: •PAS 68 Impact test specifications for vehicle safety barriers •PAS 69:2013 Guidance for the selection, installation and use of vehicle security barrier systems •Integrated Security – A Public Realm Design Guide for Hostile Vehicle Mitigation – Second Edition (CPNI) •Traffic Advisory Leaflet 02/13 (UK Department of Transport and CPNI) •Hostile Vehicle Guidelines for Crowded Places (ANZCTC) Based on these standards a secure perimeter was created made up of structural elements with a maximum spacing of 1200mm measured at a height of 600mm above ground level. This is in line with Irish Building Regulations and Irish Wheelchair Association guidance.
7	Station and Infrastructure Design	3	The NDA also notes with a great deal of concern that there is very little information in these technical drawings of ramp access, noting that ramps that are very long or very steep can lead to further barriers for disabled travellers, rather than promoting access. The NDA requests further detailed information on ramped access to stations where ramp access will be available as well as the proposed width and gradients of all ramps.	Please refer to response item 3. The detail referred to will be developed at detailed design. In line with the design principle of Access for All, the proposed Project will include (but is not limited to) the following features: * The floor of the train will be at the same level as the platform, mitigating the need for steep ramp access; * There will be a very narrow gap between the train and the platform, mitigating the need for a very long ramp; * Wheelchair users will be able to access each train; * All platforms incorporate ramps or lifts for access purposes; * Evacuation procedures include ramps at the front and rear of trains; and, * Suitable sized landings will be provided at the top and bottom of access ramps to stations. The minimum unobstructed width between handrails will not be less than 1.2m, and the shallowest possible gradient will be provided.
8	Station and Infrastructure Design	3	The NDA would also like further detail on how proposed pedestrian underpasses as detailed in the plans for Estuary station and the associated park and ride building will be accessible to wheelchair users for example, as the designs only seem to mention access via stairs and the proposed lifts detailed do not seem to grant access to the underpass level. The NDA would also like to stress the need for clear and controlled pedestrian access to the stations. As detailed in the guidance <i>Building for Everyone: A Universal Design Approach</i>, the provision and location of pedestrian crossing points in any road or street environment should be carefully considered and involve detailed consultation with the relevant road authority. Access to buildings is also detailed in the EU Standard and <i>IS EN 17210 Accessibility and usability of the built environment - Functional requirements</i>. The NDA would strongly advise that TII consult with this document when progressing with more detailed infrastructure and station designs in order to ensure universal design of both.	Chapter 4 (Description of the MetroLink Project) provides a detailed description of the Estuary Station and Park and Ride Facility, including pedestrian accesses. The underpass has been designed in line with accessible standards, with a gradient of 5% and landings every 9m. At the northbound access to the underpass, a passenger lift is provided to facilitate access for those with impaired mobility. The Park and Ride Facility will be linked with Estuary Station by a pedestrian bridge, steps and lift to the platforms, to ensure wheelchair access between the Park and Ride Facility and the station. 208 wheelchair accessible parking spaces will be provided in accordance with the guideline Building for Everyone A Universal Design Approach, exceeding the minimum percentage of accessible spaces required, and will be designed to ensure ease of access to and from the lifts. Each of the proposed stations has been designed to provide a high-quality environment at the station approach to ensure easy and safe access from the existing and future pedestrian footpath network surrounding the station. The Transport for London Pedestrian Comfort Guidance for London (Transport for London 2010) was used as a reference during the design development process to guide the design of access to each station to ensure that pedestrian footpaths and road crossings are appropriate to the volume and type of users accessing the stations. Table 6.6 from Chapter 6 (MetroLink Operations & Maintenance) outlines the pedestrian access available at each of the proposed station locations, including details of crossing types. TII will consult the EU Standard and IS EN 17210 Accessibility and Usability of the Built Environment- Functional Requirements when progressing to detailed design. Please refer to response item 2 and 3. Chapter 6 (MetroLink Operations and Maintenance) also presents details of passenger movement and wayfinding to the stations, within the stations, and at platform level.

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Organisation Name or Name of Submitter			The National Disability Authority (NDA)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter RE: NDA submission for Metrolink Railway Order				
9	Station and Infrastructure Design	4	Crossing points should be located where they are clearly visible and safe for all road users, including pedestrians, and where they provide convenient, understandable and useable access. In busy streets, controlled crossing points with traffic lights should be provided. Audible crossing signals such as pelican crossings help everyone, as well as being essential for people with visual difficulties. Pedestrian crossing points, including Zebra and controlled crossings, junctions at side roads and other locations such as access points to car parks, should incorporate level or flush access to enable easy passage by all pedestrians. Level or flush access can be achieved with the use of a dropped kerb or a raised road crossing.	Please refer to response item 8. The approaches to the station entrances are positioned to provide convenient access with minimal changes in level. Design features to facilitate safe access to the station entrance include signalised crossings with audible signals, ‘raised tables’ within the roadway to reduce traffic speed at pedestrian crossings and dropped kerbs on pavements on both sides of the crossing to remove a trip hazard and aid wheelchair users and people with wheeled luggage. Tactile paving surfaces will warn pedestrians with visual difficulties of the absence of a kerb and guide them in the direction of the crossing.
10	Station and Infrastructure Design	4	The NDA would strongly recommend when designing cycle paths and pedestrian crossings to consider the universal design guidance Getting to the Curb produced by Walk San Francisco (Walk SF). Safe bike infrastructure is imperative for protecting cyclists. Although cycle tracks create safer conditions for cyclists, their location next to the kerb has two major impacts: 1. It eliminates direct access to the kerb for people parking or being dropped off. 2. It often results in pedestrians having to cross an active cycle track to access parking and transit islands. While these changes may only be a minor inconvenience for able-bodied individuals, they are more problematic for persons with disabilities, older people and children who rely on easy access to the pavement.	The needs of pedestrians and cyclists have been considered in the choice of location for the stations and the connections with local footpaths and cycle paths. In the northern part of the proposed Project between Estuary and Malahide Roundabout, the proposals for the R132 Connectivity Project to improve the R132 for vehicles occupants, cyclists and pedestrians, have also been taken into consideration in developing the design. 1. A review of the demand for each station recommended the provision of taxi ranks and/or drop off facilities at a number of locations along the route, in compliance with the Transport Strategy for the Greater Dublin Area 2016-2035 which states the requirement to 'provide, outside of Dublin City Centre, drop-off facilities and taxi ranks at key train stations and Luas stops'. Where drop-off facilities have been provided, they have been incorporated into the design of stations to integrate access and minimise conflict with other modes. 2. Pedestrian crossings at station entrances will interrupt active cycle lanes, ensuring safe access to and from the pavements.
11	Station and Infrastructure Design	4	Pavements provide access from the kerb to buildings and open space, they provide access to bus stops, and they provide a safe space to get pedestrians where they need to go. Access to the pavement needs to be safe, direct, and as plentiful as possible. This is why controlled crossings and speed management infrastructure over cycle tracks are recommended.	Please refer to response item 8 and 9.
12	Station and Infrastructure Design	4	The NDA also notes with concern that shared spaces such as plazas are incorporated into many of the designs with unsegregated cycle lanes depicted. The NDA strongly advises against spaces designed to be used by both cyclists and pedestrians extensively as this can present significant safety issues to pedestrians, particularly those with disabilities, older people and children. This is best reflected by the Department of Transport in London redacting guidance associated with the design and implementation of shared spaces in July 2018, deeming that implementation is not inclusive and the potential risks outweigh the benefits of introducing such spaces. Where possible, pedestrian infrastructure should be kept separate to minimise risk of injury. It is also noted by the NDA that way finding could be difficult in these open areas without points of interest and tactile paving. The NDA recognises that these drawings are not representative of detailed plans but would encourage TII to incorporate tactile paving information and consideration of points of interest in consultations and subsequent detailed information.	The provision of shared space was avoided where possible however in certain locations due to space constraints, a shared space solution is required. The intention in these spaces is to give pedestrians priority over other users and this is reflected in appropriate signage, road markings and road surfaces. Chapter 6 (MetroLink Operations and Maintenance) presents details of passenger movement and wayfinding, including the use of accessible design features. The provision of tactile paving and points of interest will be considered in more detail at the next design stage in consultation with relevant bodies.
13	Station and Infrastructure Design	5	The NDA wishes to stress that active travel considerations must not eliminate accessible parking provision. Also contained in Building for Everyone Guidelines - External Environment and Approach, is information concerning the recommended specifications for design and provision of accessible parking bays as well as recommendations on the amount of accessible parking required. The NDA would strongly suggest consulting these guidelines for details on best practice of accessible parking provision, however, this is not a substitute for consultation and user testing with persons with disabilities and older people.	At Estuary Park and Ride, 208 accessible parking spaces are provided, making up 6% of the total, which exceeds the required standards. The disabled parking spaces will be clearly sign-posted. The size of the proposed 208 disabled parking spaces is compliant with the Disability Act 2005, Building for Everyone A Universal Design Approach (National Disability Authority, NDA, 2021), BS8300-1:2018 Design of an accessible and inclusive built environment (BSI 2018) and Technical Guidance Document part M Access and Use (Government of Ireland 2010). The allocated space will be a minimum of 2.4m x 5m, plus a 1.2m marked access zone to the rear and the side for access. Accessible parking is also provided at key interchange stations including Fosterstown, Glasnevin and Charlemont. Further consultation and user testing with relevant stakeholders on the provision of accessible parking will be undertaken at the next design stage.

Submission No.			198	
Organisation Name or Name of Submitter			The National Disability Authority (NDA)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter RE: NDA submission for Metrolink Railway Order				
14	Station and Infrastructure Design	5	Finally, the NDA notes that toilets are included in the station plans, however there is not much detail provided in terms of accessible toilet provision...The NDA would like to stress the importance of accessible toilet provision to ensure that the public toilets in each station are as accessible as possible for a wide range of users. Additionally, the NDA would like to stress the importance of the provision of changing places toilets in addition to accessible toilets. The lack of suitable toilet facilities greatly restricts the everyday lives of some persons with disabilities and their families. Having access to accessible and Changing Places Toilets can enable people to fully participate in all aspects of daily life including accessing education and employment. The NDA has been informed by Metrolink that changing places toilets are being planned, and we welcome this. We look forward to more detailed information on the plans and are happy to provide guidance and assistance in this matter as provision of changing places toilets is vital to ensuring that Metrolink is a truly accessible transport option.	Public welfare facilities will only be provided at the main interchange stations. The remaining non-interchange stations will not be provided with public welfare facilities for reasons of safety, deterring anti-social behaviour, maintenance and security. All toilets will be designed in line with current accessibility standards.
15	Station and Infrastructure Design	6	The NDA strongly supports continued consultations with the Luas Disability User Group, but would also like to recommend continued wide spread consultation with Disabled Persons Organisations (DPOs). The NDA also wishes to point out requirements under the Disability Act (separate to building regulations) which should be considered in designing transport infrastructure: - Section 25 of the Disability Act, 2005 states that public bodies should ensure that public buildings are, as far as practicable, accessible to persons with disabilities. And, - Section 26 of the Act states that integrated access be provided to services provided by public bodies by persons with and without disabilities.	Please refer to response item 2 and 3 regarding accessibility of design. TII will continue to engage with all relevant stakeholders throughout the Project, including the National Disability Authority, the Luas/MetroLink Disability User Group, and other identified parties.
16	Appendix 1 Previous Information and Advice	6 to 8	Previous Information and Advice - collated	TII thank you for collating the previous information and advice that either has been incorporated into the current plans or will be utilised further at the next stage of design.

Submission No.			199	
Organisation Name or Name of Submitter			NTA	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Railway Order Application- Metro North: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin				
1	Letter	1-4	Submission to An Bord Pleanála lists the reasons why NTA fully supports the Railway Order application.	TII acknowledge and appreciate the letter of support from the NTA.

Submission No.			200	
Organisation Name or Name of Submitter			Neasa Hourigan	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Railway Order Application- Metro North: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin				
1	Cover Letter	1	We are overwhelmingly supportive of the construction of the Metrolink project, it being one of the many public transport improvements the city needs.	TII welcome your support.
2	1.Local area liaison committees	2	We note the observation of District 7 Community Alliance with respect to the establishment of a Local Area Liaison Committee for the area. This would build on the commitment in “3.3.1 External Communication with the Public and Key Stakeholders” 1. We agree that the idea has merit. Given the scale of construction required and the potential for impacts on the local community a formal process for local community engagement along the line should be established. This would be preferable to any problems that may arise being directed through the various Local Authorities involved. Any Local Area Liaison Committees would need to be adequately resourced including the provision of independent expert advice. Mechanisms should be put in place to ensure that the Independent expert advice is truly independent of the NTA.	The services of the Independent Engineering Expert (RINA) are due to be concluded on completion of the Railway Order process (expected in 2024). The continuation of provision of independent engineering advice for residential stakeholder groups throughout the enabling works and main construction stages of the MetroLink project is currently being considered as part of an overall comprehensive community engagement plan, which will include amongst other initiatives, the appointment of dedicated MetroLink liaison representatives and local community forums which will provide detailed updates on construction activities in their areas. The EIAR Chapter 5, MetroLink Contruction Phase, Section 5.12.4.5 sets out TII Plans for Community and Engagement during the Contruction Phase. A Stakeholder and Community Engagement Plan has been developed which has guided the frequency and means of communication to date. The proposed Project will continue to progress community engagement by: • Regularly reviewing and updating stakeholder and community engagement plans; • Actively maintaining partnerships and design focus groups established with the community; and • Communicating in a timely and open manner. TII and its appointed contractor(s) will ensure that local residents, occupiers, businesses, local authorities and all other stakeholders affected by the proposed construction works, as outlined in the EIAR, will be informed in advance of work taking place. The notifications will detail the estimated duration of the works, the working hours and the nature of the works. In the case of works required in response to an emergency, the local authority, local residents and businesses will be advised as soon as reasonably practicable. All notifications will include a local helpline number. In addition, information on the works will also be available on the proposed Project website. TII will further develop the Community Engagement Plan to encompass the construction and operational phases of MetroLink.
3	2. Temporary land	2	Further clarity is required on the use of temporary land (e.g. Albert Park). While temporary land acquisition is undoubtedly required during the construction phase, more defined timelines on their use (start and end) would be appreciated. Many of the lands acquired are local green spaces. Given the length of the construction phase it is reasonable to ask that the use of the green spaces would be minimised.	Temporary land-take at this location is required to facilitate the construction of the intervention shaft within Albert College Park. The environmental impact has been assessed based on a construction phase that is expected to last 63 months as outlined in A5.2 Construction Programme of the EIAR. TII will seek to expedite the schedule to reduce impacts.
4	3. Trees	2	Where mature trees absolutely need to be removed any replacements should also be mature trees (or as close as is practicable in horticultural terms). Some areas will experience disruption during the construction phase. It is not unreasonable to expect that, insofar as possible, any replacement trees would be as close as possible to preconstruction maturity.	TII will seek to replace mature trees with relatively mature specimen trees where feasible. With regards to existing mature trees, an Arboricultural Impact Assessment was carried out (EIAR Appendix 27.3). This contains information on the existing tree conditions and the arboricultural impact of the proposed Project. EIAR Chapter 27 Landscape & Visual, section 27.6.1 includes for a number of mitigation measures to reduce the impact of MetroLink on these trees, including: • Identification and retention of existing mature trees of good quality, through the adjustment of the alignment, location of structures/buildings and the outline design of the proposed Project; • Comprehensive proposals for hard and soft landscape works, including tree and hedgerow planting to offset the effects of net loss due to the proposed Project; • Where cut and cover sections of track and/or station boxes underground are to be planted over, the inclusion of sufficient appropriate substrate and adequate drainage to allow tree planting and growth for posterity. There is a general requirement for a minimum depth of 1.5m growing medium in such circumstances. • In sensitive locations, residual landscape and visual effects will be significantly reduced through the inclusion in the proposed planting of relatively mature specimen trees.
5	4. Construction traffic and parking	3	One of the main impacts of the construction phase on local communities will be parking & traffic. While some traffic will be unavoidable, significant efforts need to be made by the construction firms to reduce the parking impact on local communities where parking is already at a premium. Targets should be included in any tender around the use of public transport, sustainable transport and the provision of company shuttle services to the various sites along the line.	As noted in A5.1 Outline Construction Environmental Plan, all construction staff and workforce will be encouraged to make their way to site and home from site by public transport, by project specific transport (e.g. minibuses), by bicycle or on foot. Limited parking spaces will be provided for vehicles required for the construction activity and for employees. The nominated contractor(s) may provide a transfer pick-up and drop off service from suitable public transport hubs. Targets are to be included in future contracts.

Submission No.			202	
Organisation Name or Name of Submitter			Niall Lynch	
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NA29N. 314724. Name: Niall Lynch. Address: 84 Grosvenor Square, Rathmines, D06W2V5				
1	Letter	3	I have two grounds for observation • Charlemont is a quiet residential area, it is an unsuitable place for the terminus of the metro.	TII understand and are cognisant of, that the area surrounding the proposed Charlemont Station is a quiet residential area and therefore would like to provide the assurance that reinstatement and landscaping will be carried out to ensure the above ground elements of MetroLink integrate sympathetically with the existing environment as referenced in EIAR Chapter 4. During the operational phase, residual rail noise levels will not be above the significant thresholds for airborne noise and vibration. The streetscape/landscape around the Charlemont Station will be designed so that it is integrated with the public realm. The design will include pockets of planting, mature trees, and cycle parking which will benefit residents in the Charlemont area as well as MetroLink and Luas users. EIAR Chapter 4, Description of the MetroLink Project, section 4.7.12 provides further details on the design of Charlemont Station and the surrounding area. The addition of Charlemont Station will also benefit residents as it will provide an additional mode of public transport to Dublin City Centre and North Dublin. Should there be any concerns regards anti-social behaviour, this has been considered by the Project and is addressed by EIAR Chapter 6, MetroLink Operations and Maintenance. Section 6.6.5.8 specifically addresses how this will be managed, including how the architectural and urban realm design is designed to discourage anti-social behaviour, for example through the attractive setting, use of public lighting, open sight-lines, and avoidance of areas where individuals and groups of people can hide. CCTV will also be installed throughout the MetroLink system, including at station entrances and the public realm to provide general security and surveillance of all the public areas. It should also be noted that all the above ground elements of the Station are located within the lands zoned Z5 in accordance with the Dublin City Development Plan 2022 – 2027 meaning they have the objective “To provide for the creation and protection of enterprise and facilitate opportunities for employment creation”. The Station has been designed so that it is integrated with the proposed redevelopment of this site, and as such, demonstrates that the proposed Project is consistent with the zoning objective.
2	Letter		• We should be increasing urban green spaces rather than removing them. A large part of Stephen's green will be unusable for the duration of the build, it will also not be possible to return the green to its current state. This historical gem in the city will be irrevocably changed. The following paper outlines how important Urban green spaces are for its citizen's	TII recognise the importance of St Stephen's Green as a historic park and social / recreational facility, noting that it is also a designated National Monument. EIAR Chapter 27, The Landscape, section 27.5.4.23 identifies that there will be a very significant temporary impact on the Landscape due to the loss of trees in the area of St. Stephen's Green East if mitigation measures are not deployed. However, with the proposed mitigation measures relevant to this location in place, summarised below, this temporary impact can be mitigated by: (1) Development of site specific and comprehensive proposals for hard and soft landscape works, including for trees by ensuring the effective retention of mature trees where possible. These will include: details of the tree species mix, numbers, density and sizes proposed; the tree preparation, presentation, transportation, lifting and placement techniques proposed, as well as; the proposed ground preparation, root ball securing technique, backfill materials and methods, and the specific establishment maintenance proposals for each. These measures will minimise the risk to tree establishment and maximise their viability and future rates of growth. (2) In sensitive locations such as St. Stephen's Green, residual landscape and visual effects will be significantly reduced through the inclusion in the proposed planting of relatively mature specimen trees. Furthermore, while the removal of trees from the landscape will initially have a significant impact if left unmitigated, especially in the case of old and developed trees as the replacing material (saplings) and mature specimen trees can never have the same size and development as the mature original trees that have been removed, resulting in an initial, but temporary contrast between the original established area of trees and the new planted trees area. Over a period of time this contrast will reduce and eventually become imperceptible. TII will work with the OPW to ensure newly planted/ replanted areas contain a significant percentage of Mature Specimen Trees.

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				While the temporary impact on trees is considered very significant, it is of note that it occurs over a localised area of the Park that amounts to only 5% of the total area of the Park and is confined to the east side (adjacent to the Park fence line) of the Park only. Of the 64 trees to be removed TII have identified 5 of those trees as being "A class" in accordance with BS 5837 (generally large, high-quality trees), the remainder are of class B and C, deemed to be of moderate to low quality specimens. TII would also like to provide the assurance that the design approach is to reinstate the existing surface landscape and to replicate as far as possible, the current condition. This means the monuments, railings, lamp standards and paving are to be reinstated on completion of the work, and as noted above, trees will be planted to replace those removed. Further information on the urban realm design of the St. Stephens Green Station can be found EIAR Chapter 4, Description of the Project, section 4.17.11.2. TII are therefore of the view that the construction of St. Stephen's Green Station will not have a significant impact on the overall amenity and function of the Park during construction, given only 5% of the Park area is taken during the Construction Phase, and that once construction is completed, this area is returned to the Park, with only 0.2% of the total Park area taken by MetroLink when operational, whilst providing further access to, and reinforcing that St. Stephen's Green is a key Dublin landmark and destination.
3	Letter		Extending the metro link further south from the Liffey does not provide proportional extra benefit when compared to the cost i.e. extra stations and destruction of Stephen's Green.	Progression to the south side of the Liffey is a key element of the MetroLink project, providing access to business and commercial areas of the city while also providing interchange with Dart (at Tara St) and Luas (at Charlemont) thereby providing a key element of the future integrated public transport network for Dublin. TII would further note that by progressing MetroLink south of the Liffey this will make a significant contribution to achieving the objectives of the Project and delivering the associated benefits. As explained by EIAR Chapter 3, Background to the MetroLink Project, MetroLink will provide significant benefits not only to those who choose to use it, but also to other transport network users, by generating a modal shift from private car use, thereby reducing the demand for road space and creating the opportunity for the road transport system to achieve optimum levels of efficiency and effectiveness. Also as outlined in Chapter 3, the proposed Project is part of an integrated transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2023 and make Dublin a more liveable and sustainable city. Whilst MetroLink is a standalone project that is not dependent on any other projects for its delivery or effective operation, it is nonetheless a critical part of the proposed integrated transport network for the Greater Dublin Area. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from south of the River Liffey to Charlemont station. With regards to the reference made by the observation to "cost". To ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Codes requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision. TII would also note that for the reasons set out by response (2) above, TII do not consider they are causing "destruction" to St Stephen's Green.
4	Letter		I believe the metro terminus should be in the city centre at Tara Street or O'Connell St. Either of these locations would be a more suitable terminus for the metro as there is a link with both the Luas (O'Connell St.) or the railway network (Tara Street).	Please refer to response (3) above.

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Re: Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022 Case number NA29N.314724				
1	Letter - introduction	1	I note that as the owner of no. 1 Dartmouth Square I have not been named in the Book of Reference. TII have details of my ownership. Ref letter to me TII Metrolink Ref ML0102 dated 01.02.22. I have been issued and have received the documentation issued by TII.	TII can confirm that your ownership is noted in the Book of Reference. Please see: MetroLink Book of Reference - Second Schedule Book 2 of 2 (ML70-A3 / ML70-A4)
2	Letter - introduction	1	Firstly, in general, I am favour of the broad aim of the MetroLink Project to connect Dublin's city centre to our national airport. However, as the owner of a residence in the Dartmouth/Charlemont area, I wish to set out a number of observations for the Board regarding the proposal to locate the Terminus station at Charlemont-Dartmouth. The property No. 1 Dartmouth Square, D.6 is a Protected Structure, a residential property, and is in the midst of the community where the Terminus station is proposed to be located.	Thank you for taking the time to make a submission and your overall endorsement of the MetroLink Project generally. We have reviewed your submission and responded to the observations made below.
3	Letter - Point 1	2	1. I understand that no Study has been completed by NTA/TII as part of the entire Metrolink project on the optimal location for a City centre terminus. Charlemont is the incorrect strategic location for a Terminus hub and spoke system as it is too far out along the Luas Green Line spoke and would prejudice future options for integration of networks and services.	TII do not agree that Charlemont is the incorrect location for an interchange with the Luas Green Line or that it prejudices future options for integration with the wider transport network for the reasons set out below. It is also not correct to say that no study has been completed by NTA/TII as part of the entire Metrolink project on the optimal location for a City centre terminus for the reasons explained below and by response (4). The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all any of the above directions.

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			Response (3) continued.	The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area to the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).

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4	Letter - Point 1 (continued)	3	1. (continued) - St. Stephens Green is the most appropriate location as it provides for interchange with bus, Luas and future DART underground. The project incorrectly dismisses St.Stephens Green West as an appropriate terminal station. It only considers St. Stephens Green East and Charlemont.	TII do not agree that St Stephen's Green is the most appropriate interchange location for the reasons set out by response (3) above. It is not correct to say that the Project "only considers St. Stephens Green East and Charlemont." A number of route options were considered in the process of identifying the Emerging Preferred Route (EPR). These route options included potential station locations on St. Stephen's Green West. St. Stephen's Green West was ruled out as the alignment between the proposed Tara Station and a station on St Stephen's Green West would result in an undesirable horizontal reverse curve and an alignment greater than a 1000m long that would necessitate an intermediate intervention shaft located somewhere between these stations to comply with the MetroLink Fire Strategy. Further, as a potential station location, St Stephen's Green West itself is a very constrained location due to the presence of buildings, Luas and St Stephen's Green Park. Maintaining the Luas operational during station construction would be complex and challenging with significant disruption expected, whilst the impacts on St Stephen's Green Park would be greater for a station in this location compared to the proposed location on St Stephen's Green East. This would be the result of; the likely need to place more of the station in the Park compared to the proposed station on St Stephen's Green East; it would impact an area of the Park that has greater amenity value than St Stephen's Green East due to the nearby Park entrance adjacent to the southern end of Grafton Street, and there would be a risk of impacting the existing Park lake. In summary, an alignment that links the proposed Tara, St Stephen's Green East and Charlemont stations is a more direct and economic alignment, does not require additional intervention infrastructure, avoids a complex engineering interface with the Luas Green Line, impacts the Park less and has less potential for disruption during the construction phase. As outlined by EIAR Chapter 3, Background to the MetroLink Project, one of the key objectives of the Project is the integration of it with the wider transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2023 and make Dublin a more liveable and sustainable city. It is being argued argued that Charlemont station effectively becomes a terminus station in the short to medium term. The implication is that the activities normally associated with a terminus are incompatible with the proper planning and sustainable development of this location, in particular, travel to and from the location by car at the start and end of journeys. In this regard, it is true to say that the Metrolink trains will terminate and turn back at Charlemont station, However, Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a “system turn back location”. Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. The associated environmental impacts for the turnback and station at Charlemont have been fully assessed in the EIAR. Additionally, there is a strong level of interchange offered throughout the corridor at locations such as Glasnevin, O'Connell Street, Tara Street and St Stephen's Green, where many journeys on the MetroLink will 'terminate'. The terminus station for MetroLink is located at Estuary where all of the activities normally associated with a terminus take place. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services, as outlined above. The section of the line between St Stephen's Green and Charlemont generates considerable benefits for the scheme in terms of increased patronage. As noted in response item (3), during the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The fact that the Charlemont Station is now being referred to and considered as a “terminus station” rather than an interchange station, does not change the environmental impacts the station has on its local environment, in terms of passenger demand, airborne noise. vibration and other environmental effects. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. If the scheme were to terminate at St Stephen's Green, it would be inconsistent with the GDA Transport Strategy 2022-2042 to locate the terminus at Charlemont.

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5	Letter - Point 2	2	2. Expensive Duplication of Rail infrastructure - The inclusion of an expensive and costly section between St. Stephens Green and Charlemont is strategically weak and duplicates the existing Luas Green Line services. NTA's cost estimate for this 1km section at €650M is an expensive duplication and significant investment that deprives other parts of Dublin that are in immediate need of rail infrastructure to support housing and urban development.	The Board is not responsible for any decisions in relation to the funding the Project. It is solely responsible for assessing whether the Project is consistent with proper planning and sustainable development and that its effects on the environment are acceptable. The responsibility for funding the Project lies with the NTA, the Government and ultimately the Oireachtas. It has received all necessary approvals, including under the Public Spending Code for the making of a Railway Order. It will undergo further scrutiny and approvals, including under the Public Spending Code, before it is funded. It is not appropriate for the Board to make findings in relation to value-for-money that are outside its statutory functions and would cut across those arrangements. Members of the public are entitled to make representations to their TDs in relation to the value-for-money of any element of the Project. In any case, TII do not agree with this statement for the reasons set out by response (2) above, noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers. There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.
6	Letter - Point 3	2	3. The station box at Charlemont, as constructed in 2021/22 by the Developer Hines, does not have the benefit of planning permission and has not been part of the EIA undertaken for this project. Processing the current Railway Order application, which is reliant on these preliminary and now constructed works, is legally unsafe and contravenes the provisions of the EIA Directive.	The MetroLink enabling works constructed as part of the Hines development was included in the planning application for the Hines Development and has the benefit of planning permission which was granted in April 2019.

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7	Letter - Point 4	2	4. The station box at Charlemont will result in only one possible future tie in with the Luas Green Line to the south, which would result in an option that was previously dismissed as part of the Tie-In study from March 2017. No alternatives to the station box at Charlemont were considered as it had been fixed through the design of the overhead Hines Grand Parade commercial development. The implications of this new alignment is very significant on our wider community as it will involve top down construction that will only be possible when many houses on Manders Terrace, Oakley Road and Charleston road are demolished.	The station box at Charlemont allows for a future tie into the Luas Green Line should it be determined in the future that through running metro services to Sandyford is the required solution to address the public transport needs to the south of the city. It is incorrect to say that the current proposal is based on an option that was previously dismissed as part of the March 2017 Green Line tie in study. The station design is in affect a modification to the preferred Green Line Tie Option 4B which was modified as result of the postponement of the upgrade of the Green Line to metro standard. The station box location was not fixed by the Charlemont Development. The preferred route for MetroLink was published in March 2019 following a comprehensive route options study. The preferred route was based on the emerging preferred route for the scheme which included a station at Charlemont. The Charlemont Metro Enabling Works were constructed to enable the Charlemont Development to proceed whilst simultaneously ensuring there was an option available to construct a station at Charlemont that avoided unnecessary demolition, took advantage of an available site, provided infrastructure that is integrated with planned development rather than necessitating later changes and retrospective adjustments to a new development or even possible demolition of the new development, whilst providing protected provision for the future extension of the scheme south, if required. It is also important to recognise that the station location at Charlemont is influenced by available vacant land and thus avoids unnecessary demolition. The submission seeks to portray the construction of the Metro Enabling Works as prejudicial to future decisions on proper planning and sustainable development of the area. It implies that the counterfactual would have had no effect on such decisions. That is not the case. There was a planning conflict between the EPR and the Grand Parade Development at the time the latter development was proposed. There was no resolution to that conflict that was free of implications for future decisions on the proper planning and sustainable development of the area. The Board could have refused permission for the Grand Parade Development, inevitably creating a underutilised and potentially vacant and idle site in a commercial hub location. The Board could have granted permission with no provision to facilitate a station at this location, resulting in a requirement for the railway order to provide for the demolition of a new office building. The Board's actual decision was reasonable and lawful in seeking to minimise the prejudice to an important office development and a critical piece of national infrastructure. It was also not particularly restrictive of future decisions in relation to the proper planning and sustainable development of the area. Of the three options open at the date of the Grand Parade planning application, two remain open: the Board can still require changes to the station design that require the demolition of the commercial building and it can grant an order that avoids demolition by using the Metro Enabling Works. It is agreed that the short-term implications for local residents will be significant as the scheme progresses through the construction stage, however the EIAR assesses the environmental impacts of the construction phase and commits to the implementation of appropriate mitigation measures that reduce the environmental impacts to not significant. The same is true of the operations phase for the project. TII will work closely with local residents to ensure the required mitigation measures are put in place. If in the future, the metro was extended south, this does not mean that inevitably open cut construction will be required or demolition of property will be necessary. In designing an extension, the promoter will seek to reduce the requirement for demolition by looking for tunnel launch sites at the southern extent of the scheme and, if one can be identified, driving the Tunnel Boring Machine northwards ultimately connecting into the existing tunnel. In that case, even if the new alignment were under the properties identified in the submission, the tunnel underneath them would be constructed by the Tunnel Boring Machine without the need for above ground works.

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8	Letter - Point 5	2	5. The Environmental Impact Assessment is inadequate in relation the description of development, alternatives, transport assessment, noise and the cumulative effects of the development on the Charlemont-Dartmouth Community. For a project of this size, scale, investment to date, it is inadequate to propose a Railway Order with so many important studies and analysis missing	TII do not agree that the Environmental Impact Assessment is deficient, inadequate or missing information. The Railway Order application comprises a very detailed environmental impact assessment that has identified and assessed the potential environmental impacts of MetroLink and proposed mitigations for these impacts where necessary. TII would also draw attention to the detailed project description, construction phase description and operational phase description provided in EIAR Chapters 4 and 5 and 6, and EIAR Chapter 7 and associated appendices that present details of alternatives considered. EIAR Chapter 9 and appendices provides a detailed analysis of transport and traffic effects, and EIAR Chapters 13 Airborne Noise & Vibration, and 14 Groundborne Noise & Vibration provide a detailed assessment of potential noise and vibration effects, while Chapter 29 outlines the assessment of interactions between various environmental aspects, and Chapter 30 covers the cumulative impacts with other projects. This assessment is carried out for the full length of the alignment including relative to potential significant effects on the Charlemont-Dartmouth Community.
9	Letter - Point 6	2	6. The development would result in noise and disturbance during the construction and operational phases and would result in a loss of amenities for the area.	The EIAR presents a comprehensive and detailed assessment of both groundborne and airborne noise and vibration in Chapter 13 and 14 of the EIAR. The assessments include for predictive modelling in order to identify the potential impacts on all sensitive receptors during both the construction phase and the operational phase. Noise and disturbance during construction: No profound impacts have been identified for residents and mitigation measures proposed will be effective at reducing the impacts on these properties and in general terms impacts will be associated with the construction phase only. Significant mitigation is proposed to include 4m high noise barriers and further proposed mitigation in line with the Airborne and Groundborne Noise Mitigation Policy. On the implementation of these measures the residual impacts are predicted to be moderate. However, as outlined in Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) there is a process in place whereby further mitigation measures can be implemented at individual properties should this be merited. Noise and disturbance during operation: No residual noise impacts are identified at this location during operation. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and results in a not significant to slight impact when added to the prevailing noise environment. Loss of amenity during construction: EIAR Chapter 11, Population & Land Use provides an assessment of effects on community amenity during construction and operation, which relates to the interaction of impacts on air quality; visual amenity; traffic and transport; and noise and vibration. At this location during construction as outlined in Section 11.5.2 of Chapter 11, no impacts are identified on the retail sector or community and social infrastructure (e.g. schools or hospitals). Any severance/disruption to transport will be limited by site mitigation measures such as alternative routes reducing impacts to not significant. Loss of amenity during operation: No significant residual negative impacts are anticipated on the Population and Land Use from the operation of the proposed Project, following the incorporation of the mitigation measures into the design of the proposed Project and implementation on an ongoing basis throughout the lifecycle. The residual effects that will arise during operation will be permanent and positive as detailed in EIAR Chapter 11, section 11.1.1.

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			Response (9) continued.	The zoning under the Dublin City Development Plan 2022 - 2027 for the residential properties in question is "Z2 Residential Neighbourhoods (Conservation Areas)" with an objective to "protect them from unsuitable new developments or works that would have a negative impact on the amenity or architectural quality of the area (See Table 3.11 of the submitted Planning Report). As outlined in Section 4.5.18.6 of the Planning Report, the element of the Project within the Z2 zoning area will affect a below ground area only and as such will not compromise the land use objective for the lands overhead. The majority of the proposed Charlemont Station and all above ground elements are located within the lands zoned Z6 with the objective “To provide for the creation and protection of enterprise and facilitate opportunities for employment creation”. The Station has been designed so that it is integrated with the proposed redevelopment of this site by a third party development, and as such, demonstrates that the proposed Project is consistent with the zoning objective. The MetroLink station design does not result in any segregation of the area, with no surface barriers or walls proposed.
10	Letter - Point 6 (continued)	2	6. (continued) - The Traffic Study for the local Charlemont area is wholly inadequate as it omitted the modelling of the impact of Airport users coming to the only Dublin South MetroLink station at Charlemont. The Traffic Study uses a strategic, generalised regional model that does not take local factors into account. Extract from observation 7) - The EIA did not properly assess the impact of additional local traffic volumes, rather they used a generalised regional model that does not take local factors into account. A key local factor at a Terminus station in Charlemont that runs to the Airport is the huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with baggage for onward destination to the airport. Grand Parade and the residential area around Charlemont-Dartmouth cannot sustain the significant additional traffic volumes associated with this development	The MetroLink forms part of an integrated public transport network. The system is designed in an integrated manner so that people travelling from the area south of Dublin to access locations north of Charlemont, such as Dublin Airport, Mater, Swords etc. will utilise public transport to interchange with the MetroLink, or will walk or cycle to access their local station. The system is not designed to encourage people to drive to stations within the City and TII actively discourage people from doing so other than the Park & Ride station at Estuary. TII therefore do not agree with the observation that there will be a “huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with luggage for onward destination to the airport” as this is not borne out by our transport analysis. The Transport Assessment for MetroLink includes for people travelling to/from Dublin Airport from all areas within the extents of the GDA area, therefore it is incorrect to say "The Traffic Study for the local Charlemont area is wholly inadequate as it omitted the modelling of the impact of Airport users coming to the only Dublin South Metrolink station at Charlemont”. The NTA's Eastern regional Model (ERM) incorporates a wide range of data sources, including demographic data, land use data, transportation network data, and travel survey data. The system is designed to model a variety of transportation modes, including private vehicles, public transit, walking, and cycling, and to simulate the interactions between these modes. The ERM model has been validated and calibrated using a range of localised data sources to ensure that the model can accurately represent the transport network, these include public transport and vehicle counts from the canal cordon counts. The outputs from the model have been combined with local survey data to undertake the more localised modelling, such as the pedestrian impact assessments, or the local traffic signals. This does not support the observations made “The Traffic Study uses a strategic, generalised regional model that does not take local factors into account.” or “The EIA did not properly assess the impact of additional local traffic volumes, rather they used a generalised regional model that does not take local factors into account.” Regards the observation there will be a "huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with luggage for onward destination to the airport. Grand Parade and the residential area around Charlemont-Dartmouth cannot sustain the significant additional traffic volumes associated with this development", this is covered by response (11) below.

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11	Letter - Point 7	2	7. The development would have an adverse impact upon traffic during the construction and operational phase, and it has not been properly designed and there is poor integration with other modes of transport. Pedestrian movements in and around the station would be difficult. Grand parade is an already heavily congested orbital route.	MetroLink is designed to form part of an integrated public transport network with Charlemont selected as the preferred interchange location in order to maximise the potential interchange with the existing Luas Green Line. In overall terms, Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Construction Phase: EIAR Appendix A9.5 Scheme Traffic Management Plan presents the analysis undertaken to assess the impact of the traffic management measures on the local road network surrounding the proposed Charlemont Station during the construction phase. At the local level the following parameters have been used to assess impacts on general traffic and on pedestrians: • Increase in walking distance/quality of service for pedestrians (through removal of footpath, reduction of quality of service, removal of a pedestrian crossing or relocation of crossing by more than 100m); • Increase in driver delays at junctions; • Changes in traffic flows on surrounding streets; and, • Additional distance travelled due to diversions. The analysis undertaken at this location indicates that the increased volume of traffic on Grand Parade and Northbrook Road does not translate into any significant increase in driver delay. The largest increase in driver delay of 12 seconds is registered on the westbound approach on Grand Parade to the Ranelagh Road signalised junction. During the construction phase, pedestrians will experience a reduction in quality of pedestrian infrastructure and space. The construction site boundary will encroach upon footways in the local area, including the northern side of Dartmouth Road, and the southern side of Grand Parade. However, a temporary signalised crossing will be provided west of the Luas to maintain pedestrian access to and from the Stop. Whilst there are partial closures on Dartmouth Road and Grand Parade, pedestrian movements will be maintained on appropriately sized footways through the area. Operational Phase: A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. The proposed pedestrian crossing on Grand Parade will have minimal impact on the traffic flow along Grand Parade and can be programmed to operate in sync with the existing signalised junction at Grand Parade /Charlemont Street to maintain the flow of traffic movements. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Furthermore, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used for a significant volume of car or taxi trips.

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12	Letter - Point 8	3	8. The development will have an adverse impact upon property values particularly during the construction phase. For many houses in the area there will be a long term and permanent adverse impact upon property values from noise of the operating rail infrastructure, vents, Tanoy systems, escalators and large traffic volumes - vehicular and pedestrian using the station 19 hours per day. The adverse impact also extends to the loss of amenity for the wider community changing a quiet residential neighbourhood into a noisy, busy, congested major transport hub.	Responses (9) above, and (13) and (18) below outline the predicted environmental impacts with regards to noise and vibration, and amenity, while responses (10) and (11) summarise the assessed traffic and pedestrian impacts. TII would note that as explained by response (11) above that in overall terms Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips. TII do not agree that the development will have a long term and permanent negative affect. In fact there is evidence to suggest that property values will in fact increase in close proximity to public transport infrastructure and that local residents will greatly benefit from having a world class metro system providing access to the city centre, airport and north city at their door step. The benefits of the project for all communities along the MetroLink route are described in Chapter 3: Background to the MetroLink Project, section 3.4 MetroLink Response to Challenges.
13	Letter - Point 8	3	Residential Properties on Dartmouth Square West, in particular, will be adversely affected by the location of a Terminus MetroLink station at Charlemont. The respondent's property will be affected by the location of the vast Southern Entrance Plaza and the Tunnel Ventilation Exhaust ducts located behind the boundary wall.	Based on the analysis and assessments undertaken by TII, with mitigation measures in place, there will not be a significant impact on the residents of Dartmouth Square West. The southern entrance plaza, acknowledged to be directly to the rear of No 1 Dartmouth Square West, will replace an industrial site that has existed previously at this location, noting it has been designed to the highest standards to create a high-quality urban environment. As outlined by response (11) above, there will be no long-term significant effects in terms of pedestrian movements in the area. Further it is noted that station entrances are transient areas for passengers entering and exiting the station. These activities are not the source of significant noise generation and form part of the existing soundscape in the existing prevailing environment. It is acknowledged footfall numbers will increase in the vicinity of the station entrance however this activity does not translate to significant noise impacts. EIAR Chapter 13, Airborne Noise and Vibration, section 13.2.6.2.4 explains that noise levels from all fixed installations (which includes ventilation plant from stations) will be limited to not exceed an operational noise level of 50 dB LAeq,16hr during daytime periods and 45 dB LAeq,8hr at noise sensitive buildings to achieve acceptable internal noise levels with windows open. It is also noted that where background noise levels (expressed using the LA90 parameter) are below the fixed noise limits above, there is potential for the operation of new noise sources at this level to be audible and to generate potential significant effects, depending on the magnitude above the background noise level. Therefore, when considering the potential impact of the noise emissions from operational plant associated with the proposed Project, consideration will also be given to the British Standard BS 4142 (BSI 2014 +A1 2019) to ensure noise does not breach acceptable levels. Background noise levels measured at Location UT52 to the rear gardens of Dartmouth Square are below the fixed limits above (Table 13.30, Chapter 9 of EIAR), and hence in line with the EIAR noise design criteria for fixed installations, the design of operational plant will also be undertaken in line with BS 4142: 2014 + A1 2019 to ensure no significant noise impact arises as a result of the operational phase plant items. The operational noise criteria for this source is therefore largely dependent on the most up to date and accurate prevailing background noise level. Given the fixed items of plant will not be installed until some 8 years post project commencement, the background noise environment will be resurveyed at the time of the design development to ensure the most up to date information informs the design, specific plant selection and mitigation to comply with the noise criteria set within the EIAR, which forms part of the Railway Order. Due to the requirement for updated baseline monitoring requirements closer to the time of installation and the likelihood that technology will improve between now and the installation of such plant, it is premature to define the specific attenuation measures for noise control. However, mitigation measures will include items such as low noise rated equipment, the use of in duct attenuators, orientation of grilles and louvres away from sensitive receptors, the installation of acoustic louvres and the use of anti-vibration mountings and couplings. EIAR Chapter 16, Air Quality, section 16.5.3.11 explains that the main emissions from the ventilation shafts will be warm air and as such are not considered significant.

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14	Metro Design:	3	Metro Design: The deep construction required immediately adjacent to residential houses is wholly inappropriate and will result in a very severe loss of amenity and devaluation of property	It is not uncommon for deep excavations to occur during construction works in urban areas. The excavation will be secured by hoardings for safety and to mitigate noise. As noted by response (16) below, TII have assessed the impact of the excavation on your property. TII would also like to assure you that at no time will the safety of this property and its occupants be placed at risk, noting that the construction of the station will be monitored, including surrounding ground and building movements, with predetermined trigger levels aligned with action plans to ensure movements do not exceed acceptable levels. This will be further supported by a vast suite of mitigation measures implemented at the site (as outlined in the Construction Environmental Management Plan (CEMP) in Appendix A5.1 of the EIAR to minimise all other impacts on residents. Responses (9) and (12) above explain that no significant loss of amenity is predicted or long-term devaluation of property.
15	Construction Phase	3	The construction noise impact assessment is wholly inadequate as it fails to consider the internal noise impact over a 9-year period, defers assessments to the design and construction stage, fails to properly assess night-time impacts, and incorrectly categorises impacts as very significant as opposed profound.	It is not correct to say "The construction noise impact assessment is wholly inadequate as it fails to consider the internal noise impact over a 9-year period, defers assessments to the design and construction stage, fails to properly assess night-time impacts, and incorrectly categorises impacts as very significant as opposed profound.". Responses (9) and (18) demonstrate this is not the case. The noise assessments, Airborne and Groundborne, EIAR Chapters 13 and 14 respectively, have been undertaken in line with best practice an all relevant guidelines and policy requirements. The assessment of noise levels at building facades is normal for this type of analysis noting the assessment criteria generated from best practice guidance all refers to noise levels at building facades.
16	Construction Phase	3	The EIAR fails to properly assess the settlement impacts of the tunnelling upon the houses on Dartmouth Square West and there may be settlement of between 10mm and 30 mm which would severely affect these protected buildings.	The approach taken by TII for assessing the impact of construction generated ground movements reflects the industry standard three-phased ground movement impact assessment process that is undertaken on tunnelling and underground projects around the world, that includes Channel Tunnel Rail Link (CTRL), Dublin Port Tunnel, Crossrail and High Speed 2. EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement and includes for the assessed impact on the houses on Dartmouth Square West, with settlement in the range of 25 to 30mm. EIAR Appendix 5.17 refers. The Phase 2 assessment of the ground movement impact to this building is "slight" (an explanation for which can be found in Table 4-4), please refer building B150 (15 Dartmouth Square West) in table 5-2 of that appendix. As your property is a designated Protected Structure, it has been designated as “special”, and hence a further Phase 3 refined assessment, despite the impact only being assessed as ‘slight’ will be undertaken that will take account of final design and construction methodology details most likely utilising advanced numerical modelling techniques and further surveys of the building. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. Monitoring instrumentation will also be installed in the area to monitor the performance of the works and potential environmental impacts, including those discussed above to ensure that acceptable limits are not breached. TII would also draw attention to the fact that residential property owners within 50m of the station excavation, or 30m of the tunnel are eligible to subscribe to the Property Owners Protection Scheme (POPs). The Property Owners’ Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor.

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17	Construction Phase	3	The hydrogeological impact assessment is inadequate as it has not been based upon local bore hole logs and no local impact assessment has been undertaken around the Charlemont station.	This statement is incorrect. Please refer to Figure 19.6 of the EIAR which identifies the location of a borehole at Charlemont. Pump tests were undertaken here and groundwater samples were taken (from 3 boreholes here) and analysed in order to inform the baseline conditions presented in the EIAR. Furthermore calculations were undertaken to estimate the effects of excavations on the groundwater for every station including Charlemont (refer to EIAR Chapter 19, Hydrogeology, Table 19.35, Table 19.41, and Charlemont subsection under section 19.5.3.6.)
18	Construction Phase	3	Construction of the intervention tunnel will give rise to significant noise and disturbance, 24/7 during the period of its construction.	TII have carefully assessed the impact of construction noise and vibration for all aspects of construction, including the construction of the intervention tunnel, which will be mechanically excavation. With the exception of the passage of the TBM which will operate on a 24/7 basis and take approximately 2-weeks to pass 1 Dartmouth Square, there are no predicted adverse residual impacts from any other activity once noise and vibration mitigation measures have been implemented. A summary of the predicted noise and vibration impacts is provided below. Construction Noise and Vibration Potential impacts identified due to airborne noise and vibration are presented in EIAR Chapter 13. Noise mitigation proposed for works at Charlemont Station are summarised in Section 13.6.1 of the EIAR and include for boundary hoarding around the working area, including a 4m high hoarding at the southern boundary, increasing to 7m high on the northern boundary. In addition, the above ground support works for sprayed concrete tunnelling works will be enclosed within an acoustically clad steel framed building to control noise breakout to surrounding receptors. With the proposed noise mitigation measures, the assessed residual impacts during the construction of Charlemont Station are set out in Table 13.90 that shows the noise impacts at receptors at 1 Dartmouth Square will be reduced to Moderate. EIAR Appendix A14.5, Groundborne Noise and Vibration and Blasting Modelling Results, 14.4 Section AZ4 Northwood to Charlemont presents the predicted vibration levels during TBM passage for various sensitive receptors and outlines the predicted VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) for TBM Passage during the day and night. At 1 Dartmouth Square West this is predicted to be 0.204ms-1.75 (VDV day) and 0.171ms-1.75 (VDV night) respectively. Both of these values are lower than the VDV Threshold Levels of 1.0ms-1.75 (VDV day) and 0.5ms-1.75 (VDV night). Levels of vibration during mechanical excavation of Charlemont Station are predicted to be 0.002ms-1.75 and 0.001ms-1.75 for day and night-time respectively, which is lower than the VDV Threshold Levels of 0.8 ms-1.75 daytime and 0.4 ms-1.75 night-time, resulting in a not significant impact on the building and its occupants. The threshold levels have been set in relation to human response to vibration, and thresholds for building damage are much higher. As the predicted levels of vibration from TBM passage and mechanical excavation are below these thresholds, no impact is predicted for either the building or for residents of this address. Predictions of vibration during blasting at Charlemont Station have also been made. For 1 Dartmouth Square West where a vibration level of 3.5mm/s PPV (Peak Particle Velocity) is predicted compared to the threshold level for this building of 8mm/s resulting in no potential significant impact. Owing to the nature of the sprayed concrete intervention tunnel construction and to ensure a safe and stable method of excavation, and minimising settlement impact, the sprayed concrete intervention tunnel construction will be undertaken 24 hours per day, seven days per week. The groundborne noise and vibration arising from mechanical excavation of the tunnel will not exceed threshold limits. As noted above, it is proposed that during night-time support works at the surface, an acoustically clad steel framed building will be used within the compound to control airborne noise breakout to surrounding sensitive properties. The predicted level of groundborne noise during TBM passage is 45 dB LASmax at 1 Dartmouth Square West, which is at the 45 dB LASmax threshold, resulting in a significant impact on the occupants of this address for the relatively short 2-week duration of the TBM passage. Unfortunately there are no effective methods available to reduce groundborne noise from TBMs at source and therefore the principal mitigation measure is advance consultation and engagement to inform residents of the timing of the TBM passing to allow building occupants to prepare for the temporary elevated noise levels. As outlined in Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) there is a process in place whereby further mitigation measures can be implemented at individual properties should this be merited.

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19	Construction Phase	3	The construction phase will last over 9 years. This is a medium-term effect which has not been properly considered in the EIAR.	It is not correct to say that the construction phase has not been properly considered in the EIAR. Please refer to EIAR Chapter 2, Methodology Used In Preparation of the EIAR, Table 2.3 where the durations of effect utilised in the analysis throughout the EIAR are referenced. Please also note that the assessment in EIAR Chapter 13, Airborne Noise and Vibration has allowed for noise and vibration impacts over shorter durations to reflect the duration of the actual activity i.e. excessive noise effects resulting from the construction will not last 9 years, but will last as long as the "noisy activity" lasts. These durations are outlined in EIAR Chapter 13.
20	Construction Phase	3	The hours of construction proposed include 12 hour working days and significant element of 24 hour working during certain periods of the contract.	Proposed Working Hours are outlined in EIAR Chapter 5, MetroLink Construction Phase, section 5.2.4. Standard working hours will generally be the norm for all above ground works i.e. Monday to Friday 07:00 to 19:00 and Saturday 07:00 to 13:00. Only tunnelling and other works underground will be undertaken 24 hours a day. The only exception to this is the requirement for work outside standard working hours for events (Refer to Chapter 5, section 5.2.4.2 Additional Working Hours) such as concrete pours, and abnormal deliveries (refer to section 5.3.2.1.). In planning the Works, the contractor will engage with the local community and seek local authority approval of the Construction Environmental Management Plan (CEMP) before such works are undertaken. Details of the requirements for the CEMP are provided in Chapter 5, Appendix A5.1 Outline CEMP. All planned night-time work activities will have to be undertaken, controlled and mitigated under the detailed Construction Environmental Management Plan to maintain impacts below the agreed construction noise thresholds. Examples of mitigation measures that can be used to reduce impact are detailed within Chapter 13, section 13.6, including the use of enclosure structures for planned activities outside of the standard working hours. The rationale for 24/7 working on activities such as Mechanical Electrical Power (MEP) installation, TBM strip out, and tunnel clean and track laying, is that they can be managed underground without causing disturbance at night. While activities below ground are progressed on a 24/7 basis, site level activities such as deliveries etc will be limited to standard working hours (Chapter 5, Section 5.5.17.3 refers). As explained by response (18) above, there will be some temporary disturbance (c. 2 weeks) resulting from the TBM passing. All other activities are not predicted to cause significant impact.
21	Construction Phase	4	The alternative construction compound has not been properly assessed and given the impacts of that proposed, it is incumbent upon TII to properly assess this and propose it as a mitigating measure.	There is no alternative for the Station construction compound as it needs to encompass the proposed location / construction of the Station. All environmental impacts associated with this construction compound have been assessed and mitigated where practicable.

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22	Construction Phase	4	Additional traffic will be generated during construction and the rediverting of traffic will have an adverse effect upon the local road network. HGV traffic on quiet residential roads will have a severe impact upon amenities. No local traffic modelling has been undertaken as part of the assessment and the impact upon pedestrians has not been properly assessed.	It is not correct to say that "No local traffic modelling has been undertaken as part of the assessment and the impact upon pedestrians has not been properly assessed.". Appendix A9.5 Scheme Traffic Management Plan details the proposed HGV routing associated with the construction works at Charlemont Station. Routing from the site is mainly via the R111 and R110, and routing to the site is via the R810 and R110. Alternative routing options via the R110/Kildare Road and the R110/R811 are also considered, all of which are part of the regional road network. Only when the full closure on Dartmouth Road is in place will construction traffic route via Dartmouth Road. Local modelling undertaken at this location indicates that the increased volume of traffic on Grand Parade and Northbrook Road does not translate into any significant increase in driver delay. The longest delay occurs eastbound on Dartmouth Road during the AM peak of 14 seconds. Model outputs indicate that there will be a moderate increase in HGV movements during construction at this location. The most significant increase, of just over 2%, will be in both directions along Ranelagh Road/Charlemont Street, which is part of the regional road network. Elsewhere in the area, including local residential streets, increases are significantly lower. Please also refer to response (11) above.

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23	Construction Phase	4	There will a severe impact upon human health which has not been properly assessed.	It is not correct to say "There will a severe impact upon human health which has not been properly assessed." EIAR Chapter 10, Human Health has identified that there may some residual effects after mitigation measures due to the noise and vibration arising from mechanical excavation, TBM advancement and proposed blasting resulting in "annoyance to users, but no health effects".
24	Construction Phase	4	Overall, the proposed mitigation measures do not mitigate the profound impact that the proposed scheme will have on residents of Dartmouth Square given the associated scale and time period of the proposed development.	The analysis presented in the EIAR does not support the observation "Overall, the proposed mitigation measures do not mitigate the profound impact that the proposed scheme will have on residents of Dartmouth Square given the associated scale and time period of the proposed development." No profound impacts have been identified for the residents of Dartmouth Square and mitigation measures proposed will be effective at reducing the impacts on these properties and in general terms impacts will be associated with the construction phase only for the reasons summarised below. (1) EIAR Chapter 9 Traffic and Transport outlines that after mitigation measures have been implemented there will be a residual long term slight impact on pedestrians as there will be more pedestrians in the area. However the use of existing footpaths will be at "acceptable comfort levels". There will be no other residual impacts either in the construction or operational phase related to traffic or transport. (2) EIAR Chapter 10 Human Health has identified that there may some residual effects after mitigation measures due to the noise and vibration arising from mechanical excavation, TBM advancement and proposed blasting resulting in "annoyance to users, but no health effects" (3) EIAR Chapter 13, Airborne Noise and Vibration outlines that mitigation measures proposed include 4m high noise barriers and further proposed mitigation in line with the Airborne and Ground borne Noise Mitigation Policy at 10 & 11 Dartmouth Square. On the implementation of these measures the residual impacts are predicted to be reduced to moderate. (4) EIAR Chapter 14 Groundborne Noise and Vibration identifies a significant residual impact on Dartmouth Square West as a result of the passing of the TBM. (see response (18) above. However, this will be for a limited duration and residual effects from other construction phase activities are not considered significant following the implementation of mitigation measures. (5) EIAR Chapter 16 Air Quality identifies that there will be no significant effects once mitigation measures are implemented. (6) EIAR Chapter 21 Land Take has identified a significant effect on Dartmouth Square properties due to the requirement for temporary land take for construction and for the erection of noise barriers. However this land will be reinstated following the completion of the construction phase in accordance with response (27) below. (7) EIAR Chapter 26 Architectural Heritage identifies the potential for impacts on Dartmouth Square ACA due to enabling works entailing the redirection of utilities. These works will be managed in accordance with a method statement prepared by the Project Conservation Architect in order to minimise any effects on the historical granite steps, kerbing and lamp standards. The impacts following the implementation of these mitigation measures is considered to be slight. (8) EIAR Chapter 27 The Landscape identifies potential landscape and visual effects after mitigation associated with the construction phase. These are assessed to be moderate and negative for the effects on the landscape amenity, and slight and negative for the visual effects.

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25	Operational Phase	4	The operation of the trains and associated ventilation systems has the potential to adversely affect the amenities of the residents and has not been properly assessed. The post completion permanent arrangement will result in significant rat-running between Ranelagh Road and Grand Parade to the detriment of the residents on Dartmouth Square West. No adequate drop-off, pick-up facilities, taxi ranks, or interchange with other services are proposed.	The analysis of the operational phase presented in the EIAR does not support the observation "The operation of the trains and associated ventilation systems has the potential to adversely affect the amenities of the residents and has not been properly assessed." In terms of noise arising from the ventilation systems, please refer to EIAR CHAPER 13 Airborne Noise and Vibration, section 13.5.3.2.3 where potential impacts associated with ventilation systems are presented. It is identified that during night time, ventilation could have potential to exceed acceptable limits and as a result mitigation measures as proposed in Section 13.6.2.3 are proposed to ensure that noise limits can be achieved at the nearest sensitive receptors. Please also refer to responses (9) and (13) above. Regards the observation that the "The post completion permanent arrangement will result in significant rat-running between Ranelagh Road and Grand Parade". As presented in EIAR Chapter 4, Description of the MetroLink Project, the internal street between Grand Parade and Dartmouth Road will be treated as a shared vehicular pedestrian space, with access only to the site and no through access. The access will also be barriered, speed restricted and traffic calmed. This will mean that there is no potential for this route to be used as a "return". As noted above, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus. TII would also note that the interchange is provided with other elements of the transport network as explained by responses (3) and (4) above.
26	Operational Phase	4	The overall impact of the both the construction and operational phases of the project, in terms of noise, vibration, visual impacts, traffic, HGV movement, construction activity, operational emissions, anti-social behaviour and general activity around the station will be such as to severely and permanently adversely affect the residential amenities of the residents listed in this submission. The impacts will be so severe as to evidently be in material contravention of the Dublin City Development Plan zoning objective for the area, which is Z2: "to protect and/or improve the amenities of residential conservation areas." The mitigation measures proposed do not meaningfully mitigate the significant adverse impacts during operation for residents of Dartmouth Square West.	As explained by the above responses to the observations made, TII consider that the impacts for both the construction and operational phases of the Project have been adequately assessed and where necessary mitigated, and that the above responses to the observations made have addressed "noise, vibration, visual impacts, traffic, HGV movement, construction activity, operational emissions.....", noting that no profound impacts are predicted after mitigation. The risk of anti-social behaviour has also been considered by the Project and is addressed by EIAR Chapter 6, MetroLink Operations and Maintenance. Section 6.6.5.8 specifically addresses how this will be managed, including how the architectural and urban realm design is designed to discourage anti-social behaviour, for example through the attractive setting, use of public lighting, open sight-lines, and avoidance of areas where individuals and groups of people can hide. Subject to data protection impact assessment and compliance with the General Data Protection Regulation (GDPR) CCTV will also be installed throughout the MetroLink system, including at station entrances and the public realm to provide general security and surveillance of all the public areas. TII would also note Charlemont Station has been deliberately designed without drop-off (with the exception of a drop only for persons of restricted mobility on Grand Parade) and taxi pick-up areas. TII would also note that while the interchange will certainly increase the number of people passing through the area, it is important to note that people will be using MetroLink, similar to Luas as a transport hub, moving quickly in and out of the area. The station will not be a destination attracting people to remain in the area. TII do not agree that the Project is "in material contravention of the Dublin City Development Plan zoning objective for the area, which is Z2: "to protect and/or improve the amenities of residential conservation areas." for the reason explained by response (9) above. As noted by response (3), Dublin City Development Plan 2022-2028 supports the Charlemont interchange.
27	Property Issues	4	The permanent acquisition of part of the rear laneway will legally impede rights of access to the rear of properties. The permanent loss of part of the laneway will inevitably impact upon the amenity and value of retained land/property.	Access to the laneway to the rear of Dartmouth Square West will be maintained, apart for a 33 metre section of the lane to the rear of N0 11-15 which will be occupied by the contractor for a period of 6 months to facilitate construction of part of MetroLink station box. Accordingly 1 Dartmouth Square will not permanently lose access to the laneway.

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28	Property Issues	4	The development will inevitably impact upon the value of retained land/property. There will be a significant devaluation in property and the Board must refuse this element of the railway order. Owners' costs of engaging in the process should be borne by TII.	TII do not agree that the development will have a long term and permanent negative affect. There is evidence to suggest that property values will in fact increase in close proximity to public transport infrastructure and that local residents will greatly benefit from having a world class metro system providing access to the city. The benefits of the project for all communities along the MetroLink route are described in Chapter 3: Background to the MetroLink Project, section 3.4 MetroLink Response to Challenges. Where a property owners interests is required either permananetely or temporarily for the MetroLink Project, compensation will be paid in accordance with the compensation code. The compensation includes for all reasonable fees and costs properly incurred in consequence of the purchase from TII. Further details on the MetroLink Compulsory Purchase Order (CPO) Guideline can be found at: https://metrolink.ie/media/0jlpbyso/metrolink_cpoguideline_final_september-2022
29	Letter - concluding statement	5	Furthermore I request the following amendments to the proposal : 1. Omit from the Railway Order the section from Tara Street Station to Charlemont Station and associated onward tunnel extension and intervention tunnel Specifically the Charlemont station should not form part of the rail order as it will severely and demonstrably adversely affect the residential amenities of the Dartmouth Square residents both during the construction phase and the operational phase. 2. Require the submission of a railway order for a section from Tara Street Station to St. Stephens Green which would effectively provide for a terminal hub station that can integrate with the Luas Green Line, multiple bus routes and future DART underground. 3. The deep construction proposed to construct the Charlemont Terminus Station immediately adjacent to residential houses is wholly inappropriate and will result in a very severe loss of amenity and devaluation of property.	The above responses to the observations made explain why TII do not consider it is correct or appropriate that the MetroLink alignment south of the proposed Tara Station should be omitted, and also demonstrates why the proposed Charlemont Station has been selected by TII as the preferred interchange with the Luas Green Line A scheme which terminates at Tara Street would not be consistent with the Transport Strategy for Greater Dublin Area (2022-2042). In addition any decision to terminate the scheme at Tara will significantly impact on the overall viability and benefits of scheme. Regards the observation and concern with respect to deep excavation, response (14) above addresses this observation.

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1	Point 1	1	I am fully supportive of public infrastructure, the Green Line Luas and the proposed MetroLink project on the Northside of Dublin. However, I am not in agreement with what is being planned for the Southside of Dublin and the change in transport strategy from a North-South spine to a single Central Hub terminating on the Southside at Charlemont. The justification for a terminus station at Charlemont is weak. MetroLink requires a city centre Terminus.	Thank you for taking the time to make this submission and your endorsement of the MetroLink Project in general. TII also note your concerns regards “the change in transport strategy from a North-South spine to a single Central Hub” and MetroLink extending to Charlemont. TII do not agree that the justification for Charlemont Station as the preferred interchange with the Luas Green Line is weak for the reasons set out below. The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all any of the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage.

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			Response (1) continued.	The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). With regards “the change in transport strategy from a North-South spine to a single Central Hub terminating on the Southside at Charlemont” referred to by the observation. The proposed MetroLink alignment has not been extended south of Charlemont for the reasons set out by the GDA strategy , section 12.3.10, "The challenges associated with the upgrading of the Luas Green Line to a metro standard of service have led to the emergence of an alternative proposal which seeks to meet travel demand from south of Sandyford along a new light rail corridor which serves UCD post-2042. As such, the upgrading of the Green Line to metro standard is not being pursued as part of this strategy. Instead, for this strategy period, the capacity and frequency on the current Green Line from Sandyford northwards to the city centre will be incrementally increased through the provision of additional tram fleet and services and associated turnback arrangements to meet forecast passenger demand." For this reason it has been necessary to determine the most appropriate interchange and termination location for MetroLink.
2	Point 2	2	I understand that the NTA-TII have Government approval to provide an Airport Northside Metrolink terminating at a City centre location that will form part of a Transport Hub for differing modes of transport. The proposed Charlemont Terminus station does not meet this criteria and cannot act as a Transport Hub. Charlemont is not currently served by multiple current modes of transport. While there is a Luas stop, there are no bus stops, coach stops, or taxi ranks on any of the boundary roads. Grand Parade and Dartmouth Road are already at capacity in terms of car traffic.	The rationale for locating the MetroLink interchange with the Luas Green Line at Charlemont is explained by response (1) above. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services, as outlined above. The section of the line between St Stephen's Green and Charlemont generates considerable benefits for the scheme in terms of increased patronage. The proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) in which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise. TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus. The station is an interchange with Luas, with existing bus stops accessible a short walk away. Please also refer to response (6) below that addresses the road capacity concerns raised.

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3	Point 3	2	I believe that other options for the Southern MetroLink Terminus station should be examined by NTA- TII. An Independent Study should have been carried out to determine the most suitable location for a City Centre Terminus. No Study was ever completed to select Charlemont as a terminus end of line major interchange station. NTA-TII should substantiate with evidence the facts that Charlemont is the 'optimal' location when compared to other potential locations eg St Stephens Green.	TII have examined the options for the MetroLink interchange with the Luas Green Line as explained by response (1) above and consider that this evidences that Charlemont is the optimal location when compared to St Stephen's Green. TII would also note that a number of route options were considered in the process of identifying the Emerging Preferred Route (EPR). Please refer to "New Metro North Alignment Options Report, Volume 1: Main Report, Section 5.2 Route Options Identification, 5.2.1 Study Area A. https://data.tii.ie/metrolink/alignment-options-study/study-1/metrolink-volume-1-main-report.pdf	
4	Point 3	2	It would be better to terminate the MetroLink at St. Stephen's Green Dublin 2 and not at Charlemont Ranelagh Dublin 6. Within the NTA -TII application it is proposed to provide an interim station on St. Stephens Green East . This station would be a better MetroLink Terminus as it is a more central location than Charlemont. An underground passageway would be the Interchange linking the SSGE Terminus station to the existing Luas line at St Stephens Green West. The Metro line could still be extended to the South and to Charlemont as an interim station within a subsequent proposed Phase 2 development of the MetroLink to Cherrywood etc. MetroLink Terminus Station will require a track projection of the terminus tunnel 360m beyond the Terminus itself. Should the terminus be at St Stephens Green East then the track projection could be located below the Iveagh Gardens to the South where it can be easily accommodated with a lower level of impact. (The Charlemont track projection requirement is not shown in detail in the TII MetroLink Non Technical Summary but it is described briefly on P.24 of the document).	Response (1) explains why Charlemont has been assessed overall to provide a better interchange with the Luas Green Line taking account of a number of considerations. Regards the observation of “an underground passageway”, notwithstanding the feasibility / space constraints and economics associated with providing a tunnel with additional lifts, escalators and stairs to those already provided for at the proposed St Stephen’s Green Station, the travel distance between the St. Stephen’s Green and the Luas Green Line remains the same. Response (1) also explains why it is considered that creating the turnback at St Stephen’s Green has a greater impact than at Charlemont. Further details of the Charlemont turnback structure is provided by the submitted Railway Application drawings, “Estuary to Charlemont Plans of Proposed Railway Works Alignment Details Dublin City Council AREA ML304 - ML307 Balbutcher Lane to Ranelagh Road Book 2 of 2, drawing ML1-JAI-ARD-ROUT_XX-DR-Y-03097”	
5	Point 3	2	I believe that NTA -TII should examine whether the MetroLink Terminus station could be located below the Iveagh Gardens itself with the main entrance -exit onto Clonmel street off Harcourt Street. Other ancillary entrances -exits from this station could be provided onto Earlsfort Terrace, St Stephens Green South and Hatch Street. The Iveagh Gardens site is a city centre location and there are good transport services on the adjoining roads. A new Luas platform could be made on Harcourt St. adjoining Clonmel Street if required. Furthermore the former Harcourt Street Station could even be repurposed as the MetroLink Terminus station. The Metro line could still be extended to the South and to Claremont as an interim station within a subsequent Phase 2 development of the MetroLink to Cherrywood etc.	As noted by response (1),the Metrolink interchange at Charlemont is supported by the Transport Strategy for Greater Dublin Area (2022-2042). and Dublin City Development Plan 2022-2028. Additionally, the capacity of the Luas south from St. Stephen's Green is restricted due to the on-street running, restricting the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour which cannot be met by an on-street systems (Luas / bus). Locating the interchange at Iveagh Gardens does not mitigate this constraint. The constrained site and logistics challenges in terms of constructing a station at Iveagh Gardens do not make it a feasible site for a MetroLink station.	

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6	Point 4	3	The site is a cramped residential urban site with limited space for such a development. The site has no bus links, no space for vehicular set down or room for taxi ranks at either of the Grand Parade or Dartmouth road entrances. The proposed Interchange for Metro and Luas passengers is poor. It will be above ground using stairs and a lift with a 400m walk in the open air and may not be adequate in size for the projected passenger numbers. It is very likely that this function will be relocated / extended from Grand Parade to Dartmouth road which will then become the main entry point to the station and not Grand Parade as shown in the application.	TII agree the Charlemont site is constrained, however a Station design has been developed that fits and works within this constrained site, and is adequately sized for projected passenger numbers. The MetroLink is designed to form part of an integrated public transport network with Charlemont selected as the preferred interchange location in order to maximise the potential interchange with the existing Luas Green Line. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the Station, without significantly impacting on the operation of the road network in the area. Furthermore, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus As previously stated above (2), the station is an interchange with Luas, with existing bus stops accessible a short walk away. TII do not agree the interchange is poor or that as stated by the observation that this interchange will be relocated to Dartmouth Road. TII also do not recognise the 400m walk quoted by the observation. The distance between the proposed MetroLink Charlemont Station Grand Parade entrance and proposed Luas Green Line stairs and lift is considerably less than this at c.60m. A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the Project station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both have been sized for Metro to Luas, and Luas to Metro passenger numbers. Please refer to Chapter 9: Traffic & Transport, Appendix A9.2-B Traffic and Transport Assessment Charlemont Station, section 6.1.3. Pedestrian Impact Assessment.
7	Point 5	3	The plan will turn Charlemont into "the" single central access point for MetroLink for the whole of the Southside. It does not make strategic sense to bring all southside MetroLink passengers to a Charlemont location that is less accessible than a location such as St. Stephen's Green. It will result in a vast increase in pedestrian and vehicular traffic congestion particularly by those travelling to & from the Airport in what is a residential area and cultural heritage area.	TII do not agree, as evidenced by the modelling carried out, that "The plan will turn Charlemont into "the" single central access point for MetroLink for the whole of the Southside" or that "It will result in a vast increase in pedestrian and vehicular traffic congestion particularly by those travelling to & from the Airport in what is a residential area and cultural heritage area. The MetroLink forms part of an integrated public transport network. The system is designed in an integrated manner so that people travelling from the area south of Dublin to access locations north of Charlemont, such as Dublin Airport, Mater, Swords etc. will utilise public transport to interchange with the MetroLink, or will walk or cycle to access their local station. The system is not designed to encourage people to drive to stations within the City and TII actively discourage people from doing so other than the Park & Ride station at Estuary. Please also refer to response (6) above.

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8	Point 5	3	This long-standing residential and Architectural Conservation Area has never been envisaged or proposed as a suitable location for a major Transport Hub in any Development Plan for Dublin City.	The Dublin City Development Plan 2022-2028 envisages this Metrolink station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords" However, TII recognise the importance of Dartmouth Square and its designated status as an Architectural Conservation Area (ACA). Mitigation measures for Architectural Heritage can be found in Table 26.66 of EIAR chapter 26 (Architectural Heritage). The only potential for direct impacts on the Architectural Heritage Areas (ACA) is related to the diversion of utilities on Dartmouth Square West. To minimise the impact on protected structures in Dartmouth Square such as historic granite steps, kerbing and lamp standards, works within the Dartmouth Square ACA will be overseen by the Project Conservation Architect (PCA) and carried out in accordance with a method statement prepared by PCA. Details of proposed management plans in areas of Architectural Conservation such as Dartmouth Square, including the appointment of the PCA are referred to in Chapter 25 Archaeology & Cultural Heritage, section 25.6 Mitigation Measures. The impact on Architectural Heritage in Dartmouth Square has been assessed to decrease to slight following mitigation. The baseline information for Dartmouth Square is referred to in Chapter 25 Archaeology & Cultural Heritage, Table 25.6: Characterisation of Baseline Environment (Architectural Constraint reference ACH223), with mitigation planned referred to in Chapter 26 Architectural Heritage, section 26.7.1 Proposed Mitigation, Table 26.66 Proposed Mitigation (Impact reference AHI-99)..

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9	Point 6	3	In terms of construction, the current TII proposal for the Charlemont station will potentially have a devastating impact on the houses of Dartmouth Square West, Cambridge Terrace and Dartmouth Road. It will see the gardens, the laneway to the rear of Dartmouth Square West and potentially some of our homes acquired, demolished and excavated to build a station that is only 1.5 meters from some of the residential homes. These homes are all Protected Structures within the Architectural Conservation Area of Dartmouth Square. Many homes may be seriously damaged during construction particularly due to tunnelling. Dartmouth Road and Square may require to be closed for circa 10 years while the work is in progress.	There will be no devastating impact on the houses of Dartmouth Square West, Cambridge Terrace and Dartmouth Road, and there is no requirement for homes or gardens to be acquired, demolished or excavated to construct Charlemont Station. The only demolition occurring at Dartmouth Road will be of 19 and 19a which is a two-storey commercial building. A laneway wall west of Dartmouth Square west will also be demolished but will be reinstated after construction. Access to the laneway to the rear of Dartmouth Square West will be maintained except for a short period to enable the installation of acoustic barriers to mitigate noise impacts to the properties on Dartmouth Square. Homes are not predicted to be seriously damaged and TII can confirm that Dartmouth Road and Square will not be closed while the work progresses. Further detail of the environmental impact assessments undertaken by TII is provided below. The proximity and impact of the station excavation and tunnel construction to property has been carefully assessed by TII, including recognising many of the properties are designated Protected Structures, to ensure unacceptable impacts are mitigated. This includes the impact of vibrations from; the tunnel boring machine (TBM), mechanical excavation and blasting, and also construction generated ground movements leading to settlement and possible building and property movement. All of which have been assessed and reported in the EIAR and are summarised below. EIAR Chapter 14.4.1.9 AZ4 – Groundborne Vibration during Construction. Tables 14.32 and 14.33 present predicted vibration levels for selected receptors during TBM passage and mechanical excavation compared to the impact threshold values for vibration for various sensitive receptors. Predictions for more locations are presented in Appendix 14.5 Groundborne Noise and Vibration Blasting Modelling Results. The predicted vibration presented in Table 14.32 and 14.33 outline the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) for TBM Passage at Charlemont. The VDV Threshold Level for residential buildings during TBM passage is 1.0 ms-1.75 day and 0.5ms-1.75 night, based on human response, with thresholds for building damage being much higher. The predicted level of VDV during TBM passage is around 0.265 m/s-1.75, and for Mechanical Excavation is around 0.004 m/s-1.75. Both of these values are lower than the VDV Threshold Level for properties in the area of the Charlemont Station and tunnel construction, meaning that properties will not be damaged by vibration. EIAR Chapter 14.4.1.10 AZ4 – Blasting. Table 14.34 presents the predicted vibration levels during blasting compared to the threshold values for vibration for various sensitive receptors. According to the calculations presented by Table 14.34, for properties in the area of the Charlemont Station an exceedance vibration level of 10.7mm/s PPV (Peak Particle Velocity) is predicted compared to the Threshold Level for properties of 8mm/s. Mitigation measures will therefore be implemented to reduce the risk to property from blasting as outlined in Chapter 14, section 14.5.1.2. Mitigation will include preparation of site specific blast designs that take account of sensitive receptors, including minimisation of the maximum instantaneous charge weight, or if necessary, alternative methods to blasting being employed. With the implementation of mitigation measures, vibration from blasting will be sufficiently reduced such that the residual vibration will not cause damage to property. EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. No properties are predicted to exceed the Damage Category 2. Damage Category 2 means that the degree of damage will be ‘slight’ (refer to Table 4-4), and any repair works would constitute activities similar to standard maintenance work. With particular regards to Protected Structures, these properties have been designated as "special" and hence a further Phase 3 refined assessment will be undertaken that will take account of final design and construction methodology details most likely utilising advanced numerical modelling techniques and further surveys of the building. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. Monitoring instrumentation will also be installed to monitor the performance of the works and potential environmental impacts, including those discussed above to ensure that acceptable limits are not breached. TII would also draw attention to the fact that residential property owners within 50m of the station excavation, or 30m of the tunnel are eligible to subscribe to the Property Owners Protection Scheme (POPs) which includes for pre and post-construction condition surveys and the repair of damage attributed to the scheme. The Property Owners’ Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor.

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10	Point 7	3	Ventilation shafts, Extract fans and fixed plant will be located at Ground level at the rear of Dartmouth Square West and will generate noise. As these will operate 24/7 they will be a nuisance and will affect the quality of life of the residents. Escalators will be in operation when the MetroLink station is in operation. As these will operate when the trains are running 5.30-Midnight they will be a nuisance and will affect the quality of life of the residents.	EIAR Chapters 13 and 14 present a comprehensive and detailed assessment of groundborne and airborne noise and vibration. The assessments include for predictive modelling in order to identify the potential impacts on all sensitive receptors during the operational phase. No residual noise impacts are identified at this location during operation. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and results in a not significant to slight impact when added to the prevailing noise environment. Chapter 13, sections 13.2.3.2 and 13.5.3.2.3 recognise that ventilation systems if not designed and mitigated effectively are potential noise sources. Section 13.6.2.3 outlines the detailed considerations that will be included in the design to ensure that the ventilation systems do not exceed limits as per BS 4142, including: • Reduction of induct flow rates; • Reduction of elements in the airflow; • In duct attenuators; • Orientation of grilles and louvres away from sensitive receptors; • Acoustic louvres; and • Anti-vibration mountings and couplings will be incorporated into the design to control vibration.
11	Point 7	4	The stations will require to be floodlit 24/7 and will affect the quality of life of the residents.	TII confirm that stations will not be "floodlit". EIAR Chapter 4, Description of the MetroLink Project, section 4.12.8.3 explains the lighting class (and therefore the light level and uniformity targets) for each area to be lit, and has been selected using BS5489-1:2020 with account made for the local ambient lighting and environmental zones. The following measures will be undertaken to ensure the quality of life of residents will not be effected by station lighting: • LED lights will be used instead of traditional lights to control light spill, in compliance with the Institute of Lighting Profession 'GN01 Guidance Notes for the Reduction of Obtrusive Light' document; • The use of luminaires will ensure that zero upward light is emitted; and • Lighting will be adjusted depending on a stations setting for example lighting columns on highways will be 12m high but lighting columns in or near residential areas will be 8m high.
12	Point 7	4	Antisocial behaviour, law and order, graffiti and extensive litter are very likely to increase in the area due to the high volume of passengers using the Terminus station particularly at night.	The risk of anti-social behaviour has been considered by the Project and is addressed by EIAR Chapter 6, MetroLink Operations and Maintenance. Section 6.6.5.8 specifically addresses how this will be managed, including how the architectural and urban realm design is designed to discourage anti-social behaviour, for example through the attractive setting, use of public lighting, open sight-lines, and avoidance of areas where individuals and groups of people can hide. Subject to data protection impact assessment and compliance with the General Data Protection Regulation (GDPR) CCTV will also be installed throughout the MetroLink system, including at station entrances and the public realm to provide general security and surveillance of all the public areas. TII would also note Charlemont Station has been deliberately designed without drop-off (with the exception of a drop only for persons of restricted mobility on Grand Parade) and taxi pick-up areas.

Submission No.			204	
Organisation Name or Name of Submitter			Niall Parsons	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: Strategic Infrastructure Development (SID). Type: Railway Order Application. ABP Case Reference: NA29N.314724 Estuary to Charlemont via Dublin Airport) Order 2022 Case number NA29N.314724				
13	Point 7	4	The expected increase in pedestrian and vehicular traffic to the station, and to the Dartmouth Road end will cause congestion and will destroy a residential area and cultural heritage area. My house No.1 Dartmouth Square West is located at the corner of the Square and Dartmouth Road. The proposed MetroLink Terminus station will have a major negative impact on my property with the entire above non exhaustive list of factors.	TII do not agree that “will cause congestion and will destroy a residential area and cultural heritage area” as explained by the responses made to your observations above, including responses (6) and (7) that address pedestrian and vehicular traffic, and response (8) with regards to the impact on property.
14	Point 8	4	The proposed MetroLink + Luas to Charlemont stations equate to a duplication of two railway lines of circa 1 Km with a projected cost of €650 million. This is bad planning and a waste of Public money. The logical Southside terminus is in a city center location e.g. St. Stephen's Green. The proposed tunnelling to and building of a Southside terminus at Charlemont will add very significant costs to the MetroLink Project. The justification for a terminus station at Charlemont has been proven to be weak.	The Board is not responsible for any decisions in relation to the funding the Project. It is solely responsible for assessing whether the Project is consistent with proper planning and sustainable development and that its effects on the environment are acceptable. The responsibility for funding the Project lies with the NTA, the Government and ultimately the Oireachtas. It has received all necessary approvals, including under the Public Spending Code for the making of a Railway Order. It will undergo further scrutiny and approvals, including under the Public Spending Code, before it is funded. It is not appropriate for the Board to make findings in relation to value-for-money that are outside its statutory functions and would cut across those arrangements. Members of the public are entitled to make representations to their TDs in relation to the value-for-money of any element of the Project. In any case, TII do not agree with this statement for the reasons set out by response (1) above, noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.

Submission No.			204	
Organisation Name or Name of Submitter			Niall Parsons	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: Strategic Infrastructure Development (SID). Type: Railway Order Application. ABP Case Reference: NA29N.314724 Estuary to Charlemont via Dublin Airport) Order 2022 Case number NA29N.314724				
15	Conclusion	4	I would be glad if ABP could consider the above non exhaustive list of observations and that approval is refused for this application and that the MetroLink Station at Charlemont, be reconsidered and Terminus be relocated in a city centre location.	The responses to the observations made above explain why TII do not consider it is correct or appropriate that approval is refused for this application and that the proposed MetroLink interchange with the Luas Green Line at Charlemont be relocated. A scheme which terminates ain the city centre would not be consistent with the Transport Strategy for Greater Dublin Area (2022-2042). In addition any decision to terminate the scheme in the city centre will significantly impact on the overall viability and benefits of scheme.

Submission No.			205		
Organisation Name or Name of Submitter			Nicholas Mansergh - The Cottage, Wellington Square, Cork		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Metrolink submission: Observation on Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order, 2022 (case reference; NA27N.314724)					
1	Letter	1	The purpose of this observation is to draw attention to the flawed manner in which the option which developed into Metrolink was selected by the Fingal/North Dublin Transport Study (AECOM, 2014, 2015). In the 'alternatives considered' section of the EIAR (volume 2, chapter 7), this study is put forward as the process by which the metro option was selected from a list of 25 alternatives. It was the point at which a metro proposal was readopted, and other light or heavy rail or BRT-based alternatives rejected, and subsequent development of the Metrolink project has developed from that recommendation. Of the 25 possible schemes examined in the first stage of this study, four survived for appraisal in the second stage. The cost of the option derived from Metro North, having initially been costed at €2.5-3 billion, was then 'optimised' by reducing capacity to 12,000 per hour in each direction, shortening platforms, and bringing a previously tunnelled section between DCU and Dublin Airport above ground.	The selection of the option which was developed into MetroLink was part of the Fingal/North Dublin Transport Study (AECOM, 2014, 2015), and is therefore outside of the EIAR and Railway Order application. As indicated, Chapter 07 (Consideration of Alternatives) presents the decision-making process that has led to the proposed Project, including the main reasons for choosing the proposed Project. The assessment includes alternative options using heavy rail, light rail, Bus Rapid Transit (BRT) as well as combination options. The assessment identified an Optimised Metro North (LR7) as the best medium- and long-term transport project for the Greater Dublin Area for the following reasons: * It was the most economically advantageous scheme when compared to other options, delivering the highest benefit to cost ratio (BCR of 1.5), almost double the BCR of the next best scheme (Tunnelled Luas); * It generated the highest level of transport benefits when compared to other options, with the highest number of additional public transport benefits generated in morning peak travel period; * It provided a new strategic public transport corridor, avoiding reliance on either the existing heavy rail lines or the Luas Cross City line; * It delivered a connection right into the centre of the city, serving O'Connell Street and St Stephen's Green; * It retained the opportunity to extend Luas Cross City to Finglas, which would not be feasible if the tunnelled Luas options were selected, and it avoided reducing the service level on Luas Cross City to Cabra and Broombridge; * Due to the high level of segregation, it was considered to significantly increase capacity to allow for potential future growth along the corridor, when compared to other options; * It could potentially be extended southwards in the longer term to alleviate high travel demand on the Luas Green Line, and ultimately form a complete north south metro corridor traversing both the north and south city; and, * This option delivered the highest safety benefits when compared to other options.	
2	Letter	1	By contrast, its light and heavy rail competitors, initially costed at €0.5-1.05 and €1.2-1.5 billion respectively, had become more expensive in the second stage, at €2.24 and €1 .83 billion, and similar to the optimised metro (€2.33bn). Their cost advantage having largely been removed, cost benefit analysis showed they had negative net benefits, while the optimised metro one had strongly positive ones (AECOM, 2015, p.49, 51, 55, 124, 134, 157, 164) The light rail option ('LR3') followed much the same route as the metro north of the city centre, before connecting into the recently extended LUAS Green Line in Cabra. Its cost doubled between stages one and two of the study, mainly because it was decided that a 2.5 km section would need to be in tunnel in the city centre. Leaving it on street would limit trams to a three minute maximum frequency, which would leave no spare capacity by 2033 (AECOM, 2015, p. 108- 122).	Please refer to response item (1) in relation to the Fingal North Dublin Transport Study. As noted in Chapter 07 (Consideration of Alternatives), the options were subject to a Multi-Criteria Analysis (MCA) having regard to Environment, Economy, Safety, Accessibility and Social Inclusion and Integration. Therefore, the preferred option was identified for several reasons, not simply the cost, as noted in response item (1) above.	
3	Letter	1	However, if the preferred option is optimised, then so should competing alternatives, on the principle of comparing like with like. The light rail alternative can be used to illustrate how this might have been done. As with the metro option, it could have involved aligning economically achievable capacity more closely with demand. The light rail option had barely adequate capacity in city centre sections, but this could have been coped with by several different forms of load sharing:	Please refer to response item (1) in relation to the consideration of alternatives, including alternative light rail options, and the reasons why the proposed Project was selected as the preferred option.	
4	Letter	2	a) A segregated, limited access route between Swords, the Airport and the city centre already exists - the Port Access tunnel - and is already well used by buses connecting them. It would not be difficult to balance use of this existing route with that on a LUAS one, by periodically adjusting services and access controls on the tunnel.	Please refer to response item (1) in relation to the consideration of alternatives, including bus and light rail options, and the reasons why the proposed Project was selected as the preferred option.	
5	Letter	2	b) The reduction in the interval between trams from one every 2 minutes possible in largely segregated suburban sections to one every 3 minutes in largely on-street city centre ones could be avoided, by splitting the line at the point where it enters the latter, with the second line running a short distance into the centre. Many urban rail services work on the terminus principle, with some passengers walking further to reach their final destination. Unlike a rail terminus, a light rail one need not take up any more space than a normal stop. In Dublin, the green line served such a terminus (at St. Stephen's Green) from 2003 to 2017. While the difference between 2 and 3 minute frequencies may seem minor, it represents a 50% increase in capacity (30 trams per hour instead of 20). Splitting the proposed line could avoid the need to put it into a tunnel under the city centre.	Please refer to response item (1) in relation to the consideration of alternatives, including alternative light rail options, and the reasons why the proposed Project was selected as the preferred option.	

Submission No.			205	
Organisation Name or Name of Submitter			Nicholas Mansergh - The Cottage, Wellington Square, Cork	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
6	Letter	2	(c) Direct interchange between the light rail option and the rail lines to Connolly and Docklands could have been provided for. AECOM's LR3 option required a double change at Broombridge and Cabra (2015, p.101), but few passengers would do this. More would do so with a direct interchange, diverting some passengers from trams in the city centre.	Please refer to response item (1) in relation to the consideration of alternatives, including light rail options, and the reasons why the proposed Project was selected as the preferred option.
7	Letter	2	(d) The proposed 3000 space park and ride garage on the M1 north of Swords is large enough to affect the balance between capacity and demand on a light rail line, and could be scaled back. Arguably this should be done anyway, as it will encourage 'rail heading' - making those living north of Dublin more inclined to drive down the motorway to the park and ride facility, and less inclined to use existing rail stations closer to their homes.	As noted in Chapter 09 (Traffic and Transportation), with the increased use of public transport in the Operational Phase of the proposed Project, the strategic road network will experience an overall reduction in AADT and delays. The M50 Motorway, R132 Swords Bypass and M50 Port Tunnel see reductions in total traffic flow from the Do Minimum to the Do Something scenario, however the M1 and other local roads north of the Park and Ride Facility see an increase in traffic flow due to people accessing the Park and Ride. As outlined in Chapter 31 (Summaries of the Route Wide Mitigation & Monitoring Proposed) item TT19, the use of the Park and Ride Facility at Estuary Station will be monitored through the Operational Phase. Data on the origins and destinations of users, and their trips will be required to determine what impact the Park and Ride Facility is having on local and strategic level trips. Further demand management measures may be required in order to increase the number of spaces available to the wider catchment.
8	Letter	2	The AECOM study might have optimised the three alternatives to the metro option, or found some other way of treating them more equally, and have then still recommended the metro, so their failure to do so does not demonstrate that their conclusion was wrong. It does however show that it was arrived at in an unsafe and unsatisfactory manner. Subsequent massive increases in the estimated costs of Metrolink cast further doubt on the study, as they imply the cost of the metro was seriously underestimated, even at 2015 costs, and that its cost estimates for the different options may be unreliable even in relative terms.	Please refer to response item (1) in relation to the Fingal North Dublin Transport Study. As noted in Chapter 07 (Consideration of Alternatives), the options were subject to a Multi-Criteria Analysis (MCA) having regard to Environment, Economy, Safety, accessibility and Social Inclusion and Integration. Therefore, the preferred option was identified for several reasons, not simply the cost, as noted in response item (1) above. Additionally, the Preliminary Business Case for the proposed Project details the range of cost estimates associated with the proposed Project, and has been granted Approval in Principle by Government, enabling the submission of the Railway Order.
9	Letter	2	While inclusion of a statement of the alternatives considered in an EIAR is a requirement under Irish and European Law, there is no explicit requirement that they be evaluated, or that this be done in an unbiased and reliable manner. The main purpose of an EIAR is to demonstrate the environmental acceptability of a project, rather than its superiority to alternative options. Defects in the way alternatives were considered would not necessarily preclude approval for an infrastructure project of moderate scale with limited interaction with other projects. However, Metrolink is of a different order of magnitude to a normal infrastructure project for which an EIAR would be required. Apart from the numerous large-scale effects on the development of Dublin and its public transport system, its sheer cost is likely to have a nationwide impact, by pre-empting funding for other projects. It is difficult to see how approval of such a large megaproject with such pervasive effects, developed on the basis of such a flawed selection process, can be considered consistent with proper planning and sustainable development.	Please refer to response item (1) in relation to the Fingal North Dublin Transport Study and in relation to the decision making process that has led to the proposed Project, and the reasons why it has been selected as the Preferred Option. As noted in Chapter 07 (Consideration of Alternatives), the options were subject to a Multi-Criteria Analysis (MCA) having regard to Environment, Economy, Safety, accessibility and Social Inclusion and Integration. Having regard to the environmental assessment that informed the choice of the proposed Project, some of the findings were: * Some noise impacts were identified during the construction and operational phases, that could be minimised by design development and the implementation of mitigation measures; * This option has the highest positive environmental impacts through the improvements in air quality and the highest reduction in greenhouse gas emissions when compared to other options; * Some potential for impacts associated with construction compounds, hoarding and the removal of landscape features. However mitigation measures could be adopted to reduce impacts. The assessment also identified some impacts associated with the tunnel portals as well as the surface sections in rural areas south of Swords; * Some temporary loss of habitat of low conservation value was expected during the construction phase. This option was the preferred option from a Biodiversity perspective. Once operational, the proposed Project will have no significant impacts on habitats and surrounding wildlife. * The proposed Project could result in temporary removal or relocation of monuments during the construction phase, with the potential for the removal of the curtilage of some buildings of architectural merit. Overall, this was the preferred option from a cultural heritage perspective. * Potential impacts due to land take and severance in addition to potential impacts on soils due to soil usage and degradation during the construction phase. * The assessment identified potential for residual impacts on groundwater of low significance, with residual impacts on surface water resources considered to be of a low magnitude with negligible to low significance. * The preferred option scores well by providing the most benefit as it passes through 12 deprived areas along the route. As noted in response item (8), the Preliminary Business Case for the proposed Project details the range of cost estimates associated with the proposed Project, and has been granted Approval in Principle by Government, enabling the submission of the Railway Order.

Submission No.			205	
Organisation Name or Name of Submitter			Nicholas Mansergh - The Cottage, Wellington Square, Cork	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
10	Letter	2	One possible way of resolving this problem would be to revisit the AECOM report. The Board could ask for further information on a limited number of specified options considered in that report, in the form which best reflected the strengths of each specific option. For each such option, the expected benefit-cost ratio could be required, with supporting calculations and up- to-date costs, for comparison with those for Metrolink.	Please refer to response item (1) in relation to the Fingal North Dublin Transport Study. As noted in Chapter 07 (Consideration of Alternatives), the options were subject to a Multi-Criteria Analysis (MCA) having regard to Environment, Economy, Safety, accessibility and Social Inclusion and Integration. Therefore, the preferred option was identified for several reasons, not simply the cost, as noted in response item (1) above. As noted in response item (8), the Preliminary Business Case for the proposed Project details the range of cost estimates associated with the proposed Project, and has been granted Approval in Principle by Government, enabling the submission of the Railway Order.

Submission No.			208		
Organisation Name or Name of Submitter			Nigel Clerkin (168 Rathgar Road, Dublin, D06 RW72)		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Re: Metrolink					
1	Letter	1	Extending the proposed underground metro from the city centre to Tallaght, also serving Rathmines, Rathgar, Terenure and Templeogue, would be a much superior option allowing for a greater population catchment.	The overall project objective of MetroLink, as established by TII and as outlined in the National Development Plan 2021-2030 (Government of Ireland, 2021) is 'to provide a sustainable, safe, efficient, integrated and accessible public transport service between <u>Swords, Dublin Airport and Dublin City Centre</u>'. The extension of the alignment to Tallaght, via Rathmines, Rathgar, Terenure and Templeogue does not align with this objective with regards to the areas to be served by the Project. The current Transport Strategy for Greater Dublin Area (2022-2042) considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in any of the above directions.	
2	Letter	1	An underground metro to Tallaght would meet the transport demands of a growing population of commuters unlike the Busconnects Project, which proposes to remove trees, increase road widths, and cause loss of or damage to heritage, village character and communities along its route.	Please refer to Response (1) above. BusConnects is not part of the MetroLink scope and does not fall within the remit of TII.	
3	Letter	1	Extending MetroLink to Tallaght would take a large volume of motor vehicle traffic out of the road system. It would reduce the pressure on villages and communities inside the M50 limits and allow for safer commuting for cyclists and pedestrians. It is the most sustainable way to ensure the character of villages like Rathmines, Rathgar and Terenure survives and thrives for future generations.	Please refer to Response (1) above.	

Submission No.			209		
Organisation Name or Name of Submitter			Nigel Mallen (23 Daneswell Road, Glasnevin)		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Email: MetroLink-Estuary to Charlemont Case number ABP-314724-22					
1	Noise	2	I object to the granting of planning permission because of the noise levels, both groundbourne and airborne, that will be generated during the construction/tunnel boring phase of the construction and during the ongoing operation of any metro trains thereafter.	TII understand the reasons for your concerns and would like to provide the assurance that the potential disturbance impact on your property as a result of the proximity of the proposed tunnel and station has been carefully assessed. This includes the impact of noise and vibrations from: the tunnel boring machine (TBM) and the operation of MetroLink. All of which have been assessed and reported in the EIAR and are summarised below. With the exception of a temporary disturbance when the TBM passes your property, TII are predicting a 'not significant' impact to the building occupants and your building, or risk to the integrity of your house. Construction Phase – Airborne Noise and Vibration EIAR Chapter 13 Airborne Noise and Vibration, Table 13.61 summarises the potential significant construction noise impacts from the construction of the proposed Griffith Park Station. With your address being in excess of 200m from works at Griffith Park Station no significant impact from airborne noise is predicted. Construction Phase – Groundborne Noise and Vibration EIAR Chapter 14 Groundborne Noise and Vibration, Appendix A14.5 presents the predicted groundborne noise levels during the construction phase of the project for 23 Daneswell Road: • The predicted level of groundborne noise during TBM passage is 51 dB LASmax, which is above the 45 dB LASmax threshold resulting in a significant impact on the occupants of the building for the relatively short 2-week duration of TBM passage. • The predicted level of groundborne vibration during TBM passage is 0.3 ms-1.75 day and 0.252 ms-1.75 night, below the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) Threshold Level of 1.0 ms-1.75 day and 0.5 ms-1.75 night, resulting in a not significant impact on the building and its occupants. Unfortunately, there are no effective methods available to reduce groundborne noise from the TBM at source but noting that the duration of this impact will be temporary and of the order of up to two-weeks as the TBM passes. TII will undertake advanced consultation and stakeholder engagement to prepare people for the passing of the TBM and ensure the timing of these impacts are known as detailed in EIAR Appendix 5.1 - Outline Construction Environmental Management Plan (CEMP), Section 6.2, Table 6.2. TII's contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project as referred to in EIAR Appendix A5.1. The CNVMP will be a live document and will include a full monitoring and auditing programme which will be agreed with the Local Authorities prior to the commencement of the Construction Phase. The Transport Infrastructure Ireland (TII) Airborne Noise and Ground-borne Noise Mitigation Policy (Appendix A14.6 of EIAR Chapter 14) also sets out the construction noise insulation and temporary rehousing measures to be implemented where required. Operational Noise and Vibration During railway operation the predicted groundborne noise at 23 Daneswell Road is 40 dB LASmax, as shown in EIAR Appendix A14.5, Section 14.4 (pg29) which does not exceed the threshold level of 40 dB LASmax, indicating no significant impact to building occupants during railway operation. However, as the output value of the model is borderline, between two assessment criteria, TII are happy to engage with the residents to identify suitable mitigation mesasures in the context of those outlined in the EIAR Chapter 14 and the Airborne Noise & Groundborne Noise Mitigation Policy. The predicted VDV during railway operation is 0.014 ms-1.75 (VDV day) and 0.008 ms-1.75 (VDV night). Both of these vibration values are well below the VDV Threshold Levels of 0.8ms-1.75 (VDV day) and 0.4ms-1.75 (VDV night) indicating no significant impact for the building or for residents of this address.	
2	Vibration	2,3	I object to the granting of planning permission because of the vibration levels, both groundbourne and airborne, generated during the construction phase and the ongoing operation of any metro trains thereafter.	Please refer to Response (1) above related to noise and vibration.	

Submission No.			209	
Organisation Name or Name of Submitter			Nigel Mallen (23 Daneswell Road, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Email: MetroLink-Estuary to Charlemont Case number ABP-314724-22				
3	Potential damage to my home	3	I object to the granting of planning permission for this project due to the potential damage to my home during the construction phase and during the ongoing operation of any metro trains thereafter. There is the potential for considerable damage to my home during the construction phase and ongoing operation of metro trains.	Excavation for the tunnels and other below ground structures could potentially lead to ground movements at the surface and below ground. An assessment of the effects of ground movements and potential impacts on existing buildings has been carried out as part of the Scheme Design with information included in EIAR Appendix A5.17 Building Damage Report. The EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. The assessments include for some specific buildings and representative assessments for other general types of buildings along the route and Section 5.2 of this report sets out the rationale for the assessment of properties similar to yours. The results of the assessment provided in Table 5.2 shows that property Ref B - 244, as one of the representative properties selected similar to your property, has been assessed as falling within the '<i>Very Slight</i>' category. The building risk categories shown in Table 4-4 of the aforementioned report are used to define the degree of building damage related to the Risk Category. The Property Owner Protection Scheme (POPS), committed to by TII, allows residential property owners to register with TII if their residential property is within thirty (30) metres of the edge of the MetroLink alignment or fifty (50) metres of station structures. The POPS comprises condition surveys of residential properties along the route of the proposed Project. The purpose of the condition surveys is to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether same may be attributable to the proposed Project, and subsequently to recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in swift and accurate verification of any property damage claims which may be received from property owners. The POPS is designed to cater for / address repair work which may be necessary for any damage (attributable to the proposed Project) to a qualifying residential property up to a threshold of €45,000. The POPS will be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Further information on POPS is available in Chapter 11 (Population & Land Use). Useful information can also be found in the MetroLink Frequently Asked Questions document which can be found online at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/ , and this is where useful updates will be made available as the proposed Project progresses. . Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/
4	Substratum	3	I object to any acquisition of the substratum of land under my home. I do not consent to the acquisition of the substratum of land under my home.	The EIAR Chapter 21 (Land Take), Section 21.6.1.2, outlines the Compensation for Compulsory Purchase process. Under the Transport (Railway Infrastructure) Act 2001 (as amended) (the 'Act') upon commencement of the Railway Order (RO), TII will be authorised to acquire compulsorily any land or rights in, under or over land or any substratum of land specified in the RO, and, for that purpose, the RO shall have effect as if it were a compulsory purchase order (as referred to in Section 10(1) of the Local Government (No.2) Act 1960 (as inserted by Section 86 of the Housing Act, 1966) which has been duly made and confirmed) with modifications. Accordingly, TII is authorised to serve a notice to treat pursuant to the provisions of the Housing Act, 1966, including Section 79 thereof. TII also has the right to enter onto other lands for the purposes of carrying out the works permitted under the RO in certain circumstances. The acquisition of the various specified rights and interests in land and property, is necessary in order to ensure the delivery of the MetroLink project in its entirety. Where a property owners interest is acquired compulsorily, compensation will be provided in accordance with the compensation code. Further information can be obtained from the MetroLink Compulsory Purchase Order Guideline document (September 2022) which can be found on-line at: https://www.metrolink.ie/media/0jlpbyso/metrolink_cpoguideline_final_september-2022.pdf

Submission No.			209	
Organisation Name or Name of Submitter			Nigel Mallen (23 Daneswell Road, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Email: MetroLink-Estuary to Charlemont Case number ABP-314724-22				
5	Electromagnetic and stray current	3	I object to the granting of planning permission due to electromagnetic and stray current effects of the operation of an electric metro train system under my home.	Elements of MetroLink can act as sources and propagators of EMI (Electromagnetic interference). However the levels of EMI generated will not in any way impact on residential properties as MetroLink will comply with the requirements of the European Directive on Electromagnetic Compatibility (2014/30/EU) (European Union, 2014b), and European Standards EN 50121 (Parts 1-5) (CENLEC, 2017), which address railway EMC. In addition, all electrical and electronic products (that would be typically used in the home) in the EU must comply with all applicable directives which include the above EMC Directive, the Low Voltage Directive (2014/35/EU)(European Union, 2014e) and the Radio Equipment Directive (2014/53/EU) (European Union, 2014d). This means that EMI levels generated by MetroLink will be controlled and will not occur at levels that effects standard electrical appliances. Refer to EIAR Chapter 12: Electromagnetic Compatibility and Stray Current for details (section 12.4.1). Having regard to stray current, the proposed Project will be designed to ensure that there is no potential for significant effects arising on nearby buried utilities. These available measures include the use of a stray current collector system, adjustment of the power supply system, improvement of the return circuit (high conductivity in the rails) and isolation of the return circuit from ground (rail-to-earth resistance). Refer to EIAR Chapter 12: Electromagnetic Compatibility and Stray Current Section 12.10.5.
6	Hydrology and hydrogeology	3,4	I object to the granting of planning permission for this project due to the potential effects on the hydrology and hydrogeology under my home.	The closest surface water resource (River/stream) to your property is the Tolka river. The proposed MetroLink route crosses beneath the Tolka River at St Mobhi Road in tunnel approx. 6m beneath the river, between Griffith Park and Glasnevin stations. Chapter 20 Hydrology of the EIAR assesses potential impacts on surface water resources i.e. rivers and streams. As outlined in Table 18.24 of Chapter 18, there are not predicted to be any impacts during the construction or operational phase. As a result, there is no effect on hydrology that would impact your property. Having regard to Hydrogeology (groundwater) a full assessment of the potential effects of the construction and operation of MetroLink are presented in Chapter 19 of the EIAR. Potential effects in this area during the Construction Phase is dewatering (from either drawdown or water quality effects) during the station construction at Griffith Park. However, the analysis presented within this chapter has identified this potential effect as 'Temporary Imperceptible to Not Significant' in this area. It is considered that there is no perceptible effect on groundwater body status or habitat requirements here. Dewatering at the Griffith Park Station during works will be temporary only with the anticipated radius effect of dewatering reducing as the station construction progresses towards full perimeter and base seal (i.e. full watertight conditions). Refer EIAR Chapter 19, Hydrogeology, Table 19.33 and 19.4 and section 19.5.3.5.2, Griffith Park.
7	Topography	4	I object to the granting of planning permission for this project due to the topography of the area in which my home is located and under which it is proposed to tunnel for the proposed Metrolink. The topography of the land in the area is such that the land slopes downwards from the Phibsboro area towards Glasnevin. I live at the aforementioned address on Glasnevin which is at the lower end of the slope. All of the issues that I have mentioned would be exacerbated by my home being so close in depth to the tunnel for the proposed Metrolink.	The assessments undertaken are based on the cover from the top of the tunnel to ground level at your location, as indicated on the MetroLink Alignment Long Section drawing for this part of the route (see Railway Order Plans\Drawings, Alignment Drawings, Alignment Details Book 1 of 2). Please also refer to Response (3).

Submission No.			210	
Organisation Name or Name of Submitter			Nuala Kelly (64 Shandon Park, Phibsborough)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Case reference NA29N.314724 - Description: Railway (Metrolink Estuary to Charlemont via Dublin Airport) Order [2022]				
1	Letter	1	I welcome the extension of the deadline for making observations to An Bord Pleanála on MetroLink's Railway Order application.	Noted
2	Letter	1	I welcome, also, the principle of developing a high frequency metro railway for Dublin city.	TII wish to thank you for your submission and stated support for the delivery of MetroLink.
3	Letter	1	It makes some sense in the long-term sense to develop a high frequency metro line through the city of Dublin, however, the 'MetroLink' project seems to be one of those projects that keeps being stalled for a variety of reasons and then amended in following iterations in ways that do not always make sense from an environmental, social, cost or design perspective.	Chapter 07 (Consideration of Alternatives) details the decision-making process that has led to the proposed Project. (Old) Metro North identified a preferred route alignment for the Project, and a subsequent Railway Order application was granted in 2011. However, following the economic downturn that commenced in 2008, The Infrastructure and Capital Investment 2012-2016: Medium Term Infrastructure Framework (DPER, 2011) laid out a plan to defer a number of major infrastructural projects including the (Old) Metro North project in order to achieve fiscal consolidation. Through a multi-criteria assessment of alternative transport options, an Optimised Metro North was identified as the preferred option under all relevant headings of Environment, Safety, Economy, Accessibility and Social Inclusion and Integration. This option follows the same alignment as Old Metro North but includes a number of significant variations such as shorter platforms, smaller stations, reduced rolling stock, fewer stations and vertical alignment changes. TII as the Government Agency responsible for delivering MetroLink, are committed to expediting the delivery of this transformative project on receipt of an Enforceable Railway Order.
4	Letter	1	While I have concerns about some of the proposed route plans, e.g. in relation to Phibsborough / Cross Guns area, I want to concentrate in this submission on the proposals for Metrolink route in the vicinity of Tara Street Station.	As noted in response item (3), Chapter 07 (Consideration of Alternatives) details the decision-making process that has led to the development of the proposed Project, including alternative route alignments and station locations. A station at Tara Street provides good interchange opportunities, serves important key trip attractors in the study area with high potential passenger trips. This option also takes a direct and short route through areas of high demand in the centre of the study area. As Dublin's public transport network grows through the implementation of higher capacity bus routes, more frequent heavy rail services and coverage, and the expansion of the light rail network it is critically important that to achieve the full benefits and capitalise on these investments that they are integrated fully where appropriate to attain "the network effect". High quality interchanges can significantly broaden the transport offer for their catchment and add to the appeal and attractiveness of sustainable transport by ensuring that people can easily change services to access a wider range of places by these modes, and each scheme should be designed to ensure that these are as seamless as possible.
5	Letter	1	In this regard, I wish to note my objection to the proposed demolition of Dublin City Council's Markievicz sport and leisure centre, to facilitate a Tara Street interchange, for the following reasons:	TII acknowledge your concerns around the demolition of Markievicz Leisure Centre. Please refer to the below responses around the proposed mitigation measures for Markievicz Leisure Centre.

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Organisation Name or Name of Submitter			Nuala Kelly (64 Shandon Park, Phibsborough)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
6	Letter	1	Loss of the only publicly accessible swimming pool / leisure centre in city centre The Markiewicz sport and leisure centre managed by Dublin City Council is a vitally important facility for local people, for people working nearby, for tourists and more recently for schools and community groups. It is astonishing to think it might be demolished to facilitate a line that could be moved, with some thought and consideration, to a less intrusive or impactful location nearby. If such specific space is required, could a bank or business be removed instead of a community facility and, crucially - many homes?	Please refer to response item (4) above in relation to the strategic need for a station at Tara Street. Concerns had been raised during the public consultation on the Emerging Preferred Route (EPR) regarding the demolition required for the station in the location proposed, and concerns were again raised during the consultation on the Preferred Route. A number of alternative station locations were considered to try and address these concerns. Option 0 is the proposed station location, with a further 11 options assessed. Three options as submitted by College Gate residents, with the station relocated either to the north or south of the EPR proposed location, have been reviewed in detail. In addition, other options developed through the Preferred Route design process including a mined option and realignment of the route to the east of Tara Street Station have also been reviewed. All were assessed against the EPR proposed station location (Option 0) as a base case, adjusted to suit the single bore and reduced station box length. The various options were taken through a Mutli Criteria Analysis to compare aspects of each different option. Assessment of options considered the viability of the rail alignment, the quality/ease of interchange with Tara DART Station (a key requirement given that this will be one of the busiest stations on MetroLink with high passenger interchange with the DART), demolition/construction impacts (including minimising impacts on the existing DART infrastructure/operations), other environmental and planning issues, including traffic and utility impacts, and urban integration, health and safety issues, and potential construction costs. A mined station option at Tara was considered as a solution to avoid the demolition of the College Gate building. The option comprises the construction of two deep shafts either side and immediately adjacent to the College Gate apartments to provide construction access for mining the tunnel under College Gate apartments and to subsequently provide permanent access, ventilation and back of house facilities for the operation of the station. It was established that 24 hour working would be the only realistically feasible approach to construct the cavern. Therefore, the nature of the work, drill and blast and mechanical excavation would generate a level of groundborne noise and vibration would mean it would not be possible to inhabit the College Gate apartment block due to the disturbance caused, leading to a relocation of residents for a minimum of two years. However, there are possible risks that could extend the duration further, and therefore this option has a similar impact on College Gate residents as the cut and cover preferred option. TII consider that when balanced against the significant direct construction cost increase compared to the preferred cut and cover option, that demolition and redevelopment of the area around the site of the proposed Tara Station as part of the wider integrated development and regeneration of the site provides a better option. The mined option economically performs worse with a much greater risk allowance required compared to the preferred cut and cover option, and the preferred proposed cut and cover station provides a higher quality operational station that is consistent with the MetroLink architectural vision and operational and maintenance strategy. This assessment has identified that for a number of reasons including constructability, cost, and retention of a good interchange facility, that Option 0, including demolition of College Gate and Markiewicz Centre, remains the preferred station location: * This location retains a good interchange facility with Tara DART Station; * It reduces risk to the overall construction programme; * It offers cheaper overall construction cost; * It retains opportunity for future adjacent development by others; * TII will continue to work with DCC in relation to the development of an alternative sports and recreational facility to replace the Markiewicz leisure centre and intends to fund the alternative. However, TII does not have control over that development, which is part of DCC's function to provide public sport and recreational facilities in its function area. DCC may or may not be in a position to deliver it in parallel with the MetroLink project. Accordingly, the Board should assess the MetroLink project on the basis that the alternative may not be available. The impact would then be significant, but nonetheless one that would not outweigh the strategic scale long term benefits that MetroLink will deliver.

Submission No.			210	
Organisation Name or Name of Submitter			Nuala Kelly (64 Shandon Park, Phibsborough)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
7	Letter	1,2	Loss of vital homes in the vicinity of Tara Street To demolish seventy-eight housing units in the College Gate apartment block, in addition to a terrace of social housing, is totally unacceptable during a time of severe housing shortage, homelessness and increasing costs of construction. This aspect of the proposal, in my view, runs counter to modern European (and Dublin) urban planning vision to create a thriving, living city with an appropriate housing mix, businesses, shops and social amenities. Notwithstanding the need for an urban Metrolink from the airport, this must be achieved with minimum impact on other human rights provisions e.g. housing, environmental, social and cultural.	Please refer to response item (6) above in relation to the assessment of alternative options, and the reasons why the proposed location has been identified as the preferred option. As noted in Appendix A7.2 Tara Street Report (appendix to Chapter 07 Consideration of Alternatives), one of the reasons, among others, for the selection of the preferred location is that it provides opportunity for future oversight development by others as part of an urban integration plan. As detailed in Chapter 04 (Description of the MetroLink Project), as part of the station and urban realm design, Luke Street will be converted into a shared space for cyclists and pedestrians, including provision of a two-way cycle track between its junctions with Poolbeg Street and George's Quay. Poolbeg Street will be reduced to one lane to accommodate more space for pedestrians and cyclists, and reduced space for general traffic. This newly created public realm will consist of outdoor seating and scope for ephemeral events, with the possibility of retro-fitting the adjacent rail arches to provide retail or food and beverage opportunities. High quality natural stone paving, seating used as directional wayfinding and space-making devices and large mature tree planting are used to create open space and enhance green infrastructure within the city centre. As noted in Chapter 03 (Background to the MetroLink Project), MetroLink will provide a high-quality urban environment at station locations that will benefit the community as a whole by enhancing the urban realm directly and also by encouraging further high quality development which will stimulate the local economy. This will provide an opportunity for the development of a sustainable high quality urban environment along the alignment of the proposed Project.

Submission No.			210	
Organisation Name or Name of Submitter			Nuala Kelly (64 Shandon Park, Phibsborough)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
8	Letter	2	Environmental, Social and Cultural impact The area around Pearse Street and Tara Street will become impossible for people to navigate as the proposed plans do not seem to have included any measures to facilitate active travel, green space or traffic calming - this is indeed surprising given the stated vision in the Climate Action Plan 2022 to create sustainable, green, and carbon neutral infrastructure and space for communities and visitors in a living city. Instead, the real risk, should the plan go ahead for this section, is that the area will have little commercial or cultural attractions, reduced footfall and loss of amenity for the remaining residents in the area.	Please refer to response item (7) above in relation to the active travel provisions as part of the public realm at Tara Street Station, and the creation of a public plaza at this location. As noted in Chapter 03 (Background to the MetroLink Project), the Project will contribute to the transition to a low carbon and climate-resilient society. Private vehicles are a significant contributor to Ireland's GHG emissions, and providing an alternative to private vehicle-based journeys is a key benefit of the proposed Project. Demand modelling suggests a diversion of 6.8 million private vehicle journeys per annum in the early years of operation and approximately 360 million car trips diverted by 2055. Accordingly, traffic volumes will be greatly reduced, supporting the reduction of GHG emissions which are critical to meeting the targets of the Climate Action Plan 2023 (updated to 2023).
9	Letter	2	Learn from good practice in other cities In other cities metros have been constructed underground without impacting on the buildings above. It is not too late for underground construction to be considered for at least this section. Local and indeed citywide consultation would have prevented demolition without considering or proposing alternatives.... for example, at minimum, to build and provide an alternative publicly owned and accessible swimming pool and apartment block nearby in the city centre. The proposals for the nearby Georges Dock outdoor swimming pool do not compensate for the loss of an all-year-round indoor facility that people of all ages, abilities, social class can enjoy. In a post pandemic society, this type of facility is essential for health and well-being (in line with Healthy Ireland Strategy) as it requires little other resources or capacities to participate. For me and for the many other diverse users of the pool, it is a lifeline. I hope that my observations will not seem trite. Having witnessed the many able bodied, disabled (intellectually and physically), elderly, young, men, women and children using the pool, it is not imaginable to think that it is dispensable. And Dublin City Council do a wonderful job in managing it efficiently and inclusively	Please refer to response item (6) above in relation to the options considered for Tara Street, and the reasons for the selection of the proposed station location. As part of the options assessed, a mined option (Option 4) was considered. This option would reduce the demolition involved, retaining the College Gate apartment block and the leisure centre, compared to Option 0 (the proposed location). Additionally, the option retains similar benefits to Option 0 in terms of interchange opportunity, traffic impacts, utility impacts, rail alignment and future development opportunities. The mined option comprises the construction of two deep shafts either side and immediately adjacent to the College Gate apartments to provide construction access for mining the tunnel under College Gate apartments and to subsequently provide permanent access, ventilation and back of house facilities for the operation of the station. There are two things in particular note with regard to this alternative (Option 4) : (i)a mined tunnel / cavern of this size would need each advance to be excavated in stages with a combination of side drifts and headings. This is time consuming and costly when compared to cut and cover construction. It is also of note that a mined tunnel option still requires extensive cut and cover works at both ends of the station for vertical access (including emergency access), ventilation and to accommodate necessary back of house plant and equipment, and may require smaller temporary construction shafts constructed initially so that mining of the cavern can be commenced as earlier as possible to avoid delaying the completion of the MetroLink Project. (ii)the tunnelling operation would need to progress 24 hours a day, 7 days per week. This would be necessary to ensure the safety and security of the works. As the tunnelling would be by "open faced " non pressurised tunnelling techniques (i.e. excavation in advance of the installation of the subsequent sprayed concrete tunnel lining) it would be critical to advance and support the excavated face continuously - particularly as the excavation would be below the water table. If a face was left unsupported for a period, ground movements become more challenging to manage and hence increase the likelihood of tunnel instability and surface settlement. This would add increased risk of damage to third party property. To not mine the tunnel 24 hours day would mean that the face would need to be secured at the end of every day shift, and the timing of blasting would need to adhere to a strict predetermined schedule so that the tunnel face is always secured at the end of each shift. In simple terms if such an approach was adopted, the impact on the programme would more than double the duration of cavern construction as a result of the constraint of day time working together with the inefficiencies in working this way. The sequence of working would also import significant cost escalation. Therefore 24-hour working is essential for constructing the mined cavern. It was established that 24 hour working would be the only realistically feasible approach to construct the cavern. Therefore, the nature of the work, drill and blast with mechanical excavation would generate a level of groundborne noise and vibration would mean it would not be possible to inhabit the College Gate apartment block due to the disturbance caused, leading to a relocation of residents for a minimum of two years. However, there are possible risks that could extend the duration further, noted above, and therefore this option has a similar impact on College Gate residents as the cut and cover preferred option. TII consider that when balanced against the significant direct construction cost increase compared to the preferred cut and cover option, that demolition and redevelopment of the area around the site of the proposed Tara Station as part of the wider integrated development and regeneration of the site provides a better option. The mined option economically performs significantly worse with a much greater risk allowance required compared to the preferred cut and cover option, and the preferred proposed cut and cover station provides a higher quality operational station that is consistent with the MetroLink architectural vision and operational and maintenance strategy.

Submission No.			211	
Organisation Name or Name of Submitter			October Investments Limited (represented by Brock McClure Planning and Development Consultants)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Submission on Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order [2022] - on behalf of October Investments Limited, for lands at Pinnock Hill, Swords				
1	Introduction	3	The main objective of this submission is to highlight that whilst our client welcomes and supports the Metrolink Project, there are concerns relating to their lands and the specific details included in the Railway Order [2022] relating to the temporary works.	Thank you for your submission. Your support for the MetroLink project is greatly appreciated. We have reviewed the observations and concerns raised and have provided detailed responses below.
2	Introduction (objective 1)	3	The estimated construction duration for the Pinnock Hill Roundabout Satellite Site is 51 months (4 years and 3 months) for the use of the construction compound, but the Project may not start until 2025, which equates to over 8 years sterilisation of the subject site.	While the progress of MetroLink is essential, we acknowledge the concerns about potential losses in development opportunities. Our primary focus is to proactively mitigate these challenges and ensure that the benefits of the MetroLink project are maximised while minimising any adverse impacts on the community. We will work closely with businesses in the affected areas to minimise disruptions during the construction phase. Ultimately, our commitment is to strike a balance between the progress of MetroLink and the preservation of development opportunities. By working collaboratively with stakeholders and adopting innovative solutions, we are confident that we can address these challenges effectively.
3	Introduction (objective 4)	4	The Railway Order's [2022] satellite construction and compound area will obstruct the delivery of a much more appropriate mix of uses that would maximise the use of scarce development land within the Metropolitan Area, which is consistent with national and regional policy objectives.	Metrolink is of central importance to the overall strategic planning of the city and its wider region and for the long-term potential for the lands to which this submission relates. When completed Metrolink enhances the accessibility and attractiveness of lands within its catchment and its delivery strengthens the potential to deliver higher density, mixed-use, transport-led development in the long term. The specific construction compound at Pinnock Hill is required only for the duration of the construction period (approximately four and a quarter years) after which it will be reinstated back to its original condition. See Chapter 5: MetroLink Construction Phase, Table 5.12: Estimated Construction Durations AZ1.
4	Introduction (objective 5)	4	Temporary severance of our clients lands with no suitable/fair compensatory arrangement being provided will effectively render the entire remainder of our client's lands unusable for 4 years and 3 months, or more, considering delays.	Please see response (2)
5	Introduction (objective 6)	4	The remaining parcel of land to the south eastern side of the site cannot be developed on as it will be landlocked due to surrounding lands being used for permanent and temporary works.	Your observation is noted, however access to land to the east and southeast of the land proposed for temporary CPO by NTA appears to be freely available and directly from the R132. Should the development of this land (excluding the proposed permanent CPO strip) commence prior to MetroLink, TII will commit to maintain access to this land during the works. TII also note that the permanent structure of the MetroLink alignment through this land is a cut & cover structure to facilitate future land access across the alignment at this location.
6	Introduction	4	We request that An Bord Pleanála gives consideration to the issues raised in this submission and we would welcome the opportunity to address matters with the applicant directly by way of an Oral Hearing.	Thank you for this observation. For your information, an overview of the Oral Hearing process is provided in the EIAR Chapter 8.9.2. An Bord Pleanála have now confirmed an Oral Hearing will be held. The purpose of the oral hearing will be to allow issues relevant to an application for approval be examined. The oral hearing can be attended by anyone, but only those that have made a written application may make an oral submission at the oral hearing. The oral hearing is managed by An Bord Pleanála.
7	Zoning	6	Under the 2017-2023 County Development Plan, the subject lands were zoned HT- High Technology. Fingal County Council has made material alterations to the Draft County Development Plan which are now out for public consultation. The material amendments show the subject site as being zoned MRE - Metro and Rail Economic Corridor, as illustrated in Figure 2. The Landowner supports the rezoning of the subject lands to a more appropriate zoning for the purpose of allowing an integrated mixed use development to be brought forward at a well-located site that complies with relevant compact development and infill/brownfield development objectives. It is envisaged that a mix of uses would be complimentary to the location proximate to two future Metro Link stations, which would be incorporated into the overall development strategy for the lands that would maximise the provision of an appropriate quantum of residential development within the Metro Economic Corridor, now the Metro and Rail Economic Corridor.	Metrolink is of central importance to the overall strategic planning of the city and its wider region and for the long-term potential for the lands to which this submission relates. Metrolink enhances the accessibility and attractiveness of lands within its catchment and its delivery strengthens the potential to deliver higher density, mixed-use, transport-led development in the long term.

Submission No.			211	
Organisation Name or Name of Submitter			October Investments Limited (represented by Brock McClure Planning and Development Consultants	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Submission on Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order [2022] - on behalf of October Investments Limited, for lands at Pinnock Hill, Swords				
8	2.1 Proposed Land Take in Railway Order (Temporary Works)	6	The National Roads Authority (operating as Transport Infrastructure Ireland) are proposing to temporarily acquire 3.8 ha (38,000 m2) of the north western portion of our client's lands for the construction and logistics site, as illustrated in Figure 3-6. This is in addition to the 0.9 ha (approximately) shaded grey portion of our clients lands which shall be taken over for permanent railway works. We confirm that the Landowner has no objection to the proposed permanent land take required, subject to appropriate compensation. It is fully acknowledged that the Metrolink Project is a significantly positive piece of transport infrastructure that will greatly improve connectivity throughout the city.	Your positive support is gratefully appreciated, and TII are committed to delivering the benefits that MetroLink will bring.
9	2.1 Proposed Land Take in Railway Order (Temporary Works)	8	As illustrated in Figures 5-6, the site is split across two drawings sheets. As Figure 7 illustrates, the full extent of the northern site boundary shall be permanently landscaped including a series of connecting footpaths and tree and shrub planting.	The proposed landscape, as depicted in Landscape drawings sheet 7 of 13, falls entirely within the designated permanent landtake area. This ensures the retention of two access points into your land, which are aligned with the positions of cut & cover structures along the metro alignment. The landscape design has been carefully prepared in close coordination with Fingall County Council to align with their draft development plan. However, if adjustments are required to accommodate these access points while maintaining the proposed landscape, they can be made accordingly.
10	2.1.1 Impact of Satellite Construction Compound	9	As detailed on the submitted drawings, 3.8 ha (38,000 m2) of the north western portion of our client's lands are to be used fora temporary construction and logistics site for the development. It is set out that construction of the proposed Metrolink will take at least 4 years and 3 months or more, and there will be no opportunity for the Landowner to develop the site to its full potential in this time. It is simply not acceptable for the proposed construction compound to be permitted to sterilise the site for this extent of time.	As outlined with Chapter 5: MetroLink Construction Phase sections 5.3.1 and 5.7.12, this site at Pinnock Hill has been designated a Satellite Construction and Logistics Compound to support the delivery of MetroLink through assessment zones AZ1 and AZ2. Such sites are a necessary component of the construction of MetroLink and the proximate locations to the line are fundamental to the overall construction programme as planned. Satellite construction compounds will generally provide: ▪ Local office and welfare facilities; ▪ Local storage for plant and materials; and ▪ Limited parking for construction vehicles. As a consequence of its location, size, proximity to the work site and access to the R132, the Pinnock Hill site has been designated a Logistics centre including lorry holding, material storage and distribution area. It is located centrally between MetroLink assessment zones AZ1 and AZ2 to meet the delivery needs in these areas, including traffic and vehicle movement management. The programme duration set out in Chapter 5: MetroLink Construction Phase, Table 5.12: Estimated Construction Durations AZ1 is based on the assumption that facilities such as the logistic compounds at Estuary and Pinnock Hill are available for the works to be delivered within those timeframes.
11	2.1.2 Site Access (paragraph 1)	9	If permitted in its current form, it is considered impossible for the Landowner to develop on the remaining parcel of land to the south eastern side of the site because the surrounding lands will be used for permanent and temporary works. This will create an inadequate amount of space available for stockpiling of excavated material and machinery etc.	See response (5) and (10) above

Submission No.			211	
Organisation Name or Name of Submitter			October Investments Limited (represented by Brock McClure Planning and Development Consultants	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Submission on Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order [2022] - on behalf of October Investments Limited, for lands at Pinnock Hill, Swords				
12	2.1.2 Site Access (paragraph 2)	9	The construction compound may also cause for this section to be restrictive in terms of the quantum and nature of traffic that may be allowed travel through our clients site, taking into consideration there will be temporary and permanent works in potential conflict with one another.	EIAR Chapter 5, MetroLink Construction Phase, explains that traffic management plans for the construction phase of the Project have been developed to minimise the impact on road users, and to maintain access to property, businesses and other premises. In your case, TII will maintain access to land to the east and southeast of the land proposed for temporary CPO by NTA that is currently freely available directly from the R132. Prior to implementation, all traffic management measures will be agreed with the relevant Fingal County Council and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The design of traffic management measures and highways works is based on achieving the key objective of maintaining continual access to all properties during the works. Where necessary, a safe alternative route will be provided for pedestrians and vulnerable road users, such as children, and persons with restricted mobility, to maintain pedestrian access to premises. Where detour routes are required, these will be kept as short as possible and detour signage will be clear and easy to understand. EIAR Chapter 9, Traffic and Transport, section 9.7.1.2 includes for a Scheme Traffic Management Plan (STMP) to manage traffic movements during the construction phase to ensure traffic congestion is minimised. The Plan will include measures such as the establishment of Local Community forums which will cover areas local to each station, where stakeholders will have an opportunity to inform the traffic management element of the project. Other measures include the control of construction vehicles in terms of their hours of operation and restrictions on vehicle size and weight.
13	2.1.2 Site Access (paragraph 3)	9	In addition to this, the access to the site will now only serve the lands of the site which are proposed to be acquired by the National Roads Authority (operating as Transport Infrastructure Ireland) permanently and temporarily, which will leave the remainder of our clients lands landlocked and inaccessible. As illustrated in Figure 8, the remainder of our clients lands (outlined blue) cannot be accessed, due to the only available entryway at the north west side of the site, indicated by the yellow arrow.	See responses (5), (10) and (12) above
14	2.1.2 Site Access (paragraph 4)	10	The Metrolink Environmental Impact Assessment Report states that there will be cut and cover sections at Fujitsu (circled orange) “and at an access into a greenfield area. The alignment then continues into a cut and cover tunnel under the Pinnock Hill Roundabout. This section of works is supported by the Pinnock Hill Satellite Compound. This site will also include a lorry holding and logistics area that will service the whole of AZ1 and AZ2. A temporary access junction to the Pinnock Hill Satellite Compound via the R132 will reduce the need for construction traffic to use local roads. This junction would be subject to agreement with FCC”. Considering this, such access has not been made clear.	See responses (5), (10) and (12) above
15	2.1.3 Communication with the National Roads Authority (paragraph 1-2)	10	As a landowner party to this project, our client is extremely disappointed that the issues identified in this submission have not been addressed in the material lodged to An Bord Pleanála.	We regret any misunderstanding regarding the your awareness of the proposed landtake. However, our records indicate that various meetings were held in the past where the extend of the proposed Compulsory Purchase Order (CPO) was presented and discussed .
16	2.1.3 Communication with the National Roads Authority (paragraph 3)	10	The Landowner had no engagement with the Authority prior to the publication of this Railway Order and was not made aware of the significant temporary works that would affect the subject site. Our client had been aware that permanent works would impact on the site, and there is no issue with this element of the project.	Please see response (15)
17	3 Request for Consistency with Policy Context	11	It is submitted that the Railway Order as lodged would prevent the subject site being developed over the lifetime of the next Fingal Development Plan. This would represent a missed opportunity for a viable development site to provide much needed housing and other land uses.	MetroLink is of central importance to the overall strategic planning of the city and its wider region and for the long-term potential for the lands to which this submission relates. Metrolink enhances the accessibility and attractiveness of lands within its catchment and its delivery strengthens the potential to deliver higher density, mixed-use, transport-led development in the long term. The specific construction compound at Pinnock Hill is required only for the duration of the construction period (approximately four and a quarter years) after which it will be reinstated back to its original condition. See Chapter 5: MetroLink Construction Phase, Table 5.12: Estimated Construction Durations AZ1.

Submission No.			211	
Organisation Name or Name of Submitter			October Investments Limited (represented by Brock McClure Planning and Development Consultants)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Submission on Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order [2022] - on behalf of October Investments Limited, for lands at Pinnock Hill, Swords				
18	3.1 Draft Fingal County Development Plan 2023-2029	11	We now set out Development Plan objectives that appear in Fingal County Council's relevant statutory planning policy below. Section 3.5.13 of the Draft Fingal County Development Plan notes a number of national and regional policy objectives that are relevant to the subject site and the future development of these lands: Policy SPQHP37 in relation to compact growth, consolidation and regeneration is specifically noted: "Encourages infill/brownfield development, Focus growth on the County's designated strategic development areas identified in the Metropolitan Area Strategic plan, Promote increased densities along public transport corridors." This policy context is directly applicable to the subject site. Objective SPQH036 promotes "residential consolidation and sustainable intensification at appropriate locations, through the consolidation and rejuvenation of infill/brown-field development opportunities in line with the principles of compact growth and consolidation to meet the future housing needs of Fingal." This policy context is directly applicable to the subject site. Objective SPQHO37 promotes "residential development at sustainable densities throughout Fingal in accordance with the Core Strategy, particularly on vacant and/or under-utilised sites having regard to the need to ensure high standards of urban design, architectural quality and integration with the character of the surrounding area." Policy SPQHP38 relates to co-ordinated development: "Promote residential development addressing shortfalls in housing provision and meeting target guidance figures through a co-ordinated planned approach to developing appropriately zoned lands at key locations including regeneration areas, vacant and underutilised sites." This policy context is directly applicable to the subject site. A comprehensive, sensitive and high-quality mixed use redevelopment of the subject site can be accommodated at our clients lands and will allow the Local Authority to meet these key policy objectives by providing a well located, high quality placemaking solution that is accessible to surrounding employment locations, services, public transport and the City Centre. We respectfully submit that the proposed temporary construction compound will hinder such policies relating to compact growth, consolidation and regeneration. This policy context is directly applicable to the subject site. Ultimately, we seek An Bord Pleanála to consider alternatives for a temporary construction compound other than at our client's site to facilitate both the National Roads Authority (operating as Transport Infrastructure Ireland) objectives and the Fingal County Council Development Plan; in a joined up and integrated manner, in accordance with the principles of proper planning and sustainable development.	As noted in the submission, the planning policy framework for the lands supports compact growth , regeneration and consolidation, including on the subject lands. As outlined with Chapter 5: MetroLink Construction Phase sections 5.3.1 and 5.7.12, this site at Pinnock Hill has been designated a Satellite Construction and Logistics Compound to support the delivery of MetroLink through assessment zones AZ1 and AZ2. Such sites are a necessary component of the construction of MetroLink and the proximate locations to the line are fundamental to the overall construction programme as planned.
19	4 Conclusion (paragraph 3)	12	We ask An Bord Pleanála and the National Roads Authority (operating as Transport Infrastructure Ireland) to consider an alternative location for the proposed construction compound, in view of the fact that the subject lands are a viable development site which will be developed before the Metrolink project.	See responses (10) above and further details in responses (5) and (12)

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Organisation Name or Name of Submitter			Olan O'Brien (66 Saint Joseph's Place)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Case reference: NA29N.314724: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin (Metrolink)				
1	Letter	1	There are a number of issues that need further clarification as this directly impacts my house: Airborne noise from construction works and railway operation (also referred to as "environmental noise");	TII understand the reasons for your concerns and would like to provide the assurance that the potential disturbance impact on your property as a result of the proximity of the proposed tunnel and station has been carefully assessed. This includes the impact of noise and vibrations from: the tunnel boring machine (TBM) and the operation of MetroLink. All of which have been assessed and reported in the EIAR and are summarised below. With the exception of a temporary disturbance when the TBM passes your property, TII are predicting a 'not significant' impact to the building occupants and your building, or risk to the integrity of your house. This is based on similar properties on Nelson Street, as presented in Appendix A13.7 Construction Phase Modelling (Chapter 13 Airborne Noise and Vibration). Construction Phase – Airborne Noise and Vibration The EIAR Chapter 13 Airborne Noise and Vibration, Table 13.64 summarises the potential significant construction noise impacts from the construction of the proposed Mater Station. The predicted impact without additional noise mitigation is Significant to Very Significant during some of the work phases. Noise mitigation measures are detailed in section 13.6.1 and include a proposed 4m high acoustic noise screen along the mid-east, south & south-west boundaries of Mater construction compound. As outlined in section 13.6.1.2 of Chapter 13 (Airborne Noise and Vibration), the key principles relating to noise mitigation will be applied across all construction areas for the proposed Project: * Noise control at Source: Selection of quiet plant, site layout, attenuation at source, operational control (hours and periods); * Noise control along pathway: Localised screening to plant items on site, enclosures site buildings, site hoardings and noise barriers; and, * Noise control at receiver: Noise Insulation (NI) and Temporary Rehousing) Following the implementation of noise mitigation measures, noise receptors in the vicinity of your property are calculated to be controlled to within the noise thresholds, as set out in section 13.7 of Chapter 13 (Airborne Noise and Vibration). Operational Noise and Vibration EIAR Chapters 13 and 14 present a comprehensive and detailed assessment of operational airborne and groundborne noise and vibration, respectively. No residual noise impacts are identified at this location during operation, as presented in section 13.7.2 Operational Noise in Chapter 13 (Airborne Noise and Vibration). The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and results in a not significant to slight impact when added to the prevailing noise environment, as detailed in section 13.7.2.2. of Chapter 13. EIAR Chapter 13, sections 13.2.3.2 and 13.5.3.2.3, details that ventilation systems, if not designed and mitigated effectively are potential noise and vibration sources. Section 13.6.2.3 outlines the detailed considerations that will be included in the design to ensure that the ventilation systems do not exceed limits as per BS 4142, including: • Reduction of induct flow rates; • Reduction of elements in the airflow; • In duct attenuators; • Orientation of grilles and louvres away from sensitive receptors; • Acoustic louvres; and • Anti-vibration mountings and couplings will be incorporated into the design to control vibration. Measures to mitigate noise from the use of public address systems is also detailed in Chapter 13 (sections 13.5.3.2.4 and 13.6.2.4). Best practice design principles will be employed to minimise noise breakout at the surface from these systems via escalators, lift shafts and stairwells.

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Organisation Name or Name of Submitter			Olan O'Brien (66 Saint Joseph's Place)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
2	Letter	1	Vibration and groundborne noise from metro construction and operation;	Construction Phase – Groundborne Noise and Vibration The EIAR Chapter 14 Groundborne Noise and Vibration, Appendix 14.5 presents the predicted groundborne noise levels during the construction phase of the project for 66 Saint Joseph's Place: • The predicted level of groundborne noise during TBM passage is 49 dB LASmax, which is above the 45 dB LASmax threshold resulting in a significant impact on the occupants of the building for the relatively short duration of TBM passage. • The predicted level of groundborne vibration during TBM passage is 0.262 ms-1.75 day and 0.22 ms-1.75 night, below the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) Threshold Level of 1.0 ms-1.75 day and 0.5 ms-1.75 night, resulting in a not significant impact on the building. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from the TBM at source but noting that the duration of this impact will be temporary and in the order of up to two-weeks as the TBM passes. TII will undertake advanced consultation and stakeholder engagement to prepare people for the passing of the TBM and ensure the timing of these impacts are known. Details of the residual effects associated with tunnel boring are presented in section 14.6.1.1 of Chapter 14 (Groundborne Noise and Vibration). TII's contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project as referred to in EIAR Appendix A5.1, Outline Construction Environmental Management Plan (CEMP). The CNVMP will be a live document and will include a full monitoring and auditing programme which will be agreed with the Local Authorities prior to the commencement of the Construction Phase, including predetermined monitoring trigger levels to ensure noise and vibration limits are not breached, noting that it is not possible to mitigate TBM groundborne noise and vibration at the source. Table 6.2: Noise and Vibration Measures of the Outline CEMP outlines the monitoring programme requirements. The Transport Infrastructure Ireland (TII) Airborne Noise and Groundborne Noise Mitigation Policy (Appendix A14.6 of EIAR Chapter 14) also sets out the construction noise insulation and temporary rehousing measures to be implemented where required. Operational Phase - Groundborne Noise and Vibration. As detailed in section 14.6.2 of Chapter 14 (Groundborne Noise and Vibration), there will be no residual significant effects with regard to groundborne noise following the implementation of mitigation measures such as enhanced track isolation systems such as floating track slab at select locations. Only in the case of highly sensitive laboratory equipment is it likely to prove difficult to avoid exceeding manufacturers' specification for ambient vibration, which will necessitate receptor-specific mitigation, as detailed in section 14.6.2.2. of Chapter 14 (Groundborne Noise and Vibration). As listed in EIAR Volume 5 Appendix 14.5, the predicted level of groundborne noise during operation at your property is 30 dB LASmax, which is below the 40 dB LASmax threshold resulting in no significant impact on the occupants of the building.

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Organisation Name or Name of Submitter			Olan O'Brien (66 Saint Joseph's Place)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
3	Letter	1	Influence of proposed works on surface water;	The Mater Station main construction site is located 1.4km from the River Liffey and 1.20km from the Tolka river and therefore there is considered to be no risk of flooding. The Royal Canal is approximately 500m north of the Mater Station location. However, as detailed in section 18.5.3.4 of Chapter 18 (Hydrology), there are no proposed discharges to nearby watercourses. All water from the construction phase will be discharged to sewer where appropriate. All water discharges (combined surface water and groundwater) from construction site areas are initially likely to be high in sediment, with potentially elevated alkalinity where cement works are on-going and will require adequate attenuation and treatment prior to approved discharge to the respective defined sewer. Each site compound will be established with an emphasis on the protection of existing surface water infrastructure. As stated in Chapter 18 (Hydrology) section 18.4.9.4.1, all station drainage is designed to ensure that there is no net increase in runoff as a consequence of the proposed Project. The works at Mater will impact on existing highway drainage particularly at the northern end of the proposed station, at the junction between Eccles Street and Berkeley Road. The existing infrastructure will be surveyed and alternative diversions of surface water infrastructure made if required and approved by DCC as part of the preparation for the commencement of the works. As indicated in Chapter 22 (Infrastructure and Utilities), all impacted utilities will be reinstated in accordance with current standards and specifications for the relevant utility. The EIAR Volume 5, Appendix 5.1 provides an outline Construction Environmental Management Plan (CEMP), that includes the requirement to develop a Water Management Plan for each site. The appointed contractor will be required to operate in compliance with a project-specific detailed CEMP. Section 6.4 of Appendix A5.1 Outline CEMP details the minimum mitigation measures to be implemented with regards to water. All construction sites will be installed with water treatment systems and will be monitored weekly to ensure no impact to the surrounding hydrological environment. The proposals for the control and management of water within each site compound are set out within EIAR Volume 5, Appendix 5.11 - Water Management.
4	Letter	1	Influence of proposed works on ground water;	As outlined in the EIAR Chapter 19, Hydrogeology, petroleum hydrocarbons and PAHs were identified in several locations in the groundwater at the proposed Mater Station location which may be reflective of the hydrocarbon content associated with Made Ground present. Nitrogen species (ammoniacal nitrogen, nitrite) and some metals (manganese, iron, boron and arsenic) are also reported here. The predicted effect of Construction Phase dewatering (from either drawdown or water quality effects) on identified water features in the wider area is considered Imperceptible. The calculated drawdown does not extend as far as the protected habitat Dublin Bay nor does the modelled ZOI (Zone of Influence) intercept any watercourses that potentially receive baseflow and which ultimately discharge to this habitat feature. This is detailed in section 19.5.3.5.6 of Chapter 19 (Hydrogeology). Modelling has indicated that where groundwater flow is in parallel to the MetroLink alignment, the potential barrier effect will be less significant. In contrast, if the groundwater flow is more acute or perpendicular to the structure alignment the potential for groundwater damming is more significant. In addition, the modelled trajectories show how groundwater flow is able to 'overcome' the interference imposed by D-walls at stations which indicates less significance in the long-term (Operational Phase). This is detailed in section 19.5.3.6.5 of Chapter 19 (Hydrogeology).

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Organisation Name or Name of Submitter			Olan O'Brien (66 Saint Joseph's Place)	
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5	Letter	1	Settlement of ground around tunnels and excavations;	Excavation for the tunnels and other below ground structures could potentially lead to ground movements at the surface and below ground. An assessment of the effects of ground movements and potential impacts on existing buildings has been carried out as part of the Scheme Design in Appendix A5.17 Building Damage Report. EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. Section 5.2 of this report sets out the rationale for the assessment of properties similar to yours. The results of the assessment provided in Table 5.2 shows that properties Ref B-95 to B-100, in the vicinity of your property but closer to the tunnel alignment, have been assessed as falling within the 'Slight' and below category. The building risk categories shown in Table 4-4 of the aforementioned report are used to define the degree of building damage related to the Risk Category. As your property is within 30m of the alignment, you can register for inclusion in a Property Owner Protection Scheme (POPS) which TII are committed to having in place prior to construction works commencing. The scheme allows residential property owners to register with TII if the property is within thirty metres of the edge of the MetroLink alignment or fifty metres of station structures. The POPS comprises condition surveys of private properties and other selected properties along the route of the proposed Project. The purpose of the condition surveys would be to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether the same may be attributable to the proposed Project and recommend repairs as appropriate. Further details on POPS can be found in section 21.6.1.4 Property Protection, EIAR Chapter 21: Land Take. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in the swift and accurate verification of any property damage claims which may be received from property owners. The POPS would be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/

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Item No.	Section Ref.	Page No.	Observation Statement	TII Response
6	Letter	1	Temporary and permanent traffic impacts.	<u>Construction Phase</u> The EIAR Chapter 5, MetroLink Construction Phase, explains that traffic management plans for the construction phase of the Project have been developed to minimise the impact on road users, and to maintain access to residential and other premises. Prior to implementation, all traffic management measures will be agreed with the relevant local authority (FCC or DCC) and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The design of traffic management measures and highways works is based on achieving the key objective of maintaining continual access to all properties during the works. Where necessary, a safe alternative route will be provided for pedestrians and vulnerable road users, such as children, and persons with restricted mobility, to maintain pedestrian access to premises. Where detour routes are required, these will be kept as short as possible and detour signage will be clear and easy to understand. Further details on proposed mitigation measures for traffic and transport can be found in Appendix A5.1 Outline CEMP. EIAR Chapter 9, Traffic and Transport, section 9.7.1.2 includes measures such as the establishment of Local Community forums which will cover areas local to each station, where stakeholders will have an opportunity to inform the traffic management element of the project. Other measures include the control of construction vehicles in terms of their hours of operation and restrictions on vehicle size and weight. A summary of Mitigation Measures in Construction Phase are presented in Table 9.147 of the EIAR Chapter 9 (Traffic & Transport). The mitigation measure for Berkeley Road for general traffic, parking and loading is to monitor if closures are required at all stages of the construction phase, or if spaces can be reinstated temporarily throughout the works. <u>Operational Phase</u> The assessment indicates that overall, the proposed Project will result in long-term, Significant, positive impacts on all users, as indicated in Chapter 9 (Traffic and Transport) section 9.6.2.3 Operational Phase Summary. At Mater Station the future street level layout will maintain the existing road network on Berkeley Street. Once MetroLink is operational, to accommodate the station entrance, the current footways and traffic lanes on Eccles Street will be realigned as part of the proposed Project. The realignment of Eccles Street, and the widening of the footway on Berkeley Road will result in the loss of on-street parking at both locations. Approximately 20 on-street parking spaces will be lost on Eccles Street, while approximately 14 spaces will be lost on Berkeley Road, due to the provision of a signalised crossing in proximity to the Station entrance. While there will be a loss of commercial and residential parking and loading infrastructure as a result of the proposed Project, the modal shift from road to public transport when the proposed Project is in place will reduce the overall demand on parking and loading facilities, thus reducing the severity of the impact. The proposed mitigation measure during the operational phase for Mater Station is to consider placement of street furniture to maximise available width and to monitor impacts to determine if further width is required. These details can be found in Chapter 9 (Traffic and Transport) section 9.7.2. Overall, the Mater Station will provide for improvements to the public transport network resulting in decreased private car usage/trips and increased public transport usages, and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Further details can be found in Appendix A9.2-I Traffic and Transportation Assessment - Mater, section 7.

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Organisation Name or Name of Submitter			OPW Cover Letter & Downey Planning on behalf of OPW	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
OPW Cover Letter - Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) - 1 Georges Quay and others.				
1	Downey Report Executive Summary	1	With respect to these properties, the OPW is seeking: 1) To ensure no disruption to the public access of these buildings and their day-to-day uses and functions, as well as no damage to the buildings, their historical profile in terms of being listed as Protected Structure and/or their Conservation Area setting (if there is any), resulting from the implementation of the Project." 2) To ensure pre- and post-construction surveys are carried out and that these should relate to but not limited to ground movement, noise and vibration, blasting and water lowering, as well as construction traffic impacts, also including traffic diversions. 3) To ensure that the following specific assessments of the impacts on 1GQ, 1 George's Quay and Corn Exchange are provided, with precedents applied to ensure best industry practice: a. Ground movement impact (Stage 2 and 3 Assessment). b. Ground borne noise and vibration, including the application, and monitoring of threshold limits, pre- and post-construction surveys. c. The impact of blasting given the proximity of these properties to the Station." 4) To ensure acceptable levels of dewatering for construction of Tara Station are provided as there is a potential for ground water lowering which can adversely impact the 1GQ, George's Quay and Corn Exchange. 5) To ensure an assessment of traffic impact on the accessibility of 1GQ, George's Quay and Corn Exchange for both personnel and clients during construction of Tara Station due to traffic diversions. 6) Once the railway is in operation it is possible that there will be residual impacts arising from the above assessments and TII should seek assurance that a detailed evaluation will be performed. 7) To ensure no conflicts between the construction and operation of the Project and the future development of the properties. 8) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (51) below.
2	Downey Report Introduction 1.0	2	■ 1 George's Quay, Dublin 2 ■ Corn Exchange, Burgh Quay, Dublin 2 ■ Nos. 13-15 Hatch Street Lower, Dublin 2 ■ Trinity Point, Nos. 10-11 Leinster Street, Dublin 2 ■ Earlsfort Development Centre, Earlsfort Terrace, Dublin 2 ■ INTREO Office & Parkrite Parking, Parnell Street/King's Inn Street, & Loftus Lane, Dublin 1	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. As such, the Phase 2 assessment does take account of the details referred to in OPW's submission, because it proceeds on conservative assumptions. This point was discussed with OPW and their consultants in January 2023. That said, subsequent to the granting of the RO, TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate. Specific details on assessment undertaken in relation to the buildings referred to in this responses are considered in response number (22) through to (34) below.
3	Downey Report- 3.0 Overview of the Draft Railway Order	Page 8, 9	While extensive pre-planning consultations also took place between Til and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	Please refer to response number (2).
4	4.4 Planning context	14	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission and the Board is invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project regarding existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application.

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Organisation Name or Name of Submitter			OPW Cover Letter & Downey Planning on behalf of OPW		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
OPW Cover Letter - Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) - 1 Georges Quay and others.					
5	4.4 Planning context	14	DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.	
6	4.1.5 Potential Development of the Property	14	The OPW lease offices within the 1 GQ building, which is a multi-lease property. The OPW reserves the right to develop the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce “Guidance Note for Developers” that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.	
7	5.0 MATERIAL CONSIDERATIONS	28	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-E1A-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly within the Kildare Street, Merrion Square and St. Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.	
8	6.0 LEGAL CONSIDERATIONS	28	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose	

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9	7.1.1 Route Alignment	29	7.1.1 1GQ, GEORGE'S QUAY 7.1.1.1 Route Alignment Tara Station is approximately 85m southwest of this property. The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-05025 and the Contour drawing ML1-JA1-EIA-ROUT_XX-DR-Y-2U47 show the alignment and the predicted ground movement. Adjacent to the 1GQ, the proposed MetroLink will be excavated through Argillaceous Limestone rock (CLU) underlying Weathered Rock (QTR) underlying Brown Boulder Clay (Q.BR), containing extensive fluvio-glacial sands and gravels. Cover to the tunnel crown is approximately 17m comprising Brown Boulder Clay. The invert will be excavated through both weathered and unweathered limestone. This will present a significant challenge to ground movement mitigation using tunnel management.	OPW's observation with regard to the alignment and geology below 1GQ is noted and is the reason for the selection of the proposed TBM and the mixed face conditions identified have been used to conservatively predict the impacts on overlying buildings and infrastructure. TII will develop both TBM operational Specifications and Ground Movement and Monitoring Specifications to ensure that residual risks are appropriately managed.
10	7.1.3 13/15 HATCH STREET 7. 1.3.1 Route Alignment	32,33	7.1.3 13/15 HATCH STREET 7. 1.3.1 Route Alignment The tunnel alignment does not pass beneath 13/15 Hatch Street, and the building is approximately 75m to the east of the alignment. The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-05026 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21147 show the alignment and the predicted ground movement. Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Draft Railway Order and EIAR difficult.	TII disputes OPW statement that no chainage drawings have been provided. Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.
11	7.1.4 TRINITY POINT 7.1.4.1 Route Alignment	33	7.1.4 TRINITY POINT 7.1.4.1 Route Alignment The tunnel alignment passes directly beneath the Trinity Point. However, there is inconsistency in the alignment between Tara Station and St. Stephen's Green. The alignment drawing ML1-JA1-EIA- ROUT_XX-DR-Y-05025 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Draft Railway Order and EIAR difficult.	Please refer to response number (7) and (10).
12	7.1.5 EARLSFORT DEVELOPMENT CENTRE 7.1.5. 1 Route Alignment	35	7.1.5 EARLSFORT DEVELOPMENT CENTRE 7.1.5. 1 Route Alignment The tunnel alignment passes beneath the Earlsfort Centre. The alignment drawing ML1-JAI-E1A-ROUT_XX-DR-Y-05026 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Draft Railway Order and EIAR difficult.	Please refer to response (7) and (10).
13	7.1.6 INTREO OFFICE & PARKRITE PARKING 7. 1.6.1 Route Alignment	36	As can be seen in the figure below, the MetroLink 8.5m ID running tunnel does not pass close to this property. The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-05023 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21146 show the alignment and the predicted ground movement. Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Draft Railway Order and EIAR difficult.	Refer to response number(7) and (10).
14	7.1.6 INTREO OFFICE & PARKRITE PARKING 7. 1.6.1 Route Alignment	37	The proposed MetroLink will be excavated through Argillaceous Limestone rock (CLU) underlying Weathered Rock (QTR) underlying Brown Boulder Clay (QBR), containing extensive fluvio-glacial sands and gravels. Cover to the tunnel crown is approximately 23m comprising Brown Boulder Clay. The invert will be excavated through both weathered and unweathered limestone. This will present a significant challenge to ground movement mitigation using tunnel management.	OPW's observation with regard to the alignment and geology below Intreo Office and Parkrite Parking is noted and is the reason for the selection of the proposed TBM and the mixed face conditions identified have been used to conservatively predict the impacts on overlying buildings and infrastructure. TII will develop both TBM operational Specifications and Ground Movement and Monitoring Specifications to ensure that residual risks are appropriately managed.
15	7.3 Contractual Arrangement	38	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TIIs contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.

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16	8.0 POTENTIAL IMPACTS ON THE PROPERTY	38	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response numbers (17) through to (41) below.
17	8.1 Monitoring	15	Given the public service uses within this property, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.
18	8.2 Security Issues	39	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181 A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."
19	8.2 Security Issues	39	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety.
20	8.2 Security Issues	39	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed and agreed with OPW and the timing and duration of any disruption optimised to minimise said disruption.
21	8.2 Security Issues	39	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction stages to ensure suitable provisions are in place.
22	8.3.1 Ground Movement -1GQ, GEORGE'S QUAY	39, 40	8.3.1 Ground Movement Key points of the staged analysis for ground movements impacts on structures is provided for each property. However, an extended version of these stages has been provided in Appendix 2 enclosed with this submission, which we respectfully invite the Board to refer to. 1GQ, GEORGE'S QUAY. Stage 1: Defines extent of ground movement using Moderately Conservative parameters. The extent of the zone of influence from the station excavation is defined by the 1mm contour line (Dark Red) and 1 George's Quay lies outside the zone of influence. The ground movement impact on the 1 George's Quay is not specified in the report and the OPW seeks to ensure that this building has its own assessment.	1GQ, Georges's Quay: This property lies outside the zone of influence and hence is not impacted by settlement. Therefore this building does not need an assessment.

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23	Ground Movement- Corn Exchange	41	Corn Exchange: Stage 1: Defines extent of ground movement using Moderately Conservative parameters. The parameters considered by MetroLink are: ■ Volume Loss, Vs = 1.5 ■ 1 rough Width parameter, k = 0.3 The Volume Loss is considered moderately conservative. However, the trough parameter is very narrow and 0.4 would be considered more conservative. The extent of the zone of influence is defined by the 1mm contour line (Dark Red) and the Corn Exchange lies just outside the zone of influence. The ground movement impact on the Corn Exchange is not specified in the report and the OPW requests that this building has its own assessment.	8.3.1 Ground Movement Corn Exchange: The assessments undertaken to date are, as you say, moderately conservative. Any further detailed assessment would seek to strip out some of the conservatism. This property currently lies outside the zone of influence and hence is not deemed impacted by settlement. Therefore this building does not need an assessment. The K values have been determined considering the ground conditions specific to location and hence K values vary between 0.3 to 0.5 as shown in Table 5.1 of Appendix 5.17 of the EIAR. The rationale for the selection of K values is given further in section 4.2.3 of Appendix 5.17.
24	Ground Movement 83.1.3 13/15 HATCH STREET	42	83.1.3 13/15 HATCH STREET Stage 2: Three sections were considered in the assessment. The assessment did not address the structures directly.	8.3.1 Hatch Street: This property lies outside the zone of influence and hence is not impacted by settlement. Therefore this building does not need an assessment.
25	Ground Movement 83.1.3 13/15 HATCH STREET	42	Stage 3: The OPW expects that a Stage 3 assessment will be carried out for 13-15 Hatch St by the Contractor appointed to construct this section of the MetroLink. The OPW expects to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Draft Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	See response number (24). TII's position is that a Stage 3 assessment is not required for 13-15 Hatch Street.
26	Ground Movement 83.1.3 13/15 HATCH STREET	43	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholder's infrastructure is carried out. Also, the pre-construction defect surveys are carried out prior to any excavation. The OPW requires to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the pre-construction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate pre-construction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	Please note this building is outside the zone of influence and hence this is not relevant.
27	Ground Movement 83.1.3 13/15 HATCH STREET	43	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of their property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled. Please note this building is outside the zone of influence and hence this is not relevant.
28	Ground movement- Trinity Point- 8.3. 1.4	44	Stage 3: The EIAR states that a Stage 3 assessment will be carried out for Trinity Point by the Contractor appointed to construct this section of the MetroLink. The OPW expects to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Draft Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	8.3.1.4 Stage 3 Assessment: The Trinity Point Stage 3 assessment will be undertaken by the contractor and the results will be shared with OPW. TII will consult OPW on the detail, scope and programme for this assessment. To educate the Phase 3 assessment TII will consult with OPW to ensure that any record drawings for this (and any other OPW buildings) are collated and included in the contract documents issued to tenderers. -TII are in the process of procuring resources to develop the design for tender. This design will include developing design standards, procedures etc for all aspects of the works as is standard practice for major infrastructure projects. With regard to stage 4 and 5 - i.e. the development of monitoring and mitigation plans and the subsequent close out of the impacts of settlement will form part of the scope of the project for the design and construct phases. The details as noted above will be developed during the procurement phase as is standard practice.

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29	Ground movement- Trinity Point- 8.3. 1.4	45	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholders’ infrastructure is carried out. Also, the pre-construction defect surveys are carried out prior to any excavation. The OPW requires to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the pre-construction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate pre- construction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	See response number (26) above.	
30	Ground movement- Trinity Point- 8.3. 1.4	45	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of their property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.	
31	Ground Movement 8.3.1.5 EARLSFORT DEVELOPMENT CENTRE	46	Stage 2: The assessment did not explicitly comment on the building in Table 5.2 Result of Phase 2a Building Damage Assessment- Representative Buildings. A map corresponding the Building IDs in this list to delineated buildings might aid with understanding specific buildings included or excluded from the Reports assessment. The building should be considered a Special Building and progressed to a Phase 3 assessment if it hasn't been identified already.	The Earlsfort Development Centre is included as building B53 in Appendix 5.17 of the EIAR. The building is identified as a special building and will be subject to a Phase 3 assessment.	
32	Ground Movement 8.3.1.5 EARLSFORT DEVELOPMENT CENTRE	46	Stage 3: The EIAR states that a Stage 3 assessment will be carried out for The Earlsfort Centre by the Contractor appointed to construct this section of the MetroLink. The OPW expects to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if Til were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Draft Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	The Earlsfort Stage 3 assessment will be undertaken by the contractor and the results will be shared with OPW. To educate the Phase 3 assessment TII will consult with OPW to ensure that any record drawings for this (and any other OPW buildings) are collated and included in the contract documents issued to tenderers. TII are in the process of procuring resources to help develop the design for tender. This design will include developing design standards, procedures etc for all aspects of the works as is standard practice for major infrastructure projects. With regard to stage 4 and 5 - i.e. the development of monitoring and mitigation plans and the subsequent close out of the impacts of settlement will form part of the scope of the project for the design and construct phases. The details as noted above will be developed during the procurement phase as is standard practice.	
33	Ground Movement 8.3.1.5 EARLSFORT DEVELOPMENT CENTRE	47	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholder's infrastructure is carried out. Also, the pre-construction defect surveys are carried out prior to any excavation. The OPW requires to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the pre-construction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate pre- construction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	Please see response number (26) above.	
34	Ground Movement 8.3.1.5 EARLSFORT DEVELOPMENT CENTRE	47	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of their property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	Please see response number (27) above.	

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35	8.3.3 Noise and Vibration(a) Tunnelling	50	INTREO OFFICE & PARKRITE PARKING: ■ Ground borne noise was not calculated for this property. However, no significant impact is anticipated. ■ Ground borne vibration was not calculated for this property. However, no significant impact is anticipated. EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. With respect to the above-mentioned, the OPW requests that a specific study is carried for the foregoing properties to determine whether ground borne noise and vibration will have any impact. Where any impact is identified then threshold limits will need be applied and monitored. Where the building is considered vulnerable to vibration induced damage EIAR Table 6.2 - ANV16. sets out requirement for pre- and post-construction surveys of these structures.	The INTREO OFFICE is in excess of 300m from the tunnel centreline and Parkrite Parking is in excess of 230m from the tunnel centreline. EIAR Table 14.14 states that impacts from groundborne noise and vibration from TBM passage may extend to a plan distance of 100m from the tunnel, and Section 14.2.5.4.2 states that the operation of the rail line is unlikely to have an impact beyond 50m from the rail line. As these buildings are outside of these distances groundborne noise and vibration have not been calculated for them. However, groundborne noise contours are given for TBM passage in Figure 14.2 and operation in Figure 14.6 where it can be seen that these buildings are outside of the 30 dB LASmax contour, and below the thresholds for significant impacts of 45 dB and 40 dB respectively. As the buildings are below any thresholds no further surveys are required.	
36	8.3.3 Noise and Vibration	51	1GQ, 1 George's Quay is located approximately 85m from Tara Station, while Corn Exchange is located c. 125m from this Station excavation and the peak particle velocity for these properties is predicted to be 1.1mm/s and 0.8mm/s respectively. The OPW requests a specific assessment of the impact of blasting on 1GQ, 1 George's Quay and Corn Exchange. 13/15 Hatch Street, Trinity Point, and Earlsfort Development Centre are located far enough away from either station excavation for the predicted peak particle velocity to be less than 1mm/s. The INTREO Office & Parkrite Parking is located 400m from O'Connell Street Station excavation and therefore the peak particle velocity is predicted to be less than 1mm/s. The OPW requests a specific assessment of the impact on this property to be carried out.	Table 14.5 of the EIAR presents threshold vibration levels for blasting of 8mm/s for standard buildings, and 3 mm/s for potentially vulnerable buildings. The predicted vibration levels during blasting of 1.1 mm/s PPV at 1 George's Quay 1.1 mm/s, and 0.8 mm/s PPV at Corn Exchange are well below these thresholds. Therefore no significant impact is predicted and further mitigation measures are not considered necessary. The other buildings that have been listed, namely 13/15 Hatch Street, Trinity Point, Earlsfort Development Centre and INTREO Office & Parkrite Parking are located at sufficient distances from any blasting that vibration levels would be well below 1 mm/s PPV as indicated in Figure 14.4 Blasting contours of PPV, no significant impacts would be felt. Therefore no significant impact is predicted and further mitigation measures are not considered necessary.	
37	8.3.4 Work Sites	51	(b) Ground Water Control There is the potential for ground water lowering for the construction of Tara Station to impact 1GQ, 1 George's Quay and Corn Exchange. Thus, the OPW requests that TII provides an assessment and limits that will be applied to dewatering for the construction of Tara Station. Regarding the 13/15 Hatch Street, Trinity Point, and Earlsfort Development Centre, there is an assumption that the tunnelling will not affect the ground water above the tunnel. However, there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk. In relation to INTREO Office & Parkrite Parking, the is the potential for ground water lowering for the construction of O'Connell Street Station to impact the property. Thus, the OPW requests that TII provides an assessment and limits that will be applied to dewatering for the Construction of O'Connell Street Station.	TII understand your concern, however following reviews, surveys and monitoring of groundwater, it can be concluded that the referenced buildings will not be impacted by works. As outlined in EIAR Chapter 19 (Hydrogeology), groundwater assessment and monitoring were and will continue to be undertaken for the proposed Project: • AWN undertook an extensive desktop review in order to establish baseline conditions along the proposed alignment corridor. The baseline study included reference to historical ground investigation data including the 2007 IGSL investigation borehole dataset (IGSL 2008) and data from Norwest Holst (2008) as well as information from contemporary (2019-2021) ground investigations specific to the proposed Project (Table 19.2); • A number of field surveys and walkover assessments were carried out to add to existing assessment of long-term trend analysis for water quality undertaken by the EPA (Section 19.3.3.4); • A number of intrusive ground investigations were commissioned for the proposed Project including ground water level monitoring (Section 19.3.3.5). A programme of continuous groundwater level monitoring, aquifer testing and groundwater quality monitoring was devised with focus on key well locations along the alignment including at deep station excavations; and • A hydrogeological review of Tara Street was undertaken and can be found in EIAR Appendix A19.11. Dewatering and unmitigated releases to ground during the Construction Phase could have permanent water quality and quantity impacts on the hydrogeological (and hydrological/ecological) environment if not effectively mitigated (Section 19.5.1). However, for the proposed Project, Construction Phase management includes mitigation measures presented in the EIAR and outlined in the outline Construction and Environmental Management Plan (CEMP) (Appendix A5.1) for the proposed Project to protect receiving waters (groundwater and surface water) and ensure continued conveyance of natural groundwater flow patterns, as well as of surface water courses.	
38	8.3.4 Work Sites	18	(e) Traffic There will be significant traffic diversions required to construct Tara Station site that may impact personnel and clients attending 1GQ, 1 George's Quay and Corn Exchange. Thus, the OPW requests to ensure that full access is maintained to these properties, including car parks, etc. This item does not apply to 13/15 Hatch Street, Trinity Point, and Earlsfort. In relation the INTREO Office & Parkrite Parking and its proximity to the O'Connell Street Station, there will be significant traffic management required to construct this Station site, and that may impact personnel and clients attending the property and/or using car parking at the INTERO Office & Parkrite Parking. It is noted that the Traffic Management Plan envisages that all construction traffic from O'Connell Street Station construction will be routed west along Parnell Street. Accordingly, the OPW requests that Til carry out a study to consider the impact on the Parkrite car parking at Loftus Lane.	As set out in Section 7.9 of Appendix A9.5 Scheme Traffic Management Plan - Luke St will be closed between Poolbeg St and Townshend St which will still enable access to the George's Quay Car Park from Townsend St, while the site boundary does not block access to the car park from Luke St (Fig 7-49 of same Section and Section 5.10.11 of Chapter 5). In relation to buildings at Corn Exchange, none of the envisaged TTM restrictions will hinder access to this location. In Section 7.8 of Appendix A9.5 Scheme Traffic Management Plan - No adverse impacts have been set out or identified in relation to Parkrite or INTREO sites.	

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39	8.4 During Operation of the MetroLink 8.4.1 Noise and Vibration	52	8.4.1 Noise and Vibration In relation to 1GQ, 1 George's Quay and Corn Exchange, TH proposes to mitigate the noise and vibration resulting from the railway operations by installing resilient track slab to meet threshold of 40 dBtamaxs and VDV = 0.8 m/s 1 respectively. The vibration during railway operations will not impact the building fabric or structure. In relation to 13/15 Hatch Street, Trinity Point and Earlsfort Development Centre, TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBLamax,sand VC-D respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 19+000, between Chainage 17+980 and 18+400 (St. Stephen's Green Station), and between Chainage 17+980 and 18+900. This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums, and the National Concert Hall. The vibration during railway operations will not impact the building fabric or structure. In relation to INTREO Office & Parkrite Parking, Til proposes to mitigate the noise and vibration resulting from the railway operations by installing resilient track slab to meet threshold of 35 dBiamaxzs and VDV = 0.4 m/s 1 respectively. The vibration during railway operations will not impact the building fabric or structure.	Predictions of groundborne noise and vibration are given in EIAR Appendix 14.5. For Earlsfort Development Centre the predicted level of groundborne noise is 21 dB LASmax, below the 40 dB LASmax threshold. For vibration the predicted level is 0.002 mm/s VDV which is below the threshold level of 0.8 mm/s PPV. Groundborne noise and vibration would be expected to be lower at 13/15 Hatch Street due the increased distance from the tunnel. In relation to Trinity Point (10-11 Leinster Street) the predicted operational noise level is of 18 dB LASmax, which is below the threshold of 40 dB LASmax. For vibration the predicted level is 0.002 mm/s VDV which is below the threshold level of 0.8 mm/s PPV. Given that the predicted levels of groundborne noise and vibration are below the threshold levels for operation at the stated buildings and no significant impact is predicted there is no need for floating track slab in this area.	
40	8.4.2 Future Development	53	The railway is 85m from 1GQ, 1 George's Quay, and 40m from the Corn Exchange. Therefore, the railway will not hinder future (re)development of these properties. It is likely that there will be restrictions on future sub-grade development for the Trinity Point as parts sit atop the current planned alignment. It is also likely that there will be restrictions on future sub-grade development for the Earlsfort Development Centre as one corner of the building footprint is extremely close to the current planned alignment. Provided the proposed railway alignment does not change then there will be no restriction on future development at INTREO Office & Parkrite Parking. Should the position change, the OPW reserves the right to develop the subject property in the future. This includes property above and below ground, subject to normal planning criteria.	Please refer to response number (6) above.	
41	8.5 Future Development	53	The OPW reserves the right to develop any of its portfolio of properties in the future, which includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroUnk does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (6) above.	
42	CONCLUSION	54	With regards to the Gall Zeidler assessment, the risk of damage from ground movement on the properties subject to this submission is suggested to be negligible. However, given the significance of the building in terms of function and use, pre- and post-construction surveys, trials, and monitoring is requested. The OPW also seeks assurance from TII that Stage 2 ground movement assessment will be carried in relation to INTREO Office & Parkrite Parking during detailed design if there are material changes to the alignment. Once the railway is in operation, it is possible that there will be noise and vibration impact and TII should seek assurance that a detailed evaluation will be performed.	Given that no significant impacts have been predicted at these buildings then pre and post construction surveys, trials and monitoring are not considered to be necessary. If there are changes to alignment, then the impacts of the changes would be assessed for all affected buildings.	
43	CONCLUSION	54	With respect to these properties, the OPW is seeking: 1) To ensure no disruption to the public access of these buildings and their day-to-day uses and functions, as well as no damage to the buildings, their historical profile in terms of being listed as Protected Structure and/or their Conservation Area setting (if there is any), resulting from the implementation of the Project.	Scheme impacts in the area surrounding these properties has been undertaken in Section 7.9 of Appendix A9.5 Scheme Traffic Management Plan with no adverse impacts identified. The buildings have been assessed for all impacts due to construction and operation as detailed throughout the EIAR and in these responses. The assessments take into account the nature of the Protected buildings and their setting.	
44	CONCLUSION	54	2) To ensure pre- and post-construction surveys are carried out and that these should relate to but not limited to ground movement, noise and vibration, blasting and water lowering, as well as construction traffic impacts, also including traffic diversions.	Agreed.	
45	CONCLUSION	54	3) To ensure that the following specific assessments of the impacts on 1GQ, 1 George's Quay and Corn Exchange are provided, with precedents applied to ensure best industry practice: a. Ground movement impact (Stage 2 and 3 Assessment). b. Ground borne noise and vibration, including the application and monitoring of threshold limits, pre- and post-construction surveys. c. The impact of blasting given the proximity of these properties to the Station.	a. As noted previously further ground movement assessment of 1GQ and the Corn Exchange are not required as both buildings are outside the zone of influence. b. Please see response number (39) above.. c. According to Appendix 14.5 Groundborne Noise and Vibration and Blasting Modelling Results, the values of vibration due to blasting for 1 George's Quay and Corn Exchange are 1.1mm/s and 0mm/s compared to the threshold value of 8 mm/s. As a result no significant impact is expected on these buildings as a result of blasting activities.	

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46	CONCLUSION	54	4) To ensure acceptable levels of dewatering for construction of Tara Station are provided as there is a potential for ground water lowering which can adversely impact the 1GQ, George's Quay and Corn Exchange.	Please refer to response number (37).
47	CONCLUSION	54	5) To ensure an assessment of traffic impact on the accessibility of 1GQ, George's Quay and Corn Exchange for both personnel and clients during construction of Tara Station due to traffic diversions.	Scheme impacts in the area surrounding these properties has been undertaken in Section 7.9 of Appendix A9.5 Scheme Traffic Management Plan with no adverse impacts identified.
48	CONCLUSION	54	6) Once the railway is in operation it is possible that there will be residual impacts arising from the above assessments and Tii should seek assurance that a detailed evaluation will be performed.	The Operational Phase has been fully assessed and TII will ensure that operational surveys are undertaken to verify actual impacts.
49	CONCLUSION	54	8) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties. The Project will be delivered in accordance with relevant risk management processes.
50	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	56	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TH have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (5) above.
51	Appendix 2: Ground movement Assessment	page 61	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover Letter response

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1	Downey Report- Executive Summary		With respect to this property, the OPW is seeking: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions. Access to associated car parking on Corn Exchange Place must be maintained at all times. 2) To ensure no damage to the building, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with the fact that the ground movement impact, as well as ground borne noise and vibration impact on the building, has not been incorporated within the Draft Railway Order. 3) To ensure an assessment on the impact of blasting to facilitate construction of Tara Station on the building, is included, since this is to take place in close proximity to the building (approximately 125m). 4) To ensure no adverse impact on the access and function(s) of the building due to traffic diversions to construct Tara Station. 5) To ensure specific vibrations limits will be applied to 13/14 Burgh Quay and a monitoring regime is implemented. 6) To include adverse impacts of Tara Station within the risk assessment studies for 13/14 Burgh Quay and provide for mitigation measure, as construction of this Station will generate additional lorry movements for both deliveries and spoil removal. 7) Precedents to be applied to the risk assessments to ensure best industry practice is adopted in the implementation of the Project.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (38) below.	
2	Downey Report- 3.0 Overview of the Draft Railway Order	Page 8, 9	While extensive pre-planning consultations also took place between Til and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. . TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. This property is outside the zone of influence (1mm contour) and hence no impacts from ground movement are predicted. Further, please refer to response number (20) below.	
3	Downey Report -4.1 property location and description	page 10	This property is a four-storey over basement corner building, located at Nos. 13-14 Burgh Quay, Dublin 2. The building is situated between the Rosie Hackett Bridge and the R802 Bridge. The building extends down Corn Exchange Place with its rear elevation on Poolbeg Street. The building consists of a divide between a modern office complex (14 Burgh Quay) and an old Georgian Protected Structure (13 Burgh Quay). Originally built as a house, 13/14 Burgh Quay, is currently in use as a key public office for the Immigration Services. It offers administration serves for a range of Government Departments and Agencies.	It should be noted that the ownership/management role of this building was not identified by OPW to TII in previous significant consultation undertaken with OPW. Nevertheless, TII is satisfied that the assessment of impacts on this building is suitable for the purposes of the EIAR.	
4	4.2 Historical Context/Conservation Status	12	No. 13 Burgh Quay was originally built as part of a row of Georgian houses that fronted onto Burgh Quay and were designed to the standard of the Wide Street Commission. The buildings were built c. early 19 the century, in which Aston Quay and George's Quay were joined together to create Burgh Quay. The buildings had mixed use functions, but No. 13 Burgh Quay was primarily used as a residential unit. The building had various uses at the ground floor, including a corn merchant office, with a residence on the upper floors. It was also part of the Tivoli Theatre and used by the origins of the Irish Press, at one stage. The building has retained some of its historical features, with the retention of the stone entablature and arcaded shopfront, showcasing the neighbouring buildings perhaps where the original shopfront for the terrace was. It creates a sense of unity in the streetscape with its original red-brick features, a shared height and cornice and fenestration arrangement. Partially located within a Conservation Area in the Dublin City Development Plan 2022-2028 and registered under RPS Ref. No. 1023 of the Council's Record of Protected Structures, 13/14 Burgh Quay is designated as a Protected Structure.	Your observation is noted. TII understand that number 14 is not a protected structure and number 13 has been rebuilt and only the facade and surviving elements of the nineteenth-century building are protected. The presence of number 13 was noted in the Architectural Heritage chapter of the EIAR.	

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5	4.3 Current Use/Uses	11	This building is a critical public office for the Immigration Services and provides c. 4,500sqm of public office and administration services for a number of Government Departments and State Agencies. It is a State-owned building with accommodation over 6 floors and basement car parking.	TII have noted this observation.
6	4.4 Planning context	12	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission and the Board is invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project regarding existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application.
7	4.4 Planning context	12	DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
8	4.6 Potential Development of the Property	12	No. 14 Burgh Quay is a recent development with no significant historical context. No. 13 Burgh Quay is a Protected Structure and therefore, no development is expected. However, there is always the possibility that sub-terranean development could take place.	TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.
9	5.0 MATERIAL CONSIDERATIONS	12	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-E1A-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly within the Kildare Street, Merrion Square and St. Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.

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10	6.0 LEGAL CONSIDERATIONS	12	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose	
11	7.1.1 Route Alignment	13	The MetroLink 8.5m ID running tunnel passes approximately 20m from the front of this building. Tara Station is approximately 125m southwest of this property. The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-05024 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21147 show the alignment and the predicted ground movement. Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Draft Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.	
12	7.1.3 Station Excavation	14	13/14 Burgh Quay is situated approximately 125m from Tara Station Box. The excavation for the stations will be through fluvio-glacial deposits, Weathered Rock, and Argillaceous Limestone. The excavation through the Limestone will most likely include blasting, which is unlikely to affect 13/14 Burgh Quay.	Please refer to response number (22) below.	
13	7.3 Contractual Arrangement	15	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.	
14	8.0 POTENTIAL IMPACTS ON THE PROPERTY	15	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response numbers (15) through to (26).	
15	8.1 Monitoring	15	Given the sensitivity of the uses within this property, coupled with its importance, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and throughout the operational stage of the MetroLink.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.	
16	8.2 Security Issues	15	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181 A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."	
17	8.2 Security Issues	16	All employees contracted to work on behalf of the Til on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety.	

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18	8.2 Security Issues	16	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.
19	8.2 Security Issues	16	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.
20	8.3.1 Ground Movement	17	Stage 1: Defines extent of ground movement using Moderately Conservative parameters. The parameters considered by MetroLink are: ■ Volume Loss, V s = 1.5 ■ Trough Width parameter, k = 0.3 The Volume Loss is considered moderately conservative. However, the trough parameter is very narrow and 0.4 could be considered more conservative. The extent of the zone of influence is defined by the 1mm contour line (Dark Red) and 13/14 Burgh Quay lies just within the zone of influence and will be subject to up to 40mm settlement. The ground movement impact on the 13/14 Burgh Quay is not specified in the report and the OPW requests that this building has its own assessment.	TII disagree with the OPW assessment here. Burgh Quay lies just outside the 1mm contour and cannot therefore have settlement of 40mm as stated. No further assessment is required. The assessments undertaken to date are, as you say, moderately conservative. Any further detailed assessment would seek to strip out some of the conservatism. The K values have been determined considering the ground conditions specific to location and hence K values vary between 0.3 to 0.5 as shown in Table 5.1 of Appendix 5.17 of the EIAR. The rationale for the selection of K values is given further in section 4.2.3 of Appendix 5.17.
21	8.3.3 Noise and Vibration	17	(a) Tunnelling During the passage of the Tunnel Boring Machine (TBM) the noise is predicted to be 50 dBLAmax,s exceeding the acceptable threshold (45 dBLAmax,s)and this may last for 2 weeks. The vibration from the passage of the TBM is predicted to be 0.275 VDVB.ms'1 - 75 less than the threshold (1.6 VDVB.ms'1,75). EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requests that a specific study is carried for this 13/14 Burgh Quay to determine whether ground borne noise and vibration will have any impact. Where any impact is identified then threshold limits will need be applied and monitored. Where the building is considered vulnerable to vibration induced damage EIAR Table 6.2- ANV16. sets out requirement for pre- and post-construction surveys of these structures.	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project. The assessment has identified that there will be no potential for structural damage due to vibration as levels of vibration are predicted to be below the construction threshold of 1.6 mm-1.75 VDV (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results) and accordingly the specific study requested is not required. Regarding groundborne noise, unfortunately, there are no effective methods available to reduce groundborne noise from TBMs at source, but noting that the duration of this impact will be of the order of two weeks. TII will consult and liaise with 13-14 Burgh Quay , to ensure the timing of these impacts are known. The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy).
22	8.3.3 Noise and Vibration	17	(b) Station Excavation GNV2 states that Monitoring of blasting and re-optimising the blast design (minimising the explosive charge considering the results) will be carried out as standard. A5.20 Blasting Strategy provides information on the classification of buildings and potential damage due to blasting for the station excavations. There are also calculations for estimated magnitude of the peak particle velocity (ppv) for various explosive charges. The assumption is that the lowest charge would be implemented to avoid damage. 13/14 Burgh Quay is located approximately 125m from Tara Station excavation and the peak particle velocity is predicted to be 0.6mm/s. The OPW requests a specific assessment of the impact of blasting on 13/14 Burgh Quay.	The EIAR Chapter 14 presents an assessment of vibration and air overpressure from blasting. According to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results vibration from blasting at 13/14 Burgh Quay will be 0.6 mm/s PPV which is below the threshold of 8 mm/s PPV. As a result no significant impact is expected on these buildings as a result of blasting activities. No further assessment is required.

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23	8.3.4 Work Sites	17	(a) Dust Appendix A16.4 of the EIAR requires a Dust Management Plan to be produced and implemented. The tunnelling will not generate dust in the vicinity of 13/14 Burgh Quay. The Station construction site is 60m from 13/14 Burgh Quay and therefore dust from these constructions sites is likely to affect this building.	TII acknowledge your concern and will put measures into place to ensure your property / equipment is not damaged by dust. An Air Quality Management Plan, detailing dust mitigation methods will be prepared prior to construction works (Section 16.6.1.1 Chapter 16 Air Quality). A summary of dust mitigation measures to be implemented are as follows (Section 16.6.1.1, Chapter 16): •Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; •Any blasting will be completed by specialised contractors with a specific blasting dust management plan; •Liaison with local authorities and community groups; •Hoarding will be provided around the construction compounds; and •It is anticipated that methods of collecting rainwater and recycling for general site use, will be adopted where practical. When the dust minimisation measures detailed in the mitigation section (Section 16.6) of EIAR Chapter 16 are implemented, fugitive emissions of dust from the site are not predicted to cause damage to property or human health.	
24	8.3.4 Work Sites	18	(b) Ground Water Control There is the potential for ground water lowering for the construction of Tara Station to impact 13/14 Burgh Quay. The OPW requests Til to provide an assessment and limits, which will be applied to dewatering for the Construction of Tara Station.	TII understand your concern, however following reviews, surveys and monitoring of groundwater, it can be concluded that 13/14 Burgh Quay will not be impacted by dewatering at Tara Street Station. As outlined in EIAR Chapter 19 (Hydrogeology), groundwater assessment and monitoring were and will continue to be undertaken for the proposed Project: • AWN undertook an extensive desktop review in order to establish baseline conditions along the proposed alignment corridor. The baseline study included reference to historical ground investigation data including the 2007 IGSL investigation borehole dataset (IGSL 2008) and data from Norwest Holst (2008) as well as information from contemporary (2019-2021) ground investigations specific to the proposed Project (Table 19.2); • A number of field surveys and walkover assessments were carried out to add to existing assessment of long-term trend analysis for water quality undertaken by the EPA (Section 19.3.3.4); • A number of intrusive ground investigations were commissioned for the proposed Project including ground water level monitoring (Section 19.3.3.5). A programme of continuous groundwater level monitoring, aquifer testing and groundwater quality monitoring was devised with focus on key well locations along the alignment including at deep station excavations; and • A hydrogeological review of Tara Street was undertaken and can be found in EIAR Appendix A19.11. The design permeability used for bedrock beneath the proposed Tara Street Station is 5.64E-06m/s (CLU). The predicted effect of Construction Phase dewatering (from either drawdown or water quality effects) at Tara Street is considered Temporary, Not Significant to Slight in the absence of mitigation. Therefore, it is considered that there is no perceptible effect on groundwater body/surface waterbody status.	
25	8.3.4 Work Sites	18	(e) Traffic There will be significant traffic diversions required to construct Tara Station site that will impact personnel and clients attending 13/14 Burgh Quay. Access to associated car parking on this property must be maintained at all times.	As set out in Section 7.9 of Appendix A9.5 Scheme Traffic Management Plan and Figure 7-44 with trucks routed eastwards and along the quays - there will be no Construction movements impact to buildings at Corn Exchange as none of the envisaged TTM restrictions will hinder access to this location.	
26	8.5Future Development	18 and 19	The railway is 20m from 13/14 Burgh Quay. Therefore, the railway may hinder future re-development. The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria .It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop in advance, in tandem or post operation of the MetroLink Project.	See response (8)	
27	CONCLUSION	19	The most significant impact of the MetroLink project on 13/14 Burgh Quay will be from the construction of the running tunnel between O'Connell Street and Tara stations generating ground movement, noise and vibration. The OPW seeks assurances from Til that Stage 2 and 3 ground movement assessments will be carried specifically for this building.	Further to response number (20) and (21) above, as no ground movement and vibration impact is anticipated from the tunnelling past Burgh Quay, no Stage 2 or 3 building assessments are required. Proposed Mitigation measure in response to anticipated groundborne noise from the tunnelling operation past Burgh Quay s also set out in response number (21) above.	

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28	CONCLUSION	19	Once the railway is in operation, it is possible that there will be noise and vibration impact and the OPW seeks assurance that a detailed evaluation will be performed. Future development of the site may require consultation with TII due to its proximity to the tunnel alignment.	Groundborne noise and vibration from operation of the railway has been calculated for 13/14 Burgh Quay with the results presented in Appendix 14.5 Groundborne Noise and Vibration and Blasting Modelling Results of the EIAR. The predicted level of groundborne noise is 30 dB LASmax, which is below the 40 dB LASmax threshold, resulting in a not significant impact on the building. The predicted level of groundborne vibration is 0.006 m/s-1.75, much lower than the VDV Threshold Level for the building of 0.8 m/s-1.75, resulting in a not significant impact on the building. Accordingly, the requested further evaluation is not required.
29	CONCLUSION	19	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions. Access to associated car parking on Corn Exchange Place must be maintained at all times.	Access will not be impacted. Please refer to response number (25).
30	CONCLUSION	19	With respect to this property, the OPW is seeking: 2) To ensure no damage to the building, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with the fact that the ground movement impact, as well as ground borne noise and vibration impact on the building, has not been incorporated within the Draft Railway Order	As refer to in response numbers (21) and (22) above, it is incorrect to state that ground movement impacts have not been considered for this building in the Draft Railway Order.
31	CONCLUSION	19	With respects to this property, the OPW is seeking: 3) To ensure an assessment on the impact of blasting to facilitate construction of Tara Station on the building, is included, since this is to take place in close proximity to the building (approximately 125m).	Blasting impact is referred to in response number (22) above.
32	CONCLUSION	19	With respect to this property, the OPW is seeking: 4) To ensure no adverse impact on the access and function(s) of the building due to traffic diversions to construct Tara Station.	Access will not be impacted. Please refer to response number (25).
33	CONCLUSION	19	With respect to this property , OPW is seeking: 5) To ensure specific vibrations limits will be applied to 13/14 Burgh Quay and a monitoring regime is implemented.	As referred to in response numbers (21), (22) and (28) above, vibration levels are predicted to be below threshold levels, so it is anticipated that monitoring will not be required..
34	CONCLUSION	19	6) To include adverse impacts of Tara Station within the risk assessment studies for 13/14 Burgh Quay and provide for mitigation measure, as construction of this Station will generate additional lorry movements for both deliveries and spoil removal.	No impact on this building is anticipated. Please refer to response number (25) above.
35	CONCLUSION	20	7) Precedents to be applied to the risk assessments to ensure best industry practice is adopted in the implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
36	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	21	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TH have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (7) above.
37	Appendix 2: Ground movement Assessment	26-Jan	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover Letter response

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1	Downey Report- Executive Summary		With respect to this property, the OPW is seeking: 1) TII to conduct a Stage 3 assessment to ensure that 14-17 Moore Street, which are Protected Structures and National Monuments, are undamaged by the construction of MetroLink and the construction of O'Connell Street Station. 2) To ensure no damage to the façades of the buildings and their architectural detailing, pre- construction and post construction surveys, trials and monitoring is required. This is mainly concerned with demolition, noise, vibration, and dust which can damage the buildings, which is of historical significance. 3) To ensure that any future development at nos. 14-17 Moore Street follows the Moore Street and Environs Local Area Plan and Moore Street Battlefield Site Plan." 4) To ensure the appropriate conservation and structural appraisals are conducted as part of the Detailed Design Assessment. 5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project. 6) The Project Boundary submitted as part of the Draft Railway Order abuts Nos. 8-9 Moore Lane, the preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 1/2007) encompass Nos 8-9 Moore Lane. In this regard, the site boundary for O'Connell Street Station should be reviewed and agreed in advance of construction with the OPW and DCC due to its proximity to the boundary of the National Monument. The OPW requires access to the National Monument via Moore Lane to be maintained.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (44) below.
2	Downey Report- 3.0 Overview of the Draft Railway Order	Page 8, 9	While extensive pre-planning consultations also took place between Til and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a moderately conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. . TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. For these particular properties, the assessment outlined in the EIAR predicts slight damage impact or less, based on assessment on adjacent buildings reference B-199 and AB-50 within Table 5-2 of Appendix 5.17. While slight impact or less is anticipated, these building will be included in a Phase 3 assessment by the appointed contractor for their Special Building Status as Sections 4 of Appendix A5.17. Please also refer to response number (26) below.
3	Downey Report -4.1 property location and description	page 10	14, 15, 16 and 17 Moore Street are terraced two-bay, three-storey houses that form on the eastern side of Moore Street. They are on the Dublin City Council Record of Protected Structures list (RPS No. 5282, 5283, 5284, 5285) and are of historical merit particularly given they have survived despite the fact that much of the area was largely lost during the Easter Rising and subsequent historical events that flattened much of the north inner-city. The buildings were the location where the leaders of 1916 decided to surrender. Numbers 14 -17 Moore Street are subject to a preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 1/2007). The designation comprises Nos 14, 15, 16 and 17 Moore Street and includes the rear yards of Nos 15 and 16 Moore Street and Nos 8-9 Moore Lane. The modest terrace buildings, all re-faced in the late nineteenth century, likely disguises eighteenth-century houses, circa 1760, that have served Moore Street open-air fruit and vegetable market, which is one of the oldest street markets in Dublin that is still in operation.	Noted. These buildings were included in the Architectural Heritage chapter of the EIAR and the potential direct and indirect effects of the proposed project on these buildings was assessed and mitigation measures included.
4	4.2 Historical Context/Conservation Status	12	14-17 Moore Street is of particular importance both architecturally and historically, with plans to create a museum, eventually becoming the focal point of this street.Nos. 14 -17 Moore Street are subject to a preservation order made under the National Monuments cts 1930 to 2014 (PO no. 1/2007). Structure RPS No. NIAH Ref Rating NIAH Categories 14, Moore Street 5282 50010489 Regional Architectural, Historical 15, Moore Street 5283 50010490 Regional Architectural, Historical 16, Moore Street 5284 50010491 Regional Architectural, Historical 17, Moore Street 5285 50010492 Regional Architectural	TII have noted this observation.

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5	4.3 Current Use/Uses	11	Essential Works to safeguard the National Monument were completed in June 2017. These works were defined by High Court Order. Prior to these works a contract was underway to conserve and adapt the National Monument as a museum/cultural use. The Essential Works provided limited permanent repairs to the National Monument such that its safeguarding depends on temporary works, designed for a 2-year life span and requiring ongoing monitoring and maintenance. The National Monument includes the surviving cellars and fabric at 8-9 Moore Lane. The cellars have a fragile jack arched concrete vaulted ceiling with the crown of the arches of c. 150mm in thickness. As the upper part of this former warehouse building has been exposed to weather for some time (possibly since mid-1980's), and subject to loading above (used for vehicular access prior to its protection), the cellar structure also requires remedial works. They are currently protected from weather and any overhead loads. Approximately 50% of underpinning to Nos 14-17 was completed in 2017. In addition to completion of underpinning, other structural repair works are required to stabilise the structure and fabric of the buildings at 14-17 Moore Street, the surviving cellars and structure to 8-9 Moore Lane and the enclosing boundary walls to the National Monument. These works form part of a future works project to complete stabilisation of the National Monument and facilitate its public use	According to Chapter 26 Architectural Heritage, the rear of number 14-17 Moore Street buildings backs on to Moore Lane introducing the potential for impact by vehicles. As a result, the following mitigations measures will be implemented: 14 Moore Street - The exclusion zone established by the Ministers office is to be maintained at all times and settlement and vibration monitoring is to be carried out as a precautionary measure. The threshold limits are to be agreed with the Ministers office. In the event of threshold limits being exceeded all work in the vicinity is to stop until the cause of the issue is identified and resolved are to be protected from potential damage by means of strong hoardings during construction. 14-17 Moore Street – An exclusion zone is to be provided around numbers 14 to 17 Moore Street, extending to Moore Lane, and the structures adjacent to the haul route are to be protected from potential damage by means of strong hoardings during construction.	
6	4.3 Current Use/Uses		Within the Dublin City Development Plan, there is a proposed future use to conserve and adapt the National Monument to a museum/cultural use. Uninterrupted access to the building is necessary at all times and for access by emergency services (e.g., fire services and ambulance). Access required to both the front (Moore Street) and the rear (Moore Lane).	As set out by Figure 38 of Appendix A.9.5, construction traffic will only extend southwards down Moore Lane and Moore Street as far as O’Rahilly Parade and will not impact upon the properties in question. The potential for future development in this location has also been taken into account throughout Section 7.8 with two scenarios considered for the analysis of this site - one with future development around Moore St/Lane and one without.	
7	4.3 Current Use/Uses	13	The OPW and/the State, and their authorised agents, require access to the building at all times for the purpose of facilities management, maintenance, repairs and any major conservation, repair or development programme, planned, or as may arise during the construction period of MetroLink.	Please refer to response number (6).	
8	4.4 Planning context	13,14,15	The National Development Plan outlines that the completion of the conservation of the Moore Street National Monument (14-17 Moore Street), along with the provision of visitor and exhibition facilities on site is a National Heritage Strategic Investment priority. There is currently a proposal by the DHLGH to development the site as a cultural centre; Ministerial Consent ref number C492. The Dublin City Development Plan 2022-2028 also promotes the restoration of 14-17 Moore Street and the establishment of a commemorative visitor centre to mark the importance of the event and the role the buildings and Moore St played in the Easter Rising. The Development Plan contains two specific objectives for 14-17 Moore Street, which read as follows: "BHA30: Moore Street National Monument. To co-operate with and facilitate the state in its presentation of the National Monument at 14-17 Moore Street on a joint venture basis and to support the retention and refurbishment of the cultural quarter associated with 1916 on Moore Street. CUO9: 14-17 Moore Street To support the preservation and restoration of the historic terrace 10-25 Moore Street and adjacent yards and lanes, and the remaining historic built heritage of the street, including numbers 1-8 Moore Street, and the establishment of a commemorative visitor centre, as a fitting tribute to the men and women of Easter 1916 and as an educational and cultural resource centre." Moore Street also falls within the boundaries of SDRA 10- Northeast Inner City. The area is designated to undergoing transformation with a number of initiatives being implemented on foot of the Mulvey report titled "Creating a Brighter Future". The area has received funding for a number of projects under the Urban and Regional Development Fund (URDF) including public realm works at Parnell Square, Moore Street, the Five Lamps and also restoration works at Moore Street and Mountjoy Square. As outlined in the Planner's Report of the Draft Railway Order 2022, "O'Connell Street Station is located on the site of the proposed Dublin Central CP Ltd development known as Dublin Central Site 2. The site is bordered by O'Connell Street Upper to the east, Moore Lane to the west, Henry Place to the south and Central Site 1 to the north". It must be noted that the Project Boundary abuts Nos. 8-9 Moore Lane, the preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 1/2007) encompass Nos 8-9 Moore Lane. In this regard, the site boundary for the O'Connell Street Station should be reviewed and agreed in advance of construction with the OPW and DCC due to its proximity to the boundary of the National Monument.	The Proposed Project will not prevent the proposed objectives of the Dublin City Development Plan 2022-2028 from being achieved. The relevant Dublin City Development Plan 2022 – 2028 objectives along with the SDRA 10 North East Inner City will be facilitated by the proposed development. Care will be taken at the boundary of the site, where it is in proximity to the National Monument and on the lands at rear of 25 Moore Street where an existing car park / undeveloped site will be within the construction area of the project. The two identified objectives for Moore Street stated in the submission are facilitated by the proposed project. It is noted that the principles of SDRA 10 note a need to consider the following:- Proposals for this area must also have regard to: •The policies and provisions of the O’Connell Street Architectural Conservation Area (ACA), 2001, and the Scheme of Special Planning Control for O’Connell Street & Environs 2016, including any amendments thereto, along with those of the proposed Draft Moore Street Architectural Conservation Area or similar where adopted. Considered within the scheme design. No Draft Moore Street ACA has been prepared to date. •Protected Structures (as provided on the City Council’s Record of Protected Structures (RPS)) and the policies and objectives of this development plan for such structures, together with the provisions of the Architectural Heritage Protection Guidelines for Planning Authorities (2011). Policies in respect of Protected Structures have been taken into account in the scheme design. •Ministerial Recommendations for the proposed addition of buildings and other structures to the City Council’s RPS, provided under Section 53 of the Planning and Development Act, 2000 (as amended), together with the relevant policies and objectives for same in this development plan. Potential future protected structures have not been included in the project design. •The content of the Moore Street Advisory Group’s 2021 report to the Minister. The Advisory Groups report concentrates on the lands west of Moore Lane, and the Proposed Project has limited impact. The project boundary is appropriate and should not be changed in the RO. Heritage impacts on the national monument have been assessed in the relevant chapters of the EIAR as noted above in response (5).	

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9	4.4 Planning History	17	It must be noted that Upper O'Connell is the proposed location for the O'Connell Street MetroLink Station and is within the proposed development boundary of Dublin Central regeneration project.	This is understood and there has been full engagement with the Dublin Central project during the project development to ensure that both projects are consistent and can be developed at the site. It should also be noted that the EIAR has been developed to present an assessment of the potential for effect at this site both with the Dublin Central development in place and without.
10	4.4 Planning History	18	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission, the Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project regarding existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application. The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
11	4.6 Potential Development of the Property	18, 19	The OPW reserves the right to development the subject property in the future, this includes property above and below ground, subject to normal planning criteria. No. 14-17 Moore Street are subject to a preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 1/2007) and the proposed O'Connell Street Station, under the draft Railway Order encompasses part of Moore Lane. It is the objective of the OPW to ensure that any future development at nos. 14-17 Moore Street follows the Moore Street and Environs Local Area Plan and Moore Street Battlefield Site Plan. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	MetroLink does not impact on current proposals. MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.
12	5.0 MATERIAL CONSIDERATIONS	19	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-E1A-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly within the Kildare Street, Merrion Square and St. Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.

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13	6.0 LEGAL CONSIDERATIONS	19	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
14	7.1.1 Route Alignment	21	In the vicinity of 14-17 Moore Street, the geology comprises Argillaceous Limestone rock (CLU) underlying weathered rock (Q.TR) underlying Brown Boulder Clay (Q.BR) containing extensive fluvio- glacial sands and gravels. Cover to the tunnel crown is approximately 18m comprising Brown Boulder Clay. The invert will be excavated through both weathered and un weathered limestone. This will present a significant challenge to ground movement mitigation using tunnel management.	The comment is noted and part of the reason for proposing a pressurised full face TBM designed to cater for this ground. Further the Contractors will be required to prepare a Tunnel Management Plan which will dictate the controls to be implemented to suit the varying ground conditions to minimise any impacts so far as reasonably practical.
15	7.3 Contractual Arrangement	22	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.
16	8.0 POTENTIAL IMPACTS ON THE PROPERTY	22	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please see answers to responses (17) to (33) below.
17	8.1 Monitoring	22	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.
18	8.2 Security Issues	22	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181 A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."
19	8.2 Security Issues	23	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	While the management of secure state information is outside the scope of the Board's functions, TII understands the OPW's concerns propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.

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20	8.2 Security Issues	23	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.	
21	8.2 Security Issues	23	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minise said disruption	
22	8.2 Security Issues	23	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction stages to ensure suitable provisions are in place.	
23	8.3 During Construction of the MetroLink	23	Numbers 14 -17 Moore Street are subject to a preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 1/2007). The designation comprises Nos 14, 15, 16 and 17 Moore Street and includes the rear yards of Nos 15 and 16 Moore Street and Nos 8-9 Moore Lane. These buildings must be "maintained and supported", to protect their façades and interiors from damage. The impact of any proposed works in terms of noise and vibration, which effects conservation works would need to be carefully considered to ensure no damage of any significance is enacted on this National Monument site.	TII recognises the value of numbers 14 -17 Moore Street in terms of archaeological heritage. A Noise and Vibration Management Plan (CNVMP) will be drafted by the contractor(s) as part of the outline Construction Environmental Management Plan (CEMP) (EIAR Appendix A5.1) which will be submitted to Dublin City Council for review and approval prior to construction. This document will contain a detailed investigation of potential noise and vibration impacts associated with each construction compound. Impacts identified at this stage will then be mitigated against (Section 13.6.1 Chapter 13, Section 14.5.1 Chapter 14), where possible, ensuring numbers 14 - 17 will not be damaged. Please also refer to response (29) below.	
24	8.3 During Construction of the MetroLink	23	The construction of the MetroLink O'Connell Street Station Box will be carried out by the developer of Dublin Central and referred to as MetroLink Enabling Works (MEW). Therefore, the OPW requires that the developer is a party to any agreements with Til related to the construction of MetroLink O'Connell Street Station providing detail on the impact of the construction of the station box including any potential negative impact on Nos. 14-17 Moore Street & Nos. 8-9 Moore Lane. The detail shall include the detailed drawings, ground movement impact assessment, noise, vibration impact assessment, and foundation arrangements for the retained façade (O'Connell Street).	The developer will only be entitled to carry out works authorised by the Railway Order pursuant to an agreement with TII. See in that regard, the definition of "TII " in draft RO and " <i>railway undertaking</i> " in the Transport (Railway Infrastructure) Act 2001. Only TII and parties it has made an arrangement with pursuant to Section 43(5) of the 2001 Act would be authorised to carry out works under the Railway Order.	
25	8.3.1 Ground Movement	24	Stage 1: Defines extent of ground movement using Moderately Conservative parameters. The parameters considered by MetroLink for the tunnelling are: • Volume Loss, Vs = 1.5 • Trough Width parameter, k = 0.3 The Volume Loss is considered moderately conservative however the trough parameter is very narrow and 0.4 could be considered more conservative.	The assessments undertaken to date are, as you say, moderately conservative. Any further detailed assessment would seek to strip out some of the conservatism. The K values have been determined considering the ground conditions specific to location and hence K values vary between 0.3 to 0.5 as shown in Table 5.1 of Appendix 5.17 of the EIAR. The rationale for the selection of K values is given further in section 4.2.3 of Appendix 5.17.	
26	8.3.1 Ground Movement	24	Stage 2 - Initial Assessment: The ground movement impact on the 14-17 Moore Street has not been identified in EIAR A5. 17. A Stage 2 assessment should be carried out for this building. The OPW requests that only Engineers or Surveyors with proven competence in regard to (historic) buildings of this fabric type, period and nature are selected.	As this is a Protected Structure it is designated as a Special case and will have a full Phase 3 assessment. TII will ensure that those undertaking the assessment are competent to do so.	
27	8.3.1 Ground Movement	25	Stage 4 - Construction Stage: Mitigation may be required for this building and therefore the OPW expected to be consulted. The OPW expects that pre-construction defect surveys and monitoring are carried out for this building. The OPW requests that only Engineers or Surveyors with proven competence in regard to (historic) buildings of this fabric type, period and nature are selected.	All surveys, monitoring and mitigation proposed for OPW property will be discussed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.	
28	8.3.1 Ground Movement	25	Stage 5 - Close Out: Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW will expect to be provided with close out reports for the monitoring of their property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.	

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29	8.3.3 Noise and Vibration	25	(a) Tunnelling During the passage of the tunnel boring machine (TBM) the noise is predicted to be 43 dBLA_{max,s} lower than the acceptable threshold (45 dBLA_{max,s})and this may last for 2 weeks. The vibration from the passage of the TBM is predicted to be 0.181 VDVdb, ms-1.75 less than the threshold (1.6 VDVdb,ms-1.75). EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW will request that a specific study is carried for this 14-17 Moore Street/8-9 Moore Lane to determine whether ground borne noise and vibration will have any impact. Where any impact is identified then threshold limits will need be applied and monitored. Where the building is considered vulnerable to vibration induced damage EIAR Table 6.2- ANV16. Sets out requirement for Pre and post construction surveys of these structures.	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project. The assessment has identified that there will be no potential for structural damage due to vibration as levels of vibration are predicted to be below the construction threshold of 0.8 ms-1.75 VDV (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results) and accordingly the specific study requested is not required. Regarding groundborne noise, unfortunately, there are no effective methods available to reduce groundborne noise from TBMs at source, but noting that the duration of this impact will be of the order of two weeks. TII will consult and liaise with 14-17 Moore Street, 8-9 Moore, to ensure the timing of these impacts are known. The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy).	
30	8.3.3 Noise and Vibration	25	(b) Station Excavation GNV2 states that Monitoring of blasting and re-optimising the blast design (minimising the explosive charge considering the results) will be carried out as standard. A5.20 Blasting Strategy provides information on the classification of buildings and potential damage due to blasting for the station excavations. There are also calculations for estimated magnitude of the peak particle velocity (ppv) for various explosive charges. The assumption is that the lowest charge would be implemented to avoid damage. The 14-17 Moore Street is located approximately 35m from O’Connell St Station excavation and a peak particle velocity Ppv = 1.9mm/s is predicted exceeding the threshold, lmm/s. The OPW will request a specific assessment of the impact of blasting on 14-17 Moore Street and the basements of 8-10 Moore Lane.	As presented in Chapter 14, the thresholds for vibration values due to blasting activities are 8mm/s for standard buildings and 3mm/s for listed or potentially vulnerable buildings. In this case the vibration value is below both threshold limits. As a result, no significant impact is expected on these buildings and accordingly the specific study requested is not required.	
31	8.3.4 Work Sites	26	(b) Ground Water Control There is the potential for ground water lowering for the construction of O’Connell Street station to impact 14-17 Moore Street. The OPW will request that TH provides an assessment and limits that will be applied to dewatering for the Construction of O’Connell Street Station.	As outlined in EIAR Chapter 19 (Hydrogeology), groundwater assessment and monitoring was and will continue to be undertaken for the proposed Project. Section 19.4.11.4 describes how continuous data logging of water levels was carried out at approximately 38 locations from Northwood to Charlemont (AZ4), which includes O’Connell Street Station and therefore water levels in the area around this proposed station footprint. A Groundwater Hydrograph (Diagram 19.11) at O’Connell Street -NBH23A (overburden) & NBH23W (bedrock) indicates minimal change in recorded groundwater levels for overburden well NBH23A screened within gravel strata (0.20m) for the period presented and possibly reflects the lack of localised recharge due to hardstanding ground cover in the Dublin City Centre setting. A series of dewatering pumping tests were undertaken at O’Connell Street (Section 19.4.13.2.4). Overall, the maximum drawdown (mBGL) achieved at O’Connell Street for the [significant water-bearing] Gravels borehole was ~10.5m (using a 50m3/hr pump size capacity, and 24-hour test only) and ~32.9m for the well screened in the underlying bedrock. The target drawdown depths were generally achieved at both wells, with a reducing outflow rate observed at the bedrock borehole only, over the full duration of each test. Based on the results of the pumping tests, water-bearing granular lenses, spatial/environmental setting and interpreted regional flow direction, a qualitative Risk Level ‘H’ is applied here. The test area is located within an area where the possibility of a ‘barrier effect’ exists (refer Section 19.5.3.6). As outlined in Section 19.5.1, dewatering and unmitigated releases to ground during the Construction Phase could have permanent water quality and quantity impacts on the hydrogeological (and hydrological/ecological) environment if not effectively mitigated. However, for the proposed Project,	

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				Construction Phase management includes mitigation measures presented in the EIAR and outlined in the outline Construction and Environmental Management Plan (CEMP) (Appendix A5.1) for the proposed Project to protect receiving waters (groundwater and surface water) and ensure continued conveyance of natural groundwater flow patterns, as well as of surface water courses. Section 19.5.3.5 assesses the potential for groundwater lowering associated with underground construction in the context of the station boxes including at the proposed O'Connell Street station. For the current proposed Project, the ZOI has been modelled (refer Appendix A19.8) and details on the interpreted results are presented for each of the stations discussed under Section 19.5.3.4 in the EIAR Chapter 19. It is stated under Section 19.5.3.5 that 'lowering of the phreatic level, prior to excavating (or because of tunnelling works), may also cause immediate settlement to occur in layers or lenses of compressible soils, as well as in weathered rocky materials. The impact of such lowering of the groundwater table varies in proportion to its magnitude and radius of influence (i.e. ZOI)'. For the proposed O'Connell Street station, dewatering during works will be temporary only with the anticipated radius effect of dewatering reducing as the station construction progresses towards full perimeter and base seal (i.e. full watertight conditions) including toe grouting assumed to 1.50m below base of D-wall. Note: The modelling for O'Connell Street station box footprint and drawdown/ZOI results presented for this location are appropriate to the site as a whole i.e. irrespective of whether or not the proposed Hammersons [Hotel] Development (i.e. Phase 1 of the Developer's phased construction strategy) is constructed before the station box (i.e. Phase 2A, Phase 2B and Phase 2B) which is the current proposal for the O'Connell Street over site development. Finally, in the short-term term following completion of the Construction Phase, groundwater levels will re-stabilise to pre-construction patterns and any ZOI associated with Construction Phase dewatering activities will fully dissipate. There is no active dewatering associated with the operational phase.
32	8.3.4 Work Sites	27	(e) Traffic There will be significant traffic diversions required to construct O'Connell Street station site that will impact personnel and clients attending the 14-17 Moore Street. Moore Lane may become a construction access.	Please refer to response number (6).
33	8.5Future Development	27	The National Monuments Service of the Department of Housing, Local Government and Heritage (DHLGH) and the OPW looks after National Monuments in State care. There is currently a proposal by the DHLGH to development the site as a cultural centre; Ministerial Consent ref number C492. The OPW reserves the right to development the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (11).
34	9.0 CONCLUSION	28	The most significant impact of the MetroLink project on 14-17 Moore Street & 8-9 Moore Lane will be from the construction of the O'Connell St. Station. The OPW expects that pre-construction defect surveys and monitoring are carried out for this building. The OPW requests that only Engineers or Surveyors with proven competence in regard to (historic) buildings of this fabric type, period and nature are selected.	Given the importance of the buildings full condition surveys will be undertaken as part of the Phase 3 assessment. TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting OPW property are appropriately mitigated. These monitoring programmes will be developed based on a preconstruction building survey used to identify any potential vulnerabilities of the building in question.
35	9.0 CONCLUSION	28	The OPW will seek assurances from TII that Stage 2 and 3 ground movement assessments will be carried specifically for this building due to its proximity to the boundary of the National Monument. These ground movement assessments should carefully consider the parameters that are used.	TII confirm that a full stage 3 assessment for settlement will be undertaken for these buildings.
36	9.0 CONCLUSION	28	During construction it is possible that there will be major noise and vibration impact and the OPW requires assurance that a detailed evaluation will be performed.	It should be noted that a full assessment of noise & vibration effects have been provided in Chapter 13 Airborne Noise and Vibration; and Chapter 14 Groundborne Noise and Vibration of the EIAR. The modelling undertaken in this chapters present the potential impacts arising from all stages of the construction phase of the project. This assessment will be supplemented by a pre-construction survey and monitoring programme during construction to ensure that defined criteria for groundborne noise and vibration are adhered to during the construction phase.

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37	CONCLUSION	28	With respect to this property, the OPW is seeking: 1) Til to conduct a Stage 3 assessment to ensure that 14-17 Moore Street, which are Protected Structures and National Monuments, are undamaged by the construction of MetroLink and the construction of O'Connell Street Station.	TII confirm that a full stage 3 assessment for settlement will be undertaken for these buildings and mitigation measures will be employed as required to ensure that they are undamaged by the construction of MetroLink and O'Connell Street Station..
38	CONCLUSION	28	With respect to this property, the OPW is seeking: 2) To ensure no damage to the façades of the buildings and their architectural detailing, pre- construction and post construction surveys, trials and monitoring is required. This is mainly concerned with demolition, noise, vibration, and dust which can damage the buildings, which is of historical significance.	A full pre-construction survey will be undertaken at these buildings to identify any specific features that require additional protection. As outlined in Chapter 14 of the EIAR, specific criteria have been identified for the protection of vulnerable buildings. Based on this analysis Limits/Criteria will as specified in the Railway Order for the proposed Project. A monitoring programme will be initiated in advance and during the construction phase to ensure that defined criteria for groundborne noise and vibration are adhered to during the construction phase.
39	CONCLUSION	28	With respects to this property, the OPW is seeking: 3) To ensure that any future development at nos. 14-17 Moore Street follows the Moore Street and Environs Local Area Plan and Moore Street Battlefield Site Plan.	Refer to response 11.
40	CONCLUSION	28	With respect to this property, the OPW is seeking: 4) To ensure the appropriate conservation and structural appraisals are conducted as part of the Detailed Design Assessment.	A full pre-construction survey will be undertaken at these buildings to identify any specific features that require additional protection.
41	CONCLUSION	28	With respect to this property , OPW is seeking: 5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
42	CONCLUSION	28	6) The Project Boundary submitted as part of the Draft Railway Order abuts Nos. 8-9 Moore Lane, the preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 1/2007) encompass Nos 8-9 Moore Lane. In this regard, the site boundary for O'Connell Street Station should be reviewed and agreed in advance of construction with the OPW and DCC due to its proximity to the boundary of the National Monument. The OPW requires access to the National Monument via Moore Lane to be maintained.	The project boundary is appropriate and should not be changed in the RO. All heritage impacts on the national monument have been assessed in the EIAR. Refer to Chapter 24.
43	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	30	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TH have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please see response number (10).
44	Appendix 2: Ground movement Assessment	page 35	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover Letter response

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1	Downey Report- Executive Summary		With respect to this property, the OPW is seeking: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions. 2) To ensure no damage to the building and its day-to-day functions, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise and vibration which can damage this building of historical significance, as well as its functions." 3) To ensure specific vibration limits will be applied to No. 16 Parnell Square and a monitoring regime is to be implemented 4) To include adverse impacts of the Mater and O'Connell Street stations within the risk assessment studies for No. 16 Parnell Square and provide for mitigation measures, as construction of these stations will generate additional lorry movements for both deliveries and spoil removal. 5)Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the proposed Project.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (37) below.
2	Downey Report- 3.0 Overview of the Draft Railway Order	8, 9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. For this particular property, the assessment outlined in the EIAR predicts negligible to slight damage impact, based on assessment on adjacent buildings reference B-88 and B-89 within Table 5-2 of Appendix 5.17. While negligible or slight impact is anticipated, this building may be subject to inclusion in a Phase 3 assessment by the appointed contractor if Special Building Status can be determined for it as Sections 4 of Appendix A5.17.
3	Downey Report -4.1 property location and description	10	No. 16 Parnell Square is a five-storey over basement office development situated on Parnell Square East, Rotunda, Dublin 1. It currently accommodates a number of different State bodies and agencies. To note, this building is held by way of a commercial lease. No. 16 is located on the most northern plot along the eastern side of Parnell Square East. Parnell Square was developed by Dr. Bartholomew Mosse in the 1760's, who conceived the idea of the Lying- In Hospital (Rotunda Hospital) to be funded by entrance fees and subscriptions to the gardens, and large townhouses that surround it.	TII welcome this information in relation to this building and confirm that the EIAR assessments undertaken are appropriate.

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4	4.2 Historical Context/Conservation Status	11	Rutland Square, renamed Parnell Square on the 3 rd of April 1933, was laid out as a fashionable residential square between 1753 and 1785. No. 16 Parnell Square East was a terraced two-bay four- storey over exposed basement townhouse that sat at the north-eastern edge of the square. After the Act of Union 1800, the fashionable square fell out of use and gradually fell into decline. By 1996, the building was deemed unfit for use with only the ground floor in use as a bistro. Although the building was condemned to demolition by Dublin Corporation, engineers were able to delay the demolition. In 1998, planning permission was granted by Dublin City Council for a five-storey over basement office development at No. 16 Parnell Square, involving the demolition of the remaining portion of the List 2 building. The modern building retains many of the features that existed on the previous building, with a flat brick façade, the same proportions with tall sash windows along the bottom two floors, as well as being a similar height. Located within a Conservation Area under the Dublin City Development Plan 2022-2028 and registered under RPS Ref. No. 6378 of the Dublin City Council Record of Protected Structures list, No. 16 Parnell Square East is a Protected Structure. For that reason, the façade facing Parnell Square must preserve the existing architectural characteristics of townhouses that line each side of Parnell Square. However, along Gardiner Row, the use of a glass façade, which acts to bridge the Georgian facade with a modern facade to the rear of the building, reveals the contemporary nature of the building.	The history, description and setting of the present building are noted.	
5	4.4 Planning context	12	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission and the Board is invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project regarding existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application.	
6	4.4 Planning context	12	DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.	
7	5.0 Material Considerations	12	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-E1A-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly within the Kildare Street, Merrion Square and St. Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.	
8	6.0 Legal Considerations	12 and 13	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose	

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9	7.1.1 Route Alignment	13	The MetroLink 8.5m ID running tunnel passes approximately 2m from the front of this building. 'Connell Street Station is approximately 340m south of this property. The alignment drawing ML1-JAI-EIA-ROUTXX-DR-Y-05023 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21145 show the alignment and the predicted ground movement. Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Draft Railway Order and EIAR difficult. Adjacent to No. 16 Parnell Square, the proposed MetroLink will be excavated through Argillaceous Limestone rock (CLU), underlying Weathered Rock (QTR), underlying Brown Boulder Clay (QBR), containing extensive fluvio-glacial sands and gravels. Cover to the tunnel crown is approximately 23m comprising Brown Boulder Clay. The invert level will be excavated through both weathered and unweathered limestone. This will present a significant challenge to ground movement mitigation using tunnel management.	OPW's observation with regard to the alignment and geology is noted and is the reason for the selection of the proposed TBM and the mixed face conditions identified have been used to conservatively predict the impacts on overlying buildings and infrastructure. TII will develop both TBM operational Specifications and Ground Movement and Monitoring Specifications to ensure that residual risks are appropriately managed. These will be bound into the subsequent contracts. Chainage drawings can be found in the Alignment Drawings pack.	
10	7.1.3 Station Excavation	14	No. 16 Parnell Square is situated approximately 420m from the Mater Station Box and approximately 530m from O'Connell Station box. The excavation for the stations will be through Brown Boulder Clay, Weathered Rock, and Argillaceous Limestone. The excavation through the Limestone will most likely include blasting, which is unlikely to affect No. 16 Parnell Square.	TII can confirm that the proposed excavation of the station at O'Connell St and at Mater Hospital will not impact on this building due to significant distance from these construction works to the building. However the TBM passage has potential to impact on the building (in terms of effects on occupants of the building) as discussed in Chapter 14 of the EIAR. However it is important to know that the modelling undertaken to inform this chapter has identified that there will be no damage to the building resulting from vibration arising from the TBM progression.	
11	7.3 Contractual Arrangement	15	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.	
12	8.0 Potential Impacts on the Property	15	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response numbers (13) through to (28) below.	
13	8.1 Monitoring	15	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.	
14	8.2 Security Issues	15	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181 A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."	
15	8.2 Security Issues	16	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety.	

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16	8.2 Security Issues	16	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption	
17	8.2 Security Issues	16	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction stages to ensure suitable provisions are in place.	
18	8.3.1 Ground Movement	16 and 17	Stage 1: Defines extent of ground movement using Moderately Conservative parameters. The parameters considered by MetroLink are: ■ Volume Loss, Vs = 1.5 ■ Trough Width parameter, k = 0.3 The Volume Loss is considered moderately conservative. However, the trough parameter is very narrow and 0.4 could be considered more conservative. The extent of the zone of influence is defined by the 1mm contour line (Dark Red) and No. 16 Parnell Square lies just within the zone of influence and will be subject to up to 40mm settlement.	The assessments undertaken to date are, as you say, moderately conservative. Any further detailed assessment would seek to strip out some of the conservatism. The K values have been determined considering the ground conditions specific to location and hence K values vary between 0.3 to 0.5 as shown in Table 5.1 of Appendix 5.17 of the EIAR. The rationale for the selection of K values is given further in section 4.2.3 of Appendix 5.17.	
19	8.3.1 Ground Movement	17	Stage 2: Initial Assessment: The ground movement impact on No. 16 Parnell Square is not specified in the report and the OPW requests to ensure that this building has its own assessment	Please refer to response number (2) above.	
20	8.3.1 Ground Movement	17	Stage 3: Detailed Assessment: Because this building is approximately 2m from the tunnel centreline a Stage 3 assessment is required for this building.	Please refer to response number (2) above.	
21	8.3.1 Ground Movement	17	Stage 4 (Construction Stage): Mitigation may be required for this building and therefore, the OPW expects to be consulted. The OPW expects that pre-construction defect surveys and monitoring are carried out for this building.	All surveys, monitoring and mitigation proposed for OPW property will be discussed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.	
22	8.3.1 Ground Movement	17	Stage 5 (Close Out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW will expect to be provided with close out reports for the monitoring of its property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.	

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23	8.3.3 Noise and Vibration	17	(a) Tunnelling During the passage of the tunnel boring machine (TBM) the noise is predicted to be 48 dBLAmax, s which exceeds the acceptable threshold (45 dBLAmax,s)and this may last for 2 weeks. The vibration from the passage of the TBM is predicted to be 0.245 VDVdb.ms'175 less than the threshold (1.6 VDVdb.ms 175). EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requests that a specific study is carried out for No. 16 Parnell Square, to determine whether ground borne noise and vibration will have any impact. Where any impact is identified then threshold limits will need to be applied and monitored. Where the building is considered vulnerable to vibration induced damage, EIAR Table 6.2 ANV16, sets out the requirement for pre- and post-construction surveys of these structures.	TII have already undertaken a full assessment of groundborne noise & vibration effects (EIAR Chapter 14), including 16 Parnell Square East. A summary of the assessment results are provided on table 14.29 Noise and table 14.32 Vibration from TBM operations in AZ4. The details of the modelling results for both groundborne noise and vibration from the TBM operation and related to specific properties are provided in Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results - Page 77 (page 85/113 of the electronic document) for 16 Parnell Square East. Accordingly, the specific study requested is not required. While vibration will not exceed the threshold levels as the TBM passes this property, unfortunately groundborne noise will. As stated there are no effective methods available to reduce groundborne noise from TBMs at source, but noting that the duration of this impact will be of the order of two weeks. TII will consult and liaise with 16 Parnell Sq, to ensure the timing of these impacts are known. The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy).
24	8.3.3 Noise and Vibration	17	(b) Station Excavation GNV2 states that Monitoring of blasting and re-optimising the blast design (minimising the explosive charge considering the results) will be carried out as standard. A5.20 Blasting Strategy provides information on the classification of buildings and potential damage due to blasting for the station excavations. There are also calculations for estimated magnitude of the peak particle velocity (ppv) for various explosive charges. The assumption is that the lowest charge would be implemented to avoid damage. No. 16 Parnell Square is located approximately 320m from O'Connell Street excavation and the peak particle velocity is predicted to be 1mm/s. The OPW requests a specific assessment of the impact of blasting on No. 16 Parnell Square.	TII have already undertaken a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. The modelling undertaken in this chapter presents the potential impacts arising from blasting at each of the station excavation sites. The assessment has identified that there will be no potential for structural damage due to vibration at this building, due to the distance from the excavation as the vibration level will be well below the assessment criteria for building damage which is 8mm/s for this building. (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results). This assessment will be supplemented by a full pre-construction survey and monitoring programme during the construction to ensure that defined criteria for groundborne noise and vibration are adhered to during the construction phase.
25	8.3.4 Work Sites	18	(a) Dust Appendix A16.4 of the EIAR requires a Dust Management Plan to be produced and implemented. The tunnelling will not generate dust in the vicinity of No. 16 Parnell Square. The station construction site is 60m from No. 16 Parnell Square and therefore dust from these constructions sites is likely to affect this building.	TII acknowledge your concern and will put measures into place to ensure your property / equipment is not damaged by dust. An Air Quality Management Plan, detailing dust mitigation methods will be prepared prior to construction works (Section 16.6.1.1 Chapter 16 Air Quality). A summary of dust mitigation measures to be implemented are as follows (Section 16.6.1.1, Chapter 16): •Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; •Any blasting will be completed by specialised contractors with a specific blasting dust management plan; •Liaison with local authorities and community groups; •Hoarding will be provided around the construction compounds; and •It is anticipated that methods of collecting rainwater and recycling for general site use, will be adopted where practical. When the dust minimisation measures detailed in the mitigation section (Section 16.6) of EIAR Chapter 16 are implemented, fugitive emissions of dust from the site are not predicted to cause damage to property or human health.

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26	8.3.4 Work Sites	18	(b) Ground Water Control There is the potential for ground water lowering for the construction of the Mater Station to impact No. 16 Parnell Square. The OPW requests that TII provides an assessment and level of limits that will be applied to dewatering for the construction of O'Connell Street Station.	TII understand your concern, however 16 Parnell Square East lies outside Zone of Influence (201.5m) of the proposed Mater station and therefore will not be negatively effected. As outlined in EIAR Chapter 19 (Hydrogeology), groundwater assessment and monitoring were and will continue to be undertaken for the proposed Project: • Awn undertook an extensive desktop review in order to establish baseline conditions along the proposed alignment corridor. The baseline study included reference to historical ground investigation data including the 2007 IGSL investigation borehole dataset (IGSL 2008) and data from Norwest Holst (2008) as well as information from contemporary (2019-2021) ground investigations specific to the proposed Project (Table 19.2); • A number of field surveys and walkover assessments were carried out to add to existing assessment of long-term trend analysis for water quality undertaken by the EPA (Section 19.3.3.4); and • A number of intrusive ground investigations were commissioned for the proposed Project including ground water level monitoring (Section 19.3.3.5). A programme of continuous groundwater level monitoring, aquifer testing and groundwater quality monitoring was devised with focus on key well locations along the alignment including at deep station excavations. The key hydrogeological data available and interpreted for the Mater Station and O'Connell Street is presented in Table 19.35. The dewatering process during the construction of the stations will be in the order of 15.74l/sec as a maximum value. Further information on construction phase dewatering can be found in Section 19.5.3. No impacts are predicted on this building due to dewatering.	
27	8.3.4 Work Sites	18	(e) Traffic There will be significant traffic diversions required to construct the Mater and O'Connell Street Station sites, that will impact personnel and clients attending No. 16 Parnell Square. Lorry movements will have a tunnelling advance rate of 80-120m/week.	As set out by Figure 38 of Appendix A.9.5, construction traffic will not pass this property with construction vehicles entering and existing the area via Parnell Street, at its closest c.250m from this property.	
28	8.5Future Development	18 and 19	The OPW reserves the right to develop the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.	
29	CONCLUSION	19	The most significant impact of the MetroLink project on No. 16 Parnell Square will be from the construction of the running tunnel between the Mater and O'Connell Street Stations, generating ground movement, noise, and vibration. The OPW seeks assurances from Til that Stage 2 and 3 ground movement assessments will be carried out specifically for this building. These ground movement assessments should carefully consider the parameters that are used.	Refer to Item (2). For this particular property, the assessment outlined in the EIAR predicts negligible to slight damage impact, based on assessment on adjacent buildings reference B-88 and B-89 within Table 5-2 of Appendix 5.17. While negligible or slight impact is anticipated, this building may be subject to inclusion in a Phase 3 assessment by the appointed contractor if Special Building Status can be determined for it as Sections 4 of Appendix A5.17.	

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30	CONCLUSION	19	Once the railway is in operation it is possible that there will be major noise and vibration impact and the OPW seeks assurance that a detailed evaluation will be performed.	It should be noted that a full assessment of noise & vibration effects have been provided in Chapter 13 Airborne Noise and Vibration; and Chapter 14 Groundborne Noise and Vibration of the EIAR. Noise and vibration modelling of the operation of the MetroLink project has been undertaken, with the results for addresses within approximately 50m of the tunnel presented in EIAR Appendix A14.5 Groundborne Noise and Vibration Blasting Modelling Results. At 16 Parnell Square East the predicted groundborne noise during operation is 32 dB LAsmax, which is below the threshold level of 40 dB LAsmax, indicating no significant impact at this location. The predicted level of vibration during railway operation is 0.007 ms-1.75 VDV in the daytime and 0.004 ms-1.75 VDV at night. These predicted levels are below the thresholds for human response of 0.8 ms-1.75 VDV and 0.4 ms-1.75 VDV for the day and night respectively, indicating no significant impact.	
31	CONCLUSION	19	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions	Noted, TII will ensure that there is no disruption to access or operation / function.	
32	CONCLUSION	19	With respect to this property, the OPW is seeking: 2) To ensure no damage to the building and its day-to-day functions, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise and vibration which can damage this building of historical significance, as well as its functions.	TII are happy to engage with OPW on an appropriate monitoring programme for this building. Detailed monitoring proposals will be developed at detailed design.	
33	CONCLUSION	20	With respects to this property, the OPW is seeking: 3) To ensure specific vibration limits will be applied to No. 16 Parnell Square and a monitoring regime is to be implemented.	Please refer to response number (30) above.	
34	CONCLUSION	20	With respect to this property, the OPW is seeking: 4) To include adverse impacts of the Mater and O’Connell Street stations within the risk assessment studies for No. 16 Parnell Square and provide for mitigation measures, as construction of these stations will generate additional lorry movements for both deliveries and spoil removal.	Please refer to response number (27) above.	
35	CONCLUSION	20	With respect to this property, OPW is seeking: 5)Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the proposed Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.	
36	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	21	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TH have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (5) above.	
37	Appendix 2: Ground movement Assessment	26	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover Letter response	

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1	Downey Report- Executive Summary		With respect to this property, the OPW is seeking: 1) To ensure minimum disruption to the working access of the building and its day-to-day uses and functions. 2) To ensure that there is no impact to the future development plans for this property, including above, around and below the property. A planning application is due to be lodged by the OPW in 2023 to extend the property. Access for construction and operation of any future development is of paramount importance. 3) Precedents to be applied to the risk assessments to ensure utilising best industry practice. 4) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (31) below.
2	Downey Report- 3.0 Overview of the Draft Railway Order	Page 8, 9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	This building is distant from the tunnel alignment, outside any zone of influence and therefore not impacted by settlement, groundborne noise or vibration.
3	4.4 Planning context	12	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission and the Board is invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project regarding existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application.
4	4.4 Planning context	12	DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
5	4.6 Potential Development of the Property	18	The OPW reserves the right to develop the subject property in the future, this includes property above and below ground, subject to normal planning criteria. Considering the historically significant and strategic location of the property within the Government quarter, there are development plans being considered for the property with a planning application due to be lodged by the OPW in 2023.	Irrelevant for this building, please refer to response (2) above.
6	5.0 MATERIAL CONSIDERATIONS	12	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-E1A-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly within the Kildare Street, Merrion Square and St. Stephen's Green areas.	Irrelevant for this building, please refer to response (2) above.
7	6.0 LEGAL CONSIDERATIONS	12, 13	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink..	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose

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8	7.1.1 Route Alignment	13, 14	The tunnel alignment does not pass directly beneath the building at 22/25 Clare Street. However, there is inconsistency in the alignment between Tara Station and St. Stephen's Green. The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-05025 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Draft Railway Order and EIAR difficult.	Irrelevant for this building, please refer to response (2) above.
9	7.1.2 Tunnelling	14	The MetroLink 8.5m ID tunnel will be excavated by Tunnel Boring Machine (TBM). The ground conditions along the route are variable and therefore the machine could be either Earth Pressure Balance (EPB) or Slurry (STB). A modern Variable Density TBM would also be suitable and is currently being used in the UK for similar ground conditions. All these machines can control the ground movement with appropriate tunnel management. The 980m drive between Tara Station and St. Stephen's Green (C8) will be entirely within the Argillaceous Limestone.	Irrelevant for this building, please refer to response (2) above.
10	7.3 Contractual Arrangement	14	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	Irrelevant for this building, please refer to response (2) above.
11	8.0 POTENTIAL IMPACTS ON THE PROPERTY	15	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Irrelevant for this building, please refer to response (2) above.
12	8.1 Monitoring	15	Given the sensitivity of the uses within this property, coupled with its historic importance as part of the overall Leinster House/National Gallery complex, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	Irrelevant for this building, please refer to response (2) above.
13	8.2 Security Issues	15	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181 A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	Irrelevant for this building, please refer to response (2) above.
14	8.2 Security Issues	15	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wishes to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter..	Irrelevant for this building, please refer to response (2) above.
15	8.2 Security Issues	15	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	While not relevant for this building, please refer to response number (1) above, TII will ensure that contractors working on its behalf on any OPW property comply with property protocols around access, security and safety.
16	8.2 Security Issues	15	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities of this building, particular as MetroLink Works have no direct impact. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.

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17	8.2 Security Issues	15	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction stages to ensure suitable provisions are in place.
18	8.3.1 Ground Movement	17	Stage 3: The OPW requests that a Stage 3 assessment will be carried out for the property by the Contractor appointed to construct this section of the MetroLink. The OPW expects to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally.	Irrelevant for this building, please refer to response (2) above.
19	8.3.1 Ground Movement	17	No mention of Stage 4 or 5 has been found in the Draft Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project. Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholder's infrastructure is carried out. Also, the pre-construction defect surveys are carried out prior to any excavation. The OPW requires to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the pre-construction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate pre-construction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	Irrelevant for this building, please refer to response (2) above.
20	8.3.1 Ground Movement	17	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of its property. As a minimum, the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	Irrelevant for this building, please refer to response (2) above.
21	8.3.3 Noise and Vibration	17	(a) Tunnelling EIAR Chapter 14 Ground Borne Noise and Vibration Measures does not identify any impact of noise and vibration on the building at 22/25 Clare Street during TBM excavation, likely attributable to the building's distance from the anticipated tunnel alignment.	Irrelevant for this building, please refer to response (2) above.
22	8.3.4 Work Sites	19	(b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel. However, there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	Irrelevant for this building, please refer to response (2) above.
23	8.4.1 Noise and Vibration	19	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBL _{max} , s and VC-D respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St. Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums, and the 22/25 Clare Street. The vibration during railway operations will not impact the building fabric or structure.	Irrelevant for this building, please refer to response (2) above.

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24	8.4.3 Evacuation Strategy	19	The are no planned intervention/evacuation shafts between Tara Station and St. Stephen's Green. However, it is understood that the Fire Brigade have not accepted the strategy proposed by TII. This may have an impact on the building at 22/25 Clare Street should any intermediate shafts be required.	There is no requirement for additional shafts.	
25	Future Development	19	The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria. A significant development is planned for the property by the OPW. A planning application is due to be lodged in 2023. Access for construction and the operation of any future development is of paramount importance. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	Irrelevant for this building, please refer to response (2) above.	
26	CONCLUSION	20	With respect to this property, the OPW is seeking: 1) To ensure minimum disruption to the working access of the building and its day-to-day uses and functions.	Construction Traffic is not expected to pass within 400m of this property as set out in sections 7.9 and 7.10 of Appendix A.9.5. While no adverse impacts to users of this street have been identified in Appendices A.9.5 or A.9.2	
27	CONCLUSION	20	With respect to this property, the OPW is seeking: 2) To ensure that there is no impact to the future development plans for this property, including above, around and below the property. A planning application is due to be lodged by the OPW in 2023 to extend the property. Access for construction and operation of any future development is of paramount importance.	Irrelevant for this building, please refer to response (2) above.	
28	CONCLUSION	20	With respect to this property, the OPW is seeking: 3) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.	
29	CONCLUSION	20	4) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station.	Irrelevant for this building, please refer to response (2) above. Information on the locations assessed as requiring floating track slab is listed in Table 14.47.	
30	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	21	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (4) above.	
31	Appendix 2: Ground movement Assessment	26	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover Letter response	

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OPW 44/45 O'Connell Street - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland				
1	Report Executive Summary	23	With respect to the proportion of the State's property portfolio managed by the OPW, we will endeavour to share knowledge and information with Transport Infrastructure Ireland (TII) to facilitate the successful delivery of the project through a collaborative approach. This submission has been prepared by DOWNEY in conjunction with Gall Zeidler Consultants, on behalf of The Commissioners of Public Works in Ireland (hereinafter the Office of Public Works (OPW)) and on foot of extensive consultation(s) with the OPW and its clients, which relates to the MetroLink route, and its relationship with Nos. 44-45 O'Connell Street Upper, Dublin 1. With respect to this property, the OPW is seeking: 1) To note the subject property is owned by the OPW. Agreement with the OPW will be required prior to any works being carried out to 44/45 O'Connell Street. The façade to 44/45 O'Connell Street is a Protected Structure to be retained and incorporated into the O'Connell Street Station Entrance. 2) To ensure no interference with or damage to the façade of the building and its architectural detailing, pre-construction and post-construction surveys, trials, and monitoring is required. This is mainly concerned with demolition, noise, vibration, and dust which can damage the buildings, which is of historical significance. 3) To ensure the appropriate conservation and structural appraisals are conducted as part of the Detailed Design Assessment. 4) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (33) below.
2	Report 3.0 Overview of the Draft Railway Order	8	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. Please note that these buildings are due to be demolished with the facades retained. As such the phased ground movement assessment is not applicable.
3	Cover Letter Appendix D - Ground Movement Assessment	12	The following sets out the requirements for assessing the impact of ground movement resulting from underground construction, such as tunnelling, embedded wall installation, and excavation for station boxes, together with requirements for monitoring and the close out.	Further to the OPW covering letter, TII observations in relation to the specific requirements of Appendix D and the report provided by OPW for 44 and 45 O'Connell Street are set out in responses (4) to (xx) below
4	Report: Section 4.6 Potential Development of the Property	18	As per the drawing ML1_JAJ_EIA_ROUT_XX_DR_Y_05056 enclosed with the EIAR, 44/45 O'Connell Street are denoted with green star, which demonstrates properties to be "partially demolished, maintained and supported" (See Figure 4). This is submitted to conflict the text within the EIAR, which needs further clarification.	TII confirm that number 44 and 45 O'Connell Street are to be demolished for the construction of the MetroLink Station at O'Connell Street with only the façades retained.

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5	Cover Letter Appendix D - Ground Movement Assessment	16	The detailed assessments should include a number of iterations to determine how the risk of damage to a building may be reduced. Asset-specific empirical models shall be prepared successively using moderately conservative and best estimate parameters. If after these iterations the use of empirical methods do not reduce the risk of building damage to acceptable levels (i.e. Damage Category 2 'slight' damage category and below or below the agreed tolerable limits), the damage assessment shall be refined by increasing the sophistication of the analysis with the aim of reducing the risk of asset damage to acceptable levels and to eliminate the asset from further assessment. If the risk of damage cannot be shown to be reduced by detailed assessment to acceptable levels, then mitigation measures shall be designed. The primary means of settlement mitigation shall be practical measures to control ground movement by good design and construction practice. This could include staged excavation sequences within sprayed concrete lining (SCL) works, ground treatment, face stabilisation, spiling /face dowels, increasing face pressure when using a tunnel boring machine (TBM), adopting stiffer walls/propping for rectangular shafts etc. In the event that physical mitigation measures are still required (i.e. to control building damage to Damage Category 2 'slight' and below or below the agreed tolerable limits), the Designer shall seek to obtain the Asset Owners approval. The Designer shall also undertake a comparative risk assessment to demonstrate that the risks associated with installation/implementation of any intrusive mitigation measures (such as compensation grouting) are no worse than the risks associated with the base case.	Further to response number (4) above, the buildings referenced are to be demolished, with only the façades retained. The retained façades will be supported to minimise damage. The current landowner is seeking permission for the development of this site and the MetroLink works will facilitate that being done if that permission is granted.
6	Cover Letter Appendix D - Ground Movement Assessment	17	The relevant Local Authority and the OPW shall be consulted on the results of the Protected Building assessment reports and the proposals for protective measures, if any are required. The OPW shall also be consulted in relation to Listed or Protected Buildings where they would normally be notified or consulted on planning applications or listed building consent applications	TII will consult with OPW and Dublin City Council with regard to the façade retention proposals.
7	Cover Letter Appendix D - Ground Movement Assessment	17	The form of monitoring of Listed Buildings should be determined based on the results of the assessment process.	TII advise that the proposed process for undertaking the assessments on any buildings impacted by MetroLink is set out within EIAR Appendix A5.17.
8	Cover Letter Appendix D - Ground Movement Assessment	17	Where repair works are necessary they will require the consent of those with relevant interest(s) in the building.	This is understood and while the façade of these building are retained to allow MetroLink to be progressed, the subsequent developer under their own application will be responsible for the repair of any damage as these façades are incorporated into the final development. This is outside of the scope of the RO.
9	Cover Letter Appendix D - Ground Movement Assessment	17	For railway track and track support structures the designer shall: a) review the track surveys (including specifying additional surveys if required) and establish that ground movement can be accommodated without exceeding track standard operational tolerance in conjunction with the relevant Infrastructure Manager; b) identify locations where fettling of the track is required pre construction and /or during construction to ensure the track geometry and clearances are acceptable. The designer shall prepare plans and sections showing the zone of influence of the works that is defined by ground movements exceeding 1 mm.	This comment appears to be erroneous, and not relevant to the Railway Order.
10	Cover Letter Appendix D - Ground Movement Assessment	17	The designer shall develop an instrumentation and monitoring plan to validate that ground movements within the zone of influence are in accordance with design assumptions and that the infrastructure remains within acceptable limits. The designer shall ensure that there is a clear distinction between parameters measured to confirm the change in any parameter is in accordance with the design and parameters measured to limit damage to the assets. This plan shall identify the minimum period of time required to obtain base line data for each monitoring point.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and discuss the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.
11	Cover Letter Appendix D - Ground Movement Assessment	18	The designer shall demonstrate that the monitoring system complies with the British Tunnelling Society Monitoring Underground Construction best practice guide.	The intent is clear and TII will develop the Instrumentation and Monitoring Specifications with due regard to industry best practice.

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12	Cover Letter Appendix D - Ground Movement Assessment	18	A review of the monitoring system against the checklists provided in Appendix B of the BTS Monitoring Underground Construction best practice guide may be used as a tool to demonstrate compliance.	Please refer to response number (11) above.
13	Cover Letter Appendix D - Ground Movement Assessment	18	The detailed assessments shall define the control limits that need to be imposed on the TBM/SCL excavation in the zone of influence. The designer shall state these control measures on drawings and specifications.	While no SCL excavation is proposed at this location, all tunnelling management processes and controls will be detailed within the Contractors "Tunnelling Management Plan" for approval prior to works commencing. More information on the tunnelling processes and supporting systems is provided in Chapter 5, Appendix A5.13 Tunnelling.
14	Cover Letter Appendix D - Ground Movement Assessment	18	The designer shall identify the critical parameters to be monitored and define the Asset Control Limits based on: a) the ability of the asset or structure to withstand ground movement investigated a) during the assessments carried out in Stage 2 and 3. b) the risk to third party operations	Agreed, this is part of the process outlined within the Railway Order. Please refer to Chapter 5, Appendix A5.17.
15	Cover Letter Appendix D - Ground Movement Assessment	18	The designer shall link the Asset Control Limits to actions within an Emergency Preparedness Plan.	This comment is erroneous but the intent is clear. Please refer to response number (11), (13), and (14) above and (15) to (19) below.
16	Cover Letter Appendix D - Ground Movement Assessment	18	The Instrumentation and Monitoring Plan and Emergency preparedness Plan shall be agreed with the relevant Asset Owner.	The Instrumentation and Monitoring proposals developed by the contractor will be discussed with relevant parties.
16	Cover Letter Appendix D - Ground Movement Assessment	18	Contingency plans shall be developed and agreed with the OPW to cover the risks posed to the OPW before commencement of the construction activity. Contingency plans shall be implemented where the results of monitoring or inspection so indicate.	TII will consult with OPW and Dublin City Council with regard to the façade retention proposals.
18	Cover Letter Appendix D - Ground Movement Assessment	18	Ground movement and construction progress records shall be maintained and reported in regular reviews when construction processes are taking place within the zone of influence.	Agreed as this is standard practice.
19	Cover Letter Appendix D - Ground Movement Assessment	18	Predictions and assumptions made during design in respect of both ground movement and the effects which such ground movement will have on adjacent assets shall be verified by measurement during construction.	Agreed.
20	Cover Letter Appendix D - Ground Movement Assessment	18	Completion and Close-out After ground movement has stopped, as confirmed by instrumentation and monitoring, the designer shall prepare a "Completion Report". This shall include the following: a) details of any modifications/mitigation measures to the existing structure; b) graphs that show the ground movement and construction progress over time a) with at least 3 months duration of readings which show no change; b) a schedule showing actual movement compared to predicted movement; c) a schedule of defects recording only the exceptions (changes) identified during the post construction defects survey; d) details of any remedial works undertaken; e) as-built records (including any temporary works remaining in situ on completion of the works)	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.

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21	Cover Letter Appendix D - Ground Movement Assessment	18	A schedule of defects shall be recorded prior to the start of construction for all buildings, structures, utilities and facilities and Outside Party assets predicted to experience ground movement exceeding 1mm.	These comments cover a broad remit of assets potentially beyond the remit of the OPW at this location. However, the process described is contained within the Railway Order.
22	Report 5.0 Material Considerations	18	The alignment drawing ML1-JA1-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-EIA- ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly with Kildare Street, Merriion Square and St Stephens Green areas	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
23	Report 6.0 Legal Considerations	18	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between Til and the OPW. Creating such legal agreements between TH and the OPW would be possible only after Til make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
23	Potential impacts on the property	21	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises issues regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property	Please note that the buildings are to be demolished, with the façades retained. The future development is by others under a separate planning application to the Railway Order, who are cognisant of the restrictions due to the station. Under the current plan, there is no development opportunity for OPW.
25	Monitoring	21	Given the sensitivity if the façade of this property, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	Please refer to response number (10) above.
26	Security Issues	21	All employees contracted to work on behalf of the Til on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property. The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Not applicable as the property referred to will be demolished with the façades retained.
27	During Construction of the MetroLink	22	As stated with the Draft Railway Order, these buildings are "Commercial properties to be partially demolished, maintained and supported", in order to protect the façades, the impact of any proposed works in terms of demolition, noise, vibration, etc. which effects conservation works would need to be carefully considered.	Noted and agreed.
28	Ground movement	22	The most significant impact of the MetroLink project on 44/45 O'Connell Street will be from the construction of the O'Connell Street Station which may require part demolition of this and several surrounding buildings. The façade may be retained and incorporated in a new over station development. In order to create a watertight perimeter to the station box diaphragm walls or secant piles will be required. It would be extremely difficult to install these with demolishing the buildings behind the façades. This is recognised in the submission from Dublin Central.	Noted and agreed. The oversite development will depend on the developer obtaining planning permission for same, as it is not provided for in the draft Railway Order. The plan is to demolish these buildings and retain the facades.

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27	Ground movement	22	The construction of the MetroLink O'Connell Station Box will be carried out by the developer of Dublin Central and referred to as MetroLink Enabling Works (MEW). Therefore, the OPW requires that the developer is a party to any agreements with TII related to the construction of MetroLink O'Connell Street Station providing detail on the impact of the construction of the station box including the impact of any demolition on the fabric of 44/45 O'Connell Street. The detail shall include the detailed drawings, ground movement impact assessment, noise, vibration impact assessment, and foundation arrangements for the retained façade.	The draft Railway Order provides for the construction of the MetroLink Enabling Works and its conditions (and the conditions of the developer's permission) will both apply to its construction. The contractual structure is outside the scope of the Railway Order process and it is part of An Bord Pleanála's statutory function to ensure that the terms and conditions of the Railway Order are such that the construction of these works is consistent with proper planning and sustainable development and has acceptable impacts on the environment regardless of the contractual arrangements.	
30	Future development	23	The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	The draft Railway Order allows for oversite development at this location. It is understood that Dublin Central GP intends to carry out oversite development following the grant of a Railway Order and relevant planning permission. It is understood that the OPW does not have any further intentions for this site after the grant of Railway Order.	
31	Conclusion	23	The most significant impact of the MetroLink Project on 44/45 O'Connell Street will be from the construction of the O'Connell Street Station that will require these buildings and several surrounding buildings to be demolished. The façades may be retained and incorporated in a new over station development.	Agreed and the impact is detailed in the EIAR supporting this Railway Order.	
32	Conclusion	23	With respect to this property, the OPW is seeking: 1) To note the subject property is owned by the OPW. Agreement with the OPW will be required prior to any works being carried out to 44/45 O'Connell Street. The façade to 44/45 O'Connell Street is a Protected Structure to be retained and incorporated into the O'Connell Street Station Entrance. 2) To ensure no interference with or damage to the façade of the building and its architectural detailing, pre-construction and post-construction surveys, trials, and monitoring is required. This is mainly concerned with demolition, noise, vibration, and dust which can damage the buildings, which is of historical significance. 3) To ensure the appropriate conservation and structural appraisals are conducted as part of the Detailed Design Assessment. 4) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project. In light of the above, DOWNEY respectfully request that An Bord Pleanála take into consideration the issues raised by the OPW when assessing the Draft Railway Order 2022 (MetroLink - Estuary to Charlemont via Dublin Airport).	TII response to comments: 1) The façades will be retained and incorporated into subsequent development. 2) Pre and Post construction surveys will be undertaken and proposals developed so as to minimise any impacts. 3) Agreed. 4) TII will implement industry best practice risk management techniques.	
33	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY DOCUMENTS	25	An Bord Pleanála ensure that Til have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application.	

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1	Downey Report- Executive Summary		With respect to this property, the OPW is seeking: 1) To ensure no disruption to the access of the building by staff and visitors in order to carry out the functions of a key Government Department. 2) To ensure no damage to the buildings and its architectural detailing- pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise, vibration and dust which can damage this historically significant building and disturb day-to-day functioning of the buildings for its occupants. 3) To ensure that all parts of, aspects of, collections and business of No. 52 St. Stephen's Green are subject to Stage 3 assessment, and consequent, subsequent stages of assessment. 4) To set up an access control regime in agreement with the OPW and relevant stakeholders when applying a continuous monitoring mechanism pre- and post-construction. 5) To reserve the right of the OPW in relation to future development and that the development of the MetroLink does not interfere extant permissions pertaining to No. 52 St. Stephen's Green and its future development, including above and below its ground levels; nor interfere with major maintenance, conservation, refurbishment, or construction works which are currently anticipated as or may arise in the future. 6) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project. 7) To mitigate the noise and vibration to the acceptable levels for occupants by installing floating track slab at this section of the alignment. 8) To ensure that traffic diversions as a result of station excavation will be kept to a minimum and for the shortest time possible. 9) Regarding the tunnel boring and station excavation machine noise over a 2-weeks period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be pushed during recess of the Dail/Government in order to avoid any disruption to the functions of the Department of Further and Higher Education, Research, Innovation and Science.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (38) below.
2	Downey Report- 3.0 Overview of the Draft Railway Order	8, 9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a moderately conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. For this particular property, the assessment outlined in the EIAR predicts negligible impact (Table 5-2 of Appendix 5.17 - building reference B 3). While negligible impact is anticipated, as this building is designated as a Special Building, it will be subject to further Phase 3 assessment by the appointed contractor.

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3	4.2 Historical Context/Conservation Status	13	Registered under RPS Ref. No. 7785 of the Dublin City Council Record of Protected Structures and NIAH reg. ref 50920302, No. 52 St. Stephen's Green is designated as a protected structure. It is a c1771 five-bay four-storey over basement, former townhouse built over basement in 1771. It is an imposing presence on St. Stephen's Green, having retained much of its historic features and materials that enhance the grandeur of its Georgian properties. The interior remains significant and retains many of its original features, such as chimney pieces, rare wall brackets, grisailles of musical themes and fine decorative plasterwork. The grisailles and other murals are fragile and, being intrinsic to the building fabric, would be particularly susceptible to damage from vibration or movement. An inscribed slab is recorded as being insitu on the property (Sites and Monuments Record TS075-023046). No. 52 St. Stephen's Green is an important historic building in its own right. It stands within a very significant terrace which defines the east side of St. Stephen's Green. Each of the Georgian buildings within this terrace and its elements contribute, both individually and collectively, to the special character of this urban quarter of the city. These buildings are also an intrinsic part of the historic development of St. Stephen's Green and its environs. The history and development of the central park is dealt as part of the St. Stephen's Green submission. As such, it is important that interventions and impacts in this quarter are considered at both the urban scale and individual building scale, and down to individual elements of fragile fabric and detail.	As part of the EIAR, 52 St. Stephens Green has been assessed over a number of environmental topics with the consideration of its Protected Structure status. In particular, this is examined in Chapter 26 of the EIAR (BH-513). This building was designated a high baseline rating and it was noted that Settings of protected structures will be reinstated on completion of works and no further mitigation is necessary. As part of the noise & vibration assessment, it was deemed that the only construction works that would have an impact at this location was groundborne noise from TBM passage. This was deemed to be noticeable to all and disturbing to some over a number of days. Mitigation here would involve advanced notice and engagement prior to these works. EIAR Appendix A 5.17, Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on properties. Table 5-2 of this report outlines the results of Phase 2a Building Damage Assessment conducted on this building and shows that this building has been assessed as falling within the "Negligible damage" category. The damage categories are described in Section 4.3.2 of the EIAR Appendix A5.17, Building Damage Report. Given the importance of this building it is designated as a special building which will move forward to further assessment at the detailed design phase - Phase 3 Assessment. The Phase 3 assessment will take account of final design and construction methodology details. For the Phase 3 assessment, each building will be subject to detailed assessment on an individual basis. A detailed survey will be carried out as part of the Phase 3 assessment to provide the necessary additional information to inform this detailed analysis of how the individual elements of the building would be affected by the predicted ground movements. The method and extent of the detailed analysis will be determined on a case-by case basis and may include a more sophisticated semi-empirical or a detailed soil-structure interaction using finite element modelling methods. It is likely that the Phase 3 assessment will yield further improvement to the damage category determined by the Phase 2b assessment. The results of this refined assessment typically show that earlier assessments are conservative and over estimate the likely impact of construction generated ground movements.	
4	4.3 Current Use/Uses	13	No. 52 St. Stephen's Green is in current use as the Government office for the Department of Further and Higher Education, Research, Innovation and Science body of the Government. Uninterrupted access to the building is required at all times for the conduct of the business of the Department and for access by emergency services (e.g., fire services and ambulance). The OPW/the State, and their authorised agents, require access to the building at all times for the purpose of facilities management, maintenance, repairs and any major conservation, repair or development programme, planned, or as may arise during the construction period of MetroLink.	Outlined in Section 7.10 of Appendix A9.5, while SSG East will see lane, parking and footpath reductions, access to this property will be maintained with no full closures of SGG East planned.	
5	4.4 Planning context	13	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission and the Board is invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project regarding existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application.	
6	4.4 Planning context	13	DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.	

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7	4.6 Potential Development of the Property	14	This building itself is a protected structure in a sensitive location. The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.
8	5.0 MATERIAL CONSIDERATIONS	14	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-E1A-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly within the Kildare Street, Merriion Square and St. Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
9	6.0 LEGAL CONSIDERATIONS	14	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
10	7.1.1 Route Alignment	15	The edge of the St. Stephen's Green station box is approximately 22.5m west of this property. Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.
11	7.3 Contractual Arrangement	16	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.
12	8.0 POTENTIAL IMPACTS ON THE PROPERTY	16	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response numbers (13) through to (26) below.

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13	8.1 Monitoring	16	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.	
14	8.2 Security Issues	17	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181 A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."	
15	8.2 Security Issues	17	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety.	
16	8.2 Security Issues	17	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption	
17	8.2 Security Issues	17	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction stages to ensure suitable provisions are in place.	
18	8.3 During Construction of the MetroLink	17	This building is a fully functioning multi-lease property with commercial, restaurants and offices. It provides functional spaces and office accommodation and as such the impact of any proposed works in terms of noise, vibration, etc. which effects the quality of the working environment would need to be carefully considered.	Further to response number (2) above, the impact assessment in the EIAR in terms of noise and vibration considers different types of building uses in the assessment, with threshold criteria for different uses given in Table 14.18 Assessment Locations and Thresholds for AZ4 Northwood to Charlemont.	
19	8.3.1 Ground Movement	19	Stage 3: The EIAR states that a Stage 3 assessment will be carried out for the No. 52 St. Stephen's Green by the Contractor appointed to construct this section of the MetroLink. The OPW is expecting to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	A design standard will be prepared that reflects the methodology described in EIAR Appendix 5.17. The development of monitoring, mitigation and contingency plans and the subsequent close out of the impacts of settlement will form part of the scope of the Project for the detail design and construct phases. TII will develop the process to be adhered to by the contractor and this will be included in the contract documentation prepared for that contract. TII notes the description of stages 4 and 5 as included as Appendix D and confirm that the MetroLink Specification will reflect similar requirements to achieve the desired outcomes.	

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20	8.3.1 Ground Movement	19	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholder's infrastructure is carried out. Also, the preconstruction defect surveys are carried out prior to any excavation. The OPW will require to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the preconstruction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The OPW requests that only Engineers or Surveyors with proven competence in relation to (historic) buildings of this fabric type, period and nature are selected. The contractor(s) will coordinate preconstruction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	All surveys, monitoring and mitigation proposed for OPW property will be discussed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.
21	8.3.1 Ground Movement	19	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW will expect to be provided with close out reports for the monitoring of their property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.
22	8.3.3 Noise and Vibration	19,20	(a) Tunnelling EIAR Chapter 14 Ground Borne Noise and Vibration Measures identifies identify impacts on No. 52 St. Stephen's Green during TBM excavation: • Ground borne noise 50 dBA L_{Amax} - Significant impact • Ground borne vibration 0.275 VD_{Vdb}, ms⁻¹.75- no significant impact EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW will require specific vibration limits that will be applied to No. 52 St. Stephen's Green and that TII ensures that a monitoring regime is implemented. EIAR Table 6.2- ANV16. Sets out requirement for Pre and post construction surveys of structures vulnerable to vibration induced damage. The OPW will require pre and post construction surveys of structures vulnerable to vibration induced damage are carried out and this should include No. 52 St. Stephen's Green.	It should be noted that a full assessment of groundborne noise & vibration effects has been provided in Chapter 14 of the EIAR. The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project. The assessment has identified that there will be no potential for structural damage due to vibration as levels of vibration are predicted to be below the construction threshold of 1.6 ms⁻¹.75 VDV (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results). Therefore, monitoring for vibration impacts is not required. Regarding groundborne noise, unfortunately, there are no effective methods available to reduce groundborne noise from TBMs at source, but noting that the duration of this impact will be of the order of two weeks. TII will consult and liaise with OPW to ensure the timing of these impacts are known. The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy).
23	8.3.4 Work Sites	20	(b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel. However, there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	Groundwater levels will be monitored (baseline, during construction and for close out) and contingency plans will be in place linked to predetermined trigger levels.
24	8.3.4 Work Sites	20	(d) Intervention Strategy No. 52 St. Stephen's Green is located at the construction site of St. Stephen's Green MetroLink Station. The construction of this station will generate additional lorry movements, for both deliveries and spoil removal and other associated construction activities. There is significant risk that this will impact on the historic fabric, structure, and elements of this important Protected Structure. It will be necessary that TII and their contractors to demonstrate that this risk will be addressed and that all measures are taken to ensure there is no impact arising.	Lorry movements will not impact the historic fabric, structure and elements of St Stephen's Green as there will be no risk of collision between HGVs and this building. There is estimated to be between 20 and 60 vehicle movements per day on average, with a maximum of 136 vehicle movements predicted for a four day period. This level of vehicle activity is very low when compared to existing traffic movements on St Stephen's Green East and will not result in any potential impact to the historic fabric or to this Protected Structure..

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25	8.4 During Operation of the MetroLink 8.4.1 Noise and Vibration	21	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBL _{max,s} and VC-D respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St. Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums and the National Concert Hall and other significant Protected Structures along this route such as No. 52 St. Stephen's Green. The vibration during railway operations will not impact the building fabric or structure.	Information on the locations assessed as requiring floating track slab is listed in Table 14.47. Floating slab track has been proposed between Ch 17+980 - 18+100 and Ch. 18+760 - 18+940. Floating slab track is proposed as a mitigation measure in locations where buildings that are sensitive to groundborne noise have the potential for significant effects during the operation of the proposed Project. 52 St Stephens Green was assessed for predicted groundborne noise during operation (table 14.44 of the EIAR) and it was deemed that groundborne noise at this location fell below the sensitive receptor threshold level (threshold = 40, predicted = 35) so the impacts at this location are not significant. Therefore floating slab track is not proposed at this location.
26	8.5 Future Development	21	The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (6) above.
27	CONCLUSION	22	With regard to the Gall Zeidler assessment, the most significant impact of the MetroLink project on No. 52 St. Stephen's Green will be from the construction of St. Stephen's Green station including associated utility and traffic diversions, dust and noise. The OPW will require assurances from TII that disruption from construction will be kept to a minimum and for the shortest time possible.	Following the impact assessment in the EIAR, mitigation measures are proposed to minimise the impact of Metrolink construction on receptors in the area, such as: dust, noise, & traffic management The appointed contractors will be required to develop their plans for detailed environmental mitigation through the development of the Construction Environmental Management Plan (CEMP) for approval by Dublin City Council. The outline CEMP is provided in EIAR Chapter 5, Appendix 5.1 and the summarises of route wide mitigation and monitoring proposed included in Chapter 31 of the EIAR. Attenuation and mitigation of disruption from construction is a priority for the proposed Project and TII are happy to engage further with OPW.
28	CONCLUSION	22	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the access of the building by staff and visitors in order to carry out the functions of a key Government Department.	TII note this request and confirm that minimal impact on Pedestrians on the eastern footpath is expected during construction. Despite intermittent lane closures on SSG East, pedestrian access will be maintained at all times. See Appendix A.9.5 Section 7.10
29	CONCLUSION	22	With respect to this property, the OPW is seeking: 2) To ensure no damage to the buildings and its architectural detailing- pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise, vibration and dust which can damage this historically significant building and disturb day-to-day functioning of the buildings for its occupants.	TII are happy to engage with OPW in order to reach agreement on an appropriate monitoring programme for the above mentioned building. This will be developed at detailed design stage. There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.
30	CONCLUSION	22	With respects to this property, the OPW is seeking: 3) To ensure that all parts of, aspects of, collections and business of No. 52 St. Stephen's Green are subject to Stage 3 assessment, and consequent, subsequent stages of assessment.	Please refer to response number (2) above.
31	CONCLUSION	22	With respect to this property, the OPW is seeking:4) To set up an access control regime in agreement with the OPW and relevant stakeholders when applying a continuous monitoring mechanism pre- and post-construction.	Please refer to the first paragraph of response number (28) above.
32	CONCLUSION	22	5) To reserve the right of the OPW in relation to future development and that the development of the MetroLink does not interfere extant permissions pertaining to No. 52 St. Stephen's Green and its future development, including above and below its ground levels; nor interfere with major maintenance, conservation, refurbishment, or construction works which are currently anticipated as or may arise in the future.	Please refer to response number (7) above.

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33	CONCLUSION	22	With respect to this property, the OPW is seeking: 6) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
34	CONCLUSION	22	With respect to this property, the OPW is seeking: 7) To mitigate the noise and vibration to the acceptable levels for occupants by installing floating track slab at this section of the alignment.	Please refer to response number (25) above.
35	CONCLUSION	22	With respect to this property, the OPW is seeking: 8) To ensure that traffic diversions as a result of station excavation will be kept to a minimum and for the shortest time possible.	TII will minimise traffic disruption. As set out in Section 7.10.6.3.1 of Appendix 9.5 - Traffic disruption due to diversions/reduced capacity along SSG East will be minimal with a 140 second delay predicted as a result of temporary traffic management during the main works.
36	CONCLUSION	22	With respect to this property, the OPW is seeking: 9) Regarding the tunnel boring and station excavation machine noise over a 2-weeks period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be pushed during recess of the Dail/Government in order to avoid any disruption to the functions of the Department of Further and Higher Education, Research, Innovation and Science.	Further to our earlier comments in response numbers (3) and (22) above, the noise mitigation measures presented in Chapter 14 will be applied. TII are happy to engage with OPW in order to provide advance notice of any disruption and likely timings. The actual levels of disturbance will be identified earlier in the tunnel programme as this building is towards the southern end on the line and hence TII can establish in advance if disruption is likely to occur. It is not possible to commit at this stage to tunnelling beneath during recess of the Dail.
37	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	24	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (6) above.
38	Appendix 2: Ground movement Assessment	29	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover Letter response

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1	Downey Report- Executive Summary		With respect to this property, the OPW is seeking: 1} To ensure minimum disruption to the working access to the building and its day-to-day uses and functions. 2) To ensure no damage to the building and its architectural detailing, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise, vibration, and dust which can damage buildings which is of historical significance and character. 3) Disruptions to traffic may happen during construction phases, wayleave to staff as well as postal vans and lorries will be required. 4) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project. 5) To ensure future development of 9/15 O'Connell Street is not impacted, including emergency works which may need to be carried out on the building, repairs, refurbishments, and development. 6) To mitigate the noise and vibration to the acceptable levels for this commercial and governmental office block by installing floating track slab at this section of the alignment.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (40) below.	
2	Downey Report- 3.0 Overview of the Draft Railway Order	Page 8, 9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a moderately conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. As such, the Phase 2 assessment does take account of the details referred to in OPW's submission, because it proceeds on conservative assumptions. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. For these particular properties, the assessment outlined in the EIAR predicts slight damage impact or less, based on assessment on adjacent buildings reference B-192 to B 195 within Table 5-2 of Appendix 5.17. While slight impact or less is anticipated, these building will be included in a Phase 3 assessment by the appointed contractor for their Special Building Status as Sections 4 of Appendix A5.17.	
3	4.2 Historical Context/Conservation Status	12	The buildings comprising O'Connell Street Upper 9-15 are situated within the O'Connell Street Architectural Conservation Area. These buildings are not included in Dublin City Council's Record of Protected Structures. However, No's 9-10 (Burger King) and Nos. 11-13 (Hammam Buildings) are included in the N1AH, as record numbers 50010544 and 50010545 respectively.	The presence of these buildings was noted in the EIAR Chapter 26 Architectural Heritage and specifically listed together with NIAH record numbers in Table 26.20. The potential effects are assessed.	
4	4.2 Building sensitivities	12	These early 20th century buildings may consist of iron/steel frames with stone facing to composite walls. Bronze fixtures and features enhance the buildings. Any early glass may be delicate. These building systems and materials may be brittle and may not respond well to movement.	TII have noted this observation and these features will be included in any Phase 3 assessments required.	
5	4.3 Current Use/Uses	12	No. 10 to No. 15 O'Connell Street Upper front O'Connell Street and there are several commercial uses at ground floor level. Caffè Nero, Discover Ireland Tourist Centre, Fishing Guide Ireland, Hop-On Hop-Off Dublin Bus Tour, Peter Mark Hairdressing are situated on this stretch of O'Connell Street, while the Civil Service has offices at the upper floors. There is significant infrastructure operated by Eir on the ground floor and basement levels. It would be important that Eir is consulted as part of this process in relation to the potential impact on its operations.	TII appreciate the information provided. It should be noted that all building owners and occupiers have been made aware of the proposed project through the consultation and CPO notification process. These buildings have been assessed in the EIAR.	
6	4.4 Planning context	13	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission and the Board is invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project regarding existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application.	

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7	4.4 Planning context	13	DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.	
8	4.6 Potential Development of the Property	18	The OPW reserves the right to development of the subject property in the future, to include property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce “Guidance Note for Developers” that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.	
9	5.0 MATERIAL CONSIDERATIONS	18	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-E1A-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly within the Kildare Street, Merrion Square and St. Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.	
10	6.0 LEGAL CONSIDERATIONS	18	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board’s function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose	

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11	7.1.1 Route Alignment	18	The MetroLink 8.5m ID running tunnel passes approximately 120m in front of these buildings. O'Connell Street Station is approximately 100m from this building. The alignment drawing ML1-JAI-E1A-ROUT_XX-DR-Y-04024 and the Contour drawing ML1-JAI-E1A-ROUT_XX-DR-Y-21146 show the alignment and the predicted ground movement. Beneath 9/15 O'Connell Street Upper, the proposed MetroLink will be excavated through Argillaceous Limestone rock (CLU) underlying Weathered Rock (QTR) underlying Brown Boulder Clay (QBR), containing extensive fluvio-glacial sands and gravels. Cover to the tunnel crown is approximately 23m comprising Brown Boulder Clay. The invert will be excavated through both weathered and un-weathered limestone. This will present a significant challenge to ground movement mitigation using tunnel management.	OPW's observation with regard to the alignment and geology below these buildings is noted and is the reason for the selection of the proposed TBM and the mixed face conditions identified have been used to conservatively predict the impacts on overlying buildings and infrastructure. TII will develop both TBM operational Specifications and Ground Movement and Monitoring Specifications to ensure that residual risks are appropriately managed.
12	7.1.3 Station Excavation	20	9/15 O'Connell Street is situated approximately 50m from O'Connell Street station box. The excavation for the stations will be through Brown Boulder Clay, Weathered Rock, and Argillaceous Limestone. The excavation through the Limestone will most likely include blasting which may affect the 9/15 O'Connell Street Upper properties.	The EIAR Chapter 14 presents an assessment of vibration and Air Overpressure from blasting. According to Figure 14.4 Blasting Contours (Drawing ML1-JAI-E1A-ROUT_XX-DR-Y-14024) the 9-15 O'Connell Street buildings are outside of the 2 mm/s contour line, which is below the blasting vibration threshold of 8 mm/s PPV. As a result no significant impact is expected on these buildings as a result of blasting activities.
13	7.3 Contractual Arrangement	20	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.
14	8.0 POTENTIAL IMPACTS ON THE PROPERTY	20	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please see answers to responses (15) through to (30) below.
15	8.1 Monitoring	21	Given the sensitivity of the uses within this property, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.
16	8.2 Security Issues	21	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181 A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."
17	8.2 Security Issues	21	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety.
18	8.2 Security Issues	21	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption
19	8.2 Security Issues	21	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction stages to ensure suitable provisions are in place.

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20	8.3 During Construction of the MetroLink	21 and 22	This building is a fully functioning multi-lease property with commercial, restaurants and offices. It provides functional spaces and office accommodation and as such the impact of any proposed works in terms of noise, vibration, etc. which effects the quality of the working environment would need to be carefully considered.	The impact assessment in the EIAR in terms of noise and vibration considers different types of building uses in the assessment, with threshold criteria for different uses given in Table 14.18 Assessment Locations and Thresholds for AZ4 Northwood to Charlemont.	
21	8.3.1 Ground Movement	22	Stage 1: Defines extent of ground movement using Moderately Conservative parameters. The parameters considered by MetroLink are: B Volume Loss, $V_s = 1.5 \times \text{Trough Width parameter}$, $k = 0.3$ The Volume Loss is considered moderately conservative. However, the through parameter is very narrow and 0.4 could be considered more conservative. The extent of the zone of influence is defined by the 1mm contour line (Dark Red) and O'Connell Street lies just within the zone of influence and will be subject to up to 40mm settlement.	The assessments undertaken to date are, as you say, moderately conservative. Any further detailed assessment would seek to strip out some of the conservatism. The K values have been determined considering the ground conditions specific to location and hence K values vary between 0.3 to 0.5 as shown in Table 5.1 of Appendix 5.17 of the EIAR. The rationale for the selection of K values is given further in section 4.2.3 of Appendix 5.17.	
22	8.3.1 Ground Movement	22	Stage 2: The ground movement impact on the 9/15 O'Connell Street Upper has not been identified in the EIAR A5.17. A Stage 2 Assessment should be carried out for this building.	A stage 2 assessment will be carried out by the main works contractor for this building.	
23	8.3.1 Ground Movement	22	Stage 3 (Detailed Assessment): A Stage 3 assessment is required for this building.	A stage 3 assessment will be carried out by the main works contractor for this building.	
24	8.3.1 Ground Movement	22	Stage 4: Mitigation may be required for this building and therefore the OPW expects to be consulted. The OPW expects that pre-construction defect surveys and monitoring are carried out for this building. The OPW will facilitate and observe the preconstruction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate preconstruction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	All surveys, monitoring and mitigation proposed for OPW property will be discussed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.	
25	8.3.1 Ground Movement	23	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of its property. As a minimum, the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.	
26	8.3.3 Noise and Vibration	23	(a) Tunnelling During the passage of the tunnel boring machine (TBM) the noise is predicted to be 49 dBLA _{max,s} exceeding the acceptable threshold (45 dBiA _{max,s})and this may last for 2 weeks. The vibration from the passage of the TBM is predicted to be 0.257 VDV _{db} , m s ⁻¹ , 1.75 less than the threshold (1.6 VDV _{dUms} -1.75). EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requires a specific study carried for 9/15 O'Connell Street Upper to determine whether ground borne noise and vibration will have any impact. Where any impact is identified then threshold limits will need be applied and monitored. Where the building is considered vulnerable to vibration induced damage EIAR Table 6.2- ANV16. sets out requirement for pre and post construction surveys of these structures.	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project. The assessment has identified that there will be no potential for structural damage due to vibration as levels of vibration are predicted to be below the construction threshold of 1.6 ms-1.75 VDV (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results) and accordingly there is no requirement for further specific studies requested. Regarding groundborne noise, unfortunately, there are no effective methods available to reduce groundborne noise from TBMs at source, but noting that the duration of this impact will be of the order of two weeks. TII will consult and liaise with 9-15 O'Connell Street, to ensure the timing of these impacts are known. The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy).	

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27	8.3.3 Noise and Vibration	23	(b) Station Excavation GNV2 states that monitoring of blasting and re-optimising the blast design (minimising the explosive charge considering the results) will be carried out as standard. A5.20 Blasting Strategy provides information on the classification of buildings and potential damage due to blasting for the station excavations. There are also calculations for estimated magnitude of the peak particle velocity (ppv) for various explosive charges. The assumption is that the lowest charge would be implemented to avoid damage. m9/15 O'Connell Street Upper is located approximately 50m from O'Connell Street Station excavation and the peak particle velocity is predicted to exceed 1mm/s. The OPW requires a specific assessment of the impact of blasting on 9/15 O'Connell Street Upper.	Please refer to response number (12) above.
28	8.3.4 Work Sites	23	(a) Dust Appendix A16.4 of the EIAR requires a Dust Management Plan to be produced and implemented. The tunnelling will not generate dust in the vicinity of 9-10 O'Connell Street Upper. The station construction site is 60m from 9/15 O'Connell Street Upper and therefore dust from these constructions sites is likely to affect the buildings.	TII are in agreement that a dust mitigation strategy is necessary. Dust mitigation will be detailed in an Air Quality Management Plan which will be prepared and submitted for approval to the relevant planning authority before construction (Section 16.6.1.1 Chapter 16 Air Quality). The plan must include all appropriate dust and emissions mitigation measures including for asbestos and aspergillus, applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. The plan will be developed by the contractor and for each worksite shall include: -An inventory and timetable of activities which may give rise to emissions or dust; -Alert levels; -Alert system to be used (including notification process); -Details of control measures; -Details of dust monitoring arrangements, including the location of sensitive receptors, monitoring locations, and monitoring equipment to be used; and -Details of the air quality reporting requirements. A summary of dust mitigation measures outlined in Section 16.6.1.1 of Chapter 16 to be implemented are as follows: -Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; -Any blasting will be completed by specialised contractors with a specific blasting dust management plan; -Liaison with local authorities and community groups; -Hoarding will be provided around the construction compounds; and -It is anticipated that methods of collecting rainwater and recycling for general site use, will be adopted where practical. Requirements for dewatering installations at deep station and tunnel portals can also provide a valuable source of water for general site use. When the dust minimisation measures detailed in the mitigation section (Section 16.6) of EIAR Chapter 16 are implemented, fugitive emissions of dust from the site are not predicted to be significant and pose no nuisance, human health or ecological risk to nearby receptors. Thus, there will be no likely residual Construction Phase dust effects (Section 16.7.1 Chapter 16).

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29	8.3.4 Work Sites	24	b) Ground Water Control There is the potential for ground water lowering for the construction of O'Connell Street Station to impact 9/15 O'Connell Street Upper. The OPW requests that TII provides an assessment and limits that will be applied to dewatering for the construction of O'Connell Street Station.	TII understand your concern, however following reviews, surveys and monitoring of groundwater, it can be concluded that 9 – 15 O'Connell Street will not be impacted by works at the proposed O'Connell Street Station. As outlined in EIAR Chapter 19 (Hydrogeology), groundwater assessment and monitoring were and will continue to be undertaken for the proposed Project: • AWN undertook an extensive desktop review in order to establish baseline conditions along the proposed alignment corridor. The baseline study included reference to historical ground investigation data including the 2007 IGSL investigation borehole dataset (IGSL 2008) and data from Norwest Holst (2008) as well as information from contemporary (2019-2021) ground investigations specific to the proposed Project (Table 19.2); • A number of field surveys and walkover assessments were carried out to add to existing assessment of long-term trend analysis for water quality undertaken by the EPA (Section 19.3.3.4); • A number of intrusive ground investigations were commissioned for the proposed Project including ground water level monitoring (Section 19.3.3.5). A programme of continuous groundwater level monitoring, aquifer testing and groundwater quality monitoring was devised with focus on key well locations along the alignment including at deep station excavations; and • A hydrogeological review of Tara Street was undertaken and can be found in EIAR Appendix A19.11. Dewatering and unmitigated releases to ground during the Construction Phase could have permanent water quality and quantity impacts on the hydrogeological (and hydrological/ecological) environment if not effectively mitigated (Section 19.5.1). However, for the proposed Project, Construction Phase management includes mitigation measures presented in the EIAR and outlined in the outline Construction and Environmental Management Plan (CEMP) (Appendix A5.1) for the proposed Project to protect receiving waters (groundwater and surface water) and ensure continued conveyance of natural groundwater flow patterns, as well as of surface water courses.
30	8.3.4 Work Sites	24	(g) Traffic There will be significant traffic diversions required to construct O'Connell Street Station site that will impact personnel and clients attending the 9/15 O'Connell Street Upper buildings.	As outlined in Section 7.8 of Appendix 9.5 Scheme Traffic Management Plan - Construction Traffic will not enter O'Connell St, which itself has been found through models to see a net decrease in traffic volumes. With no other adverse impacts identified for O'Connell St.
31	CONCLUSION	25	The most significant impacts of the MetroLink project on 9-10 O'Connell Street Upper will be from the construction of the O'Connell Street Station directly opposite this building and the launching of the tunnel boring machine to Tara Station. Both generating ground movement, noise, and vibration. The OPW requires assurances from TII that Stage 2 and 3 ground movement assessments to be carried out specifically for this building. These ground movement assessments should carefully consider the parameters that are used.	Please refer to response number (2) above.
32	CONCLUSION	25	Once the railway is in operation, it is possible that there will be major noise and vibration impact and TII should seek assurance that a detailed evaluation will be performed.	Groundborne noise and vibration from operation of the railway has been calculated for buildings representing 9-15 O'Connell Street with the results presented in Appendix 14.5 Groundborne Noise and Vibration and Blasting Modelling Results of the EIAR. The highest level of groundborne noise is predicted for 14 O'Connell Street and is 36 dB LASmax, which is below the 40 dB LASmax threshold, resulting in a not significant impact on the building. The highest level of groundborne vibration is predicted for 14 O'Connell Street and is 0.01 m/s-1.75, much lower than the VDV Threshold Level for these buildings of 0.8 m/s-1.75, resulting in a not significant impact on the building.
33	CONCLUSION	25	With respect to this property, the OPW is seeking: 1) To ensure minimum disruption to the working access of the building and its day-to-day uses and functions.	Please refer to response number (32) above.

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34	CONCLUSION	25	With respect to this property, the OPW is seeking: 2) To ensure no damage to the building and its architectural detailing, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise, vibration, and dust which can damage the building which is of historical significance and character.	The mitigation measures outlined in Chapter 13 (Airborne Noise and Vibration), Chapter 14 (Ground borne Noise and Vibration) and Chapter 16 (Air Quality) ensure that the architectural detailing of 9 – 15 O'Connell Street will be protected. Protective measures are also outlined in the outline Construction Environmental Management Plan (CEMP) (EIAR Appendix A5.1). The outline CEMP will encompass a Noise and Vibration Management Plan (CNVMP) which will be formulated for the construction phase and used by all contractors based on the mitigation measures. Mitigation measures that will be implemented to reduce noise during construction include noise control at source, management of construction working hours and screening. Without mitigation, the predicted magnitude of construction noise impacts on 9 – 15 O'Connell Street are significant to very significant. Following mitigation, residual noise levels are calculated to be controlled to below the Construction Noise Threshold (CNT) and/or below the upper construction limit of 75dB LAeq,T at all Noise Sensitive Locations (NSLs) (13.7.1.1.4 Chapter 13). The likely effects associated with the Construction Phase dust emissions pre-mitigation are overall Negative, Not Significant and Medium-Term (Section 16.5.2.12.2 Chapter 16). Before commencing relevant works, an Air Quality Management Plan will be prepared and submitted for approval to the relevant planning authority. The plan will include all appropriate dust and emissions mitigation measures including for asbestos and aspergillus, applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. In order to ensure that no dust nuisance occurs, a series of measures will be implemented, these have been detailed in EIAR Appendix A16.4. In summary, the measures which will be implemented will include: •Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; •Any blasting will be completed by specialised contractors with a specific blasting dust management plan; •Liaison with local authorities and community groups; •Hoarding will be provided around the construction compounds; and •It is anticipated that methods of collecting rainwater and recycling for general site use, will be adopted where practical. Requirements for dewatering installations at deep station and tunnel portals can also provide a valuable source of water for general site use. When the dust minimisation measures detailed in the mitigation section of this chapter are implemented, fugitive emissions of dust from the site are not predicted to be significant and pose no nuisance, human health or ecological risk to nearby receptors. Thus, there will be no likely residual Construction Phase dust effects (Section 16.7.1 Chapter 16).
35	CONCLUSION	25	With respects to this property, the OPW is seeking: 3) Disruptions to traffic may happen during construction phases, wayleave to staff as well as postal vans and lorries will be required.	Please refer to response number (32) above.
36	CONCLUSION	25	With respect to this property, the OPW is seeking: 4) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties. The Project will be delivered in accordance with relevant risk management processes.
37	CONCLUSION	25	5) To ensure future development of 9/15 O'Connell Street is not impacted, including emergency works which may need to be carried out on the building, repairs, refurbishments, and development.	Metrolink will not impede these works.
38	CONCLUSION	25	6) To mitigate the noise and vibration to the acceptable levels for this commercial and governmental office block by installing floating track slab at this section of the alignment.	Groundborne noise and vibration from operation of the railway has been calculated for buildings representing 9-15 O'Connell Street with the results presented in Appendix 14.5 Groundborne Noise and Vibration and Blasting Modelling Results of the EIAR. The highest level of groundborne noise is predicted for 14 O'Connell Street and is 36 dB LASmax, which is below the 40 dB LASmax threshold, resulting in a not significant impact on the building. The highest level of groundborne vibration is predicted for 14 O'Connell Street and is 0.01 m/s-1.75, much lower than the VDV Threshold Level for these buildings of 0.8 m/s-1.75, resulting in a not significant impact on the building. There is therefore no need to install floating slab track at this location.
39	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	27	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TH have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (7) above.

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40	Appendix 2: Ground movement Assessment	32	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover Letter response

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1	Downey Report- Executive Summary		With respect to this property, the OPW is seeking: 1) To ensure no noise and disruption to the residential development. 2) To ensure that future development potential of Clare Court building can include multiple basement levels as part of the National Gallery of Ireland masterplan. 3) To ensure essential access from Clare Street and Clare Lane is undisturbed. Maintaining this access will be of paramount importance during construction and operation of the National Gallery of Ireland Masterplan in the coming years. 4) To include adverse impacts of Tara Street and St. Stephen's Green stations within the risk assessment studies for the residential complex and provide for mitigation measures, as construction of these stations will generate additional lorry movements for both deliveries and spoil removal." 5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project. 6} To ensure no conflicts between the construction and operation of the Project and the future development of the building as part of the National Gallery masterplan, as it is subject to on-going construction and further development, as part of Project Ireland 2040.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (28) below.
2	Downey Report- 3.0 Overview of the Draft Railway Order	8, 9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals	This building is distant from the tunnel alignment, outside any zone of influence and therefore not impacted by settlement, groundborne noise or vibration. No building specific assessments are therefore required and the property will not be prevented from future development by MetroLink.
3	4.4 Planning context	12	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission and the Board is invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project regarding existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application.
4	4.4 Planning context	13	DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including <i>Element Power v An Bord Pleanála</i> [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
5	4.5 Potential Development of the Property	12	The site (part) is to be included as part of Phase 4 of the National Gallery of Ireland Master Development Plan 2017-2023, which aims to "establish new state-of-the-art, purpose-built spaces for Conservation, Education, Library & Archives and Commercial, as well as new exhibition spaces and storage areas." This envisages the construction of a new wing of the Gallery that would be situated along Clare Court and the car park to the rear of the flats. This expansion will allow the Gallery to grow and increase its capacity for new exhibition spaces and library and archives storage. It is essential for the development of the National Gallery that the planned MetroLink development cannot impede or limit the development potential of the site, including above or below ground. Access to this site by the OPW/its agents for construction and operation of any future development is of paramount importance.	Irrelevant for this building, please refer to response number (2) above.
6	5.0 MATERIAL CONSIDERATIONS	12	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly within the Kildare Street, Merriion Square and St. Stephen's Green areas.	Irrelevant for this building, please refer to response number (2) above. On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.

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7	6.0 LEGAL CONSIDERATIONS	13	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board’s function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
8	7.1.1 Route Alignment	13, 14	The tunnel alignment does not pass directly beneath the Apartments 1-8 Clare Court. However, there is inconsistency in the alignment between Tara Station and St. Stephen's Green. The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Draft Railway Order and E1AR difficult.	Irrelevant for this building, please refer to response number (2) above. On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
9	7.3 Contractual Arrangement	15	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	Irrelevant for this building, please refer to response number (2) above. TII accepts this as accurate, but many of the matters referred to, in particular the contractual arrangements with the contractors, are outside the scope of the railway order process.
10	8.0 POTENTIAL IMPACTS ON THE PROPERTY	15	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to responses (11) through to (19) below.
11	8.1 Monitoring	16	Given the strategic importance of the property, we request that An Bond Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at [east 6 weeks post the operational stage of the MetroLink.	Irrelevant for this building, please refer to response number (2) above.
12	8.2 Security Issues	16	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181 A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."
13	8.2 Security Issues	16	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	While not relevant for this building, please refer to response number (2) above, TII will ensure that contractors working on its behalf on any OPW property comply with property protocols around access, security and safety.
14	8.2 Security Issues	16	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	Day to day operations are not impacted.

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15	8.2 Security Issues	16	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction stages to ensure suitable provisions are in place.
16	8.3.1 Ground Movement	17	Stage 3: The OPW requests that a Stage 3 assessment will be carried out for the Apartments 1-8 Clare Court by the Contractor appointed to construct this section of the MetroLink. The OPW is expecting to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if Til were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Draft Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	Irrelevant for this building, please refer to response number (2) above.
17	8.3.1 Ground Movement	18	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholder's infrastructure is carried out. Also, the pre-construction defect surveys are carried out prior to any excavation. The OPW requires to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the pre-construction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate pre-construction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	Irrelevant for this building, please refer to response number (2) above.
18	8.3.1 Ground Movement	18	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed, then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of its property. As a minimum, the close out report should include details of any mitigation carried out, a list of any repairs and time history graphs showing the movements monitored.	Irrelevant for this building, please refer to response number (2) above.
19	8.5 Future Development	20	It is essential for the development of the National Gallery that the planned MetroLink development works cannot impede or limit the development potential of the site. Access to this site by the OPW/its agents for construction and operation of any future development is of paramount importance. The OPW reserves the right to development of the subject property in the future, including property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	Irrelevant for this building, please refer to response number (2) above. The distance of the property from MetroLink precludes an interface.
20	CONCLUSION	20	With regard to the Gall Zeidler assessment, the risk of damage to the Apartments 1-8 Clare Court from ground movement is negligible. Pre-construction and post-construction surveys, monitoring are required by the OPW. During the passage of the Tunnel Boring Machine (TBM) the noise and vibration were not estimated and considered negligible at this location.	Irrelevant for this building, please refer to response number (2) above.
21	CONCLUSION	20	With respect to this property, the OPW is seeking: 1) To ensure no noise and disruption to the residential development	Irrelevant for this building, please refer to response number (2) above.
22	CONCLUSION	21	With respect to this property, the OPW is seeking: 2) To ensure that future development potential of Clare Court building can include multiple basement levels as part of the National Gallery of Ireland masterplan.	Irrelevant for this building, please refer to response number (2, 19) above.
23	CONCLUSION	25	3) To ensure essential access from Clare Street and Clare Lane is undisturbed. Maintaining this access will be of paramount importance during construction and operation of the National Gallery of Ireland Masterplan in the coming years.	Construction Traffic is not expected to pass within 400m of this property as set out in sections 7.9 and 7.10 of Appendix A.9.5 of the EIAR. No adverse impacts to users of this street have been identified in Appendices A.9.5 or A.9.2 of the EIAR and access is not impacted.
24	CONCLUSION	21	With respects to this property, the OPW is seeking: 4) To include adverse impacts of Tara Street and St. Stephen's Green stations within the risk assessment studies for the residential complex and provide for mitigation measures, as construction of these stations will generate additional lorry movements for both deliveries and spoil removal.	Please refer to response number (23) above.

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25	CONCLUSION	21	With respect to this property, the OPW is seeking: 5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project.	Irrelevant for this building, please refer to response number (2) above.
26	CONCLUSION	21	6} To ensure no conflicts between the construction and operation of the Project and the future development of the building as part of the National Gallery masterplan, as it is subject to on-going construction and further development, as part of Project Ireland 2040.	MetroLink does not impact on future plans for the development of this site.
27	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	21	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (4) above.
28	Appendix 2: Ground movement Assessment	27	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover Letter response

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1	Downey Report- Executive Summary	N/A	With respect to this property, the OPW is seeking: 1) To note that this is an important building providing a range of civic services and includes the Regional Garda Headquarters Building, to which access must be maintained on a twenty-four- hour basis. Service at this building cannot be interrupted before, during or after the construction of the MetroLink. 2) To ensure no damage to the building and its day-to-day functions, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise and vibration which can damage this important civic building, as well as its functions. 3) To ensure specific vibrations limits that will be applied to the Ballymun Garda District Headquarters & INTREO Office, and a monitoring regime is to be implemented. 4) To include adverse impacts of Ballymun station within the risk assessment studies for the Ballymun Garda District Headquarters & INTREO Office and provide for mitigation measure, as construction of these stations will generate additional lorry movements for both deliveries and spoil removal. 5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (25) below.
2	Downey Report- 3.0 Overview of the Draft Railway Order	Page 8, 9	While extensive pre-planning consultations also took place between Pleanála and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a moderately conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented.
3	4.3 Current Use/Uses	11	This property is currently in use as an operational Garda station and Divisional Headquarters. The complex also extends to accommodate the Department of Social Protection which provides a full INTREO public office and other Government services. The building itself, completed c. 2008, extends to part-three, part-four storey over a large basement car park, which also serves the adjoining civic centre. There is additional surface parking for staff to the rear of the property. Full access to the building, both pedestrian and vehicular access to staff parking to the rear, will need to be maintained during the course of any construction works. To note, the Garda Station is open on a twenty-four-hour uninterrupted basis.	As set out in Section 7.3 of Appendix A.9.5, no adverse impacts are expected to the access of this building throughout the project with road and footpath access maintained at all times.
4	4.4 Planning context	12	Metrolink conducted a public consultation on the Preferred Route over an eight-week period from 26th March 2019 to 21st May 2019. Over 1,000 people attended the five public events which were held at key locations along the route. While extensive pre-planning consultations have been carried out on the route, a detailed assessment of the properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order and, should the route be approved by An Bord Pleanála, further detailed design considerations will be submitted which require further consideration and approval. At this current juncture a detailed analysis of the properties affected has not taken place, factors such as internal uses of buildings and the effect of construction has not been considered as part of the assessment thus far. More consideration needs to be given to the potential effects on the built environment before a route can be confirmed. The OPW reserves the right to make further commentary, should the alignment be changed, and which would require further assessment.	Please refer to response number (2) above.
5	4.4 Planning context	13	DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.

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6	5.0 MATERIAL CONSIDERATIONS	13	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-E1A-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly within the Kildare Street, Merrion Square and St. Stephen's Green areas.	This observation is not relevant for this building	
7	6.0 LEGAL CONSIDERATIONS	13	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose	
8	7.3 Contractual Arrangement	15	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TIIs contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.	
9	8.0 POTENTIAL IMPACTS ON THE PROPERTY	15	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response numbers (10) to (17) below.	
10	8.1 Monitoring	16	Given the sensitivity of the uses within this property, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	This building is outside settlement contours and hence is not impacted by MetroLink and ground movement monitoring is not required. No access is required.	
11	8.2 Security Issues	16	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181 A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that " <i>Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order. "</i>	
12	8.2 Security Issues	16	All employees contracted to work on behalf of the Til on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	Not relevant, as TII access to this building will not be required.	
13	8.2 Security Issues	16	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.	

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14	8.2 Security Issues	16	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	This is not relevant for this building, as it is not directly above the alignment. But for TII, safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction stages to ensure suitable provisions are in place.
15	Think section should be 8.3.3 Noise and Vibration, but not labelled in doc	18	(a) Tunnelling During the passage of the Tunnel Boring Machine (TBM) the noise is predicted to be 42 dBLAm ax,s does not exceed the acceptable threshold (45 dBLAm ax,s) and this may last for 2 weeks. The vibration from the passage of the TBM is predicted to be 0.174 VDvdb.ms'1-75 less than the threshold (1.6 VDvdb.ms'1.75) EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requests that a specific study is carried out for the Ballymun Garda District Headquarters & INTREO Office to determine whether ground borne noise and vibration will have any impact. Where any impact is identified then threshold limits will need to be applied and monitored. Where the building is considered vulnerable to vibration induced damage, EIAR Table 6.2- ANV16, sets out requirement for pre- and post-construction surveys of these structures.	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. As stated in your comment and set out within Appendix 14.5 Groundborne Noise and Vibration and Blasting Modelling Results, the values of noise and vibration during construction and operation of Metrolink are below the threshold values for this building. As a result no significant impact is expected on these buildings. This assessment will be supplemented by a full pre-construction survey and monitoring programme during the construction phase to ensure that defined criteria for groundborne noise and vibration are adhered to during the construction phase. While groundborne noise during the TBM operation will not be exceeded, there are no effective methods available to further reduce groundborne noise from TBMs at source, but noting that the duration of this impact would be of the order of two weeks if this building were to be affected. TII will consult and liaise with Ballymun Garda, to ensure the timing of these impacts are known. The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy).
16	8.3.4 Work Sites	18	(b) Ground Water Control There is the potential for ground water lowering for the construction of Ballymun station to impact Ballymun Garda District Headquarters & INTREO Office. The OPW requires an assessment and limits from Til that will be applied to dewatering for the construction of Ballymun Station.	As outlined in EIAR Chapter 19 (Hydrogeology), groundwater assessment and monitoring were and will continue to be undertaken for the proposed Project: • AWN undertook an extensive desktop review in order to establish baseline conditions along the proposed alignment corridor. The baseline study included reference to historical ground investigation data including the 2007 IGSL investigation borehole dataset (IGSL 2008) and data from Norwest Holst (2008) as well as information from contemporary (2019-2021) ground investigations specific to the proposed Project (Table 19.2); • A number of field surveys and walkover assessments were carried out to add to existing assessment of long-term trend analysis for water quality undertaken by the EPA (Section 19.3.3.4); and • A number of intrusive ground investigations were commissioned for the proposed Project including ground water level monitoring (Section 19.3.3.5). A programme of continuous groundwater level monitoring, aquifer testing and groundwater quality monitoring was devised with focus on key well locations along the alignment including at deep station excavations. The key hydrogeological data available and interpreted for the Ballymun Station is presented in Table 19.31. The dewatering process during the construction of the Ballymun Station will be in the order of 12.2l/sec as a maximum value. Ballymun Station perimeter will be sealed (D-walls) within the QBR subsoils with water-bearing Fluvio-glacial sands (also recorded in the wider area) and CLU (Lucan Formation) (Section 19.5.3.5.6). Dewatering at the Ballymun Station during works will be temporary only with the anticipated radius effect of dewatering reducing as the Station construction progresses towards full perimeter and base seal (i.e. full watertight conditions) including toe grouting assumed to 1.5m below base of D-wall. Mitigation measures employed will limit the impact of dewatering to within the site boundary.
17	8.5 Future Development	19	The OPW reserves the right to develop the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop the property, in advance, in tandem or post operation of the MetroLink Project.	Given the position of the MetroLink tunnel in relation to this building, this is not relevant.

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18	CONCLUSION	20	The most significant impact of the MetroLink project on Ballymun Garda District Headquarters & INTREO Office will be from the construction of the Ballymun station including associated utility and traffic diversions, dust, and noise. The OPW will require assurances from TII that disruption from construction will be kept to a minimum and for the shortest time possible and pre-construction, post-construction surveys, monitoring should be requested.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.	
19	CONCLUSION	20	With respect to this property, the OPW is seeking: 1) To note that this is an important building providing a range of civic services and includes the Regional Garda Headquarters Building, to which access must be maintained on a twenty-four- hour basis. Service at this building cannot be interrupted before, during or after the construction of the MetroLink.	Please refer to response numbers (2) above.	
20	CONCLUSION	20	With respect to this property, the OPW is seeking: 2) To ensure no damage to the building and its day-to-day functions, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise and vibration which can damage this important civic building, as well as its functions.	Please refer to response numbers (10) and (15) above.	
21	CONCLUSION	20	With respect to this property, the OPW is seeking: 3) To ensure specific vibrations limits that will be applied to the Ballymun Garda District Headquarters & INTREO Office, and a monitoring regime is to be implemented.	Please refer to response numbers (15) above.	
22	CONCLUSION	20	With respect to this property, the OPW is seeking: 4) To include adverse impacts of Ballymun station within the risk assessment studies for the Ballymun Garda District Headquarters & INTREO Office and provide for mitigation measure, as construction of these stations will generate additional lorry movements for both deliveries and spoil removal.	As set out in Section 7.3.3 of Appendix A.9.5, construction vehicles will exit the site via the junction of Silogue Road and Ballymun Road before travelling north and away from the building with a distance of ~60m between the closest building entrance and junction. As such, any adverse impacts on the property due to construction vehicles are expected to be minimal. TII will liaise with the Gardai throughout construction.	
23	CONCLUSION	20	With respect to this property, the OPW is seeking: 5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.	
24	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	21	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response numbers (5) above.	
25	Appendix 2: Ground movement Assessment	26	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover Letter response	

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1	Executive Summary	N/A	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the accessibility of the buildings within Nos. 23-28 Kildare Street and their day-to-day uses and functions. 2) To ensure no damage to the buildings and their architectural detailing, pre-construction and post-construction surveys, trials and monitoring is required. This should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. 3) To set up an access control regime in agreement with the OPW and relevant stakeholders when applying a continuous monitoring mechanism pre- and post-construction. 4) To ensure no ventilation and/or evacuation shaft in the vicinity of the area is permitted due to vitality and sensitivity of the Complex's uses and functions. 5) To reserve the right for the OPW that the development of the MetroLink does not interfere with extant permissions pertaining to the property and its future development, including above property and below its ground levels. 6) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project. 7) To mitigate the noise and vibration to the acceptable levels by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station. 8) Regarding the tunnel boring machine noise over a 2-week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the OPW, to avoid any disruption to the functions of the building.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (39) below.
2	3.0 Overview of the Draft Railway Order	9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. 23-28 Kildare Street is a distance from the zone of influence of the tunnel and hence no impacts due to ground movement will occur and hence this building is not subject to a building damage assessment.
3	4.3 Current Use/Use	13	The building is in use as Ministerial and government offices. Uninterrupted access to the building is necessary at all times for the conduct of government business and for access by emergency services (e.g., fire services and ambulance). The OPW and/the State, and their authorised agents, require access to the building at all times for the purpose of facilities management, maintenance, repairs and any major conservation, repair or development programme planned, or as may arise during the construction period of MetroLink.	No adverse impacts due to construction or operation of MetroLink have been identified for 23-28 Kildare Street. Please refer to the EIAR Appendices A9.5, A9.2, or A9.2-M. Access to the building will not be affected.
4	4.4 Planning Context	13	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission and the Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project regarding existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application. The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including <i>Element Power v An Bord Pleanála</i> [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
5	4.5 Potential Development of the Property	13	This building is a protected structure, and the property is located in a sensitive heritage location. The OPW reserves its right to develop the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop the property, in advance, in tandem or post operation of the MetroLink Project.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building.

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Organisation Name or Name of Submitter			Office of Public Works (OPW)	
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OPW Cover Letter - Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) - Department of Enterprise, Trade and others				
6	5.0 MATERIAL CONSIDERATIONS	14	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient and conflicting information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended). The conflicting information has resulted in a difficulty in assessing the impacts on the property due to vibration and noise caused by both the construction and operational phases of the MetroLink on this section of the alignment. This affects several buildings under the management of the OPW particularly at the Kildare Street, Merrion Square and St Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
7	6.0 LEGAL CONSIDERATIONS	14	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the draft Railway Order conditional on such legal agreements being in place between TH and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
8	7.1.1 Route Alignment	14	The tunnel alignment does not pass directly beneath Nos. 23-28 Kildare Street. However, there is inconsistency in the alignment between Tara Station and St. Stephen's Green. The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-05025 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments.	Please refer to response number (6) above.
9	7.1.1 Route Alignment	15	Many of the reports refer to chainages along the alignment, however there are no plans that indicate these chainages, and this makes reviewing the Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.
10	7.1.2 Tunnelling	16	The MetroLink 8.5m ID tunnel will be excavated by Tunnel Boring Machine (TBM). The ground conditions along the route are variable and therefore the machine could be either earth pressure balance (EPB) or Slurry (STB). A modern Variable Density TBM would also be suitable and is currently being used in the UK for similar ground conditions. All these machines can control the ground movement with appropriate tunnel management. The 980m drive between Tara Station and St. Stephen's Green (C8) will be entirely within the Argillaceous Limestone.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building.
11	7.3 Contractual Arrangement	16	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII accepts this as accurate, but many of the matters referred to, in particular the contractual arrangements with the contractors, are outside the scope of the railway order process.
12	8.0 POTENTIAL IMPACTS ON THE PROPERTY	16	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission; having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response numbers (13) to (28) below.
13	8.1 Monitoring	17	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building - no monitoring is required.

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OPW Cover Letter - Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) - Department of Enterprise, Trade and others				
14	8.2 Security Issues	17	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that <i>"Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."</i>
15	8.2 Security Issues	17	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.
16	8.2 Security Issues	17	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to ail persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.
17	8.2 Security Issues	17	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.
18	8.2 Security Issues	17	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction stages to ensure suitable provisions are in place.
19	8.3.1 Ground Movement	18	Stage 2: Three sections were considered in the assessment. The assessment concludes that the risk of damage to 23/28 Kildare Street is Category 0, Negligible. However, as a "Special building" it shall progress to stage/Phase 3 assessment on the basis of the building's foundation being deeper than 4m.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building. No assessment is required as no ground movement is assessed and hence no damage is predicted.
20	8.3.1 Ground Movement	18	Stage 3: The EIAR states that a Stage 3 assessment will be carried out for 23/28 Kildare Street by the Contractor appointed to construct this section of the MetroLink. The OPW expects to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the draft Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building. No assessment is required as no ground movement is assessed and hence no damage is predicted.
21	8.3.1 Ground Movement	19	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholders' infrastructure is carried out. Also, the preconstruction defect surveys are carried out prior to any excavation. The OPW requires to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the preconstruction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The OPW requests that only Engineers or Surveyors with proven competence regarding (historic) buildings of this fabric type, period and nature are selected. The contractor(s) will coordinate preconstruction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building. No monitoring nor mitigation measures are required specific to this building.
22	8.3.1 Ground Movement	19	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of its property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building.

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23	8.4.3 Noise and Vibration	19	(a) Tunnelling EIAR Chapter 14 Ground Borne Noise and Vibration Measures identifies impacts on the 23/28 Kildare Street Complex during TBM excavation: ■ Ground borne noise 49 dBA LAm ax- Significant impact ■ Ground borne vibration 0.253 VDVB.ms*1 -75- no significant impact EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requests specific vibration limits to be applied to Nos. 23-28 Kildare Street and to ensure that a monitoring regime is implemented. EIAR Table 6.2 - ANV16. Sets out requirement for Pre and post construction surveys of structures vulnerable to vibration induced damage. The OPW requires pre- and post-construction surveys of structures vulnerable to vibration induced damage to be carried out and this should include 23/28 Kildare Street.	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project. Given the distance from the MetroLink alignment, detailed calculation results for this building have not been included within the EIAR. Contours of groundborne noise during TBM passage are shown in Figure 14.2 (Groundborne Noise from Tunnel Boring Machine) with sheet 6 of 7 relevant to the 23/28 Kildare Street Complex. The location of this building is just outside of the 40 dB LAm _{ax,s} contour, which is below the 45dB LAm _{ax,s} threshold for potential significant impacts during TBM passage. Vibration during TBM passage has not been calculated for this building, but no significant impacts for vibration during TBM passage have been predicted for any building, including those directly above TBM passage. Appendix A5.1 of the EIAR provides the outline Construction Environmental Management Plan (CEMP), including Table 6.6 which outlines Noise and Vibration Measures for the mitigation of construction noise and vibration. Measure ANV16 sets out that property condition surveys will be undertaken at protected or identified vulnerable structures that are within 50m of the proposed surface working compounds, and at other locations depending on their vulnerability to vibration. Given the distance of this building from the MetroLink alignment condition surveys are unlikely to be required.
24	8.3.4 Work Sites	20	b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel. However, there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building.
25	8.3.4 Work Sites	20	(c) Working Hours 23/28 Kildare Street is located between Tara Street and St. Stephen's Green Stations. The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity.	Kildare Street is not on designated HGV routes for either Tara Street or St Stephens Green stations - See Sections 7.8 and 7.9 of Appendix A9.5 of the EIAR.
26	8.4.1 Noise and Vibration	21	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBL _{am_s} and VCD respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St. Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums, and the National Concert Hall.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building. The locations of where floating track slab are to be installed are included in EIAR Chapter 14 and specifically in table 14.47. Floating slab track is planned between chainages 17+980 to 18+100 to mitigate impacts to the National Museums and National Gallery and between 18+780 and 19+940 for the National Concert Hall.
27	8.4.3 Evacuation Strategy	21	The are no planned intervention/evacuation shafts between Tara Station and St. Stephen's Green, however it is understood that the Fire Brigade have not accepted the strategy proposed by TII This may have an impact on 23/28 Kildare Street should any intermediate shafts be required.	There is no requirement for additional shafts.
28	8.5 Future Development	21	The OPW reserves the right to development of the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building. MetroLink does not impact on future development of this building.
29	9.0 CONCLUSION	22	With regards to the Gall Zeidler assessment, the risk of damage to 23/28 Kildare Street from ground movement is negligible. Pre-construction, post-construction surveys, monitoring should be requested. During the passage of the Tunnel Boring Machine (TBM) the noise is estimated to exceed the acceptable threshold (45 dBL _{Am_s})and this may last for 2 weeks. The vibration from the passage of the TBM is predicted to be less than the threshold (1.6 VDVB.ms*1 75).	Please refer to response number (23) above.
30	9.0 CONCLUSION	22	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the accessibility of the buildings within Nos. 23-28 Kildare Street and their day-to-day uses and functions.	There will be no impact on access to this building or day to day usage.

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31	9.0 CONCLUSION	22	2) To ensure no damage to the buildings and their architectural detailing, pre-construction and post-construction surveys, trials and monitoring is required. This should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building. Refer to Item 19.
32	9.0 CONCLUSION	22	3) To set up an access control regime in agreement with the OPW and relevant stakeholders when applying a continuous monitoring mechanism pre- and post-construction.	Any access to OPW property will be discussed with OPW. No access is required to this building and no monitoring is required.
33	9.0 CONCLUSION	22	4) To ensure no ventilation and/or evacuation shaft in the vicinity of the area is permitted due to vitality and sensitivity of the Complex's uses and functions.	No additional shafts are required.
34	9.0 CONCLUSION	22	5) To reserve the right for the OPW that the development of the MetroLink does not interfere with extant permissions pertaining to the property and its future development, including above property and below its ground levels.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building as it is outside of any protection zones.
35	9.0 CONCLUSION	22	6) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
36	9.0 CONCLUSION	22	7) To mitigate the noise and vibration to the acceptable levels by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building. See response 26.
37	9.0 CONCLUSION	22	8) Regarding the tunnel boring machine noise over a 2-week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the OPW, to avoid any disruption to the functions of the building.	Further to response number (23) above, TII will provide advance notice of passage of the TBM.
38	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	23	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (4) above
39	Appendix 2: Ground movement Assessment	28	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland.	Refer to OPW Cover Letter response

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OPW Cover Letter - Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) - Department of Finance.				
1	DOWNEY Report Executive Summary	N/A	With respect to this property, the OPW is seeking: 1) To ensure no disruption to occupants or the public accessing the building to carry out the duties of Government. 2) To ensure no damage to the buildings and their architectural detailing, pre-construction and post-construction surveys, trials and monitoring is required. This should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. 3) To set up an access control regime in agreement with the OPW and relevant stakeholders when applying a continuous monitoring mechanism pre- and post-construction." 4) To ensure no ventilation and/or evacuation shaft in the vicinity of the area is permitted due to vitality and sensitivity of the Government Buildings uses and functions. 5) To reserve the right for the OPW that the development of the MetroLink does not interfere with the future development of the building, including above property and below its ground levels. Nor interfere with major maintenance, conservation, refurbishment, or construction works which may arise in the future. 6) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project. 7) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station. 8) Regarding the tunnel boring machine noise over a 2-weeks period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be pushed during recess of the Dail in order to avoid any disruption to the functions of the Department of Finance.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (33) below.
2	Downey Report- 3.0 Overview of the Draft Railway Order	Page 8, 9	While extensive pre-planning consultations also took place between Til and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. This property is outside the zone of influence and hence no impacts from ground movement are predicted.
3	4.2 Building sensitivities	13	The Billets is a proto-modern building: a composite of iron/steel structure and masonry with facing stone. Many of its materials and building systems may be brittle or inflexible.	TII welcome this information in relation to this building. The building is not predicted to be subject to movement.
4	4.5 Potential Development of the Property	13, 14	The Department of Finance includes the Billets, originally part of an important building complex (Royal College of Science/Government Buildings) is a Protected Structure, and all of the property is located in a sensitive heritage location. The OPW reserves its right to develop the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop the property, in advance, in tandem or post operation of the MetroLink Project.	While acknowledging this comment, given the distance from the MetroLink alignment, it will not apply to this particular building. There is no impact on future development of this site.
5	5.0 MATERIAL CONSIDERATIONS	14	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-E1A-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly within the Kildare Street, Merrion Square and St. Stephen's Green areas.	This is not relevant for this building due to its distance from the tunnel alignment. On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.

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6	6.0 LEGAL CONSIDERATIONS	14	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
7	7.1.1 Route Alignment	14, 15	The tunnel alignment does not pass directly beneath the Department of Finance building. However, there is inconsistency in the alignment between Tara Station and St. Stephen's Green. The alignment drawing ML1-JA1-EIA-ROUT_XX-DR-Y-04026 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Draft Railway Order and EIAR difficult.	Refer to Item 5 above.
8	7.1.2 Tunnelling	16	The MetroLink 8.5m ID tunnel will be excavated by Tunnel Boring Machine (TBM). The ground conditions along the route are variable and therefore the machine could be either earth pressure balance (EPB) or Slurry (STB). A modern Variable Density TBM would also be suitable and is currently being used in the UK for similar ground conditions. All these machines can control the ground movement with appropriate tunnel management. The 980m drive between Tara Station and St. Stephen's Green (C8) will be entirely within the Argillaceous Limestone.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building. The TBM selection points are noted and reflect MetroLink proposals.
9	7.3 Contractual Arrangement	16	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. TII accepts this as accurate, but many of the matters referred to, in particular the contractual arrangements with the contractors, are outside the scope of the railway order process.
10	8.0 POTENTIAL IMPACTS ON THE PROPERTY	16	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response numbers (11) through to (23) below.
11	8.1 Monitoring	17	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is expected that this monitoring takes place at least 3 months in advance of the construction of the Project and throughout the operational stage of the MetroLink.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building. Monitoring of this property is not needed but other OPW properties in closer proximity to the tunnel will be monitored. These proposals will be discussed with the OPW.
12	8.2 Security Issues	17	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181 A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order.

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13	8.2 Security Issues	17	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.
14	8.2 Security Issues	17	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities.
15	8.2 Security Issues	17	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.
16	8.3.1 Ground Movement	18	Stage 2: Three sections were considered in the assessment. The assessment concludes that the risk of damage to the Department of Finance building is Category 0, Negligible. The Building Damage Assessment Report recommends that the building not progress to phase 3 of assessment. However, the building is also listed to have foundations at a depth beyond 4m which constitutes further examination or at the least clarification on this building specifically.	This building is outside the zone of influence and hence no ground movement is predicted. Therefore the building will not be subject to damage and hence no building damage assessments are required and hence why no assessment is required irrespective of foundation depth. It is therefore excluded from EIAR Appendix A5.17.
17	8.3.1 Ground Movement	18,19	Stage 3: The EIAR states that a Stage 3 assessment will be carried out for the Department of Finance building by the Contractor appointed to construct this section of the MetroLink. The OPW expects to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that ail Stage 3 analyses of the OPW properties are carried out to an equal standard. No mention of Stage 4 or 5 has been found in the Draft Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	Refer to Item 16 above. The further stages referred to are applicable to MetroLink and to a number of OPW properties but as this property is outside of the zone of influence of the tunnelling they do not apply in this case.
18	8.3.1 Ground Movement	19	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholders' infrastructure is carried out. Also, the preconstruction defect surveys are carried out prior to any excavation. The OPW requires a review of the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the pre-construction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate preconstruction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	Refer to Item 17 above.
19	8.3.1 Ground Movement	19	Stage 5 (Close Out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of its property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	Refer to Item 17 above.
20	8.3.4 Work Sites	20	(b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel. However, there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	A groundwater monitoring scheme will be undertaken across MetroLink as referenced in the EIAR. This is not specific to this building.
21	8.4.1 Noise and Vibration	20	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBLamax, s and VC-D respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums, and the National Concert Hall. The vibration during railway operations will not impact the building fabric or structure.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building. The locations of where floating track slab are to be installed are included in EIAR Chapter 14 and specifically in table 14.47. Floating slab track is planned between chainages 17+980 to 18+100 to mitigate impacts to the National Museums and National Gallery and between 18+780 and 19+940 for the National Concert Hall. For all locations please refer to the table.

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22	8.4.3 Evacuation Strategy	21	There are no planned intervention/evacuation shafts between Tara Station and St. Stephen's Green. However, it is understood that the Fire Brigade have not accepted the strategy proposed by TH. This may have an impact on the Department of Finance should any intermediate shafts be required, particularly in relation to security impacts. It is requested that a condition would be attached to any Draft Railway Order granted, requiring prior consultation and agreement by the OPW regarding any shafts or infrastructure in the vicinity of this, or any of the other named State properties.	No additional shafts are required. Discussions with the Fire Brigade are ongoing but would not lead to a need for a new shaft.
23	8.5 Future Development	21	The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop this, in advance, in tandem or post operation of the MetroLink Project.	Please refer to Item 4.
24	CONCLUSION	21	With respect to this property, the OPW is seeking: 1) To ensure no disruption to occupants or the public accessing the building to carry out the duties of Government.	Access to the buildings will not be restricted by MetroLink. No Temporary Traffic Management (TTM) measures for the construction phase are planned for Merrion Row or Merrion St Upper which will affect the Department of Finance, see Section 7.10 of Appendix A9.5 of the EIAR; and no operational phase impacts are expected to have adverse impact on these streets, see Appendix A9.2-M of the EIAR.
25	CONCLUSION	22	With respect to this property, the OPW is seeking: 2) To ensure no damage to the buildings and their architectural detailing, pre-construction and post-construction surveys, trials and monitoring is required. This should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building. Please refer to Item 16.
26	CONCLUSION	22	With respects to this property, the OPW is seeking: 3) To set up an access control regime in agreement with the OPW and relevant stakeholders when applying a continuous monitoring mechanism pre- and post-construction.	Please refer to response number (11) above. No access is required.
27	CONCLUSION	22	4) To ensure no ventilation and/or evacuation shaft in the vicinity of the area is permitted due to vitality and sensitivity of the Government Buildings uses and functions.	Refer to Response 22.
28	CONCLUSION	22	5) To reserve the right for the OPW that the development of the MetroLink does not interfere with the future development of the building, including above property and below its ground levels. Nor interfere with major maintenance, conservation, refurbishment, or construction works which may arise in the future.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building. Refer to response 4.
29	CONCLUSION	22	With respect to this property, the OPW is seeking: 6) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
30	CONCLUSION	22	7) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station.	While acknowledging this comment, given the distance from the MetroLink alignment it will not apply to this particular building. Refer to Response Item 21.
31	CONCLUSION	22	8) Regarding the tunnel boring machine noise over a 2-weeks period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be pushed during recess of the Dail in order to avoid any disruption to the functions of the Department of Finance.	TII will consult and liaise with OPW and the Department of the Taoiseach to ensure the timing of these impacts are known and can be agreed. It is not considered feasible nor necessary to limit TBM passage to recess periods.

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32	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	23	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TH have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
33	Appendix 2: Ground movement Assessment	27	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover Letter response

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1	Executive Summary	N/A	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the access of the building by staff and visitors in order to carry out the duties of Government and Civil Service within the Department of Justice. 2) To ensure that the historic fabric of the buildings is considered in detail in Phase 3 design phase in order to provide maximum protections to the property from damage during construction and operation phases. 3) Pre-construction and post-construction surveys, trials, and monitoring to ensure no damage to the buildings and their architectural detailing. This mainly relates to noise, vibration, and dust which may damage this building of historical significance and disturb day-to-day functioning of the work of the Department. 4) To set up an access control regime in agreement with the OPW and relevant stakeholders when applying a continuous monitoring mechanism pre- and post-construction. 5) To ensure no ventilation and/or evacuation shaft in the vicinity of the area is permitted due to the sensitivity of the Department of Justice uses and functions. 6) To reserve the right for the OPW that the development of the Metro Link does not interfere with extant permissions pertaining to No. 50-51 St. Stephen's Green and its future development, including above property and below its ground levels. Nor interfere with major maintenance, conservation, refurbishment, or construction works which are currently anticipated or may arise in the future. 7) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project. 8) To ensure that an appropriate traffic management plan is in place for the duration of the construction phases which ensures business continuity at the Dept.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (37) below.	
2	3.0 Overview of the Draft Railway Order	9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. Further details on assessments undertaken and next steps proposed for this building are detailed in response number (3) below.	
3	4.2 Historical Context /Conservation Status	13	Building Sensitivities These two building incorporate Georgian high status domestic construction, Victorian intervention and modern building elements. As Georgian buildings they have the usual sensitivities of brick facing, suspended timber floors with lathe and plaster ceiling with stucco, historic glass, internal downpipes, slate and lead roof coverings. Mid-nineteenth century interventions and new construction will likely have introduced cast iron and other (then) innovative materials. Cast-iron is brittle and railing enclosing the area may be very vulnerable to movement. The c.2000 atrium glazing and any other rooflights will also be vulnerable to movement.	TII welcome this information in relation to this building and would like to assure OPW that these details will be considered regarding potential sensitivity to settlement. The building has been assessed with impacts from ground movement to stage 2a as per the methodology described in EIAR Appendix 5.17 and the nature of the building has been taken into account. The initial assessment shows negligible impacts, but as TII have designated this a "Special" building, further detailed assessment will be undertaken to provide assurance.	
4	4.4 Planning Context	13	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission and the Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project regarding existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.	

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5	4.5 Potential Development of the Property	14	This building itself is a protected structure in a sensitive location. It is unlikely that permission will ever be sought in the future to extend upwards. The OPW reserves the right to develop the subject property in the future. This includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.	
6	5.0 MATERIAL CONSIDERATIONS	14	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient and conflicting information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended). The conflicting information has resulted in a difficulty in assessing the impacts on the property due to vibration and noise caused by both the construction and operational phases of the MetroLink on this section of the alignment. This affects several buildings under the management of the OPW particularly at the Kildare Street, Merrion Square and St Stephen's Green areas.	This is not relevant for this building. On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.	
7	6.0 LEGAL CONSIDERATIONS	14	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose	
8	7.1.1 Route Alignment	15	Many of the reports refer to chainages along the alignment, however there are no plans that indicate these chainages, and this makes reviewing the Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.	
9	7.3 Contractual Arrangement	16	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII accepts this as accurate, but many of the matters referred to, in particular the contractual arrangements with the contractors, are outside the scope of the railway order process.	

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10	8.0 POTENTIAL IMPACTS ON THE PROPERTY	16	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission; having regard to the status and current use of the property and identified constraints, the following raises issues regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to responses numbers (11) through to (26) below.	
11	8.1 Monitoring	16	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	It will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help ensure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and discuss the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.	
12	8.2 Security Issues	17	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. (iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order.	
13	8.2 Security Issues	17	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. It and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.	
14	8.2 Security Issues	17	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	It will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.	
15	8.2 Security Issues	17	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.	
16	8.2 Security Issues	17	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.	

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17	8.3 During Construction of the MetroLink	17	These buildings provide offices for the Department of Justice. They provide functional spaces and office accommodation and as such the impact of any proposed works in terms of noise, vibration etc, which effects the quality of the working environment, would need to be carefully considered.	TII can confirm that the impact assessment in the EIAR in terms of noise and vibration was undertaken considering the type of building being assessed, and utilising different thresholds for each category (e.g. Commercial, residential, special buildings such as schools, hospitals, theatres or heritage buildings). As part of the noise & vibration assessment, it was deemed that the only construction works that would have an impact at this location was groundborne noise from TBM passage. This was deemed to be noticeable to all and disturbing to some over a number of days. Mitigation here would involve advanced notice and engagement prior to these works. See also response number (22) below.	
18	8.3.1 Ground Movement	18	Stage 2: Three sections were considered in the assessment. The assessment identifies a build between The Department of Justice and Equality and the Loreto College and identifies this building only as "OPW". We infer that this is the building at No. 50-51 St. Stephens Green. The assessment concludes that the risk of damage to No. 50-51 St. Stephens Green is Category 0, Negligible. However, as a "Special building" it shall progress to stage/Phase 3 assessment.	This observation is noted.	
19	8.3.1 Ground Movement	18	Stage 3: The EIAR states that a Stage 3 assessment will be carried out by the Contractor appointed to construct this section of the MetroLink. The OPW are expecting to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of The OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	A design standard will be prepared that reflects the methodology described in EIAR Appendix 5.17. The development of monitoring, mitigation and contingency plans and the subsequent close out of the impacts of settlement will form part of the scope of the Project for the detail design and construct phases. TII will develop the process to be adhered to by the contractor and this will be included in the contract documentation prepared for that contract. TII notes the description of stages 4 and 5 as included as Appendix D and confirm that the MetroLink Specification will reflect similar requirements to achieve the desired outcomes.	
20	8.3.1 Ground Movement	19	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholders' infrastructure is carried out. Also, the preconstruction defect surveys are carried out prior to any excavation. The OPW will require to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the preconstruction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate preconstruction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	All surveys, monitoring and mitigation proposed for OPW property will be discussed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.	
21	8.3.1 Ground Movement	19	Stage 5 (Close out) - Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW will expect to be provided with close out reports for the monitoring of their property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.	
22	8.4.3 Noise and Vibration	19	(a) Tunnelling EIAR Chapter 14 Ground Borne Noise and Vibration Measures identifies identify impacts on No. 50-51 St. Stephen's Green during TBM excavation: • Ground borne noise 50 dBA L_{Amax} - Significant impact. • Ground borne vibration 0.275 VDV_{db,ms}-1.75- no significant impact. EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW will request specific vibration limits to be applied to No. 50-51 St. Stephen's Green and ensure that a monitoring regime is implemented. EIAR Table 6.2- ANV16. Sets out requirement for Pre and post construction surveys of structures vulnerable to vibration induced damage. The OPW requires that pre and post construction surveys of structures vulnerable to vibration induced damage are carried out and this should include No. 50-51 St. Stephen's Green.	The assessment has identified that there will be no potential for structural damage due to vibration as levels of vibration are predicted to be below the construction threshold of 1.6 ms-1.75 VDV (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results). Further to response number (17) above. Regarding groundborne noise, unfortunately, there are no effective methods available to reduce groundborne noise from TBMs at source, but noting that the duration of this impact will be of the order of two weeks. TII will consult and liaise with OPW to ensure the timing of these impacts are known. The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy). All surveys, monitoring and mitigation proposed for OPW property will be discussed and agreed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.	

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23	8.3.4 Work Sites	20	b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel, however there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	Ground water monitoring at stations will be undertaken by the contractor. The design of it and any contingencies will be developed at detailed design.
24	8.3.4 Work Sites	20	(c) Working Hours No. 50-51 St. Stephen's Green is located between Tara Street and St. Stephen's Green Stations. The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity.	At this location, construction vehicles are proposed to enter the site south of the property and exit the site north of the property - minimising the impact of these vehicles as they will be behind the site hoarding line at this location, see Figure 7-53 of Appendix A9.5. Please also refer to the outline CEMP (EIAR appendix A5.1) for further mitigations proposed.
25	8.4.1 Noise and Vibration	21	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBLamax,s and VC-D respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St. Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums, and the National Concert Hall.	Information on the locations assessed as requiring floating track slab is listed in Table 14.47. Floating slab track has been proposed between Ch 17+980 - 18+100 and Ch. 18+760 - 18+940. Floating slab track is proposed as a mitigation measure in locations where buildings that are sensitive to groundborne noise have the potential for significant effects during the operation of the proposed Project. 51 St Stephens Green was assessed for predicted groundborne noise during operation (table 14.44 of the EIAR) and it was deemed that groundborne noise at this location fell below the sensitive receptor threshold level so the impacts at this location are not significant. Therefore floating slab track is not proposed at this location.
26	8.4.3 Evacuation Strategy	21	The are no planned intervention/evacuation shafts between Tara Station and St. Stephen's Green, however it is understood that the Fire Brigade have not accepted the strategy proposed by TII.	No additional shafts are required. Discussions with the Fire Brigade are ongoing but would not lead to a need for a new shaft.
27	9.0 CONCLUSION	21	With regards to the Gall Zeidler assessment, the most significant impact of the MetroLink project on No. 50-51 St. Stephen's Green will be from the construction of St. Stephens Green Station including associated utility and traffic diversions, dust, and noise. The OPW will seek assurances from TII that disruption from construction will be kept to a minimum and for the shortest time possible.	Following the impact assessment in the EIAR, mitigation measures were proposed in order to minimize the impact of Metrolink construction and operation on receptors in the area for impacts such as dust, noise & traffic management plans of which detailed mitigation measures can be found in the Outline Construction Environmental Management Plan (CEMP), appendix A5.1 and Chapter 31 of the EIAR. Attenuation and mitigation of disruption from construction is a priority for the proposed Project and TII are happy to engage further with OPW.
28	9.0 CONCLUSION	21	Reading this within the context of the building and its requirements, the main considerations for No. 50-51 St. Stephen's Green are as follow: 1) To ensure no disruption to the access of the building by staff and visitors in order to carry out the duties of Government and Civil Service within the Department of Justice.	Noted - Minimal impact on Pedestrians on eastern footpath is expected. While intermittent lane closures on SSG East are anticipated, pedestrian access will be maintained at all times. See Appendix A.9.5 Section 7.10
29	9.0 CONCLUSION	21	2) To ensure that the historic fabric of the buildings is considered in detail in Phase 3 design phase in order to provide maximum protections to the property from damage during construction and operation phases.	Please refer to response number (2) above.
30	9.0 CONCLUSION	21	3) Pre-construction and post-construction surveys, trials, and monitoring to ensure no damage to the buildings and their architectural detailing. This mainly relates to noise, vibration, and dust which may damage this building of historical significance and disturb day-to-day functioning of the work of the Department	TII are happy to engage with OPW in order to reach agreement on an appropriate monitoring programme for the above mentioned buildings. The monitoring is to be developed at detailed design stage.
31	9.0 CONCLUSION	21	4) To set up an access control regime in agreement with the OPW and relevant stakeholders when applying a continuous monitoring mechanism pre- and post-construction.	All access required to OPW property will be agreed with OPW.
32	9.0 CONCLUSION	21	5) To ensure no ventilation and/or evacuation shaft in the vicinity of the area is permitted due to the sensitivity of the Department of Justice uses and functions.	No additional shafts are required. Refer to Item26.
33	9.0 CONCLUSION	21	6) To reserve the right for the OPW that the development of the MetroLink does not interfere with extant permissions pertaining to No. 50-51 St. Stephen's Green and its future development, including above property and below its ground levels. Nor interfere with major maintenance, conservation, refurbishment, or construction works which are currently anticipated or may arise in the future.	Please refer to response number (5) above.
34	9.0 CONCLUSION	21	7) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
35	9.0 CONCLUSION	21	8) To ensure that an appropriate traffic management plan is in place for the duration of the construction phases which ensures business continuity at the Dept.	Agreed. A Traffic Management Plan is a key document of the Construction Environmental Management Plan (refer to Appendix A5.1 of the EIAR) for review and approval by Dublin City Council in advance of Construction Commencement.

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36	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	23	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (4) above.
37	Appendix 2: Ground movement Assessment	28	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland.	Refer to OPW Cover Letter response

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1	Executive Summary	N/A	With respect to this property, the OPW is seeking: j) That ABP note the historic significance of this property and its importance for use in conjunction with Government business, visiting world leaders and National Commemorations. Accordingly, full access to this property, unhindered, is required. k) To ensure no disruption to the public access of the Garden and its day-to-day uses and functions. l) To ensure inclusion of the Garden within Stage 3 detailed design process, in particular regarding ground movement and ground borne noise and vibration and their potential impacts on the Garden pre- and post-construction. m) To ensure no adverse impact of the traffic diversions on the accessibility of the Garden and visitors' attendance during construction of the Mater and O'Connell Street stations. n) To ensure no interference of the MetroLink development with the Garden and its potential future development.	II thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these uildings are addressed in responses (2) through to (35) below.
2	3.0 Overview of the Draft Railway Order	8	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties ffected has not yet taken place. The draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	II have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO ocumentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be object to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the uildings as the Phase 2 assessment is a moderately conservative assessment whose results are generally more significant than the esults of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in elation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be iscussed with OPW. II are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground rojects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High peed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. or this particular property, the assessment outlined in the EIAR predicts that the 1mm settlement contour is outside the gates to the arden of Remembrance and hence this property is not impacted by settlement. See appendix A5.17 Building Damage report and page 22 of 158 of that report. As there is no impacts no further assessment is required.
3	4.3 Current Use/Uses	13	he Garden of Remembrance is a city garden and amenity space open to the public, occupying roughly a fifth of Parnell Square at its orthern end, with various points of entry. he Garden of Remembrance also plays a central role in State visits. All visiting Heads of State attend a ceremony at the gardens on their rrival to the country. This happens immediately after they are greeted by the Irish President at Áras an Uachtaráin. Queen Elizabeth II aid a wreath in the Garden of Remembrance during her State visit in May 2011, a gesture that was much praised in the Irish media, and which was also attended, upon invitation, by the widow and the daughter of the Garden's designer, Daithí Hanly. ensitivities: The tanking (waterproofing) and mosaic of the pond. The very high value bronze sculpture is at a remove from the roposed tunnel.	II welcome this information in relation to this site. TII will continue to liaise with the OPW to ensure there is no disruption to these vents. Please note the ponds and statues are outside the zone of influence of the tunnelling and are therefore unaffected.
4	4.4 Planning Context	14	n relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy nd legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission. The Board are invited to refer to this or further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to xisting planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. OWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft evelopment Plans in assessing the Project, it is also crucial to note that on foot of a granted Order and during the detailed design stage, evision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may equire an amendment to the Draft Railway Order and further assessment, including public consultation.	he only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at he date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord leanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As lanning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any ral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord leanála.

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5	4.5 Potential Development of the Property	14	The Garden of Remembrance is a socio-cultural place with historical and artistic significance at national level. It is also a protected structure, and therefore, no side development is expected. However, there is always the possibility that sub-terranean development could take place.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future
6	5.0 MATERIAL CONSIDERATIONS	14	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient and conflicting information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended). The conflicting information has resulted in a difficulty in assessing the impacts on the property due to vibration and noise caused by both the construction and operational phases of the MetroLink on this section of the alignment. This affects several buildings under the management of the OPW particularly at the Kildare Street, Merrion Square and St Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
7	6.0 LEGAL CONSIDERATIONS	14	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
8	7.1.1 Route Alignment	16	Adjacent to the Garden of Remembrance the proposed MetroLink will be excavated through argillaceous Limestone rock (CLU) underlying Weathered Rock (Q.TR) underlying Brown Boulder Clay (Q.BR), containing extensive fluvio-glacial sands and gravels. Cover to the tunnel crown is approximately 23m comprising Brown Boulder Clay. The invert will be excavated through both weathered and unweathered limestone. This will present a significant challenge to ground movement mitigation using tunnel management.	OPW's observation with regard to the alignment and geology is noted and is the reason for the selection of the proposed TBM and the mixed face conditions identified have been used to conservatively predict the impacts on overlying buildings and infrastructure. TII will develop both TBM operational Specifications and Ground Movement and Monitoring Specifications to ensure that residual risks are appropriately managed. These will be bound into the subsequent contracts. Chainage drawings can be found in the Alignment Drawings pack.
9	7.3 Contractual Arrangement	17	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.

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10	8.0 POTENTIAL IMPACTS ON THE PROPERTY	17	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission; having regard to the status and current use of the property and identified constraints, the following raises issues regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response numbers (11) through to (27) below.	
11	8.1 Monitoring	17	Given the sensitivity of the fabric and uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all State properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and throughout the operational stage of the MetroLink.	TII are happy to engage with OPW in order to reach agreement on an appropriate monitoring programme for any of the OPW buildings impacted by Metrolink works - this property is not a building. Area monitoring will be detailed at detailed design stage and any property specific detail needed will be discussed with the OPW.	
12	8.2 Security Issues	17	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."	
13	8.2 Security Issues	18	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.	
14	8.2 Security Issues	18	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to ail persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.	
15	8.2 Security Issues	18	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.	
16	8.2 Security Issues	18	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.	
17	8.3.1 Ground Movement	18	Stage 1: Defines extent of ground movement using Moderately Conservative parameters. The parameters considered by MetroLink are: ■ Volume Loss, Vs = 1.5 ■ Trough Width parameter, k = 0.3 The Volume Loss is considered moderately conservative however the trough parameter is very narrow and 0.4 could be considered more conservative. The extent of the zone of influence is defined by the 1mm contour line (Dark Red) and the Garden of Remembrance lies just outside the zone of influence. A wider trough will move the 1mm contour into the Garden. The ground movement impact on the Garden of Remembrance is not specified in the report and the OPW requests that this has its own assessment.	The Garden of Remembrance is outside the 1mm contour and hence unaffected by settlement. Further assessments are not required.	

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18	8.3.1 Ground Movement	19	Stage 2 (Initial Assessment): The ground movement impact on the Garden of Remembrance is not specified in the report and the OPW should ensure that this building has its own assessment.	Please refer to response number (17) above.
19	8.3.1 Ground Movement	19	Stage 3 (Detailed Assessment): Because this garden is a site of National significance (NIAH), a Stage 3 Assessment is required for this Garden of Remembrance	Please refer to response number (17) above.
20	8.3.1 Ground Movement	19	Stage 4 (Construction Stage): Mitigation may be required for this structure and therefore, the OPW expects to be consulted. The OPW expects that pre-construction defect surveys and monitoring are carried out for this structure.	Please refer to response number (17) above.
21	8.3.1 Ground Movement	19	Stage 5 (Close Out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of its property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.
22	8.4.3 Noise and Vibration	19	(a) Tunnelling During the passage of the Tunnel Boring Machine (TBM) the noise is predicted to be 48 dBLAmax,s exceeds the acceptable threshold (45 dBLAmax, s)and this may last for 2 weeks. The vibration from the passage of the TBM is predicted to be 0.247 VDvdb,ms'175 less than the threshold (1.6VDVdb.ms 1 7S). EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requests that a specific study is carried for this Garden of Remembrance to determine whether ground borne noise and vibration will have any impact. Where any impact is identified then threshold limits will need be applied and monitored. Where the building is considered vulnerable to vibration induced damage EIAR Table 6.2- ANV16. sets out requirement for pre- and post-construction surveys of these structures..	Information on the locations assessed as requiring floating track slab is listed in Table 14.47. Floating slab track has been proposed between Ch 17+980 - 18+100 and Ch. 18+760 - 18+940. Floating slab track is proposed as a mitigation measure in locations where buildings that are sensitive to groundborne noise have the potential for significant effects during the operation of the proposed Project. The Garden of Remembrance was not considered in this as it is not a building that falls within this category.
23	8.3.4 Work Sites	20	b) Ground Water Control There is the potential for ground water lowering for the construction of Mater Station to impact Garden of Remembrance. The OPW requests that TII provides an assessment and limits that will be applied to dewatering for the Construction of Mater Station.	As outlined in EIAR Chapter 19 (Hydrogeology), groundwater assessment and monitoring were and will continue to be undertaken for the proposed Project: • AWN undertook an extensive desktop review in order to establish baseline conditions along the proposed alignment corridor. The baseline study included reference to historical ground investigation data including the 2007 IGSL investigation borehole dataset (IGSL 2008) and data from Norwest Holst (2008) as well as information from contemporary (2019-2021) ground investigations specific to the proposed Project (Table 19.2); • A number of field surveys and walkover assessments were carried out to add to existing assessment of long-term trend analysis for water quality undertaken by the EPA (Section 19.3.3.4); and • A number of intrusive ground investigations were commissioned for the proposed Project including ground water level monitoring (Section 19.3.3.5). A programme of continuous groundwater level monitoring, aquifer testing and groundwater quality monitoring was devised with focus on key well locations along the alignment including at deep station excavations. The key hydrogeological data available and interpreted for the Mater Station is presented in Table 19.35. The dewatering process during the construction of the Mater Station will be in the order of 15.74 l/sec as a maximum value. Mater Station perimeter will be sealed (D-walls) within the QBR subsoils and CLU (Lucan Formation). Dewatering at the Mater Station during works will be temporary only with the anticipated radius effect of dewatering reducing as the station construction progresses towards full perimeter and base seal (i.e. full watertight conditions) including toe grouting assumed to 1.5m below base of D-wall. There is no impact predicted on the Garden of Remembrance due to the embedded mitigations noted above.
24	8.3.4 Work Sites	20	(c) Working Hours The Garden of Remembrance is located between Mater and O'Connell Street stations. The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity.	TII will monitor road movements through out construction. Traffic Management planning within the EIAR proposes that construction vehicles from either of the closest sites Mater or O'Connell Street stations will not pass the Garden of Remembrance. Further information is provided in Appendix A9.5, see figures 7-37, 7-38, 7-28 and 7-29.

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25	8.3.4 Work Sites	20	(e) Traffic There will be significant traffic diversions required to construct Mater and O'Connell Street Station that will impact personnel and clients attending the Garden of Remembrance.	No adverse impacts have been identified for Parnell Square in the STMP for either O'Connell Street or Mater stations, see Sections 7.8 and 7.7 of Appendix A9.5
26	8.4.1 Noise and Vibration	21	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing resilient track slab to meet threshold of 35 dBL _A x,s and VDV - 0.4 m/s ¹ - respectively. The vibration during railway operations will not impact the building fabric or structure.	Please refer to response number (22) above.
27	8.5 Future Development	21	The OPW reserves the right to develop the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop the property, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (5) above.
28	9.0 CONCLUSION	21	With regards to the Gall Zeidler assessment, the risk of damage to Garden of Remembrance from ground movement is negligible. The OPW seeks assurances from TII that Stage 2 and Stage 3 ground movement assessments will be carried specifically for the structures during detailed design. Pre- construction, post-construction surveys, trials, and monitoring is also requested. Once the railway is in operation it is possible that there will be noise and vibration impact and TII should seek assurance that a detailed evaluation will be performed.	Please refer to response number (17) above.
29	9.0 CONCLUSION	21	With respect to this property, the OPW is seeking: 1) That ABP note the historic significance of this property and its importance for use in conjunction with Government business, visiting world leaders and National Commemorations. Accordingly, full access to this property, unhindered, is required.	No adverse impacts have been identified for Parnell Square in the STMP for either O'Connell Street or Mater stations, see Sections 7.8 and 7.7 of Appendix A9.5. TII will continue to liaise with the OPW to ensure access remains unhindered.
30	9.0 CONCLUSION	22	2) To ensure no disruption to the public access of the Garden and its day-to-day uses and functions.	Please refer to response number (29) above.
31	9.0 CONCLUSION	22	3) To ensure inclusion of the Garden with Stage 3 detailed design process, in particular regarding ground movement and ground borne noise and vibration and their potential impacts on the Garden pre- and post-construction.	Please refer to response number (17) above.
32	9.0 CONCLUSION	22	4) To ensure no adverse impact of the traffic diversions on the accessibility of the Garden and visitors' attendance during construction of the Mater and O'Connell Street stations.	Please refer to response number (29) above.
33	9.0 CONCLUSION	22	5) To ensure no interference of the MetroLink development with the extant permissions pertaining to the Garden and its potential future development.	Please refer to response number (5) above.
34	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	23	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (4) above.

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35	Appendix 2: Ground movement Assessment	28	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland.	Refer to OPW Cover Letter.

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1	Executive Summary	N/A	With respect to this property, the OPW asks that An Bord Pleanála notes the sensitivity of the historic buildings and the sensitive nature of Government business transacted here. The OPW also seeks: 1) The sensitivity of the historic buildings and the critical nature of Government business which is carried out at this location. 2) To ensure no disruption to the public access of the building by staff and visitors and to ensure continuity of Government functions. 3) To ensure no damage to the buildings and their architectural detailing, pre-construction and post- construction surveys, trials and monitoring are required. This should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. 4) To set up an access control regime in agreement with the OPW and relevant stakeholders when applying a continuous monitoring mechanism pre- and post-construction. 5) To ensure no disruption and/or adverse impacts on recording, televising, and broadcasting functions of the Government Buildings due to noise and vibration pre- and post-construction. 6) To ensure no ventilation and/or evacuation shaft in the vicinity of the area is permitted due to the sensitivity of the Government Buildings uses and functions and the security requirements for the complex refurbishment or construction works which are currently anticipated as or may arise in the future. 7) To reserve the right of the OPW that the development of the MetroLink does not interfere with extant permissions pertaining to the Government Building and its future development, including above property and below its ground levels, nor interfere with major maintenance, conservation, refurbishment, or construction works which are currently anticipated as or may arise in the future. 8) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project. 9) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 1 7+980 and 18+400, which is the St. Stephen's Green Station. 10) Regarding the tunnel boring machine noise over a 2-week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the Department of the Taoiseach and the OPW, to avoid any disruption to the functions of the Government Buildings.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (43) below.
2	3.0 Overview of the Draft Railway Order	9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála , further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. -This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. This property is outside the zone of influence and hence no impacts from ground movement are predicted.
3	4.1 Property Location & Description	12	A very important feature is the Evie Hone c. 1939 stained glass window, which may be vulnerable to vibration and movement. The glass in roof lights and the original historic glass in c. 1915 windows may be fragile and vulnerable to movement, especially if constrained by cast iron structure or iron frames.	TII welcome this information in relation to this building and would like to assure OPW that these details will be considered regarding potential noise and vibration impact. Please note no significant impacts have been predicted due to noise and vibration. Additionally, please note that this block is outside of the zone of influence with regard to ground movement.

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4	4.3 Current Use/Uses	15	The Government Buildings Block currently houses a number of Government departments, including the Department of An Taoiseach which is located in the centre block of the courtyard; The Houses of the Oireachtas and the Office of the Attorney General which are on various floors to the North and East. The Department of Finance and The Department of Expenditure and Public Reform which are to the south. The Department of the Taoiseach is a link between the President, the Taoiseach, and other Departments of State. The Attorney General is the legal adviser to the Government and the chief law officer of the State. The Department of Finance is responsible for the administration of the public finances: the collection and expenditure of revenues, the implementation of the Programme for Government and the management and development of the public sector. Therefore, uninterrupted access to the building is necessary at all times for the conduct of Government business and for access by emergency services (e.g., fire services and ambulance).	TII recognise the importance of these buildings and the Government Departments housed therein. No Temporary Traffic Management measures or adverse impacts to access have been identified on Kildare Street or Merrion St Upper as part of works or operational phases of MetroLink from either Tara Street or St Stephens Green Stations. See Appendix A9.5 Sections 7.9 and 7.10, Appendix A9.2-M, and Appendix A9.2. TII will continue to liaise with OPW to ensure uninterrupted access.
5	4.3 Current Use/Uses	15	The Government Buildings Block also house a set of committee rooms and a press briefing room. It frequently (hosts - sic) International Heads of the State and Government and key press briefings of national importance. Televising, broadcasting, and recording are every-day functions of the Block, which are relatively sensitive activities regarding the noise and vibration, with the noise disrupting broadcasting and recording and affecting sound quality, and vibration adversely impacting on the cameras stability. Thus, a noise and vibration assessment prior to construction is required. This is expected to be followed by continuous on-site monitoring, which would also bring forward the security requirements regarding accessing the Block.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.
6	4.3 Current Use/Uses	15	Furthermore, the OPW, the State, and their authorised agents, require access to the building at all times for the purpose of facilities management, maintenance, repairs and any major conservation, repair or development programme, planned, or as may arise during the construction period of MetroLink.	Please refer to response number (4) above.
7	4.3 Current Use/Uses	15	Considering the exceptionally high importance of the Complex, no ventilation and/or evacuation in the vicinity of the area can be permitted. Moreover, there are concerns regarding risk of acts of terrorism, which TII is required to assess separately in the Stage 3 application.	There is no ventilation nor evacuation shaft planned for this location. For details on concerns regarding security and risk of acts of terrorism, please refer to response number (18) to (21) below.
8	4.4 Planning Context	15	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission. The Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project, it is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.

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9	4.5 Potential Development of the Property	16	The Government Buildings Block is a Protected Structure, in a sensitive location in terms of use and heritage, whereby critical central Government functions are in operation. The OPW reserves the right to develop the block in future, particularly at multiple basement levels, subject to future requirements of the Government. It is important that there should be no new constraints introduced which might limit the potential of this future development and the security and operations of the Government Buildings Block.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future
10	5.0 MATERIAL CONSIDERATIONS	16	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the contour drawing M LI -J AI- EI A-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient and conflicting information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended). The conflicting information has resulted in a difficulty in assessing the impacts on the property due to vibration and noise caused by both the construction and operational phases of the MetroLink on this section of the alignment. This affects several buildings under the management of the OPW particularly at the Kildare Street, Merrion Square and St Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
11	6.0 LEGAL CONSIDERATIONS	16	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
12	7.1.1 Route Alignment	17	The tunnel alignment does not pass directly beneath the Government Buildings Block. However, there is inconsistency in the alignment between Tara Station and St. Stephen's Green. The alignment drawing ML1-JAI'EIA-ROUT_XX-DR-Y-05025 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y- 21148 show different alignments.	Refer to Item16.
13	7.1.1 Route Alignment	17	Many of the reports refer to chainages along the alignment, however there are no plans that indicate these chainages, and this makes reviewing the Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.

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14	7.3 Contractual Arrangement	19	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.
15	8.0 POTENTIAL IMPACTS ON THE PROPERTY	19	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises issues regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response numbers (16) through to (31) below.
16	8.1 Monitoring	19	Given the sensitivity of the uses within this property, coupled with Governmental uses, we request that An Bord Pleanála attach a condition to the Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	No building movement monitoring is required as the building is outside the zone of influence.
17	8.2 Security Issues	19	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."
18	8.2 Security Issues	19	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.
19	8.2 Security Issues	20	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to ail persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.
20	8.2 Security Issues	20	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.
21	8.2 Security Issues	20	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.
22	8.3 During Construction of the MetroLink	20	This building has a critical Government use of national and international importance. It hosts the Department of the Taoiseach and is critical to the effective running of Government. It provides functional spaces and office accommodation and hosts Heads of State and dignitaries from around the world throughout the year. As such, the impact of any proposed works in terms of noise, vibration and disruptions which effects the quality of the working environment would need to be carefully considered. There are significant State security considerations to be taken into account, particularly by the State security agencies, well in advance of any construction or operational plans by TII	The impact assessment in the EIAR in terms of noise and vibration was done taking in consideration the type of building being assessed, with different thresholds for each category (ex. Commercial, residential, special buildings as schools, hospitals, theatres or heritage buildings). TII are happy to engage with OPW and discuss an appropriate work programme for the above mentioned buildings. In relation to security, please refer to response number (17) to (21) above.

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23	8.3.1 Ground Movement	21	Stage 2: Three sections were considered in the assessment. The assessment concludes that the risk of damage to the Government Buildings Block is Category 0, Negligible. However, as a "Special building" it shall progress to Stage/Phase 3 assessment.	As these buildings are outside the zone of influence they need no further assessment or survey with regard to settlement.
24	8.3.1 Ground Movement	21	Stage 3: The EIAR states that a Stage 3 assessment will be carried out for Government Buildings by the Contractor appointed to construct this section of the MetroLink. The OPW expects to be consulted on the detail, scope of this assessment and programme for these assessments. It is vital that TII consults with the State security agencies well in advance of any proposed works. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	Please refer to response number (23) above.
25	8.3.1 Ground Movement	21	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and monitoring of the stakeholders' infrastructure is carried out. Also, the preconstruction defect surveys are carried out prior to any excavation. The OPW requires a review of the detailed proposals for mitigation and monitoring. The OPW expects TII to consult with the relevant State security agencies separately. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the preconstruction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The OPW requests that only Engineers or Surveyors with proven competence in relation to (historic) buildings of this fabric type, period and nature are selected. The contractor(s) will coordinate preconstruction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	Please refer to response number (23) above.
26	8.3.1 Ground Movement	21	Stage 5 (Close Out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of its property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.
27	8.3.4 Work Sites	22	b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel. However, there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	While acknowledging this comment, given the distance from the MetroLink alignment it will not relevant to this particular building.
28	8.3.4 Work Sites	23	(c) Working Hours The Government Buildings Block is located between Tara Street and St Stephen's Green Stations. The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity,	TII will monitor traffic movements throughout construction. Construction Vehicles from neither Tara St or St Stephens Green Stations are planned to traverse either Kildare Street or Merrion Street Upper - minimising any impact on this location. See Figure 7-44 and Figure 7-51 in Appendix A9.5
29	8.4.1 Noise and Vibration	23	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBLamax and VC-D respectively. EIAR Chapter 14 Table14,47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums, and the Government Buildings Block.	Information on the locations assessed as requiring floating track slab is listed in Table 14.47. Floating slab track has been proposed between Ch 17+980 - 18+100 and Ch. 18+760 - 18+940. Floating slab track is proposed as a mitigation measure in locations where buildings that are sensitive to groundborne noise have the potential for significant effects during the operation of the proposed Project. Government Buildings were assessed for predicted groundborne noise during operation (table 14.44 of the EIAR) and it was deemed that groundborne noise at this location fell below the sensitive receptor threshold level so the impacts at this location are not significant. Therefore floating slab track is not proposed at this location.
30	8.4.3 Evacuation Strategy	23	The are no planned intervention/evacuation shafts between Tara Station and St. Stephen's Green, however it is understood that the Fire Brigade have not accepted the strategy proposed by TII. This may have an impact on Agriculture House should any intermediate shafts be required.	No additional shafts are required and are not provided for in the draft RO. TII has engaged with the Dublin Fire Brigade at all stages of the design and have not indicated that an intervention shaft is required at this location in that engagement or in their submission on the draft RO as part of their report to Dublin City Council. TII is continuing to engage with Dublin Fire Brigade in relation to the details of the strategy.

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31	8.5 Future Development	23	he OPW reserves the right to development the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	While acknowledging this comment, given the distance from the MetroLink alignment it will not be relevant for this particular building.
32	9.0 CONCLUSION	24	With respect to this property, the OPW is seeking:) The sensitivity of the historic buildings and the critical nature of Government business which is carried out at this location.	his comments is noted.
33	9.0 CONCLUSION	24	) To ensure no disruption to the public access of the building by staff and visitors and to ensure continuity of Government functions.	lease refer to response number (4) above
34	9.0 CONCLUSION	24	) To ensure no damage to the buildings and their architectural detailing, pre-construction and post- construction surveys, trials and monitoring are required. This should include deep level monitoring and ground water level monitoring in addition to the building and urface monitoring typically implemented	While acknowledging this comment, given the distance from the MetroLink alignment it will not be relevant for this particular building.
35	9.0 CONCLUSION	24	) To set up an access control regime in agreement with the OPW and relevant stakeholders when applying a continuous monitoring mechanism pre- and post-construction.	While acknowledging this comment, given the distance between the building and the alignment, access will not be required.
36	9.0 CONCLUSION	24	i) To ensure no disruption and/or adverse impacts on recording, televising, and broadcasting functions of the Government Buildings due o noise and vibration pre- and post-construction.	lease refer to response number (22) above.
37	9.0 CONCLUSION	24	i) To ensure no ventilation and/or evacuation shaft in the vicinity of the area is permitted due to the sensitivity of the Government buildings uses and functions and the security requirements for the complex refurbishment or construction works which are currently nticipated as or may arise in the future.	No additional shafts are required.
38	9.0 CONCLUSION	24	) To reserve the right of the OPW that the development of the MetroLink does not interfere with extant permissions pertaining to the Government Building and its future development, including above property and below its ground levels, nor interfere with major maintenance, conservation, refurbishment, or construction works which are currently anticipated as or may arise in the future.	While acknowledging this comment, it is not relevant due to the distance from MetroLink.
39	9.0 CONCLUSION	25	) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project.	While acknowledging this comment, it is not relevant due to the distance from MetroLink.
40	9.0 CONCLUSION	25	) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station.	lease refer to response number (29) above.
41	9.0 CONCLUSION	25	.0) Regarding the tunnel boring machine noise over a 2-week period when the noise is predicted to exceed the acceptable threshold, it is espectfully requested for the timeline of the work to be agreed in advance with the Department of the Taoiseach and the OPW, to avoid ny disruption to the functions of the Government Buildings.	It will consult and liaise with OPW and the Department of the Taoiseach to ensure the timing of these impacts are known and can be greed.
42	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	26	his appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may equire an amendment to the Railway Order and further assessment, including public consultation.	lease refer to response number (8) above.

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43	Appendix 2: Ground movement Assessment	31	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to Cover Letter.

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1	Executive Summary	N/A	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the accessibility of the Agriculture House and its day-to-day uses and functions. 2) To ensure no damage to the building, pre-construction and post-construction surveys, trials and monitoring is required. This should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. 3) To ensure inclusion of the Agriculture House in the risk assessment for Stage 3 with regard to the significance of the building and its cross departmental functions and with respect to the building's foundation exceeding 4m depth. 4) To ensure inclusion of the Agriculture House in pre- and post-construction surveys regarding vibration and its impacts on the building. 5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project. 6) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station. 7) Regarding no planned intervention and/or evacuation shafts between Tara and Stephen's Green stations and Fire Brigade's concerns over a revised arrangement, the OPW requests to be consulted and informed on the proposed strategy and its impact on Agriculture House. 8) Regarding the tunnel boring machine noise over a 2 -week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the Department of Agriculture, Food & the Marine and the OPW, to avoid any disruption to the functions of the Agriculture House.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (36) below.
2	3.0 Overview of the Draft Railway Order	9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix A5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a moderately conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. That said, if subsequent to the granting of the RO, OPW know of any specific reasons for other buildings to require a Phase 3 assessment TII will consider such requests. The results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. Please note that this building has been assessed for settlement impacts. This concluded that there would be Negligible damage. No further Phase 3 assessment is required. Please refer to Appendix A5.17 and Table 5-2: Results of Phase 2a Building Damage Assessment - building B-14.
3	4.4 Planning Context	13	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission. The Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project, it is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.

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4	4.5 Potential Development of the Property	13	Although Agriculture House adjoins a listed Protected Structure, the property itself is not a Protected Structure and represents a significant development opportunity. Any future development would be expected to extend to multiple basement levels to maximise potential.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce “Guidance Note for Developers” that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.	
5	5.0 MATERIAL CONSIDERATIONS	13	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the contour drawing M LI -J AI- EI A- ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient and conflicting information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended). The conflicting information has resulted in a difficulty in assessing the impacts on the property due to vibration and noise caused by both the construction and operational phases of the MetroLink on this section of the alignment. This affects several buildings under the management of the OPW particularly at the Kildare Street, Merrion Square and St Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.	
6	6.0 LEGAL CONSIDERATIONS	13	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose	
7	7.1.1 Route Alignment	14	The tunnel alignment passes directly beneath Agriculture House however there is inconsistency in the alignment between Tara Station and St Stephen's Green. The alignment drawing ML1-JAI-EIA- ROUT_XX-DR-Y-05025 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments.	Refer to Item 5.	
8	7.1.1 Route Alignment	15	Many of the reports refer to chainages along the alignment, however there are no plans that indicate these chainages, and this makes reviewing the Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.	
9	7.3 Contractual Arrangement	16	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TIIs contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.	

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10	8.0 POTENTIAL IMPACTS ON THE PROPERTY	16	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated upon to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response numbers (11) through to (26) below.
11	8.1 Monitoring	16	Given the sensitivity of the uses within this property, coupled with Governmental uses, we request that An Bord Pleanála attach a condition to the Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and discuss the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.
12	8.2 Security Issues	16	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."
13	8.2 Security Issues	17	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter .	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.
14	8.2 Security Issues	17	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to ail persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.
15	8.2 Security Issues	17	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.
16	8.2 Security Issues	17	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.
17	8.3.1 Ground Movement	18	Stage 2: Three sections were considered in the assessment. The assessment concludes that the risk of damage to Agriculture House is Category 0, Negligible. However, as a "Special building" it shall progress to stage/Phase 3 assessment on the basis of the building's foundation being deeper than 4m.	The building is not designated as a "Special" building and hence does not qualify for further assessment due to "negligible" damage category. Please also refer to response number (2) above.

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18	8.3.1 Ground Movement	18	Stage 3: The EIAR states that a Stage 3 assessment will be carried out for Agriculture House by the Contractor appointed to construct this section of the MetroLink. The OPW expects to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	Please note that this building does not progress to Phase 3 assessment. Please refer to table 5-2 of EIAR Appendix 5.17. This building is referenced as B-14. Please also refer to response number (2) above.
19	8.3.1 Ground Movement	18	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholders' infrastructure is carried out. Also, the preconstruction defect surveys are carried out prior to any excavation. The OPW requires to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the pre-construction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate preconstruction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	All surveys, monitoring and mitigation proposed for OPW property will be discussed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.
20	8.3.1 Ground Movement	18	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of their property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.
21	8.3.3 Noise and Vibration	19	(a) Tunnelling EIAR Chapter 14 Ground Borne Noise and Vibration Measures identifies the impact on the Agriculture House during TBM excavation: ■ Ground borne noise 48 dBA LAm _{ax} - Significant impact ■ Ground borne vibration was not predicted for this building but given its position relative to the alignment and depth of foundations, a measure of vibration will likely be experienced but likely an insignificant in terms of impact. EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requests that specific vibration limits will be applied to Agriculture House and that a monitoring regime is implemented. EIAR Table 6.2- ANV16. Sets out requirement for Pre and post construction surveys of structures vulnerable to vibration induced damage. The OPW requests pre- and post-construction surveys of structures vulnerable to vibration induced damage are carried out and this should include the Agriculture House.	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project. The assessment has identified that there will be no potential for structural damage due to vibration as levels of vibration are predicted to be below the construction threshold (0.254) VDV _{day} ms ⁻¹ .75 (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results). The construction threshold is the limit. Regarding groundborne noise, unfortunately, there are no effective methods available to reduce groundborne noise from TBMs at source but noting that the duration of this impact will be of the order of two weeks. TII will consult and liaise with DAFM to ensure the timing of these impacts are known. The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy).
22	8.3.4 Work Sites	20	b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel. However, there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	A groundwater monitoring scheme will be undertaken across MetroLink as referenced in the EIAR. This is not specific to this building.
23	8.3.4 Work Sites	20	(c) Working Hours Agriculture House is located between Tara Street and St Stephen's Green Stations. The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity.	TII will monitor road movements through out construction. Traffic Management planning within the EIAR proposes that construction vehicles from either of the closest sites Tara St or St Stephens Green Stations will not traverse Kildare Street - minimising any impact on this location. See Appendix A9.5 Sections 7.9 (Figure 7-44) and 7.10 (Figure 7-51) together with Appendix A9.2-O. and Appendix A9.2-M.

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24	8.4.1 Noise and Vibration	20	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBLamax,s and VC-D respectively. E1AR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums, and the National Concert Hall.	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project. The assessment has identified that there will be no potential for structural damage due to vibration and no disturbance due to operational noise level of 33 dBLamax thresholds of 40 dBLamax for Headquarters of the Department of Agriculture, Food, and the Marine. (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results). In conclusion there is no need for floating track slab in this area. Information on the locations assessed as requiring floating track slab is listed in Table 14.47. Floating slab track has been proposed between Ch 17+980 - 18+100 and Ch. 18+760 - 18+940.
25	8.4.3 Evacuation Strategy	20	The are no planned intervention/evacuation shafts between Tara Station and St. Stephen's Green, however it is understood that the Fire Brigade have not accepted the strategy proposed by TII. This may have an impact on Agriculture House should any intermediate shafts be required.	No additional shafts are required and are not provided for in the draft RO. TII has engaged with the Dublin Fire Brigade at all stages of the design and have not indicated that an intervention shaft is required at this location in that engagement or in their submission on the draft RO as part of their report to Dublin City Council. TII is continuing to engage with Dublin Fire Brigade in relation to the details of the strategy.
26	8.5 Future Development	21	The OPW reserves the right to development the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (4) above.
27	9.0 CONCLUSION	21	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the accessibility of the Agriculture House and its day-to-day uses and functions.	There is no impact on access to Agriculture House. Please also refer to response number (23) above.
28	9.0 CONCLUSION	21	2) To ensure no damage to the building, pre-construction and post-construction surveys, trials and monitoring is required. This should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented.	Please refer to response numbers (19) and (22) above.
29	9.0 CONCLUSION	21	3) To ensure inclusion of the Agriculture House in the risk assessment for Stage 3 with regard to the significance of the building and its cross departmental functions and with respect to the building's foundation exceeding 4m depth.	Please refer to response numbers (18) above.
30	9.0 CONCLUSION	21	4) To ensure inclusion of the Agriculture House in pre- and post-construction surveys regarding vibration and its impacts on the building.	Please refer to response numbers (19) above.
31	9.0 CONCLUSION	21	5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
32	9.0 CONCLUSION	22	6) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station.	Please refer to response numbers (24) above.
33	9.0 CONCLUSION	22	7) Regarding no planned intervention and/or evacuation shafts between Tara and Stephen's Green stations and Fire Brigade's concerns over a revised arrangement, the OPW requests to be consulted and informed on the proposed strategy and its impact on Agriculture House.	No additional shafts are required.

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34	9.0 CONCLUSION	22	8) Regarding the tunnel boring machine noise over a 2-week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the Department of Agriculture, Food & the Marine and the OPW, to avoid any disruption to the functions of the Agriculture House.	As commented on previously in response number (21) above, the noise mitigation measures presented in Chapter 14 will be applied. TII are happy to engage with OPW in order to provide advance notice of any disruption. The actual levels of disturbance will be identified earlier in the tunnel programme as this building is towards the southern end on the line and hence TII can establish in advance if disruption is likely to occur.
35	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	23	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response numbers (3) above.
36	Appendix 2: Ground movement Assessment	18	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW cover letter.

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1	Executive Summary	N/A	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions. 2) To ensure no damage to the building, its architectural detailing, and its day-to-day functions pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise and vibration which can damage this building of historical significance, as well as its functions. 3) To ensure specific vibrations limits that will be applied to Iveagh House, by way of installing floating track slab between Chainage 17+980 and 18+400 (St. Stephen's Green Station) and a monitoring regime is to be implemented. 4) To include adverse impacts of St. Stephen's Green and Charlemont stations within the risk assessment studies for Iveagh House and provide for mitigation measures, as construction of these stations will generate additional lorry movements for both deliveries and spoil removal. 5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project. 6) To ensure no conflicts between the construction and operation of the Project and the future development of the Iveagh House, if required.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (38) below.
2	3.0 Overview of the Draft Railway Order	8	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a moderately conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. Iveagh House is a considerable distance (approximately 80m) outside of the zone of influence of the tunnel and hence no impacts due to ground movement will occur. For TII's proposals on the assessment of ground movement impacts for the Real Tennis Courts, please refer to response number (20) below.
3	4.3 Current Use/Uses	12	All floors of Iveagh House are occupied by the Department of Foreign Affairs. The Department of Foreign Affairs consists of divisions and units at the headquarters and a total of 92 diplomatic and consular offices abroad, often called "missions", as well as the British Irish Inter-Governmental Secretariat in Belfast and the North-South Ministerial Council Joint Secretariat in Armagh. The building contains 35 overground car parking spaces. The business conducted in this building is of a particularly sensitive nature, requiring specific security arrangements.	TII acknowledge the receipt of this information on the function of this building and the security sensitivities.
4	4.4 Planning Context	13	Outlined in the Planner's Report of the Draft Railway Order 2022, "No planning applications are affected by the tunnel alignment between St. Stephen's Green Station and Charlemont." However, DOWNEY have also carried out an examination of the planning history pertaining to the site subject to this submission and its proximity, which determined there is a planning application made within proximity to the site. An overview of this application is as follows: Reg. Ref. 5099/22: On 21 st October 2022, planning permission was requested to Dublin City Council for development at a c. 0.126 ha site at nos. 92 and 93 St. Stephen's Green (Protected Structure no. RPS Reg. Ref. 7802 and 7803)..... In the Stage 3 assessment of the Draft Railway Order, it is respectfully suggested that the Board take this planning application into consideration also.	The planning history set out in the planning report examined all live planning applications and extant planning permissions at each of the construction sites along the route. The pattern of planning applications where the works are solely carried out by way of the TBM were not reported on, where above ground development potential is not affected by below ground tunnelling. The additional projects listed by OPW would be considered within the cumulative assessment. They had not been previously assessed due to them being submitted after the assessment cut off date in May 2022 but will be considered in a gap assessment that will be carried out prior to an Oral Hearing. Please note that 92 and 93 St. Stephens Green are over 200m distant from the MetroLink alignment

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5	4.4 Planning Context	13	In relation to the Draft Railway Order’s consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission. The Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project, it is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.	
6	4.5 Potential Development of the Property	13	The Iveagh House itself is a protected structure in a sensitive location. The OPW reserves its right to develop the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop the property, in advance, in tandem or post operation of the MetroLink Project.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce “Guidance Note for Developers” that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future. The above will apply to the building and lands in the vicinity of the Real Tennis Court Building, but due to its distance from MetroLink there are no constraints on the development of Iveagh House.	
7	5.0 MATERIAL CONSIDERATIONS	14	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the contour drawing ML1 -JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient and conflicting information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended). The conflicting information has resulted in a difficulty in assessing the impacts on the property due to vibration and noise caused by both the construction and operational phases of the MetroLink on this section of the alignment. This affects several buildings under the management of the OPW particularly at the Kildare Street, Merrion Square and St Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.	

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8	6.0 LEGAL CONSIDERATIONS	14	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose	
9	7.1.1 Route Alignment	15	Many of the reports refer to chainages along the alignment, however there are no plans that indicate these chainages, and this makes reviewing the Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.	
10	7.3 Contractual Arrangement	17	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.	
11	8.0 POTENTIAL IMPACTS ON THE PROPERTY	17	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response numbers (12) through to (29) below.	
12	8.1 Monitoring	17	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	While acknowledging this comment, given the distance from the MetroLink alignment no monitoring is required for Iveagh House. All monitoring requirements for the Real Tennis Court Building will be agreed with OPW.	
13	8.2 Security Issues	17	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."	
14	8.2 Security Issues	18	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.	

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15	8.2 Security Issues	18	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to ail persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.	
16	8.2 Security Issues	18	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.	
17	8.2 Security Issues	18	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.	
18	8.3 During Construction of the MetroLink	18	This building is a fully functioning as the offices of the headquarters of the Department of Foreign Affairs. It provides functional spaces and office accommodation and as such the impact of any proposed works in terms of noise, vibration etc. which effects the quality of the working environment would need to be carefully considered.	The impact assessment in the EIAR in terms of noise and vibration was done taking in consideration the type of building being assessed, with different thresholds for each category (ex. Commercial, residential, special buildings as schools, hospitals, theatres or heritage buildings).	
19	8.3.1 Ground Movement	19	Stage 2: The assessment did not explicitly comment on the Iveagh house. The Real Tennis Court was not specifically identified in the Building Damage assessment Report.	As the Iveagh House building is outside the zone of influence of the tunnelling operation, no settlement impact will occur and therefore no assessment, survey or monitoring is required. This will not be the case for the Real Tennis Court. This building is located within the Zone of influence of the Tunnelling operation. While not directly assessed in the EIAR, this building is located between Building B-52 (National Concert Hall) and AB-37 (AERCAP House) which have been assessed, see EIAR Appendix A5.17 Building Damage Report, and Table 5-4. Both of these buildings have been assessed as having no negligible impact occurring as a consequence of tunnelling, although in the case of the National Concert Hall, this is a "Special Building", and will be taken to a Phase 3 assessment by the appointed contractor. TII anticipate that the Real Tennis Court will also be subject to a Phase 3 assessment.	
20	8.3.1 Ground Movement	19	Stage 3: The OPW expects that a Stage 3 assessment will be carried out for Iveagh House by the Contractor appointed to construct this section of the MetroLink. The OPW is expecting to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. The Real Tennis Court is a listed structure and the EIAR states that a Stage 3 assessment will be carried out by the Contractor appointed to construct this section of the Metrolink. OPW are expecting to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the draft Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	Further to response number (20) above, a design standard will be prepared that reflects the methodology described in EIAR Appendix 5.17. The development of monitoring, mitigation and contingency plans and the subsequent close out of the impacts of settlement will form part of the scope of the Project for the detail design and construct phases. TII will develop the process to be adhered to by the contractor and this will be included in the contract documentation prepared for that contract. TII notes the description of stages 4 and 5 as included as Appendix D and confirm that the MetroLink Specification will reflect similar requirements to achieve the desired outcomes.	
21	8.3.1 Ground Movement	19	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholder's infrastructure is carried out. Also, the preconstruction defect surveys are carried out prior to any excavation. The OPW will be required to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the preconstruction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate preconstruction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	All surveys, monitoring and mitigation proposed for OPW property will be discussed and agreed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.	

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22	8.3.1 Ground Movement	19	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW will expect to be provided with close out reports for the monitoring of its property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.	
23	8.3.3 Noise and Vibration	20	(a) Tunnelling EIAR Chapter 14 Ground Borne Noise and Vibration Measures does not identify any impact of noise and vibration on Iveagh House during TBM excavation, likely attributable to the building's distance from the anticipated tunnel alignment. The OPW requests specific requirements that will be applied to Iveagh House. There are requirements for pre and post construction surveys of structures vulnerable to vibration induced damage and this should include Iveagh House. EIAR Chapter 14 Ground Borne Noise and Vibration Measures identifies impacts on the Real Tennis Court (National Concert Hall values are considered as the two building are in a similar position to the alignment) during TBM excavation: ■ Ground borne noise 49 dBA LAm _{ax} - Significant impact ■ Ground borne vibration 0.255 VDV _{db} ms 175- no significant impact EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. OPW should request specific vibration limits that will be applied to The Real Tennis Court and ensure that a monitoring regime is implemented. EIAR Table 6.2- ANV16. Sets out requirement for Pre and post construction surveys of structures vulnerable to vibration induced damage. OPW should ensure Pre and post construction surveys of structures vulnerable to vibration induced damage are carried out and this should include The Real Tennis Court.	The assessment has not identified any potential for building damage from vibration during tunnel boring at any buildings above the tunnel route. Given the location of Iveagh House approximately 80m from the tunnel route there is no potential for groundborne noise or vibration impacts during TBM passage. Regarding groundborne noise at the Real Tennis Court, unfortunately there are no effective methods available to reduce groundborne noise from TBMs at source, but noting that the duration of this impact will be of the order of two weeks. TII will consult and liaise with OPW to ensure the timing of these impacts are known. The principal mitigation measure aimed at minimising impacts is advance public consultation and stakeholder engagement which can greatly reduce the significance of groundborne noise effects as building occupants would be prepared for the passage of the TBM and resultant elevated noise levels. EIAR Appendix A5.1, Outline CEMP, outlines that the contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project which will be a live document. A full monitoring and auditing programme will form part of the CNVMP which will be agreed with the Local Authorities prior to the commencement of the Construction Phase. Table 6.2: Noise and Vibration Measures of the Outline CEMP outlines the monitoring programme requirements. It is unlikely that monitoring of Iveagh House will be required. All surveys, monitoring and mitigation proposed for OPW property will be discussed and agreed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.	
24	8.3.4 Work Sites	21	b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel. However, there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	A groundwater monitoring scheme will be undertaken across MetroLink as referenced in the EIAR.	
25	8.3.4 Work Sites	21	(c) Working Hours Iveagh House and The Real Tennis Court is located between Tara Street and St. Stephen's Green Stations. The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity.	This comment is noted. TII will monitor road movements throughout the construction phase. Traffic Management planning within the EIAR proposes that construction vehicles to and from the St Stephens Green Stations will utilise dedicated routes to minimise impact to locally. See Appendix A9.5 Sections 7.10 (Figure 7-51) together with Appendix A9.2-M.	
26	8.4.1 Noise and Vibration	22	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBL _{am_{ax}} and VC-D respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 19+000. This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums, and Iveagh House.	Information on the locations assessed as requiring floating slab track is listed in EIAR Chapter 14, Table 14.47 and proposes floating track slab at Ch. 18+760-18+940, The National Concert Hall.	
27	8.4.2 Future Development	22	It is likely that there will be restrictions on future sub-grade development for the Real Tennis Court complex as the building sits atop the current planned alignment.	Please refer to response number (6) above.	

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28	8.4.3 Evacuation Strategy	22	There are no planned intervention/evacuation shafts between Tara Station and Charlemont Station, however it is understood that the Fire Brigade have not accepted the strategy proposed by TII. This may have an impact on Iveagh House and the Real Tennis Court should any intermediate shafts be required	No additional shafts are required and are not provided for in the draft RO. TII has engaged with the Dublin Fire Brigade at all stages of the design and have not indicated that an intervention shaft is required at this location in that engagement or in their submission on the draft RO as part of their report to Dublin City Council. TII is continuing to engage with Dublin Fire Brigade in relation to the details of the strategy.
29	8.5 Implication(s) for Future Development of the Property	22	The OPW reserves the right to develop the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop this property, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (6) above.
30	9.0 CONCLUSION	23	With regards to the Gall Zeidler assessment, the risk of damage to Iveagh House from ground movement is negligible. Pre-construction, post-construction surveys and monitoring should be requested.	As confirmed above in response number (2) no monitoring is required for Iveagh House. TII will work with OPW for the assessment and monitoring plan for Real Tennis Court, stated as required in response number (20) above.
31	9.0 CONCLUSION	23	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions.	As response number (26) above, no TTM measures or adverse impacts have been identified for the construction or operational phases along SSG South in Appendix A9.5 Section 7.10, or Appendix A9.2-M
32	9.0 CONCLUSION	23	2) To ensure no damage to the building, its architectural detailing, and its day-to-day functions pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise and vibration which can damage this building of historical significance, as well as its functions.	Please refer to response number (31) above.
33	9.0 CONCLUSION	23	3) To ensure specific vibrations limits that will be applied to Iveagh House, by way of installing floating track slab between Chainage 17+980 and 18+400 (St. Stephen's Green Station) and a monitoring regime is to be implemented.	Iveagh House building is outside the zone of influence and hence no assessment, survey or monitoring is required. The Real Tennis Court will be subject to further assessment and surveys in advance of the works commencing, with the potential for ongoing monitoring during construction phase if required. Floating slab track is proposed at the location of the National Concert Hall and in the vicinity of the Real Tennis Courts. Information on the locations assessed as requiring floating track slab is listed in EIAR Chapter 14, Table 14.47.
34	9.0 CONCLUSION	23	4) To include adverse impacts of St. Stephen's Green and Charlemont stations within the risk assessment studies for Iveagh House and provide for mitigation measures, as construction of these stations will generate additional lorry movements for both deliveries and spoil removal.	This location will be passed by only inbound construction with a rate generally between 20 to 60 vehicles per day which will be subject to mitigation measures outlined in Section 9.7.1.2 of EIAR Chapter 9, however TII will monitor the impact of construction vehicles throughout the project.
35	9.0 CONCLUSION	23	5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
36	9.0 CONCLUSION	23	6) To ensure no conflicts between the construction and operation of the Project and the future development of the Iveagh House, if required.	Please refer to response number (6) above.

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37	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	24	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (5) above.
38	Appendix 2: Ground movement Assessment	29	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW cover Letter

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1	Executive Summary	N/A	With respect to this property, the OPW is seeking for An Bord Pleanála to recognise the sensitive nature of the historic buildings and the critical work of Government undertaken at this complex. The OPW also seeks: 1) To ensure no disruption to the business of Government, before construction, during construction and during the MetroLink operational phase. 2) To ensure no disruption to the accessibility of the buildings within the Leinster House Complex and to ensure no disruption to the function of the Houses of the Oireachtas and the Oireachtas Commission at the Leinster House Complex. 3) To ensure the security to the complex, buildings, and all activities within the complex and for TII to consult all stages of development with the relevant State security agencies. 4) To ensure no damage to the buildings and their architectural detailing, and their contents, pre-construction and post-construction surveys, trials, and monitoring is required. This should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. 5) To ensure that all parts of Leinster House Complex identified in this submission are subject to Stage 3 assessment, and subsequent consequent stages of assessment. 6) To set up an access control regime, in agreement with the OPW and relevant stakeholders, when applying a continuous monitoring mechanism during construction and operation phases. 7) To ensure no disruption and/or adverse impacts on recording, televising, and broadcasting functions of the Leinster House Complex due to noise and vibration during construction and operation phases. 8) To ensure no ventilation and/or evacuation shaft in the vicinity of the area is permitted due to the vitality and sensitivity of the Complex's uses and functions, and to the security levels required. 9) The OPW reserves the right to development of the subject property in the future, including property above and below ground, subject to normal planning criteria. 10) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the proposed Project. 11) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 1 7+980 and 18+400, which is the St. Stephen's Green Station. 12) Regarding the tunnel boring machine noise over a 2 -week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the Houses of the Oireachtas and the OPW, to avoid any disruption to the functions of the Leinster House Complex. 13) The OPW requests that permanent noise and vibration monitoring equipment is installed and maintained in appropriate locations e.g., broadcast studios in the Leinster House Complex.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (49) below.
2	3.0 Overview of the Draft Railway Order	10	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category, including this one. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a moderately conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. The Leinster House complex has been included in the building damage assessments to date. The assessment concludes that these buildings would be subject to negligible impacts due to ground movement at Phase 2. As they are designated "special" buildings they will progress to a detailed Phase 3 assessment despite the negligible impact predicted.

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3	4.3 Current Use/Uses	23	The Leinster House Complex is the seat of the Irish Parliament, including Seanad Eireann (the Senate or upper house) and Dail Eireann (the House of Representatives or lower house). Therefore, the legislators and civil servants are the main occupants; this is further supported by committee rooms, studios and audio rooms, library, reading rooms and archive spaces, administration office spaces, etc. which indicates the significance of security requirements, as well sensitivity of the day-to-day activities within the Complex, in particular regarding meetings, talks, recording, broadcasting, televising, etc. With regard to the above, unrestricted access is critical for both members and invited members of the public. There are concerns regarding the adverse impact of traffic on the Complex accessibility while implementing the Project. Furthermore, the every-day operations of the Irish Parliament are expected to be maintained at all times; this also includes operations of the lifts within the Complex which cannot be impeded.	Access to the buildings will not be restricted by MetroLink. No Temporary Traffic Management (TTM) measures or adverse impacts to access have been identified on Kildare Street or Merrion St Upper as part of works or operational phases of MetroLink from either Tara Street or St Stephens Green Stations. See Appendix A9.5 Sections 7.9 and 7.10, while Appendix A9.2-M, and Appendix A9.2-O also refer. As noted above there are no structural issues predicted and hence lifts etc will remain unaffected. Noise and vibration impacts are as noted below.
4	4.3 Current Use/Uses	24	As mentioned, public televising, broadcasting, and recording are also parts of every-day functions of the Complex, which are relatively sensitive activities regarding the noise and vibration, with the noise disrupting broadcasting and recording and affecting sound quality, and vibration adversely impact the cameras' stability. The public broadcasting to committee rooms in the Complex is occurring at low basement level in the LH2000, thus, a noise and vibration assessment prior to construction is required. This is expected to be followed by continuous on-site monitoring, which would also bring forward the security requirements regarding accessing the Complex.	The impact assessment in the EIAR in terms of noise and vibration was done taking in consideration the type of building being assessed, with different thresholds for each category (ex. Commercial, residential, special buildings as schools, hospitals, theatres or heritage buildings). Please also refer to response number (28) and (31) below. TII are happy to engage with OPW in order to reach agreement on an appropriate noise and vibration monitoring programme for the above mentioned buildings. TII personal requiring access to Leinster House will comply with building security provisions.
5	4.3 Current Use/Uses	24	It is noted that there are always ongoing to be changes of use within the Complex and possibility of increased need for public broadcasting from additional chambers/committee rooms uses. This is a primary function and may be allocated to any building within the Houses of the Oireachtas Complex including Agriculture House. Considering the vitality of the Complex, no ventilation and/or evacuation in the vicinity of the area can be permitted. Moreover, there are concerns regarding risk of acts of terrorism, which TII is required to assess separately in the stage 3 application.	No ventilation nor evacuation structures are planned in the vicinity of this building. Phase 3 assessments are associated with ground movement, not security.
6	4.4 Planning Context	24	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission. The Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project, it is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.

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7	4.5 Potential Development of the Property	24	This Leinster House building is a protected structure in a sensitive location. However, it is planned that permissions will be sought in the future for significant development within the overall complex, including Fisheries Yard, to accommodate the changing functions of the National Parliament. It is important that there should be no new constraints introduced which might limit the potential of this future development and the security and operations of the Houses of the Oireachtas.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce “Guidance Note for Developers” that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.
8	5.0 MATERIAL CONSIDERATIONS	25	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the contour drawing M LI -J AI- EI A- ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient and conflicting information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended). The conflicting information has resulted in a difficulty in assessing the impacts on the property due to vibration and noise caused by both the construction and operational phases of the MetroLink on this section of the alignment. This affects several buildings under the management of the OPW particularly at the Kildare Street, Merrion Square and St Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
9	6.0 LEGAL CONSIDERATIONS	25	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose

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10	6.2 The Houses of the Oireachtas and the Constitution	25	Bunreacht na hÉireann (the Constitution of Ireland) sets out the constitutional functions of the Houses of the Oireachtas. Key provisions of the Constitution relative to the locations and sittings of parliament must be kept in mind during the MetroLink project as follows: Article 15.1.3 states that: <i>"3. The Houses of the Oireachtas shall sit in or near the City of Dublin or in such other place as they may from time to time determine".</i> Article 15.7 requires that the Oireachtas shall hold at least one session every year, and Article 15.8 requires that the sittings of each House of the Oireachtas shall be in public. The only exception to the requirement to sit in public is provided for by Article 15.8.2 which states that "In cases of special emergency, however, either House may hold a private sitting with the assent of two-thirds of the members present." To fulfil this constitutional imperative of sittings of the Houses being in public, the Oireachtas is generally open for visitors. Sittings are broadcast live via Oireachtas TV and live streamed on the Oireachtas website and social media platforms, and a full record of debate is maintained and published. In addition, Article 15.10 states: "10. Each House shall make its own rules and standing orders, with power to attach penalties for their infringement, and shall have power to ensure freedom of debate, to protect its official documents and the private papers of its members, and to protect itself and its members against any person or persons interfering with, molesting, or attempting to corrupt its members in the exercise of their duties." It is long established that the Houses have exclusive competence to determine the manner in which they conduct their business, free from interference save in the most exceptional of circumstances.	TII acknowledge information provided on the constitutional function of Leinster House. The is no impact on access due to MetroLink works.
11	6.3 The Houses of the Oireachtas Commission Acts 2003 to 2021	27	Under section 11 of the Commission Acts all rights and liabilities transferred to the Oireachtas Commission on establishment e.g., rights as the occupiers of Leinster House. We note the Third Schedule to the draft Railway Order (Part 4 of 4) lists substratum land which may be acquired. At page 12, while it refers to the OPW, the Minister for Finance, the Department of Agriculture Food and Marine, the National Museum and the National Gallery, it fails to note that the Houses of the Oireachtas Commission as an occupier of Leinster House.	Noted. The OPW were served as owners of the Leinster House. The OPW were consulted in advance of the RO application in relation to which State occupiers should be served as occupiers of the buildings under OPW ownership and the Houses of the Oireachtas Commission were not identified in that regard.
12	6.4 The Oireachtas, Leinster House, business continuity and recess periods	27	As regards scheduling work to ensure minimal disruption to the sittings of the Houses, you might note that sittings of the Houses are determined by the Houses themselves, Specific dates of when the Houses will be in recess cannot be provided. However, in recent years a pattern has emerged that the Dail generally goes into recess during the following periods: ■ From mid-July to mid-September ■ For 4 days after the October bank holiday Monday ■ For 4 weeks around Christmas ■ For the week that includes St. Patrick's Day ■ For 2 weeks at Easter ■ For 4 days after the June bank holiday Monday. It should be noted that even when the Houses are in recess they can be recalled at short notice and so continuous access to Leinster House is required.	TII acknowledge the information provided into the constitutional function and periods of use of Leinster House.
13	7.1.1 Route Alignment	28	The tunnel alignment passes directly beneath the Leinster House Complex, in particular the Leinster House building itself and the Agriculture House. However, there is inconsistency in the alignment between Tara Street Station and St. Stephen's Green. The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-0025 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments.	Please refer to response number (8) above.
14	7.1.1 Route Alignment	28	Many of the reports refer to chainages along the alignment, however there are no plans that indicate these chainages, and this makes reviewing the Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.

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15	7.3 Contractual Arrangement	30	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.	
16	8.0 POTENTIAL IMPACTS ON THE PROPERTY	30	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property	Please refer to response numbers (17) through to (34) below.	
17	8.1 Monitoring	30	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and discuss the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.	
18	8.2 Security Issues	30	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."	
19	8.2 Security Issues	30	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.	
20	8.2 Security Issues	31	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to ail persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.	
21	8.2 Security Issues	31	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.	
22	8.2 Security Issues	31	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.	

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23	8.3.1 Ground Movement	32	Stage 2: Three sections were considered in the assessment. The assessment concludes that the damage to Leinster House is Category 0, Negligible. However, as a "Special building" it shall progress to stage/Phase 3 assessment on the basis of the building's foundation being deeper than 4m.	As this is a Protected Structure it is designated as a Special case and will have a full Phase 3 assessment.
24	8.3.1 Ground Movement	32	Stage 3: The EIAR states that a Stage 3 assessment will be carried out for Leinster House by the Contractor appointed to construct this section of the MetroLink. The OPW is expecting to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Draft Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	As this is a Protected Structure it is designated as a Special case and will have a full Phase 3 assessment. TII will ensure that those undertaking the assessment are competent to do so. With regard to stages 4 and 5, i.e. the development of monitoring and mitigation plans and the subsequent close out of the impacts of settlement, will form part of the scope of the project for the design and construction phases. EIAR A5.1 Outline CEMP refers to these standard principles.
25	8.3.1 Ground Movement	32	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholders' infrastructure is carried out. Also, the pre-construction defect surveys are carried out prior to any excavation. The OPW will require to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the pre-construction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate pre- construction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	All surveys, monitoring and mitigation proposed for OPW property will be discussed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.
26	8.3.1 Ground Movement	32	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW will expect to be provided with close out reports for the monitoring of its property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.
27	8.3.3 Noise and Vibration	33	a) Tunnelling EIAR Chapter 14 Ground Borne Noise and Vibration Measures identifies impacts on the Leinster House Complex during TBM excavation: ■ Ground borne noise 49 dBA LAmax - Significant Impact ■ Ground borne vibration 0.253 VDVdb,ms 1 75- No Significant Impact EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requires specific vibration limits that will be applied to the Leinster House Complex and that TII ensure that a monitoring regime is implemented. EIAR Table 6.2 - ANV16. sets out requirement for pre- and post-construction surveys of structures vulnerable to vibration induced damage. The OPW requires pre- and post-construction surveys of structures vulnerable to vibration induced damage to be carried out and this should include the Leinster House Complex.	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project. The assessment has identified that there will be no potential for structural damage due to vibration as levels of vibration are predicted to be below the construction threshold of 1.6 ms-1.75 VDV (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results). Regarding groundborne noise, unfortunately, there are no effective methods available to reduce groundborne noise from TBMs at source, but noting that the duration of this impact will be of the order of two weeks. TII will consult and liaise with Leinster House Complex to ensure the timing of these impacts are known. The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy).
28	8.3.4 Work Sites	33	b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel. However, there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	A groundwater monitoring scheme will be undertaken across MetroLink as referenced in the EIAR. This is not specific to this building.

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29	8.3.4 Work Sites	34	(c) Working Hours The Leinster House Complex is located between Tara Street and St. Stephen's Green stations. The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity.	TII will monitor road movements through out the construction phase. Traffic Management planning within the EIAR proposes that construction vehicles from either of the closest sites Tara St or St Stephens Green Stations will not traverse Kildare Street - minimising any impact on this location. See Appendix A9.5 Sections 7.9 (Figure 7-44) and 7.10 (Figure 7-51) together with Appendix A9.2-O. and Appendix A9.2-M.
30	8.4.1 Noise and Vibration	34	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBL _{max} and VC-D respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St. Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all the Government buildings, Leinster House complex, museums, and the National Concert Hall.	Noting these comments, floating slab track is proposed between Ch17+980 & 18+100 so this is covered at this location.
31	8.4.1 Noise and Vibration	34	The vibration during railway operations will not impact the building fabric or structure. The frequency of maintenance of the track system is critical to ensuring that noise and vibration thresholds continue to be met throughout the lifetime of the railway. The OPW requests that permanent noise and vibration monitoring equipment is installed and maintained in appropriate locations e.g., broadcast studios in the Leinster House Complex.	TII are happy to engage with OPW in order to discuss on an appropriate monitoring programme for the above mentioned buildings.
32	8.4.2 Future Development	34	It is likely that there will be restrictions on future sub-grade development for the Leinster house complex as parts sit atop the current planned alignment.	Please refer to response number (7) above.
33	8.4.3 Evacuation Strategy	34	There are no planned intervention/evacuation shafts between Tara Station and St. Stephen's Green. However, it is understood that the Fire Brigade have not accepted the strategy proposed by TII. This may have an impact on the Leinster House should any intermediate shafts be required, particularly in relation to security matters.	No additional shafts are required and are not provided for in the draft RO. TII has engaged with the Dublin Fire Brigade at all stages of the design and have not indicated that an intervention shaft is required at this location in that engagement or in their submission on the draft RO as part of their report to Dublin City Council. TII is continuing to engage with Dublin Fire Brigade in relation to the details of the strategy.
34	8.5 Future Development	34	The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (7) above
35	9.0 CONCLUSION	35	With respect to this property, the OPW is seeking for An Bord Pleanála to recognise the sensitive nature of the buildings and the criticality of the work undertaken by Government at this location. Further, the OPW also seeks: 1) To ensure no disruption to the business of Government, before construction, during construction and during the MetroLink operational phase,	Please refer to response number (3) above
36	9.0 CONCLUSION	35	2) To ensure no disruption to the accessibility of the buildings within the Leinster House Complex and to ensure no disruption to the function of the Houses of the Oireachtas and the Oireachtas Commission at the Leinster House Complex.	Please refer to response number (3) above
37	9.0 CONCLUSION	35	3) To ensure the security to the complex, buildings, and all activities within the complex and for TII to consult all stages of development with the relevant State security agencies.	Please refer to response number (18) to (22) above.
38	9.0 CONCLUSION	35	4) To ensure no damage to the buildings and their architectural detailing, and their contents, pre-construction and post-construction surveys, trials, and monitoring is required. This should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented.	Please refer to response number (28) above.
39	9.0 CONCLUSION	35	5) To ensure that all parts of Leinster House Complex identified in this submission are subject to Stage 3 assessment, and subsequent consequent stages of assessment	Please refer to response number (24) above.

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40	9.0 CONCLUSION	35	6) To set up an access control regime in agreement with the OPW and relevant stakeholders when applying a continuous monitoring mechanism during construction and operation phases.	Please refer to response number (18) to (22) above.
41	9.0 CONCLUSION	36	7) To ensure no disruption and/or adverse impacts on recording, televising, and broadcasting functions of the Leinster House Complex due to noise and vibration during construction and operation phases.	Please refer to response number (4) above.
42	9.0 CONCLUSION	36	8) To ensure no ventilation and/or evacuation shaft in the vicinity of the area is permitted due to vitality and sensitivity of the Complex's uses and functions, and to the security levels required.	No additional shafts are required.
43	9.0 CONCLUSION	36	9) The OPW reserves the right to development of the subject property in the future, including property above and below ground, subject to normal planning criteria.	Please refer to response number (7) above.
44	9.0 CONCLUSION	36	10) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the proposed Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
45	9.0 CONCLUSION	36	11) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station.	Please refer to response number (29) above.
46	9.0 CONCLUSION	36	12) Regarding the tunnel boring machine noise over a 2 -week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the Houses of the Oireachtas and the OPW, to avoid any disruption to the functions of the Leinster House Complex.	As mentioned in response number (27) above, TII will provide advance notice of the passage of the TBM.
47	9.0 CONCLUSION	36	13) The OPW requests that permanent noise and vibration monitoring equipment is installed and maintained in appropriate locations e.g., broadcast studios in the Leinster House Complex.	Please refer to response numbers (4), (27) and (31) above.
48	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	37	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (6) above.
49	Appendix 2: Ground movement Assessment	42	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover Letter

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1	Executive Summary	N/A	With respect to this property, the OPW requests that An Board Pleanála notes the sensitivity of the historic buildings and national collections located within. The OPW also seeks: 1) To ensure no disruption to the safe public access to the buildings and their day-to-day uses and functions, in particular with regards to the young age cohorts accessing the building on a daily basis, 2) To ensure assessing the adverse traffic impacts on vehicular access to these properties during construction phase of the Project due to traffic diversions, 3) To ensure no adverse impact of the additional lorry movements on the Complex and its functions, for both deliveries and spoil removal, during construction of the Griffith Park station, as a portion of the lands on the Complex will provide for the station. 4) To ensure no damage to the Coldiste Caoimhin (a Protected Structure) and other buildings on the Mobhi Road Complex, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly regarding the ground borne noise and vibration pre- and post-construction to apply and monitor threshold limits where required. 5) To ensure assessing and applying limits to dewatering for the construction of the Griffith Park station to avoid adverse impacts on the properties at Mobhi Road Complex. 6) To ensure detailed assessment of blasting at the Griffith Park station and its potential adverse impacts on the Mobhi Road Complex and its functions. 7) To ensure liaising with the relevant stakeholders, including the OPW and the Department of Education, etc to prevent any interference with future development on the site and with respect to the increasingly growing demand for educational facilities in the area. 8) To ensure detailed assessments, including adverse impacts on the verge of mature trees along Mobhi Road and outline mitigation measure regarding construction of the station on site. 9) Precedents to be included within the risk assessments so to ensure utilising best practice guidance within implementation of the Project.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised by OPW specific to these buildings are addressed in responses (2) through to (39) below.
2	3.0 Overview of the Draft Railway Order	9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. This building is included. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a moderately conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. This property has been assessed as in the negligible damage category, refer to EIAR Appendix 5.17, Table 5.4, building B-143. However, the building is designated as a "special" buildings so they will be progressed to a detailed assessment despite the negligible impact predicted.
3	4.4 Planning Context	17	During the start of construction, parts of these iron gates will have to be dismantled, with the development proposing that they will be restored on completion of the works. It is also proposed that all the existing trees along the verge of St. Mobhi Road will be retained, with the vegetation on the Colaiste Caoimhin western and southern boundaries to be removed, during construction and use of the MetroLink. As shown on the image overleaf, it is not clear as to how the verge of mature trees along the Mobhi Road are to be retained and protected, considering they are designated as Z9 under the current City Development Plan 2022-2028, which has the Objective “to preserve, provide and improve recreational amenity, and open space and green network” .	To mitigate against the loss of vegetation within the Colaiste Caoimhin boundary, a major part of the landscape design has involved the identification and retention of valuable landscape & visual assets where feasible. Through taking appropriate protection measures during the construction phase, such as: fencing; hoarding; and root protection, TII intend to retain the mature trees within the existing eastern verge of Mobhi Road. An Arboriculture Impact Assessment was carried out and can be viewed at Appendix 27.3 to the EIAR. This contains information on the existing tree conditions and the arboriculturally impact of the proposed Project. The design proposals for the finished landscape incorporate various mitigation measures set out in Chapter 27 Landscape & Visual , Section 27.6 to reduce impact locally at Mobhi Road Complex. These measures include: - Identification and retention of existing mature trees of good quality, through adjustment of the alignment, location of structures/buildings and the outline design of the proposed Project; - Specific proposals to ensure the effective retention of existing mature trees will include: - Protection and maintenance of tree root zones during construction - In sensitive locations, residual landscape and visual effects may be significantly reduced through the inclusion in the proposed planting of relatively mature specimen trees, details of which can be agreed with Dublin City Council. - Comprehensive proposals for hard and soft landscape works, including tree and hedgerow planting to offset the effects of net loss due to the proposed Project will be developed at detailed design phase

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4	4.4 Planning Context	18	Given the above-mentioned, a detailed assessment of adverse impacts of the station on the Mobhi Road Complex and mitigations measures is required, which we respectfully request the Board to have considerations to when carrying out Stage 3 assessments. The Mobhi Road Collective is a well-functioning assembly, with a Protected Structure, bounded along Mobhi Road by a verge of mature trees and adjacent to a Conservation Area.	Please refer to response number (2) above.
5	4.4 Planning Context	18	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission. The Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project, it is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
6	4.5 Potential Development of the Property	19	Colaiste Caoimhin (currently known as Whitehall College of Further Education) is a Protected Structure in a relatively sensitive location, bounded by the Griffith Park to the south, which is a designated Conservation Area. The OPW respectfully reserves the rights to future development of all properties at Mobhi Road Complex at a time in the future, if appropriate. This is of relatively high significance when considering the increasingly growing demand in the wider area for educational facilities. For instance, in 2019, a new primary school and new post primary school were announced to be established to serve the Drumcondra-Marino DI school planning area. The primary school, Gaelscoil Aine, was established in 2019 and is currently located in interim accommodation in Colaiste Caoimhin and within the Complex.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.
7	5.0 MATERIAL CONSIDERATIONS	19	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-EIA- ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly with Kildare Street, Merrion Square and St. Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
8	6.0 LEGAL CONSIDERATIONS	19	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose

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9	7.1.1 Route Alignment	20	Many of the reports refer to chainages along the alignment, however there are no plans that indicate these chainages, and this makes reviewing the Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.
10	7.3 Contractual Arrangement	22	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.
11	8.0 POTENTIAL IMPACTS ON THE PROPERTY	22	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission; having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property	Please refer to response number (12) through to (27) below.
12	8.1 Monitoring	22	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation at the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.
13	8.2 Security Issues	23	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."
14	8.2 Security Issues	23	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.
15	8.2 Security Issues	23	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to ail persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.
16	8.2 Security Issues	23	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.

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17	8.2 Security Issues	23	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.
18	8.3 During Construction of the MetroLink	25	Stage 2 (Initial Assessment): The ground movement impact on the Colaiste Caoimhin is not specified in the report and the OPW requires that this building has its own assessment. No further assessment is required for Scoil Mobhi, Scoil Chaitriona, and Na Fianna GAA Club buildings.	Further to response number (2) above, a stage 2 assessment for this building has been undertaken. Please refer to EIAR Appendix 5.17 Damage Assessment Report, Table 5-2, building B-143. The building is largely outside the zone of influence (1mm contour under part of the building) and is assessed as negligible. Due to its importance it is designated as "Special" and will therefore progress to Phase 3 Assessment by the contractor.
19	8.3.1 Ground Movement	25	Stage 3 (Detailed Assessment): A Stage 3 assessment should be considered for Colaiste Caoimhin	As this is a Protected Structure it is designated as a Special case and will have a full Phase 3 assessment. TII will ensure that those undertaking the assessment are competent to do so. With regard to stages 4 and 5 i.e. the development of monitoring and mitigation plans and the subsequent close out of the impacts of settlement will form part of the scope of the project for the design and construction phases.
20	8.3.1 Ground Movement	25	Stage 4 (Construction Stage): Mitigation is unlikely to be required for Colaiste Caoimhin. The OPW expects that pre-construction defect surveys and monitoring are carried out for these buildings.	All surveys, monitoring and mitigation proposed for OPW property will be discussed and agreed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.
21	8.3.1 Ground Movement	25	Stage 5 (Close Out): Once the excavation (tunnelling and station excavation) has been completed, then the Contractor will want to decommission his monitoring. The OPW will expect to be provided with close out reports for the monitoring of their property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs and time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.
22	8.3.3 Noise and Vibration	25	(a) Tunnelling During the passage of the Tunnel Boring Machine (TBM) the noise is predicted to be 43 dBLAmax,s does not exceed the acceptable threshold (45 dBLAmax,s) and this may last for 2 weeks. The vibration from the passage of the TBM is predicted to be 0.0.183 VDVdb.ms 175 less than the threshold (1.6 VDVdb,ms' 1.75). EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requests that a specific study is carried out for the buildings in the Mobhi Road Complex to determine whether ground borne noise and vibration will have any impact. Where any impact is identified then threshold limits will need be applied and monitored. Where the building is considered vulnerable to vibration induced damage EIAR Table 6.2- ANV16. Sets out requirement for pre- and post-construction surveys of these structures.	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project, and these have been listed in your response. The assessment has identified that there will be no potential for structural damage due to vibration as levels of vibration are predicted to be below the construction threshold as is also the case for the TBM passage. Therefore, monitoring and surveys are not required at this location. The assessment also identifies that groundborne noise is anticipated to be below the threshold level. Nevertheless, TII will consult and liaise with Mobhi Road Complex to ensure the timing of the TBM passing through this area is known.
23	8.3.3 Noise and Vibration	25	(b) Station Excavation GNV2 states that Monitoring of blasting and re-optimising the blast design (minimising the explosive charge considering the results) will be carried out as standard. A5.20 Blasting Strategy provides information on the classification of buildings and potential damage due to blasting for the station excavations. There are also calculations for estimated magnitude of the peak particle velocity (ppv) for various explosive charges. The assumption is that the lowest charge would be implemented to avoid damage. The buildings in the Mobhi Road Complex are close to the Griffith Park station excavation and therefore the peak particle velocity is predicted to be 2,2mm/s. The OPW requests a specific assessment of the impact on the buildings in the Mobhi Road Complex.	At Mobhi Road Complex the peak particle velocity is predicted to be 2,2mm/s, much lower than the threshold of 8 mm/s. As a result no significant impact is expected on these buildings as a result of blasting activities. Due to this assessment and the distance between the station and the building, no further assessment is necessary.

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24	8.3.4 Work Sites	26	b) Ground Water Control There is the potential for ground water lowering for the construction of Griffith Park station to impact Colaiste Caoimhin. The OPW will require that TII provides an assessment and limits that will be applied to dewatering for the Construction of Griffith Park station.	As outlined in EIAR Chapter 19 (Hydrogeology), groundwater assessment and monitoring were and will continue to be undertaken for the proposed Project: • AWN undertook an extensive desktop review in order to establish baseline conditions along the proposed alignment corridor. The baseline study included reference to historical ground investigation data including the 2007 IGSL investigation borehole dataset (IGSL 2008) and data from Norwest Holst (2008) as well as information from contemporary (2019-2021) ground investigations specific to the proposed Project (Table 19.2); • A number of field surveys and walkover assessments were carried out to add to existing assessment of long-term trend analysis for water quality undertaken by the EPA (Section 19.3.3.4); and • A number of intrusive ground investigations were commissioned for the proposed Project including ground water level monitoring (Section 19.3.3.5). A programme of continuous groundwater level monitoring, aquifer testing and groundwater quality monitoring was devised with focus on key well locations along the alignment including at deep station excavations. The key hydrogeological data available and interpreted for the Griffith Park Station is presented in Table 19.33. The dewatering process during the construction of the Griffith Park Station will be in the order of 8.22 l/sec as a maximum value. Griffith Park Station perimeter will be sealed (D-walls) within the QBR subsoils and CLU (Lucan Formation). Dewatering at the Griffith Park Station during works will be temporary only with the anticipated radius effect of dewatering reducing as the station construction progresses towards full perimeter and base seal (i.e. full watertight conditions) including toe grouting assumed to 1.5m below base of D-wall.
25	8.3.4 Work Sites	26	(c) Working Hours The Mobhi Road Complex is located adjacent to the Griffith Park station. The construction of this station will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity.	TII will manage and minimise traffic impacts. Construction vehicles will be subject to the mitigation measures outlined in Section 9.7.1.2 of the EIAR Chapter 9 to minimise any impacts of construction vehicles on the surroundings. This comment is noted. TII will monitor road movements throughout the construction phase. Traffic Management planning within the EIAR proposes that construction vehicles to and from the St Stephens Green Stations will utilise dedicated routes to minimise impact locally. See Appendix A9.5 Sections 7.10 (Figure 7-51) together with Appendix A9.2-M.
26	8.4.1 Noise and Vibration	26	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing resilient track slab to meet threshold of 35 dBL _{max,s} and VDV = 0.4 m/s ¹ - respectively.	The EIAR assessment Chapter 14 Groundborne Noise and Vibration has found no requirement to mitigate noise & vibration from railway operations at this location. Information on the locations assessed as requiring floating slab track to mitigate operational noise is listed in EIAR Chapter 14, Table 14.47.
27	8.5 Future Development	27	The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (6) above.
28	9.0 CONCLUSION	27	With regards to the Gall Zeidler assessment, the most significant impact of the MetroLink project on Mobhi Road Complex will be from the construction of Griffith Park Station including associated utility and traffic diversions, dust, and noise. The OPW seeks assurances from TII that disruption from construction will be kept to a minimum and for the shortest time possible. .	Following the impact assessment in the EIAR, mitigation measures were proposed in order to minimize the impact of Metrolink construction and operation on receptors in the area for impacts such as dust, noise & traffic management plans. Proposed detailed mitigation measures can be found in EIAR Appendix A5.1, Outline Construction Environmental Management Plan (CEMP) and Chapter 31 of the EIAR. Attenuation and mitigation of disruption from construction is a priority for the proposed Project and TII are happy to engage further with OPW.
29	9.0 CONCLUSION	27	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the safe public access of the buildings and their day-to-day uses and functions, in particular with regards to the young age cohorts accessing the building on a daily basis..	Outlined in Section 5.10.5 of the EIAR Chapter 5 - Existing access to Scoil Mobhi will be maintained, and a lorry holding area employed to minimise the disruption caused by waiting HGVs. Further, in Section 7.5.5.3.2 of Appendix A9.5, that works associated with Whitehall College of Further Education are provided, including the temporary traffic management design for the shuttle signals allows for continued access to the college during the works. Safety is paramount to TII and the plans are to be developed at detailed design to minimise risk and / or impacts.
30	9.0 CONCLUSION	27	2) To ensure assessing the adverse traffic impacts on vehicular access to these properties during construction phase of the Project due to traffic diversions.	Please refer to response number (29) above.

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31	9.0 CONCLUSION	27	3) To ensure no adverse impact of the additional lorry movements on the Complex and its functions, for both deliveries and spoil removal, during construction of the Griffith Park station, as a portion of the lands on the Complex will provide for the station.	Please refer to response number (25) and (29) above.
32	9.0 CONCLUSION	27	4) To ensure no damage to the Colaiste Caoimhin (listed Protected Structure) and other buildings on the Mobhi Road Complex, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly regarding the ground borne noise and vibration pre- and post-construction to apply and monitor threshold limits where required.	These surveys will be undertaken at detailed design - please refer to response number (20) above.
33	9.0 CONCLUSION	28	5) To ensure assessing and applying limits to dewatering for the construction of the Griffith Park station to avoid adverse impacts on the properties at Mobhi Road Complex..	Please refer to response number (24) above.
34	9.0 CONCLUSION	28	6) To ensure detailed assessment of blasting at the Griffith Park station and its potential adverse impacts on the Mobhi Road Complex and its functions.	Please refer to response number (23) above.
35	9.0 CONCLUSION	28	7) To ensure liaising with the relevant stakeholders, including the OPW and the Department of Education, etc to prevent any interference with future development on the site and with respect to the increasingly growing demand for educational facilities in the area.	Ongoing liaison with OPW will continue throughout the construction phase of MetroLink.
36	9.0 CONCLUSION	28	8) To ensure detailed assessments, including adverse impacts on the verge of mature trees along Mobhi Road and outline mitigation measure regarding construction of the station on site.	Please refer to response number (3) above.
37	9.0 CONCLUSION	28	9) Precedents to be included within the risk assessments so to ensure utilising best practice guidance within implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
38	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	29	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (2) and (3) above.
39	Appendix 2: Ground movement Assessment	34	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	refer to OPW cover letter.

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1	Executive Summary	N/A	With respect to this property the OPW requests that An Bord Pleanadla recognises the sensitivity of the historic buildings and the activities undertaken at this location. Further, the OPW seeks: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions, in particular the musical events and performances. 2) To ensure no damage to the building, its architectural detailing, and its day-to-day functions pre- construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise and vibration which can damage this Complex of historical significance, as well as its functions. 3) To ensure specific vibrations limits that will be applied to the National Concert Hall Complex and a monitoring regime is to be implemented. 4) To include adverse impacts of Tara Street and St. Stephen's Green stations within the risk assessment studies for the National Concert Hall Complex and provide for mitigation measure, as construction of these stations will generate additional lorry movements for both deliveries and spoil removal. 5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project. 6) Regarding the tunnel boring machine noise over a 2-week period when the noise is predicted t exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the National Concert Hall and the OPW, to avoid any disruption to the functions of the National Concert Hall Complex. 7) To ensure no conflicts between the construction and operation of the Project and the future development of the Complex, as it is subject to on-going construction and further development, as part of Project Ireland 2040.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised here specific to this building are addressed in responses (2) through to (37) below.
2	3.0 Overview of the Draft Railway Order	9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. The National Concert Hall has been included in the building damage assessments to date. The assessment concludes that these building would be subject to negligible impacts due to ground movement. As it is designated "special" buildings it will progress to a detailed assessment despite the negligible impact predicted.
3	4.4 Planning Context	20	It is noted that DOWNEY have also carried out an examination of the planning history pertaining to the subject property and the surrounding area, which determined that a planning application was registered on the 29th of September 2022 by Dublin City Council, at the National Concert Hall, Earlsfort Terrace, Dublin 2. Registered under Reg. Ref. 4951/22, the development consists of "the conservation and refurbishment of the existing north wing and part of the east wing of the National Concert Hall and the Real Tennis Court building and the construction of a new four storey over basement extension with a planetarium dome to the west of the north wing at the boundary of the Iveagh Gardens. The development includes the change of use of the former UCD School of Civil Engineering to the National Children's Science Centre." While Dublin City Council issued a Notification of Decision to Grant Permission, this is subject to appeal to An Bord Pleanála..... With respect to the above-mentioned, the National Concert Hall Complex is a developing site, with currently one live application for the provision of a National Children's Science Centre under appeal to An Bord Pleanála. This suggests that the site should be constantly observed to prevent interfere of the Project and development of National Concert Hall Complex.	The planning history set out in the planning report examined all live planning applications and extant planning permissions at each of the construction sites along the route. The pattern of planning applications where the works are solely carried out by way of the TBM were not reported on, where above ground development potential is not affected by below ground tunnelling. The additional project listed by OPW will be considered within the cumulative assessment. It had not been previously assessed due to being submitted in September 2022 after the assessment cut off date but will be considered in a gap assessment that will be carried out prior to an Oral Hearing.

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4	4.4 Planning Context	21	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission. The Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project, it is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application. The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
5	4.5 Potential Development of the Property	22	This building itself is a protected structure and a property of national importance in a sensitive location. The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop the property, in advance, in tandem or post operation of the MetroLink Project.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.
6	5.0 MATERIAL CONSIDERATIONS	22	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly with Kildare Street, Merrion Square and St. Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
7	6.0 LEGAL CONSIDERATIONS	22	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
8	7.1.1 Route Alignment	23	Many of the reports refer to chainages along the alignment, however there are no plans that indicate these chainages, and this makes reviewing the Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.

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9	7.3 Contractual Arrangement	24	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.
10	8.0 POTENTIAL IMPACTS ON THE PROPERTY	24	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission; having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property	Please refer to response numbers (11) through to (27) below.
11	8.1 Monitoring	24	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.
12	8.2 Security Issues	25	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that " <i>Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order. "</i>
13	8.2 Security Issues	25	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.
14	8.2 Security Issues	25	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.
15	8.2 Security Issues	25	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.
16	8.2 Security Issues	25	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	This is not relevant for this building, as it is not directly above the alignment. But for TII, safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction stages to ensure suitable provisions are in place.

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17	8.3 During Construction of the MetroLink	26	Stage 2: Three sections were considered in the assessment. The assessment noted the National Concert Hall (which the Science Centre is a part of) as a "Special Building", warranting examination. NB the Table B1 of Identified buildings list the depth of the structure to 0m which is in error and the foundations should be clarified.	To clarify, the table in appendix B.1 refers to basement depth, not foundation depth. This assumes that the building does not have a basement. If this is incorrect it will get reassessed at Phase 3 assessment.
18	8.3.1 Ground Movement	27	Stage 3: The EIAR states that a Stage 3 assessment will be carried out for the National Concert Hall Complex (incl. the National Children's Science Centre) by the Contractor appointed to construct this section of the MetroLink. The OPW is expecting to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	As this is a Protected Structure it is designated as a Special case and will have a full Phase 3 assessment. TII will ensure that those undertaking the assessment are competent to do so. With regard to stages 4 and 5 i.e. the development of monitoring and mitigation plans and the subsequent close out of the impacts of settlement will form part of the scope of the project for the design and construction phases.
19	8.3.1 Ground Movement	27	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholders' infrastructure is carried out. Also, the preconstruction defect surveys are carried out prior to any excavation. The OPW will require to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the preconstruction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The OPW requests that only Engineers or Surveyors with proven competence in regard to (historic)buildings of this fabric type, period and nature are selected. The contractor(s) will coordinate preconstruction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	All surveys, monitoring and mitigation proposed for OPW property will be discussed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.
20	8.3.1 Ground Movement	27	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW will expect to be provided with close out reports for the monitoring of their property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.
21	8.3.3 Noise and Vibration	27	(a) Tunnelling EIAR Chapter 14 Ground Borne Noise and Vibration Measures identifies impacts on the National Concert Hall Complex during TBM excavation; this would be the same for the National Children's Science Centre, as the two buildings are connected, however, the Concert Hall is the focus for estimated impact. ■ Ground borne noise 49 dBAL Amax- Significant impact ■ Ground borne vibration 0.255 VDVdb ms' 1 -75 - no significant impact EIAR Table 6.2 - GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requests specific vibration limits that will be applied to the National Concert Hall Complex (incl. the National Children's Science Centre) and ensure that a monitoring regime is implemented. EIAR Table 6.2- ANV16, sets out requirement for pre-and-post-construction surveys of structures vulnerable to vibration induced damage. The OPW requests pre-and-post construction surveys of structures vulnerable to vibration induced damage to be carried out and this should include the National Concert Hall Complex (incl. the National Children's Science Centre).	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project. The assessment has identified that there will be no potential for structural damage due to vibration as levels of vibration are predicted to be below the construction threshold of 1.6 ms-1.75 VDV (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results). Regarding groundborne noise, unfortunately, there are no effective methods available to reduce groundborne noise from TBMs at source, but noting that the duration of this impact will be of the order of two weeks. TII will consult and liaise with NCH to ensure the timing of these impacts are known. The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy).
22	8.3.4 Work Sites	28	(b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel, however there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	A groundwater monitoring scheme will be undertaken across MetroLink as referenced in the EIAR.

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23	8.3.4 Work Sites	29	(c) Working Hours The National Concert Hall Complex (incl. the National Children's Science Centre) is located between Tara Street and St Stephen's Green Stations. The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity.	While no significant impact is expected on this building as a result of HGV traffic, TII will monitor road movements throughout the construction phase. As presented in Appendix A 9.5 Scheme Traffic Management Plan figures 7-43 and 7-51, HGV and site traffic routing will not take place in the vicinity of National Concert Hall. Figure 7-56 also provides information on proposed routing option s for Charlemont Station, located south of the National Concert Hall.
24	8.4.1 Noise and Vibration	29	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBLamax,s and VC-D respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear on its location. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+900. This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums, and the National Concert Hall.	According to Chapter 14 of the EIAR, Table 14.47 in the case of National Concert Hall, Floating Slab Track will be installed between Chainage 18+760 and 18+940.
25	8.4.2 Future Development	29	It is likely that there will be restrictions on future sub-grade development for the National Concert Hall complex as one corner of the building footprint is extremely close to the current planned alignment, and one corner of the proposed building for the National Children's Science Centre sits atop the current planned alignment.	Please refer to response number (5) above.
26	8.4.3 Evacuation Strategy	29	The are no planned intervention/evacuation shafts between Tara Station and Charlemont Station, however it is understood that the Fire Brigade have not accepted the strategy proposed by TII This may have an impact on the National Concert Hall Complex (incl. the National Children's Science Centre) should any intermediate shafts be required.	No additional shafts are required and are not provided for in the draft RO. TII has engaged with the Dublin Fire Brigade at all stages of the design and have not indicated that an intervention shaft is required at this location in that engagement or in their submission on the draft RO as part of their report to Dublin City Council. TII is continuing to engage with Dublin Fire Brigade in relation to the details of the strategy.
27	8.5 Future Development	29	The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop this property, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (5) above.
28	9.0 CONCLUSION	30	With regards to the Gall Zeidler assessment, the risk of damage to the National Concert Hall Complex from ground movement is negligible. Pre-construction, post-construction surveys, monitoring should be requested. During the passage of the tunnel boring machine (TBM) the noise is estimated to exceed the acceptable threshold (30 dBL Amax,s) and this may last for 2 weeks.	Please refer to response number (21) above.
29	9.0 CONCLUSION	30	With respect to this property the OPW is seeking: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions, in particular the musical events and performances.	As response number (23) above, no adverse impacts have been predicted on Earlsfort Terrace due the construction or operational phase of the project. Traffic Management planning within the EIAR proposes that construction vehicles to and from the St Stephens Green Stations will utilise dedicated routes to minimise impact locally. See Appendix A9.5 Sections 7.10 (Figure 7-51) together with Appendix A9.2-M.
30	9.0 CONCLUSION	30	2) To ensure no damage to the building, its architectural detailing, and its day-to-day functions pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise and vibration which can damage this Complex of historical significance, as well as its functions.	TII are happy to engage with OPW in order to discuss an appropriate monitoring programme for the above mentioned buildings.
31	9.0 CONCLUSION	30	3) To ensure specific vibrations limits that will be applied to the National Concert Hall Complex and a monitoring regime is to be implemented.	TII are happy to engage with OPW in order to discuss an appropriate monitoring programme for the above mentioned buildings.
32	9.0 CONCLUSION	30	4) To include adverse impacts of Tara Street and St. Stephen's Green stations within the risk assessment studies for the National Concert Hall Complex and provide for mitigation measure, as construction of these stations will generate additional lorry movements for both deliveries and spoil removal.	Please refer to response number (23) above.
33	9.0 CONCLUSION	30	5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
34	9.0 CONCLUSION	30	6) Regarding the tunnel boring machine noise over a 2-week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the National Concert Hall and the OPW, to avoid any disruption to the functions of the National Concert Hall Complex.	Please refer to response number (21) above.

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35	9.0 CONCLUSION	30	7) To ensure no conflicts between the construction and operation of the Project and the future development of the Complex, as it is subject to on-going construction and further development, as part of Project Ireland 2040.	Please refer to response number (5) above.
36	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	32	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (3) above.
37	Appendix 2: Ground movement Assessment	37	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to Cover Letter.

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1	Executive Summary	N/A	With respect to this property, the OPW requests that An Board Pleanála notes the sensitivity of the historic buildings and national collections located within. The OPW also seeks: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions. This includes c. 4,800 events being run by the NGI on an annual basis. 2) To ensure no damage to the building, its architectural detailing, or the collections housed therein, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise, vibration, and dust which can damage the building, which is of historical significance as well as the valuable art works and stain glasses stored in the NGI. 3) To ensure liaising with the OPW and NGI regarding timeline of the work that needs to be carried out from site investigation through to post commissioning. 4) Basement level of the building is currently being used as a storage space with the collections kept in cabinets. Whether on the display or in the cabinets, no objects and collections are fixed in place, rather they are balanced on their own weight, and this needs to be acknowledged by TII and within the risk assessments in stage 3 to ensure no damage to the collections. 5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project. 6) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 1 7+980 and 18+400, which is the St. Stephen's Green Station. 7) Regarding the tunnel boring machine noise over a 2-weeks period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be pushed during recess of the Dail in order to avoid any disruption to the functions of the NGI.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised here specific to this building are addressed in responses (2) through to (36) below.
2	3.0 Overview of the Draft Railway Order	9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	While acknowledging this comment, please note this building is outside of the zone of influence of the tunnelling and hence will not be impacted by any ground movement.
3	4.1.1 The NGI (The Dargan, Milltown, Beit, and Millennium Wings)	13	The interior comprises a quadruple-height entrance hall with plastered walls, square-headed openings, tapestry by Louis le Brocquy to the east wall, stairs hall with plastered walls and Portland stone steps, double-height winter garden to the west, Portland stone walls to the east and west, bounded by ballroom to the south and rear elevation of No. 5 Clare Street to the north with glazed roof. Many aspects of the buildings could be susceptible to vibration or changes to its environment.	Please refer to response number (2) above.
4	4.3 Current Use/Uses	18	There is a concern that these construction activities will cause vibrations to such an extent as to risk damaging the Art Works. For the most recent development at the NGI, the OPW appointed PUNCH Consulting Engineers to manage the impact of vibrations of buildings and collections. Monitoring was conducted at critical points throughout the buildings and daily "graphically" reports issue to Conservation to monitor conditions. This proved to be very successful and enabled the NGI to have confidence in and maintain some level of influence over factors outside of their control. The NGI would like the same practice to be implemented from site survey investigation stage right through to post commissioning. Typically, to receive benchmarks, the NGI would like Vibration Monitoring to begin six months in advance of site survey investigations and remain in place for one year post Metro Rail operation. It is important to note that during the previous Luas Constructions Works and the NGI Masterplan development Works, vibration monitoring proved to be a key stage to ensure the protection of the NGI and collections. in conclusion, vibration limits of 5mm/s are standard for dwellings or general building stock reducing to 3mm/s for sensitive or listed buildings. It has been advised by the NGI that vibration tolerance bands for the NGI during construction and operation phases of the MetroLink should be as follows: ■ Acceptable Tolerance Level is 0.8mm/s. ■ Upper Permitted Tolerance Level be 1.0mm/s. ■ Outer Tolerance Level be 1.4 mm/s - All works should cease. For further information in this regard, please refer to the Appendix 2 of this submission, which is a Vibration Monitoring Method Statement, carried out by PUNCH Consulting Engineers for the NGI.	It is anticipated that there will be no significant impact on this building. As set out in Appendix 14.5 Groundborne Noise and Vibration and Blasting Modelling Results, the values of vibration during construction and operation of Metrolink are below the suggested Acceptable Tolerance Level of 0.8mm/s. As a result no significant impact is expected on this building. As detailed in EIAR Appendix 5.1 the Contractor will develop the Construction Noise and Vibration Monitoring Plan which will detail monitoring locations.

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5	4.4 Planning Context	18	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 3 of this submission, and the Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project regarding existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application. The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
6	4.5 Potential Development of the Property	19	The NGI building itself is a protected structure in a sensitive location. It is unlikely that permission will ever be sought in the future to extend upwards. However, development potential of this property includes the possibility of building multiple basement levels. As mentioned earlier, the NGI footprint includes the Dragan Wing, Milltown and the Millennium Wings as well as the Merrion Square West 88/90, together with the OPW's control of 91/92 Merrion Square West. The two latter are potential sites for the Masterplan Phase 4 development of the NGI. Moreover, the NGI reserved a site behind Nos. 90-93 Merrion Square West that extends to Clare Lane and the Clare Court apartments. This is also for the future development of the NGI, as part of the Masterplan development with essential access from Clare Street and Clare Lane that cannot be undermined. Access to this site will be required at all times. Furthermore, as part of the refurbishment works to the Historic Wings, the NGI are installing a new racking storage system as part of the relocation of the art storage area from within the Milltown Wing to the Millennium Wing adjacent. The refurbishment works to the Milltown Wing will consist of the excavation, underpinning and breaking out for basement level ducts as well as forming the vertical distribution routes.	While acknowledging this comments, as the building is a distant from the MetroLink there will be no interfaces with development.
7	5.0 MATERIAL CONSIDERATIONS	19	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-EIA- ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly with Kildare Street, Merrion Square and St. Stephen's Green areas.	While not relevant to this building, there is a graphical difference in the two drawings noted but the correct alignment has been used in the environmental impact assessments specifically with due regard to tunnel induced settlement, vibration due to tunnelling and the operational phase of the MetroLink. Therefore OPW can be assured that the impacts as presented are correct.
8	6.0 LEGAL CONSIDERATIONS	19	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
9	7.1.1 Route Alignment	20	The tunnel alignment does not pass directly beneath the NG1, however there is inconsistency in the alignment between Tara Station and St. Stephen's Green. The alignment drawing ML1-JAI-EIA-ROUTJXX-DR-Y-05025 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments.	Please refer to response number (7) above.
10	7.3 Contractual Arrangement	22	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.

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11	8.0 POTENTIAL IMPACTS ON THE PROPERTY	22	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response numbers (12) to (27) below.
12	8.1 Monitoring	22	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	Please refer to response number (2) above and (22) below. TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.
13	8.2 Security Issues	22	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that " <i>Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order. "</i>
14	8.2 Security Issues	22	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.
15	8.2 Security Issues	23	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to ail persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.
16	8.2 Security Issues	23	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.
17	8.2 Security Issues	23	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place."
18	8.3 During Construction of the MetroLink	23	This building is a fully functioning Art Gallery. It provides functional spaces and office accommodation and the impact of any proposed works in terms of noise, vibration, etc. which effects the quality of the working environment would need to be carefully considered (see Appendices 2-4).	The impact assessment in the EIAR in terms of noise and vibration was done taking in consideration the type of building being assessed, with different thresholds for each category (ex. Commercial, residential, special buildings as schools, hospitals, theatres or heritage buildings).

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19	8.3.1 Ground Movement	24	Stage 3: The EIAR states that a Stage 3 assessment will be carried out for the NGI by the Contractor appointed to construct this section of the MetroLink. The OPW expects to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Draft Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	While noting this comment, we also refer you to response number (2) above.	
20	8.3.1 Ground Movement	24	Stage 4 (Construction Stage): This is stage where any mitigation is implemented, and the monitoring of the stakeholder's infrastructure is carried out. Also, the pre-construction defect surveys are carried out prior to any excavation. The OPW requires to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the pre-construction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate pre- construction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	While noting this comment, we also refer you to response number (2) above. As this building is outside the zone of influence there will be no impacts associated with ground movement. All surveys, monitoring and mitigation proposed for OPW property will be discussed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.	
21	8.3.1 Ground Movement	24	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of its property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	While noting this comment, we also refer you to response number (2) above. As this building is outside the zone of influence there will be no impacts associated with ground movement. TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.	
22	8.3.3 Noise and Vibration	24	(a) Tunnelling EIAR Chapter 14 Ground Borne Noise and Vibration Measures identifies the impact on the NGI during TBM excavation: ■ Ground borne noise 44 dBA LAmax- Not Significant Impact ■ Ground borne vibration - No Significant Impact EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requests specific vibration limits that will be applied to the NGI and ensure that a monitoring regime is implemented (as per detail in section 4.3). E1AR Table 6.2- ANV16. sets out requirement for pre- and post-construction surveys of structures vulnerable to vibration induced damage. The OPW seeks that pre- and post-construction surveys of structures vulnerable to vibration induced damage to be carried out and this should include the NGI.	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project, and these have been listed in your response. The assessment has identified that there will be no potential for structural damage due to vibration as levels of vibration are predicted to be below the construction threshold as is also the case for the TBM passage. Given the distance from this building to the MetroLink tunnel alignment, no surveys or monitoring are required at this location. The assessment also identifies that groundborne noise is anticipated to be below the threshold level. Nevertheless, TII will consult and liaise with the Natural History Museum to ensure the timing of the TBM passing through this area are known.	
23	8.3.4 Work Sites	25	(b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel, however there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	A groundwater monitoring scheme will be undertaken across MetroLink as referenced in the EIAR. Given the distance from this building to the MetroLink alignment, this issues is not relevant.	
24	8.3.4 Work Sites	25	(c) Working Hours The NGI is located between Tara Street and St. Stephen's Green stations. The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and its contractors will need to manage to minimise impact in the vicinity.	While no significant impact is expected on this building as a result of HGV traffic, TII will monitor road movements throughout the construction phase. Traffic Management planning within the EIAR proposes that construction vehicles from either of the closest sites Tara St or St Stephens Green Stations will not take place in the vicinity of the National Gallery - minimising any impact on this location. See Appendix A9.5 Sections 7.9 (Figure 7-43) and 7.10 (Figure 7-51) together with Appendix A9.2-O. and Appendix A9.2-M.	
25	8.4.1 Noise and Vibration	26	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBLamax, s and VC-D respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St. Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums, and the National Concert Hall.	The requirement for proposed Floating Slab Track is set out within EIAR Chapter 14, Table 14.47. Also referring to response number (24) above and given the distance from this building to the MetroLink alignment, consideration of this requirement is not relevant to this building.	

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26	8.4.3 Evacuation Strategy	26	The are no planned intervention/evacuation shafts between Tara Station and St. Stephen's Green. However, it is understood that the Fire Brigade have not accepted the strategy proposed by TII. This may have an impact on the National Gallery of Ireland should any intermediate shafts be required and will impact on the security of the complex.	No additional shafts are required and are not provided for in the draft RO. TII has engaged with the Dublin Fire Brigade at all stages of the design and have not indicated that an intervention shaft is required at this location in that engagement or in their submission on the draft RO as part of their report to Dublin City Council. TII is continuing to engage with Dublin Fire Brigade in relation to the details of the strategy.
27	8.5 Future Development	26	The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop this property, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (6) above.
28	9.0 CONCLUSION	27	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions. This includes c. 4,800 events being run by the NGI on an annual basis.	Further to response number (24) above, no TTM measures or adverse impacts to access have been identified on Merrion St as part of works or operational phases of MetroLink from either Tara Street or St Stephens Green Stations. See Appendix A9.5 Sections 7.9 and 7.10, Appendix A9.2-M, and Appendix A9.2-O.
29	9.0 CONCLUSION	27	2) To ensure no damage to the building, its architectural detailing, or the collections housed therein, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise, vibration, and dust which can damage the building, which is of historical significance as well as the valuable art works and stain glasses stored in the NGI.	Not relevant for this building. Please refer to response number (2) to (6) and (22) above.
30	9.0 CONCLUSION	27	3) To ensure liaising with the OPW and NGI regarding timeline of the work that needs to be carried out from site investigation through to post commissioning.	TII have and will continue to consult with OPW with regard to timing of the works.
31	9.0 CONCLUSION	27	4) Basement level of the building is currently being used as a storage space with the collections kept in cabinets. Whether on the display or in the cabinets, no objects and collections are fixed in place, rather they are balanced on their own weight, and this needs to be acknowledged by TII and within the risk assessments in stage 3 to ensure no damage to the collections.	Not relevant to this building. Please refer to response number (2) to (6) above.
32	9.0 CONCLUSION	27	5) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
33	9.0 CONCLUSION	27	6) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station.	Please refer to response (25) above. Not relevant to this building.
34	9.0 CONCLUSION	27	7) Regarding the tunnel boring machine noise over a 2-weeks period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be pushed during recess of the Dail in order to avoid any disruption to the functions of the NGI.	Please refer to response number (4) above. Not relevant to this building.
35	APPENDIX 3: LIST OF PLANNING LEGISLATION & POLICY	35	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (5) above.
36	Appendix 4: Ground movement Assessment	32	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	refer to OPW Cover letter.

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OPW Cover Letter - Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) - Natural History Museum				
1	Executive Summary	N/A	With respect to this property, the OPW is seeking for An Bord Pleanla to recognise the sensitivity of the historic buildings at this location and the sensitive nature of the National collections housed therein. The OPW also seeks: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions, 2) To ensure no damage to the building, its architectural detailing, and the archive and collections kept within the NHM, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise, vibration, and dust which can damage the building which is of historical significance as well as the valuable collections stored in the NHM. 3) Precedents to be included within the risk assessments so to ensure utilising best practice guidance within the implementation of the Project. 4) To ensure no adverse impact of the additional lorry movements on the NHM and its collections, for both deliveries and spoil removal, during construction of St. Stephen's Green and Tara stations, as the NHM is situated between the two. 5) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station. 6) Regarding the tunnel boring machine noise over a 2-week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the Natural History Museum and the OPW, to avoid any disruption to the functions of the Museum. 7) To ensure that all parts of the Natural History Museum are subject to Stage 3 assessment, and consequent, subsequent stages of assessment. 8) To consider the 2025 international event planned by the National Museum of Ireland (with Natural History Museum as part of this collective) to avoid any disruption to this grand event.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised here specific to this building are addressed in responses (2) through to (41) below.
2	3.0 Overview of the Draft Railway Order	9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	While acknowledging this comment, please note this building is outside of the zone of influence of the tunnelling and hence will not be impacted by any ground movement.
3	4.1 Property Location & Description	15	The following is a non-exhaustive list of building sensitivities to take into account in the Stage 3 and further assessments (construction and operation stage). We would recommend close liaison with Library and the OPW personnel at all stages of the project: Building Sensitives ■ Building structure and heterogeneity - The response of a building that combines traditional and early modern construction may be difficult to predict. - This is a Victorian structure; the presence of cast-iron concealed within walls, and exposed, structural, and non-structural elements is to be considered, noting the brittleness of cast iron. - The balcony and wall structures are connected, movement could impact on cabinets and collections. - Presence of iron dowels fixing stone. - Early concrete and clinker filled floors. - The floor is laid onto soil. ■ Windows, roof-lights - The extensive roof-light should be assumed to be very fragile. - Circa 1855 windows with some original glass; early glass is thin and very fragile. ■ Special finishes and features - Original tiled floors with cast iron vent covers- the potential impact of vibration and settlement needs to be considered. - Cantilevered staircase to west end of the building. ■ Other aspects of note - Risk of water ingress through roof covers, roof-lights, flashings, and rainwater goods. - Monitoring to detect movement and/or water ingress at earliest opportunity to prevent damage to the building and collections.	TII welcome this information in relation to this building but would refer you to response number (2) above.
4	4.3 Current Use/Uses	17	There is a collection of late nineteenth century blaschka glass models of world renown. These are exceptionally fragile and vulnerable to any movement. Other fragile items are historic bottles with specimens & formaldehyde. All organic preserved specimens have inherent vulnerabilities. The nature of the wall and balcony structures and of cabinets is such that any movement of the external wall or floors may cause movement of the cabinets and damage to collections. The cabinets themselves are of fragile joinery and very thin fragile glass.	While noting this information we also refer you to response number (2) above.

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5	4.3 Current Use/Uses	17	The building is in use as a National Cultural Institution. Uninterrupted access to the building is necessary at all times for the conduct of the business of the Natural History Museum and for access by emergency services (e.g., fire services and ambulance). The OPW/the State and their authorised agents require access to the building at all times for the purpose of facilities management, maintenance, repairs and any major conservation, repair or development programmes, planned, or as may arise during the construction period of MetroLink.	Please refer to responses number (27) and (32) below.
6	4.4 Planning Context	17	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission. The Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project, it is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
7	4.5 Potential Development of the Property	18	The Natural History Museum is a protected structure in a sensitive location. The future development potential of this property lays in the possibility of building multiple basement levels..	As the buildings are distant from MetroLink there are no interfaces with development. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.
8	5.0 MATERIAL CONSIDERATIONS	18	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly with Kildare Street, Merrion Square and St. Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
9	6.0 LEGAL CONSIDERATIONS	18	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
10	7.1.1 Route Alignment	18	The tunnel alignment does not pass directly beneath the Natural History Museum building however there is inconsistency in the alignment between Tara Station and St. Stephen's Green. The alignment drawing ML1-JAI-E1A-ROUT_XX-DR-Y-05025 and the Contour drawing ML1-JAI-E1A-ROUT_XX-DR-Y- 21148 show different alignments.	Please refer to response number (8) above.
11	7.1.1 Route Alignment	19	Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Draft Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.

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12	7.3 Contractual Arrangement	20	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.
13	8.0 POTENTIAL IMPACTS ON THE PROPERTY	20	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission; and having regard to the status and current use of the property and identified constraints, the following raises issues regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response number (14) through to (29) below.
14	8.1 Monitoring	21	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanaia attach a condition to the Draft Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink	Please refer to response number (2) above and (24) below.
15	8.2 Security Issues	21	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."
16	8.2 Security Issues	21	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.
17	8.2 Security Issues	21	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to ail persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.
18	8.2 Security Issues	21	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minise said disruption.
19	8.2 Security Issues	21	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.
20	8.3.1 Ground Movement	22	Stage 2: Three sections were considered in the assessment. The assessment concludes that the risk of damage to the Natural History Museum is Category 0, Negligible. However, as a "Special building" it shall progress to stage/Phase 3 assessment.	While noting this comment, we also refer you to response number (2) above.

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21	8.3.1 Ground Movement	22	Stage 3: The E1AR states that a Stage 3 assessment will be carried out for the National History Museum by the Contractor appointed to construct this section of the Metrolink. The OPW expects to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Draft Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	While noting this comment, we also refer you to response number (2) above.
22	8.3.1 Ground Movement	23	Stage 4 {Construction Stage}: This stage is where any mitigation is implemented, and the monitoring of the stakeholders' infrastructure is carried out. Also, the pre-construction defect surveys are carried out prior to any excavation. The OPW requires to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the pre-construction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The OPW requests that only Engineers or Surveyors with proven competence in relation to (historic) buildings of this fabric type, period and nature are selected. The contractor(s) will coordinate pre-construction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	While noting this comment, we also refer you to response number (2) above.
23	8.3.1 Ground Movement	23	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of its property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	While noting this comment, we also refer you to response number (2) above.
24	8.3.3 Noise and Vibration	23	(a) Tunnelling EIAR Chapter 14 Ground Borne Noise and Vibration Measures identifies the impact on the neighbouring structures; based on the National Gallery's assessment, the impact to the Natural History Museum during TBM excavation: ■ Ground borne noise 44 dBA L_{Amax} - Significant Impact ■ Ground borne vibration >VC-A - No Significant Impact EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requires specific vibration limits to be applied to The Natural History Museum and that TII ensure that a monitoring regime is implemented. EIAR Table 6.2- ANV16. sets out requirement for pre- and post-construction surveys of structures vulnerable to vibration induced damage. The OPW requires pre- and post-construction surveys of structures vulnerable to vibration induced damage to be carried out and this should include the Natural History Museum.	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project, and these have been listed in your response. The assessment has identified that there will be no potential for structural damage due to vibration as levels of vibration are predicted to be below the construction threshold as is also the case for the TBM passage. Given the distance from this building to the MetroLink tunnel alignment, no surveys or monitoring are required at this location. The assessment also identifies that groundborne noise is anticipated to be below the threshold level. Nevertheless, TII will consult and liaise with the Natural History Museum to ensure the timing of the TBM passing through this area are known.
25	8.3.4 Work Sites	24	(b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel, however there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	A groundwater monitoring scheme will be undertaken across MetroLink as referenced in the EIAR. Given the distance from this building to the MetroLink alignment, this issue is not relevant.
26	8.3.4 Work Sites	24	(c) Working Hours The Natural History Museum is located between Tara Street and St. Stephen's Green stations. The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity.	While no significant impact is expected on this building as a result of HGV traffic, TII will monitor road movements throughout the construction phase. Traffic Management planning within the EIAR proposes that construction vehicles from either of the closest sites Tara St or St Stephens Green Stations will not take place in the vicinity of the National Gallery - minimising any impact on this location. See Appendix A9.5 Sections 7.9 (Figure 7-43) and 7.10 (Figure 7-51) together with Appendix A9.2-O. and Appendix A9.2-M.

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27	8.4.1 Noise and Vibration	25	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBL _{max} ,s and VC-D respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St. Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums, and the Natural History Museum.	The requirement for proposed Floating Slab Track is set out within EIAR Chapter 14, Table 14.47. Also referring to response number (24) above and given the distance from this building to the MetroLink alignment, consideration of this requirement is not relevant to this building.	
28	8.4.3 Evacuation Strategy	25	The are no planned intervention/evacuation shafts between Tara Station and St. Stephen's Green. However, it is understood that the Fire Brigade have not accepted the strategy proposed by TII. This may have an impact on the Natural History Museum should any intermediate shafts be required and will impact on the security of the complex.	No additional shafts are required and are not provided for in the draft RO. TII has engaged with the Dublin Fire Brigade at all stages of the design and have not indicated that an intervention shaft is required at this location in that engagement or in their submission on the draft RO as part of their report to Dublin City Council. TII is continuing to engage with Dublin Fire Brigade in relation to the details of the strategy.	
29	8.5 Future Development	25	The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop this property, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (6) above.	
30	9.0 CONCLUSION	26	With regard to the Gall Zeidler assessment, the risk of damage to the Natural History Museum from ground movement is negligible. Pre-construction, post-construction surveys, monitoring should be requested	Please refer to response number (2) above.	
31	9.0 CONCLUSION	26	With respect to this property, the OPW is seeking for An Bord Pleanála to recognise the historic significance of the building and the highly sensitive national collections contained therein. The OPW also seeks: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions	Further to response number (26) above, no TTM measures or adverse impacts to access have been identified on Kildare Street or Merrion St Upper as part of works or operational phases of MetroLink from either Tara Street or St Stephens Green Stations. See Appendix A9.5 Sections 7.9 and 7.10, Appendix A9.2-M, and Appendix A9.2-O.	
32	9.0 CONCLUSION	26	2) To ensure no damage to the building, its architectural detailing, and the archive and collections kept within the NHM, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise, vibration, and dust which can damage the building which is of historical significance as well as the valuable collections stored in the NHM.	Please refer to response number (2) and (24) above.	
33	9.0 CONCLUSION	26	3) Precedents to be included within the risk assessments so to ensure utilising best practice guidance within the plementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.	
34	9.0 CONCLUSION	26	4) To ensure no adverse impact of the additional lorry movements on the NHM and its collections, for both deliveries and spoil removal, during construction of St. Stephen's Green and Tara stations, as the NHM is situated between the two.	Please refer to response number (26) and (31) above.	
35	9.0 CONCLUSION	26	5) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station.	The requirement for proposed Floating Slab Track is set out within EIAR Chapter 14, Table 14.47. Also referring to response number (24) above and given the distance from this building to the MetroLink alignment, consideration of this requirement is not relevant to this building.	
36	9.0 CONCLUSION	26	6) Regarding the tunnel boring machine noise over a 2-week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the Natural History Museum and the OPW, to avoid any disruption to the functions of the Museum.	TII will coordinate and advise of the timing of this impact in advance.	
37	9.0 CONCLUSION	26	7) To ensure that all parts of the Natural History Museum are subject to Stage 3 assessment, and consequent, subsequent stages of assessment.	Please refer to response number (2) and (24) above.	

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38	9.0 CONCLUSION	26	8) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station.	Please refer to response number (37) above.
39	9.0 CONCLUSION	26	9) To consider the 2025 international event planned by the National Museum of Ireland (with Natural History Museum as part of this collective) to avoid any disruption to this grand event.	MetroLink will not impact this event.
40	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	27	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (6) above.
41	Appendix 2: Ground movement Assessment	32	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover letter.

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OPW Cover Letter - Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) - National Library of Ireland				
1	Executive Summary	N/A	With respect to this property, the OPW is seeking: 1) To ensure that the unique nature of this property and its rare and invaluable contents are fully understood and provided for when considering the application for a Railway Order. 2) To ensure no disruption to the public access of the building and its day-to-day uses and functions. 3) To ensure no damage to the buildings and its architectural detailing, pre-construction and post- construction surveys, trials and monitoring is required. This is mainly concerned with noise, vibration, and dust which can damage the building which is of historical significance as well as the historic manuscripts and records. 4) To ensure that all parts of the National Library of Ireland identified in this submission are subject to Stage 3 assessment, and consequent, subsequent stages of assessment. 5) To ensure there is no disturbance to the operation of activities in the National Library such as noise levels in reading rooms and use of ultra-hi-res cameras in the Racquet Ball Court Studio. 6) Basement levels are currently being used as a storage space for books and manuscripts which may be sensitive to vibration and increased moisture levels. The sprinkler system may be sensitive to vibration. These factors must be acknowledged by TII and within the risk assessments in Stage 3 to ensure no damage to the collections. 7) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project. 8) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 1 7-1-980 and 18+400, which is the St. Stephen's Green Station. 9) Regarding the tunnel boring machine noise over a 2-week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the National Library of Ireland and the OPW, to avoid any disruption to the functions of the National Library of Ireland.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised here specific to this building are addressed in responses (2) through to (50) below.
2	3.0 OVERVIEW OF THE DRAFT RAILWAY ORDER	9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category, as is the National Library of Ireland. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. This building has been assessed as in the negligible damage category, refer to EIAR Appendix 5.17, table 5.2, building B-20.
3	4.1.4 Nos. 2-3 Kildare Street	16	The Racquet Hall is one of the few ancillary buildings associated with the Kildare Street Club to have survived. It is located on and is accessed from Kildare Place. It contains the NLI Digitisation Studios, which house super high-resolution cameras on wall mounted brackets. These cameras and their image output are extremely vulnerable to vibration of the wall and/or floor.	EIAR Appendix A14.5, Groundborne Noise and Vibration and Blasting Modelling Results, 14.4 Section AZ4 Northwood to Charlemont, presents the predicted vibration levels during TBM passage for various sensitive receptors. The predicted vibration level in terms of the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) for TBM Passage at the National Library is 0.245ms-1.75 (VDV day) and 0.260ms-1.75 (VDV night). Both of these values are lower than the VDV Threshold Levels of 1.0ms-1.75 (VDV day) and 0.5ms-1.75 (VDV night). These threshold levels have been derived in relation to human response to vibration, and thresholds for building damage are much higher. As the predicted levels of vibration from TBM passage are below these thresholds then no impact is expected for the building. In relation to the high-resolution cameras, the ASHRAE guidelines can be used to consider the effects of vibration on sensitive equipment, as described in EIAR Chapter 14 (Groundborne noise and vibration) section 14.2.1.3. The predicted vibration level in relation to the ASHRAE criteria at this building is the VCA-A level during TBM passage. This threshold level is adequate in relation to optical microscopes to 400x resolution, as well as computer equipment. The EIAR Appendix A5.1 contains the outline Construction Environmental Management Plan for the construction phase of the MetroLink, with mitigation measures in relation to noise and vibration given in Table 6.2. Measure GNV1 related to advance public consultation and stakeholder engagement to prepare building occupants for the passage of the TBM. With regard to vibration effects on the use of sensitive equipment, there is potential to plan the passage of the TBM during weeks when critical use of the equipment can be avoided.

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4	4.1.5 Nos. 4-5 Kildare Street	17	The route of the MetroLink is directly underneath the 1827 Wing. Ref. Figure 20.16 Settlement Contours Sheet 28 of 30. This assessment is based on the parallel contours. A blue line denoted 'Tunnel' is out of alignment with the parallel contours.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
5	4.1 Property Location & Description	18	Building Sensitives ■ Building structure and heterogeneity - The response to movement of an assemblage of buildings of different construction materials and type is difficult to predict. - The response of a building that combines traditional and early modern construction may be difficult to predict. - the presence of cast iron within walls, exposed, structural and non-structural elements is to be considered, noting the brittleness of cast iron. - Presence of iron dowels fixing stone. - Limestone cladding to No. 4 Kildare Street. ■ Windows, rooflights and clerestory windows - Iron/steel windows with some original glass. - c. 1890 windows with some original glass. - Stained glass windows in the entrance hall and staircase are particularly significant and fragile. - Roof-lights historic and modern. - Steel clerestory windows. ■ Special finishes - Mosaic floors the potential impact of vibration needs to be considered. ■ Other aspects of note - Basements relying on tanking for waterproofing (containing vulnerable collections) and lift pits. Monitoring required. - Note to be taken of the brittle nature of the sprinkler system in the throughout the 1827 Building and East Wing. - Potential for vibration to trigger alarms such as the air sampling smoke alarm.	TII welcome this information which will be incorporated into the Phase 3 assessment as noted in EIAR Appendix A5.17.
6	4.3 Current Use/Uses	21	The following is a non-exhaustive list of collections and other use sensitivities to take into account in the Stage 3 and later assessments (construction and operation stage). We would recommend close liaison with Library and the OPW personnel at all stages of the project: Collection Sensitivities ■ Valuable and sensitive collections in basement levels will be very susceptible to damage if tanking is damaged. Monitoring required. ■ The potential impact of vibration on old book bindings (construction and operation stage) needs to be considered. ■ The potential impact of vibration on manuscripts, drawings, applied media, other media and all of the collection (construction and operation stage) needs to be considered. ■ Note to be taken of the brittle nature of the sprinkler system throughout the 1827 Building and the East Wing. ■ Other environmental concerns will be covered in the environmental section. Other Use Sensitivities ■ It should be noted that a library is in essence a quiet space, in particular Reading Rooms ■ Public events are recorded and live streamed. Audio Visual equipment and cameras would be sensitive to vibration and noise. ■ Public exhibitions combine both visual and sensitive audio experiences, which would be negatively impacted by sound and vibration. ■ The National Library accepts items on loan from international collections for research or display. These are subject to strict security, environmental standards and specific conditions to be met before such a loan is agreed. Activities in the NLI Digitisation Studios in the former Racquet Hall on Leinster Lane are very sensitive to vibration. " Potential impacts on neurodiverse visitors in the construction and operational stages to be considered.	See Item 5 response.
7	4.3 Current Use/Uses	22	The building is in use as a National Cultural Institution. Uninterrupted access to the building is necessary at all times for the conduct of the business of the National Museum of Ireland and for access by emergency services (e.g., fire services and ambulance). The OPW and/the State, and their authorised agents, require access to the building at all times for the purpose of facilities management, maintenance, repairs and any major conservation, repair or development programme, planned, or as may arise during the construction period of MetroLink.	There will be no impact on access to this building. No Temporary Traffic Management measures or adverse impacts to access have been identified on Kildare Street or Merrion St Upper as part of works or operational phases of MetroLink from either Tara Street or St Stephens Green Stations. See Appendix A9.5 Sections 7.9 and 7.10, Appendix A9.2-M, and Appendix A9.2 -O.

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8	4.4 Planning Context	22	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission. The Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
9	4.5 Potential Development of the Property	23	Currently, the National Library are in pre-planning discussions with Dublin City Council for a potential future development on site. Subject to funding, this future proposed West Wing refurbishment may include a new lift system. Potentially, these works could be underway at the same time as tunnelling. Due to site sensitivities, the timing of this proposed development may need to be scheduled in coordination with the MetroLink Alignment delivery, as to not impose restrictions on works at ground level. Therefore, the OPW respectfully requests An Bord Pleanála to ensure that nothing in the development of the MetroLink would sterilise parts of our state-owned lands both now and into the future, and in this regard, will seek to reserve the rights to future development both above and below ground.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future
10	5.0 MATERIAL CONSIDERATIONS	23	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-EIA- ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW, particularly with Kildare Street, Merrion Square and St. Stephens Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
11	6.0 LEGAL CONSIDERATIONS	23	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
12	7.1.1 Route Alignment	24	Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Railway Order and EIAR difficult.	TII notes OPW statement that no chainage drawings have been provided. Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.

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13	7.3 Contractual Arrangement	26	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.
14	8.0 POTENTIAL IMPACTS ON THE PROPERTY	26	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission, and, having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response number (15) through to (38) below.
15	8.1 Monitoring	26	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and discuss the methodology of installation — t the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.
16	8.2 Security Issues	26	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	ALG text: This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."
17	8.2 Security Issues	26	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.
18	8.2 Security Issues	27	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.
19	8.2 Security Issues	27	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption
20	8.2 Security Issues	27	The design and operation of the MetroLink should be inline with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.

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21	8.3 During Construction of the MetroLink	27	This building is a fully functioning reference library. It provides functional spaces and office accommodation and as such the impact of any proposed works in terms of noise, vibration, etc. which effects the quality of the working environment would need to be carefully considered.	Groundborne Noise and vibration impact during construction and operation of Metrolink was fully assessed in the EIAR, Chapter 14. Groundborne Noise: Sections 14.4.1.8 AZ4 – Groundborne Noise during Construction, and Table 14.29, presents the predicted noise levels during TBM Passage compared to the threshold values for noise for the National Library of Ireland. According to the calculations in table 14.29 the LAmax,s for TBM Passage at National Library of Ireland has a value of 48 dB while the Threshold Level for this building is 45 dB, resulting a significant impact on the buildings operation for the limited duration during TBM passage. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from TBMs at source but noting that the duration of this impact will be in the order of up to two weeks as the TBM passes. TII will liaise with the National Library of Ireland to ensure the timing of these impacts are known. Groundborne Vibration: The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project. The assessment has identified that there will be no potential for structural damage due to vibration as levels of vibration are predicted to be below the construction threshold of 1.6 ms-1.75 VDV (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results). Any further noise and vibration impact during the construction and operation of Metrolink is considered to be not significant, at the National Library of Ireland.
22	8.3.1 Ground Movement	27	Stage 1: Defines extent of ground movement using Moderately Conservative parameters. The parameters considered by MetroLink are: ■ Volume Loss, Vs = 0.75 ■ Trough Width parameter, k = 0.4 These are considered appropriate for defining the zone of influence. The extent of the zone of influence is defined by the 1mm contour line (Dark Red) and approximately 50% of The National Library is within the zone of influence and therefore it needs to be considered at	Stage 1 / 2 assessments conclude Negligible damage. Despite this given the building status it will progress to a full Phase 3 assessment.
23	8.3.1 Ground Movement	28	Stage 2: Three sections were considered in the assessment. The assessment concludes that the risk of damage to The National Library is Category 0, Negligible. However, as a "Special building" it shall progress to stage/Phase 3 assessment on the basis of the building's foundation being deeper than 4m.	Agreed, further to response number (2) above and owing to its assigned status as a "Special Building" the National Library will progress to the next stage of assessments.
24	8.3.1 Ground Movement	28	Stage 3: The EIAR states that a Stage 3 assessment will be carried out for The National Library by the Contractor appointed to construct this section of the MetroLink. The OPW expects to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analysis of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Draft Railway Order or EIAR. Industry best practice, as applied to London's Elizabeth Line (Crossrail), required that two further Stages in the Assessment of ground movement were undertaken during the project.	As this is a Protected Structure it is designated as a Special case and will have a full Phase 3 assessment. TII will ensure that those undertaking the assessment are competent to do so. With regard to stages 4 and 5 (i.e. the development of monitoring and mitigation plans and the subsequent close out of the impacts of settlement) will form part of the scope of the project for the design and construction phases.
25	8.3.1 Ground Movement	28	Stage 4 (Construction Stage): At this stage any mitigation identified at Stage 2 is implemented and the monitoring of the stakeholder's infrastructure is carried out. Also, the pre-construction defect surveys are carried out prior to commencing any excavation. The OPW requires to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the pre-construction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The OPW requests that only Engineers or Surveyors with proven competence in regard to (historic) buildings of this fabric type, period and nature are selected. The contractor(s) will coordinate pre-construction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	All surveys, monitoring and mitigation proposed for OPW property will be discussed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.

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26	8.3.1 Ground Movement	28	Stage 5 (Close out) - Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of its property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.
27	8.3.3 Noise and Vibration	29	(a) Tunnelling EIAR Chapter 14 Ground Borne Noise and Vibration Measures identifies the impact on the National Library during TBM excavation: ■ Ground borne noise 48 dBA LAm ax - Significant Impact ■ Ground borne vibration 0.235 VDVB.ms'1' 75- No Significant Impact EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requests specific vibration limits that will be applied to the National Library and ensured that a monitoring regime is implemented. EIAR Table 6.2- ANV16. sets out requirement for pre- and post-construction surveys of structures vulnerable to vibration induced damage. The OPW seeks that pre- and post-construction surveys of structures vulnerable to vibration induced damage are carried out and this should include the National Library.	Please refer to response number (21) above for the details of Groundborne noise and vibration assessments at the National Library. The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy).
28	8.3.4 Work Sites	29	b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel. However, there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	A groundwater monitoring scheme will be undertaken across MetroLink as referenced in the EIAR.
29	8.3.4 Work Sites	30	The National Library is located between Tara Street and St. Stephen's Green Stations, The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity.	As presented in Appendix A 9.5 Scheme Traffic Management Plan figures 7-43 and 7-51, HGV and site traffic routing will not take place in the vicinity of National Library. As a result no significant impact is expected on these buildings as a result of HGV traffic.
30	8.4.1 Noise and Vibration	30	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBLamax,s and VC-D respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St. Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums, and the National Concert Hall. The vibration during railway operations will not impact the building fabric or structure.	According to Chapter 14 of the EIAR, Table 14.47, Floating Slab Track will be installed between Chainage 17+980 and 18+100 and the National Library is located at Chainage 18+080. Please refer to Chapter 14 for all locations where floating track is proposed.
31	8.4.3 Evacuation Strategy	30	The are no planned intervention/evacuation shafts between Tara Station and St. Stephen's Green, however it is understood that the Fire Brigade have not accepted the strategy proposed by TII This may have an impact on the National Library should any intermediate shafts be required	No additional shafts are required and are not provided for in the draft RO. TII has engaged with the Dublin Fire Brigade at all stages of the design and have not indicated that an intervention shaft is required at this location in that engagement or in their submission on the draft RO as part of their report to Dublin City Council. TII is continuing to engage with Dublin Fire Brigade in relation to the details of the strategy.
32	8.4.4 Security Consideration	30	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	Duplicate: See response number (16) above.

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33	8.4.4 Security Consideration	31	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	Duplicate: See response number (17) above.
34	8.4.4 Security Consideration	31	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	Duplicate: See response number (18) above.
35	8.4.4 Security Consideration	31	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	Duplicate: See response number (19) above.
36	8.4.4 Security Consideration	31	The design and operation of the MetroLink should be inline with best international practice, in relation to anti-terrorism and security measures.	Duplicate: See response number (20) above.
37	8.4.5 Evidence of Damage to Ancient Manuscripts due to Vibration; the Book of Kells	31	It must be noted that there are ancient and sensitive materials within the National Library, which could potentially be affected by vibrations or changes in moisture levels, such as ancient parchment, binding and links. DOWNEY note that areas of the National Library which store such materials should be monitored in case of condition changes. There are additional factors including the sensitivity of the sprinkler system and the risks of leaks though tanking which should be mitigated against, particularly during construction.	TII will engage further on these issues during the Phase 3 assessment process.
38	8.5 Future Development	31	The OPW reserves the right to development the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (9) above.
39	9.0 CONCLUSION	32	With regards to the Gall Zeidler assessment, the risk of damage to the offices of the National Library of Ireland at Kildare Street Nos. 4-5 from ground movement is negligible. The risk of damage to the National Library from ground movement is negligible. Pre-construction, post-construction surveys, monitoring should be requested.	As a protected structure, this will be undertaken.
40	9.0 CONCLUSION	32	With respect to this property, the OPW is seeking: 1) To ensure that the unique nature of this property and, its rare and invaluable contents are fully understood and provided for when considering the application for a Railway Order.	The nature, importance and content of the Library are known.
41	9.0 CONCLUSION	32	2) To ensure no disruption to the public access of the building and its day-to-day uses and functions.	No disruption to access is required and any disruptive impacts that arise from construction will be minimised.
42	9.0 CONCLUSION	32	3) To ensure no damage to the buildings and its architectural detailing, pre-construction and post- construction surveys, trials and monitoring is required. This is mainly concerned with noise, vibration, and dust which can damage the building which is of historical significance as well as the historic manuscripts and records.	The impacts are fully assessed in the EIAR and are noted above. The tunnelling operation will not generate any dust impact for the National Library.
43	9.0 CONCLUSION	32	4) To ensure that all parts of the National Library of Ireland identified in this submission are subject to Stage 3 assessment, and consequent, subsequent stages of assessment.	Agreed. As stated in response number (2) above, all protected structures within the zone of influence are to undergo a Phase 3 assessment.
44	9.0 CONCLUSION	32	5) To ensure there is no disturbance to the operation of activities in the National Library such as noise levels in reading rooms and use of ultra-hi-res cameras in the Racquet Ball Court Studio.	Please refer to response number (21) above.
45	9.0 CONCLUSION	32	6) Basement levels are currently being used as a storage space for books and manuscripts which may be sensitive to vibration and increase moisture levels. The sprinkler system may be sensitive to vibration. These factors must be acknowledged by TII and within the risk assessments in stage 3 to ensure no damage to the collections	Please refer to response number (2) above.

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46	9.0 CONCLUSION	33	7) Precedents to be applied to the risk assessments to ensure utilising best industry practice within the implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
47	9.0 CONCLUSION	33	8) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St Stephen's Green Station.	Please refer to response number (30) above.
48	9.0 CONCLUSION	33	9) Regarding the tunnel boring machine noise over a 2-week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the National Library of Ireland and the OPW, to avoid any disruption to the functions of the National Library of Ireland.	TII will consult and liaise with the Natural History Museum to ensure the timing of the TBM passing through this area are well known in advance of the impact occurring.
49	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	34	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (8) above.
50	Appendix 2: Ground movement Assessment	39	Duplicate of Appendix D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover letter.

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1	Executive Summary	N/A	With respect to this property, the OPW is seeking: 1) To ensure An Bord Pleanála recognises the sensitivity of the historic building and of the rare and unique artefacts housed and presented at this location. 2) To ensure no disruption to the public access of the building and its day-to-day uses and functions, 3) To ensure no damage to the building, its architectural detailing, and the archive and collections kept within the NMI, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise, vibration, and dust which can damage the building which is of historical significance as well as the valuable collections stored in the NMI. 4) Basement level of the building is currently being used as a storage space with the collections kept in cabinets. Whether on the display or in the cabinets, no objects and collections are fixed in place, rather they are balanced on their own weight, and this needs to be acknowledged by TII and within the risk assessments in stage 3 to ensure no damage to the collections. 5) Precedents to be included within the risk assessments so to ensure utilising best practice guidance within implementation of the Project. 6) To ensure no adverse impact of the additional lorry movements on the NMI and its collections, for both deliveries and spoil removal, during construction of St. Stephen's Green and Tara Stations, as the NMI is situated between the two. 7) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station. 8) Regarding the tunnel boring machine noise over a 2-week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the National Museum of Ireland and the OPW, to avoid any disruption to the functions of the Museum. 9) To consider the 2025 international event planned by the NMI to avoid any disruption to this grand event.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised here specific to this building are addressed in responses (2) through to (41) below.
2	3.0 OVERVIEW OF THE DRAFT RAILWAY ORDER	9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so, including the National Museum of Ireland. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. This building has been assessed as in the negligible damage category, refer to EIAR Appendix 5.17, table 5.2, building B-18.

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3	4.1 Property Location & Description	14	The following is a non-exhaustive list of building sensitivities to take into account in the Stage 3 and further assessments (construction and operation stage). We would recommend close liaison with Library and the OPW personnel at all stages of the project: Building Sensitives ■ Building structure and heterogeneity - The response of a building that combines traditional and early modern construction may be difficult to predict. - The presence of cast iron concealed within walls, exposed, structural and non-structural elements is to be considered, noting the brittleness of cast iron. - Presence of iron dowels fixing stone. ■ Windows, roof-lights and clerestoreys - Oculus roof light over dome, roof-light over main gallery, other roof-lights; very fragile. - Circa 1890 windows with some original glass. ■ Special finishes - Valuable very fragile mosaic floors - the potential impact of vibration and settlement needs to be considered. - Majolica door surrounds and other features. - Chimney pieces with inlay. - Stone samples. ■ Other aspects of note - Monitoring of basements required (containing vulnerable collections). - Internal downpipes. - Potential impact on sensor activated or sampling building systems. - Concern during construction stage of disturbance of rodents during the works to the St. Stephen's Green Station.	TII welcome this information which will be incorporated into the Phase 3 assessment as noted in EIAR Appendix A5.17.	
4	4.3 Current Use/Uses	17	It is noted that there is also a basement level storage space to the building for keeping the collections. Whether on the display or kept in the cabinets, these collections are not fixed in place and are balanced on their own weight. In this regard, the NMI have carried out an assessment that shows that a sound-generated movement of 2mm/second can cause damage to the collections. However, this needs to be further assessed with a wider scope to include the movements caused by vibration. Furthermore, due to speeding up the chemical processes which can lead to deterioration of heritage collections, protecting the objects and articles from dust is of high significance to the museum.	The results from the vibration assessment indicate that no significant impact is expected on this building. This is set out within Appendix 14.5 Groundborne Noise and Vibration and Blasting Modelling Results, the values of vibration during construction and operation of Metrolink, for National Museum of Ireland are below the VC-A (0.05mm/s) much lower than the MNI request of 2mm/s.	
5	4.3 Current Use/Uses	18	The following is a non-exhaustive list of collection and use sensitivities to take into account in the Stage 3 and further assessments (construction and operation stage). We would recommend close liaison with Library and the OPW personnel at all stages of the project: Collection Sensitivities ■ Valuable and sensitive collections in basement levels will be very susceptible to damage if tanking is damaged/ if there is water ingress/if there is a change in moisture levels. Monitoring required. ■ Note the comments above about storage arrangements. ■ The potential impact of vibration on collections (construction and operation stage) needs to be considered. NMI study has determined that 2mm/sec is the level where collections can be damaged. ■ Note to be taken of the brittle nature of the sprinkler system in the basement. ■ Other environmental concerns will be covered in the environmental section. Use Sensitivities ■ it should be noted that a museum is in essence a relatively quiet space.	Refer to Item 3.	
6	4.3 Current Use/Uses	18	The building is in use as a National Cultural Institution. Uninterrupted access to the building is necessary at all times for the conduct of the business of the National Museum of Ireland and for access by emergency services (e.g., fire services and ambulance). The OPW/the State, and their authorised agents, require access to the building at all times for the purpose of facilities management, maintenance, repairs and any major conservation, repair or development programmes planned, or as may arise during the construction period of MetroLink.	There will be no impact on access to this building. No Temporary Traffic Management measures or adverse impacts to access have been identified on Kildare Street or Merrion St Upper as part of works or operational phases of MetroLink from either Tara Street or St Stephens Green Stations. See Appendix A9.5 Sections 7.9 and 7.10, Appendix A9.2-M, and Appendix A9.2 -O.	
7	4.4 Planning Context	19	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission. The Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application.	

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8	4.4 Planning Context	19	DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered to within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
9	4.5 Potential Development of the Property	19	The building is a protected structure in a sensitive location. However, it is planned that permissions will be sought in the future for significant redevelopment of the NMI - Archaeology as per the capital investment programme planned for the national cultural institutions as identified the NDP 2021-2030. It is important that there should be no new constraints introduced which might limit the potential of this future redevelopment of the site. It should be noted that future development potential of this property lies in the possibility of building subterranean levels.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future
10	5.0 MATERIAL CONSIDERATIONS	19	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-EIA- ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW, particularly with Kildare Street, Merrion Square and St. Stephens Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
11	6.0 LEGAL CONSIDERATIONS	19	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
12	7.1.1 Route Alignment	20	Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.

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13	7.3 Contractual Arrangement	22	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.
14	8.0 POTENTIAL IMPACTS ON THE PROPERTY	22	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission, and, having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response numbers (15) through to (30) below.
15	8.1 Monitoring	22	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and discuss the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.
16	8.2 Security Issues	22	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that "Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order."
17	8.2 Security Issues	22	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.
18	8.2 Security Issues	23	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.
19	8.2 Security Issues	23	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.

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20	8.2 Security Issues	23	The design and operation of the MetroLink should be inline with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.
21	8.3.1 Ground Movement	24	Stage 2: Three sections were considered in the assessment. The assessment concludes that the risk of damage to the National Museum is Category 0, Negligible. However, as a "Special building" it shall progress to stage/Phase 3 assessment.	Agreed, further to response number (2) above and owing to its assigned status as a "Special Building" the National Museum will progress to the next stage of assessments.
22	8.3.1 Ground Movement	24	Stage 3: The EIAR states that a Stage 3 assessment will be carried out for the National Museum by the Contractor appointed to construct this section of the MetroLink. The OPW expects to be consulted on the detail, scope of this assessment and programme for these assessments, it would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	As this is a Protected Structure it is designated as a Special case and will have a full Phase 3 assessment. TII will ensure that those undertaking the assessment are competent to do so. With regard to stages 4 and 5 i.e. the development of monitoring and mitigation plans and the subsequent close out of the impacts of settlement will form part of the scope of the project for the design and construction phases.
23	8.3.1 Ground Movement	24	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholders' infrastructure is carried out. Also, the preconstruction defect surveys are carried out prior to any excavation. The OPW requires to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the preconstruction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The OPW requests that only Engineers or Surveyors with proven competence in relation to (historic) buildings of this fabric type, period and nature are selected. The contractor(s) will coordinate preconstruction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	All surveys, monitoring and mitigation proposed for OPW property will be discussed and agreed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.
24	8.3.1 Ground Movement	24	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of its property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.

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25	8.3.3 Noise and Vibration	25	EIAR Chapter 14 Ground Borne Noise and Vibration Measures identifies the impact on the National Museum during TBM excavation: ■ Ground borne noise 48 dBA LaTM* - Significant impact ■ Ground borne vibration 0.235 VD_{Vdb}.ms⁻¹ 7S- no significant impact EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requests specific vibration limits to be applied to the National Museum and to ensure that a monitoring regime is implemented. EIAR Table 6.2- ANV16. Sets out requirement for Pre and post construction surveys of structures vulnerable to vibration induced damage. The OPW seeks pre- and post-construction surveys of structures vulnerable to vibration induced damage to be carried out and this should include the National Museum.	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. Groundborne Noise: Sections 14.4.1.8 AZ4 – Groundborne Noise during Construction, and Table 14.29, presents the predicted noise levels during TBM Passage compared to the threshold values for noise for the National Library of Ireland. According to the calculations in table 14.29 the L_{Amax}s for TBM Passage at National Library of Ireland has a value of 48 dB while the Threshold Level for this building is 45 dB, resulting a significant impact on the buildings operation for the limited duration during TBM passage. Regarding groundborne noise, unfortunately, there are no effective methods available to reduce groundborne noise from TBMs at source but noting that the duration of this impact will be of the order of two weeks. TII will consult and liaise to ensure the timing of these impacts are known. Groundborne Vibration: The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project. The assessment has identified that there will be no potential for structural damage due to vibration as levels of vibration are predicted to be below the construction threshold of 1.6 ms⁻¹.75 VDV (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results). The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy).
26	8.3.4 Work Sites	25	b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel. However, there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	A groundwater monitoring scheme will be undertaken across MetroLink as referenced in the EIAR.
27	8.3.4 Work Sites	26	(c) Working Hours The National Museum is located between Tara Street and St. Stephen's Green Stations. The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity.	As presented in Appendix A 9.5 Scheme Traffic Management Plan figures 7-43 and 7-51, HGV and site traffic routing will not take place in the vicinity of National Museum. As a result no significant impact is expected on these buildings as a result of HGV traffic.
28	8.4.1 Noise and Vibration	26	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBL_{Amax}s and VC-D respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St. Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all Government buildings, museums, and the National Concert Hall.	According to Chapter 14 of the EIAR, Table 14.47, Floating Slab Track has been assessed as required and will be installed between Chainage 17+980 and 18+100. National Museum of Ireland is located at Chainage 18+150.
29	8.4.3 Evacuation Strategy	26	The are no planned intervention/evacuation shafts between Tara Station and St. Stephen's Green, however it is understood that the Fire Brigade have not accepted the strategy proposed by TII This may have an impact on the National Museum should any intermediate shafts be required	No additional shafts are required and are not provided for in the draft RO. TII has engaged with the Dublin Fire Brigade at all stages of the design and have not indicated that an intervention shaft is required at this location in that engagement or in their submission on the draft RO as part of their report to Dublin City Council. TII is continuing to engage with Dublin Fire Brigade in relation to the details of the strategy.
30	8.5 Future Development	26	The OPW reserves the right to development the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (9) above.
31	9.0 CONCLUSION	27	With respect to this property, the OPW is seeking: 1) To ensure An Bord Pleanála recognises the sensitivity of the historic building and of the rare and unique artefacts housed and presented at this location.	Please refer to response number (5) above.

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32	9.0 CONCLUSION	27	2) To ensure no disruption to the public access of the building and its day-to-day uses and functions.	Further to response number (6) above, no disruption to access is required nor will there be an impact on functions.
33	9.0 CONCLUSION	27	3) To ensure no damage to the building, its architectural detailing, and the archive and collections kept within the NMI, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise, vibration, and dust which can damage the building which is of historical significance as well as the valuable collections stored in the NMI.	The impacts are fully assessed in the EIAR and are noted above in responses (2) and (25). Pre and post construction surveys and in construction monitoring will be undertaken as stated in responses (16) and (23) above..
34	9.0 CONCLUSION	27	4) Basement level of the building is currently being used as a storage space with the collections kept in cabinets. Whether on the display or in the cabinets, no objects and collections are fixed in place, rather they are balanced on their own weight, and this needs to be acknowledged by TII and within the risk assessments in stage 3 to ensure no damage to the collections.	Agreed, details to be developed with OPW at Phase 3 assessment. All surveys, monitoring and mitigation proposed for OPW property will be discussed and agreed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.
35	9.0 CONCLUSION	27	5) Precedents to be included within the risk assessments so to ensure utilising best practice guidance within implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
36	9.0 CONCLUSION	27	6) To ensure no adverse impact of the additional lorry movements on the NMI and its collections, for both deliveries and spoil removal, during construction of St. Stephen's Green and Tara Stations, as the NMI is situated between the two.	Please refer to response number (27) above.
37	9.0 CONCLUSION	28	7) To mitigate the noise and vibration to the acceptable levels for this cultural and government block by installing floating track slab between Chainage 17+980 and 18+400, which is the St. Stephen's Green Station.	Please refer to response number (28) above.
38	9.0 CONCLUSION	28	8) Regarding the tunnel boring machine noise over a 2-week period when the noise is predicted to exceed the acceptable threshold, it is respectfully requested for the timeline of the work to be agreed in advance with the National Museum of Ireland and the OPW, to avoid any disruption to the functions of the Museum.	TII will consult and liaise with the National Museum of Ireland to ensure the timing of the TBM passing through this area are well known in advance of the impact occurring.
39	9.0 CONCLUSION	28	9) To consider the 2025 international event planned by the NMI to avoid any disruption to this grand event	No impacts are predicted but TII will consult with OPW prior to this event.
40	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	29	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (8) above.
41	Appendix 2: Ground movement Assessment	34	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	refer to OPW Cover letter.

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1	Executive Summary	N/A	With respect to this property, the OPW requests that An Bord Pleanla notes the sensitivity of the historic buildings and national collections located within. The OPW also seeks: 1) To ensure there is no disruption to public access to the Park. 2) To ensure there is no disruption to access to the ground by staff to carry out the required duties, maintenance and day-to-day running of the Park. 3) To ensure no damage to the buildings and their architectural detailing, pre-construction and post- construction surveys, trials and monitoring is required. This should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. 4) To set up an access control regime in agreement with the OPW and relevant stakeholders when applying a continuous monitoring mechanism pre- and post-construction. 5) To reserve the right for the OPW that the development of the MetroLink does not interfere with extant permissions pertaining to the St. Stephen's Green buildings and their future development, including property above and below its ground levels. Nor interfere with major maintenance, conservation, refurbishment, or construction works as or when they may arise. 6) Precedents to be applied to the risk assessments to ensure the best industry practice is used in the implementation of the Project.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised here specific to this building are addressed in responses (2) through to (35) below. Please note there is a separate submission with regard to the Park and issues are dealt with under that submission.
2	3.0 Overview of the Draft Railway Order	8	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. Results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. The St. Stephens Green Buildings are a considerable distance (approximately 200m) outside of the zone of influence of the tunnel and hence no impacts due to ground movement will occur.
3	4.4 Planning Context	12	Outlined in the Planner's Report of the Draft Railway Order 2022, "No planning applications are affected by the tunnel alignment between St. Stephen's Green Station and Charlemont." However, DOWNEY have also carried out an examination of the planning history pertaining to the site subject to this submission and its proximity, which determined there are several planning applications made within proximity to the site. An overview of the most relevant applications are as follows: ■ Reg. Ref. 4559/22 - Registered on the 27th of July 2022 by Dublin City Council, the proposed development on lands at No. 23 St. Stephen's Green (Protected Structure) ■ Reg. Ref. 5099/22 - Registered on the 21 st of October 2022 by Dublin City Council, the proposed development on lands at 92 and 93, St. Stephen's Green, Dublin 2..... In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission. The Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property.	The planning history set out in the planning report examined all live planning applications and extant planning permissions at each of the construction sites along the route. The pattern of planning applications where the works are solely carried out by way of the TBM were not reported on, nor were sites not directly above the alignment. The additional projects listed by OPW would be considered within the cumulative assessment. They had not been previously assessed due to them being submitted after the assessment cut off date but will be considered in a gap assessment that will be carried out prior to an Oral Hearing.
4	4.4 Planning Context	13	DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered to within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.

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5	4.5 Potential Development of the Properties	14	The Superintendent's Lodge is a protected structure, and the Park Maintenance Compound & Offices serve as the base office of the operations and management of St. Stephen's Green. This is a sensitive heritage and ecological location. The OPW reserves the right to development the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.
6	5.0 MATERIAL CONSIDERATIONS	14	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW, particularly with Kildare Street, Merrion Square and St. Stephens Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
7	6.0 LEGAL CONSIDERATIONS	14	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
8	7.1.1 Route Alignment	15	Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.
9	7.3 Contractual Arrangement	16	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.
10	8.0 POTENTIAL IMPACTS ON THE PROPERTY	16	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the properties.	Please refer to responses (11) through to (26) below.

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11	8.1 Monitoring	17	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.
12	8.2 Security Issues	17	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that " <i>Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order. "</i>
13	8.2 Security Issues	17	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.
14	8.2 Security Issues	17	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.
15	8.2 Security Issues	17	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.
16	8.2 Security Issues	17	The design and operation of the MetroLink should be inline with best international practice, in relation to anti-terrorism and security measures.	This is not relevant for this building, as it is not directly above the alignment. But for TII, safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction stages to ensure suitable provisions are in place.
17	8.3 During Construction of the MetroLink	17	The Park Offices and the maintenance compound units are buildings which provide functional spaces and offices for the operation and maintenance of St. Stephen's Green. The Superintendent's Lodge is a protected structure. The impact of any proposed works in terms of noise, vibration, etc. which effects the quality of the working environment would need to be carefully considered.	St Stephens Green Buildings are located outside of the threshold limits contour lines for noise and vibration for construction and operation of Metrolink. As a result, no significant impact is expected on these buildings.
18	8.3.1 Ground Movement	18	Stage 2: Three sections were considered in the assessment. The assessment did not address the structures directly	There are no buildings within the Park within the zone of influence of the MetroLink works.

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19	8.3.1 Ground Movement	18	Stage 3: The OPW expects that a Stage 3 assessment will be carried out for the SSG buildings by the Contractor appointed to construct this section of the MetroLink. The OPW is expecting to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	There are no buildings within the Park within the zone of influence of the MetroLink works.
20	8.3.1 Ground Movement	19	Stage 4 - Construction Stage: This stage is where any mitigation is implemented, and the monitoring of the stakeholder's infrastructure is carried out. Also, the preconstruction defect surveys are carried out prior to any excavation. The OPW will require a review of the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the preconstruction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate preconstruction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	There are no buildings within the Park within the zone of influence of the MetroLink works.
21	8.3.1 Ground Movement	19	Stage 5 - Close out: Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW will expect to be provided with close out reports for the monitoring of their property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	There are no buildings within the Park within the zone of influence of the MetroLink works.
22	8.3.3 Noise and Vibration	19	a) Tunnelling EIAR Chapter 14 Ground Borne Noise and Vibration Measures does not identify any impact of noise and vibration on the SSG buildings during TBM excavation, likely attributable to the buildings' distance from the anticipated tunnel alignment. The OPW requests specific requirements that will be applied to The SSG buildings. There are requirements for Pre and post construction surveys of structures vulnerable to vibration induced damage and this should include The SSG buildings.	There are no buildings within the Park within the zone of influence of the MetroLink works and hence surveys are not required.
23	8.3.4 Work Sites	20	(b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel, however there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	A groundwater monitoring scheme will be undertaken across MetroLink as referenced in the EIAR.
24	8.3.4 Work Sites	20	(c) Working Hours The St. Stephen's Green buildings are located between Tara Street and St. Stephen's Green Stations. The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity.	Lorry movements are proposed on the South and West corners of the park (see Figure 7-51 in Appendix A9.5) for access to the St Stephens Green Station, however impact of vehicles will be minimised through mitigation measures outlined in Section 9.7.1.2 of EIAR Chapter 9. TII will manage all traffic impacts.
25	8.4.3 Evacuation Strategy	21	The are no planned intervention/evacuation shafts between Tara Station and Charlemont Station, however it is understood that the Fire Brigade have not accepted the strategy proposed by TII. It is unlikely, but this may have an impact on the buildings should any intermediate shafts be required.	No additional shafts are required and are not provided for in the draft RO. TII has engaged with the Dublin Fire Brigade at all stages of the design and have not indicated that an intervention shaft is required at this location in that engagement or in their submission on the draft RO as part of their report to Dublin City Council. TII is continuing to engage with Dublin Fire Brigade in relation to the details of the strategy.

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26	8.5 Future Development	21	The Superintendent's Lodge is protected structure and the Park Maintenance Compound & Offices serve as the base office of the operations and management of St. Stephen's Green. This is a sensitive heritage and ecological location. The OPW reserves the right to development the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future. Due to its distance from MetroLink there are no constraints to OPW development.
27	9.0 CONCLUSION	21	With regards to the Gall Zeidler assessment, the risk of damage to the St. Stephen's Green buildings from ground movement is negligible. Pre-construction, post-construction surveys, monitoring should be requested. During the passage of the tunnel boring machine (TBM) the noise and vibration were not estimated and considered negligible at this location.	Further to response number (2) above, no monitoring is required as the buildings are outside the zone of influence.
28	9.0 CONCLUSION	21	With respect to these properties, the OPW is seeking: 1) To ensure there is no disruption to public access to the Park.	No disruption is envisaged to access to SSG apart from the site compound as set out in Section 7.10 of Appendix A9.5. Any temporary impacts during the enabling works will be coordinated with OPW.
29	9.0 CONCLUSION	21	2) To ensure there is no disruption to access to the ground by staff to carry out the required duties, maintenance, and day-to-day running of the Park.	Pease refer to response number (28) above
30	9.0 CONCLUSION	22	3) To ensure no damage to the buildings and their architectural detailing, pre-construction and post-construction surveys, trials and monitoring is required. This should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented.	No surveys or monitoring is required as the buildings are outside the zone of influence and are therefore not subject to settlement.
31	9.0 CONCLUSION	22	4) To set up an access control regime in agreement with the OPW and relevant stakeholders when applying a continuous monitoring mechanism pre- and post-construction.	Any works required within the Park outside of the construction area will be coordinated with the OPW.
32	9.0 CONCLUSION	22	5) To reserve the right for the OPW that the development of the MetroLink does not interfere extant permissions pertaining to the St. Stephen's Green Building and their future development, including property above and below its ground levels. Nor interfere with major maintenance, conservation, refurbishment, or construction works as or when they may arise.	Please refer to response number (26) and (28) above.
33	9.0 CONCLUSION	22	6) Precedents to be applied to the risk assessments to ensure the best industry practice is used in the implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
34	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	23	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (8) above.
35	Appendix 2: Ground movement Assessment	28	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	refer to OPW Cover letter.

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1	Executive Summary	N/A	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions 2) To ensure no damage to the building and its day-to-day functions, pre-construction and post-construction surveys, trials and monitoring is required. This is mainly concerned with noise and vibration that can damage this building, as well as its functions. 3) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised here specific to this building are addressed in responses (2) through to (29) below.
2	3.0 Overview of the Draft Railway Order	8	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. The St. Stephens Green House is outside of the zone of influence of the tunnel and hence no impacts due to ground movement will occur and further assessments are not required.
3	4.4 Planning Context	11	DOWNEY, note that this proposed railway order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the file. It is also crucial to note that on foot of a granted permission on the Project and within the detailed design stage facilitated by Design and Build contracts, a revision to the planning policy is expected whereby adopted plans by then to be adhered within this stage.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
4	5.0 MATERIAL CONSIDERATIONS	11	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-EIA- ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW, particularly with Kildare Street, Merrion Square and St. Stephens Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.
5	6.0 LEGAL CONSIDERATIONS	11	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
6	7.1.1 Route Alignment	12	Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.

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7	7.3 Contractual Arrangement	14	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.
8	8.0 POTENTIAL IMPACTS ON THE PROPERTY	14	DOWNEY and Gall Zeidler have carried out a detailed examination of the property subject to this submission and having regard to the status and current use of the property and identified constraints, the following raises issues regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to responses (9) through to (23) below.
9	8.1 Monitoring	14	We respectfully request that An Bord Pleanála attach a condition to the Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the OPW and its clients. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and throughout the operational stage of the MetroLink.	This is not relevant as this building is outside of the zone of influence of the tunnelling works and hence neither ground movement assessments nor monitoring are required.
10	8.2 Security Issues	14	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that " <i>Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order. "</i>
11	8.2 Security Issues	15	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.
12	8.2 Security Issues	15	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.
13	8.2 Security Issues	15	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.
14	8.2 Security Issues	15	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.
15	8.3.1 Ground Movement	16	Stage 2: Three sections were considered in the assessment. The assessment did not address the structures directly	Please refer to response number (2) and (9) above.

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16	8.3.1 Ground Movement	16	Stage 3: The OPW expect that a Stage 3 assessment will be carried out for St. Stephen's Green House by the Contractor appointed to construct this section of the MetroLink. The OPW is expecting to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally. No mention of Stage 4 or 5 has been found in the Railway Order or EIAR. Industry best practice as applied to London's Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	Please refer to response number (2) and (9) above.
17	8.3.1 Ground Movement	16	Stage 4 - Construction Stage: This stage is where any mitigation is implemented, and the monitoring of the stakeholder's infrastructure is carried out. Also, the preconstruction defect surveys are carried out prior to any excavation. The OPW will require a review of the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring, in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the preconstruction defect surveys. It is noted that these shall be arrived out by Professionally Qualified Engineers or Surveyors. The contractor(s) will coordinate preconstruction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	Please refer to response number (2) and (9) above.
18	8.3.1 Ground Movement	16	Stage 5 -Close out: Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW will expect to be provided with close out reports for the monitoring of their property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	Please refer to response number (2) and (9) above.
19	8.3.3 Noise and Vibration	17	(a) Tunnelling EIAR Chapter 14 Ground Borne Noise and Vibration Measures does not identify any impact of noise and vibration on the SSG House during TBM excavation, likely attributable to the building's distance from the anticipated tunnel alignment. The OPW will seek specific requirements that will be applied to St. Stephen's Green House. There are requirements for Pre and post construction surveys of structures vulnerable to vibration induced damage and this should include St. Stephen's Green House.	It should be noted that a full assessment of groundborne noise & vibration effects have been provided in Chapter 14 of the EIAR. Groundborne Noise: Sections 14.4.1.8 AZ4 – Groundborne Noise during Construction, and Table 14.29, presents the predicted noise levels during TBM Passage compared to the threshold values for noise for the National Library of Ireland. According to the calculations in table 14.29 the LAmax,s for TBM Passage at 4 Earlsfort Terrace (Including St Stephens Green House) has a value of 46 dB while the Threshold Level for this building is 45 dB, resulting in a potential significant impact on the buildings occupants for the limited duration during TBM passage. Regarding groundborne noise, unfortunately, there are no effective methods available to reduce groundborne noise from TBMs at source but noting that the duration of this impact will be of the order of two weeks. TII will consult and liaise to ensure the timing of these impacts are known. Groundborne Vibration: The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project, with the TBM Passage predicted 0.218ms-1.75 VDV which is lower than the VDV Threshold Level of 1.6ms-1.75 VDV day indicating no significant impact. As the predicted levels of vibration from TBM passage are below these thresholds then no impact from vibration during TBM passage is expected for the building or for residents of this address. (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results). The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy).
20	8.3.4 Work Sites	17	b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel. However, there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	A groundwater monitoring scheme will be undertaken across MetroLink as referenced in the EIAR.
21	8.3.4 Work Sites	17	(c) Working Hours St. Stephen's Green House is located between St Stephen's Green and Charlemont Stations. The construction of these stations will generate additional lorry movements, for both deliveries and spoil removal, that TII and their contractors will need to manage to minimise impact in the vicinity.	As presented in Appendix A 9.5 Scheme Traffic Management Plan figures 7-43 and 7-51, HGV and site traffic routing will not take place in the vicinity of St Stephen's Green House. As a result no significant impact is expected on this building as a result of HGV traffic. TII will manage all traffic impacts.

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22	8.4.1 Noise and Vibration	18	TII proposes to mitigate the noise and vibration resulting from the railway operations by installing floating track slab to meet thresholds of 25 dBL _{max} and VC-D respectively. EIAR Chapter 14 Table 14.47 provides some guidance on where this will be constructed but it is not clear exactly where. The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums, and the National Concert Hall.	According to Chapter 14 of the EIAR, Table 14.47, Floating Slab Track will be installed between Chainage 17+980 and 18+100. It is not required nor proposed for this location.
23	8.5 Future Development	18	The OPW reserves the right to develop the subject property in the future, which includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce “Guidance Note for Developers” that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.
24	9.0 CONCLUSION	19	With regard to the Gall Zeidler assessment, the risk of damage to St. Stephen's Green House from ground movement is negligible. Pre-construction, post-construction surveys, monitoring should be requested.	Please refer to response number (9) above.
25	9.0 CONCLUSION	19	With respect to this property, the OPW is seeking: 1) To ensure no disruption to the public access of the building and its day-to-day uses and functions	There is no disruption envisaged. No adverse impacts have been predicted on Earlsfort Terrace due the construction or operational phase of the project as set out in Appendix A9.2-M Section 6, or Appendix A9.5 Section 7.10.
26	9.0 CONCLUSION	19	2) To ensure no damage to the building and its day-to-day functions, pre-construction and post- construction surveys, trials and monitoring is required. This is mainly concerned with noise and vibration that can damage this building, as well as its functions.	Please refer to response number (19) above.
27	9.0 CONCLUSION	19	3) Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
28	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	20	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (3) above.
29	Appendix 2: Ground movement Assessment	25	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover letter.

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1	Executive Summary	N/A	The OPW has had ongoing engagement with TII regarding the MetroLink. However, the concerns expressed on the negative impact of these designs on the Green have not resulted in an option which the OPW believes will ensure the protection of this cultural and historic monument for current and future generations. The option studies have been reviewed by the OPW and its engineering consultants would question some of the key assumptions adopted to reach their conclusions.	TII have undertaken significant assessment of alternative options for the MetroLink station as presented in EIAR Chapter 7 Consideration of Alternatives (refer to section 7.7.10.10, New Metro North Alignment Options Report (TII 2018), and appendices A7.5, A7.7 and A7.8). This analysis considered potential environmental effects on St. Stephen’s Green Park, potential effects on buildings on the east and north sides of St. Stephens Green, on traffic and transport along St. Stephens Green East, and on critical utilities serving large areas of the city located under the road at St. Stephen’s Green East. Options assessed include alternative MetroLink alignment options through this area with alternative station locations, alternative station locations at St. Stephen's Green East, and alternative construction methodologies such as mining. The preferred station location of St. Stephen's Green East was chosen as it minimises the potential impacts on the Park when compared to other options with a larger footprint in the Park. The preferred option occupies c. 5% of the Park area during the construction phase, reducing to just 0.2% of the Park during the operational phase. In addition, all heritage features such as monuments, railings, bollards, and paving stones can be fully reinstated following the construction phase.
2	Executive Summary	N/A	The current proposal is to site a station within the Green and the EIAR identifies the significant effect that this will have on this National Monument: ▪ Chapter 25 Archaeology and Cultural Heritage characterises the effect as very significant direct negative (permanent) during the Construction Stage and very significant indirect negative during Operation Stage. ▪ Chapter 26 Architectural Heritage characterises the effect as profound direct negative during the Construction Stage and very significant indirect negative during Operation Stage. ▪ Chapter 27 The Landscape characterises the effect as very significant negative during the Construction Stage and very significant negative during Operation Stage.	Appendix A 7.5 to the EIAR presents an analysis of the alternative construction methodology of mining the station which would allow for construction of the station with a smaller footprint at ground level. However, these options were ruled out as they would increase the construction phase (and as a result environmental impacts) by between 2 and 3.75 years and they would ultimately make it not possible for the Project to achieve its objectives of providing a high quality operational station. The location of the station has been chosen and carefully designed to ensure that St Stephen's Green East continues to function as an important transport route, as an important corridor for critical utilities such as water, electricity and sewage, and as an important location for commercial and business activities. Ensuring this critical functionality on this side of St. Stephen's Green would have been prolonged and very difficult to achieve with Location 8 that was located entirely outside of the Park. This option also negates the potential for direct impacts on properties to the east side of St Stephens Green East road, on critical utilities including a major Victorian sewer, and on the roadway which is an important access route to the city centre, particularly for public transport. It is acknowledged in Chapter 27 of the EIAR that the reinstatement of trees removed will take a significant period of time to re-establish. However on completion of the construction phase, reinstatement of heritage items and replanting (and reestablishment) of trees, TII maintains that the proposed St. Stephen's Green Station will enhance this area by providing Dubliners and visitors alike with high quality public transport access to St. Stephen's Green and to this area of the city, thereby reducing car dependency, noise levels and improving air quality, while allowing citizens to enjoy St Stephen's Green long into the future.
3	Executive Summary	N/A	Section 27.5.4.113 of the EIAR acknowledges that: “the proposed works can apply a level of mitigation which would go some way to reinstating the disturbed part of ‘the Green’, however, beyond any potential for reinstatement, replacement, or restoration, it would be difficult to offset impacts on the maturity and wholeness of this place.” Further noting that: “Once the reinstatement works are completed the severe negative effects of construction will be partially moderated, however the edge of the park along the section of required works, will appear rather raw, small-scaled and immature, especially when directly compared with the remaining untouched sections. These contrasts will reduce over time, though it may take a significant period before they may be described as imperceptible.” Review of the supplied photomontages (V22.1–V22.6) further reinforces this assessment of the long-term impact to the Green.	EIAR Chapter 27, The Landscape, section 27.5.4.23 identifies that there will be a very significant temporary impact on the Landscape due to the loss of trees in the area of St. Stephen's Green East if mitigation measures are not deployed. However with the proposed mitigation measures relevant to this location in place, summarised below, this temporary impact can be mitigated by: (1) Development of site specific and comprehensive proposals for hard and soft landscape works, including for trees ensuring effective retention of mature trees where possible. Details of such planting proposals will be provided for agreement with OPW in advance of the construction phase. These will include: details of the tree species mix, numbers, density and sizes proposed; the tree preparation, presentation, transportation, lifting and placement techniques proposed, as well as; the proposed ground preparation, rootball securing technique, backfill materials and methods, and the specific establishment maintenance proposals for each. These measures will minimise the risk to tree establishment and maximise their viability and future rates of growth. (2) In sensitive locations such as St. Stephen’s Green, residual landscape and visual effects will be significantly reduced through the inclusion in the proposed planting of relatively mature specimen trees. Furthermore, while the removal of trees from the landscape will initially have a significant impact if left unmitigated, especially in the case of old and developed trees as the replacing material (saplings) can never have the same size and development as the mature original trees that have been removed, resulting in an initial, but temporary contrast between the original established area of trees and the new planted trees area. Over a period of time this contrast will reduce and eventually become imperceptible.

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				While the temporary impact on trees is considered very significant, it does occur over a localised area of the Park that amounts to only 5% of the total area of the Park, impacts 64 trees in the Park, and is confined to the east side (adjacent to the Park fence line) of the Park only. TII are therefore of the view that the construction of St. Stephen's Green Station will not have a significant impact on the overall amenity and function of the Park during construction, given only 5% of the Park area is taken during the Construction Phase, and that once construction is completed, this area is returned to the Park, with only 0.2% of the total Park area taken by MetroLink when operational, whilst providing further access to, and reinforcing that St. Stephen's Green is a key Dublin landmark and destination.	
4	Executive Summary	N/A	While certain mitigation measures are outlined within the EIAR, the residual effect, even taking account of these actions, remains very significant and permanent through both the Construction and Operation Stages. Construction of the station as currently proposed will result in permanent change to the architectural form of the Green, increased hard landscaping, introduction of upstanding structures into the footprint of the park and loss of mature trees and canopy. This will result in long-term, permanent impact on the amenity and setting of this National Monument and urban park which plays a unique role in defining the city centre core and in supporting quality of city centre life for citizens of Dublin.	The design of the proposed station at St Stephen's Green has been developed to minimise any structures within the Park. The existing plaza area to the north east corner of the green will be retained, but aside from that, areas of hardstanding will be minimal with the proposed Project having new structures/elements within the Park occupying just 0.2% of the park area. On completion of the construction phase all heritage items will be reinstated and all trees lost will be replaced. While it is acknowledged that the trees will take a significant period of time to re-establish with a significant impact on the landscape amenity as reported in Chapter 27 of the EIAR, the fact is that just 64 trees will be removed (and replaced). Appendix A27.3 Arboricultural Impact Assessment notes that of the 64 trees to be felled: 15 of the trees were found to be a state of decline and recommended to be removed, 14 of the trees were of low quality, 45 of the trees are moderate quality and only 5 were found to be of the highest quality. TII maintains that the proposed St. Stephen's Green Station will enhance this area allowing Dubliners and visitors alike high quality public transport access to St. Stephen's Green and to this area of the city, thereby reducing car dependency, noise levels and improving air quality while allowing citizens to enjoy St Stephen's Green long into the future.	
5	Executive Summary	N/A	The OPW notes that in The St. Stephen's Green Station – Mined Options Report (EIAR Appendix A7.5), the current preliminary design performs worst with "regards to 'Property Impact on SSG Park', 'Biodiversity', 'Landscape and Visual', 'Archaeology/Cultural Heritage', and 'Architectural Heritage' criteria".	When TII have evaluated alternatives and options, including for St. Stephen's Green Station, impacts and benefits, both short-term temporary construction (considering the operational life span of the Project), and long-term permanent (operational phase of the Project) have to be carefully balanced, considering a wide range of criteria that cover Project Objectives, Environment, Engineering and Economy (E.g. programme and risk). It is not appropriate to focus solely on a particular evaluation criteria in isolation since this will not result in the optimum solution / option being selected. In the case of St. Stephen's Green Station, while TII acknowledge that the preferred station location and construction methodology for the station is not the least environmentally impactful solution for St. Stephen's Green Park, when this is balanced and considered against the long-term strategic need for and operability of the Station / MetroLink, the mined solutions are deficient in terms of; a construction programme resulting in a significant increase in the duration of MetroLink construction and environmental impacts, and not achieving the project objectives of providing a high-quality operational station, (deeper station, increased passenger walking distances and a adverse impacts on the station ventilation strategy) resulting in a very long-term permanent degradation of the MetroLink Project. This is compared to what TII would consider is a temporary impact to a very limited area of the Park that can be mitigated, and in the permanent long-term case the Park can be returned to its existing condition. Attention is also drawn to EIAR Chapter 7, Consideration of Alternatives of the EIAR, and in Appendices to the Chapter (A7.3, A7.5, A7.7 and A7.8). It is very important to recognise and is evident, that a significant level of analysis was undertaken to identify alternatives, 16 alternatives (10 cut and cover, 6 mined) in total were considered. Each were assessed against multiple criteria to inform the determination of the preferred station location for St. Stephen's Green. This analysis considered potential environmental effects on St. Stephen's Green Park, potential effects on buildings on the east and north sides of St. Stephen's Green, on traffic and transport along St. Stephens Green East, and on critical utilities serving large areas of the city located under the road at St. Stephen's Green East. The analysis identified that the proposed station location on St Stephen's Green East partially under St. Stephen's Green Park is the preferred option because it effects just 5% of the Park area during the construction phase, reducing to 0.2% of the Park area following full re-establishment, whilst providing a station that operationally meets the requirements of the Project over its lifetime. In addition, all heritage features such as monuments, railings, bollards, and paving stones can be fully reinstated following the construction phase. This option also negates the potential for direct impacts on properties to the east side of St Stephens Green East road, on critical utilities including a major sewer (a critical piece of infrastructure) serving the Dublin population, and on the roadway which is an important access route to the city centre, particularly for public transport.	

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6	Executive Summary	N/A	The OPW believes that as per the Consideration of Alternatives (EIAR Chapter 7 and Appendices A7.3–A7.5; A7.7–A7.8), the proposed location for the station at the Green is not the only viable option. The St. Stephen's Green Station Options Assessment Summary (EIAR Appendix A7.8) notes that: "Of the 16 alternatives considered [including Preferred Design], location 8 and mined options 1 and 3 were considered viable [in addition to the Preferred Design]." The likely overall impact on the Green would be substantially reduced, if any of these three alternatives are adopted, with certain specific potential impacts eliminated or considerably reduced in scale and scope. It also states that "[Mined] Option 3 performs the best in terms of minimising the impact on St. Stephen's Green Park both during the construction and operational phases, noting that during the construction phase the Park's railings would be removed temporarily to ensure they are protected. In contrast Option 0, the current Preliminary Design performs the worst by a considerable margin both during the construction and operational phases of the station compared to the other options, which includes for during construction a haul road and logistics being located within the Park, and five ventilation 'pop ups' in the permanent case (operational phase). [Mined] Option 1, construction and permanent land take is confined to the Plaza area of the Park and also necessitates the removal of a section of the Parks railings."	Please refer to response (5) above.
7	Executive Summary	N/A	The OPW is of the view that in selecting the location and design for the station at the Green, as currently proposed, consideration of the overall effect to this National Monument (encompassing factors such as property impact, social, landscape, amenity, archaeology /cultural heritage, and architectural heritage) has not been given appropriate weighting.	TII do not agree with this statement for the reasons set out by the above responses.
8	Executive Summary	N/A	The OPW is of the opinion that the proposed station option has prioritised construction requirements, uniformity of station design and construction methodology, programme, and cost considerations above a sufficiently weighted assessment of the long-term impacts on the Green.	TII do not agree with this statement for the reasons set out by the above responses.
9	Executive Summary	N/A	The proposals as outlined have a significant impact on the longer-term biodiversity of the Green. Of the 800 trees growing within the Green, 225 will possibly be impacted by this Project. The proposal to fell 64 trees, along with the potential impact on numerous other trees within this National Monument will permanently damage one of Ireland's favourite Parks. Thus, the MetroLink, as proposed, risks fundamentally altering the special character of the Green and the changes will be visible for generations to come.	Please refer to responses (1) and (3) above.
10	Executive Summary	N/A	In conclusion, St. Stephen's Green Park is a significant tourist attraction, with in excess of 4 million visitors on an annual basis and fulfils a critical social and amenity function at the core of the city centre. It is a National Monument which has played a significant role in Ireland's history, including during the 1916 Easter Rising. While the OPW supports the objective of modern Metro infrastructure for Dublin and the State, delivery of this objective cannot be at the expense of Ireland's national heritage.	For the reasons set out by the above responses, TII have carefully considered the impacts on the Park and balanced these with providing a high quality metro system that will serve Dublin for many years to come. TII are aware of the importance of the St. Stephen's Green Park to Dublin and maintains that the proposed St. Stephen's Green Station will enhance this area allowing Dubliners and visitors alike high quality public transport access to St. Stephen's Green and to this area of the city, thereby reducing car dependency, greenhouse gas emissions, noise levels and improving air quality while allowing citizens to enjoy St Stephen's Green long into the future. Furthermore, the permanent footprint of the proposed Project within the Green is very minor and it is considered that it will not permanently damage the heritage value of the Park. It is also important to note that the limited footprint of the works area to the east of St. Stephen's Green Park, will allow the majority of the Park area to be enjoyed fully by tourists and locals during the construction phase.
11	Executive Summary	N/A	The proposed plans do not appear to strike the right balance between the transport needs of the modern state and the protection of national heritage for citizens. The OPW therefore recommends that careful consideration be given to alternative station locations and/or alternative construction methodologies for the proposed station at St. Stephen's Green. Such consideration should encompass all of the issues raised above.	TII maintain that careful consideration of alternative alignment options, alternative station locations and alternative construction methodologies has been undertaken already to advise the preferred station location as outlined in Chapter 7 of the EIAR and supporting appendices (A7.3, A7.5, A7.7 and A7.8) and the above responses.

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12	Executive Summary	N/A	Section of St. Stephen's Green directly affected by the Project, highlighted in red. Section of St. Stephen's Green likely to be negatively impacted by the Project, highlighted in orange.	The image presented in the executive summary of the accompanying report is very misleading. It appears from the image and from the references in the submission to show "225 trees being potentially negatively impacted" and that the OPW have reviewed the Arboricultural impact assessment and identified that because trees have been surveyed as part of the project (225 of them), these trees are potentially going to be negatively impacted. This is not the case. The potential impacts identified within the relevant chapters of the EIAR are based on the identified fact that 64 trees will be felled (and replaced after completion of construction), and that all other trees within the Park will be retained and not be impacted. Furthermore the proposed construction of the station at St. Stephen's Green will occupy a maximum of 5% of the Park area and as such will not preclude the Park outside of this area being used as normal.	
13	3.0 Overview of the Draft Railway Order	11	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The Draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII disagree with this unparticularised assertion that inadequate consideration has been given to the effects of MetroLink on the properties referred to. The level of design that has been undertaken by TII is sufficient to allow the Board to identify, describe and assess the significant impacts of the project on the environment, to describe and evaluate appropriate mitigation measures and monitoring arrangements. The EIAR chapters address the potential impacts, and where appropriate their mitigation, along the entire alignment of the Project and thus supports the proposed Railway Order application. Should an Enforceable Railway Order be granted, detail design for construction will be undertaken, which will finalise matters of detail left over by the Railway Order, including the application of monitoring and mitigation measures to the internal use, construction method and age of the properties. TII will work closely with OPW in relation to this monitoring and mitigation measures and the development of method statements for the works. Having specific regard to MetroLink's construction methods and their impacts on building sensitivities, TII would note that the following EIAR chapters; (1) Chapter 14 Groundborne Noise & Vibration and supporting appendices where a full assessment of ground noise and vibration on all buildings along the alignment are included. (2) Appendix A5.17 presents an analysis of the settlement risk associated with underground construction. (3) Chapter 12 (and supporting appendices) which presents the details of the proposed EMI/EMC impacts associated with the operation of MetroLink system along the entire project length and (4) Chapter 26 which presents the potential impacts on buildings of architectural heritage value having regard to direct impacts and indirect impacts arising from vibration and settlement.	
14	4.2 Historical Context / Conservation Status	14	According to the Dublin City Council's Record of Protected Structures, there are several protected structures within the Green, which further highlights the historical significance of the park.	TII note the historical significance of the park. This has been reflected in the assessment carried out as part of the EIAR. As explained by EIAR Chapter 26 Architectural Heritage, a number of structures of architectural heritage significance will need to be removed and placed into safe storage. This includes sections of the Park railings, bollards, lamp standards and paving outside the Park railings, the Wolfe Tone monument, and the Famine sculpture and trees within the Park and outside it. Within the Park there are short stretches of railing bordering the entry to the Park from the gates on the eastern perimeter, and there are low iron railings bordering the paths alongside the lawns; these will also have to be removed within the construction area. The railings, gates and plinth walls will be removed by a specialist heritage contractor in accordance with a method statement to be prepared by the Project Conservation Architect (PCA), brought into secure storage for the duration of the works and conserved as necessary. At the completion of the construction of the station, the railings, plinth wall and gates will be reinstated in their original locations in accordance with a method statement prepared by the PCA. The OPW and the Minister's office (Housing) will be consulted on the method statement prior to commencement of works.	
15	4.3 Current Use/Uses	17	Over sixteen commemorative statues and memorials, representing many strands of Irish history and culture are located within the Green.	Please refer to response (14) above.	

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16	4.3 Current Use/Uses	17	Key Events include: - ▪ Annual family day event including storytelling, archaeology, garden tours, historical re-enactments, kids' activities, etc. ▪ Permit in excess of 200 photoshoots for business, charity events and weddings. ▪ International band performances including Tango/swing/salsa dance exhibitions. ▪ Annual Art and photographic exhibitions. ▪ Primary teacher training Courses in association with St. Pats Teacher Training College, Drumcondra. ▪ Schools educational programme including Tree Day/Tree Week in conjunction with local schools and The Tree Council of Ireland. ▪ Links with local 2nd and 3rd level colleges for student projects. ▪ Specialized gardens and historical tours. ▪ Yoga/fitness classes. ▪ Little Dublin Museum weekly tours in the Green.	The proposed construction of the station at St. Stephen's Green will occupy a maximum of 5% of the Park area and as such will not preclude any of these events occurring in the remainder of the Park area.	
17	4.3 Current Use/Uses	17	An important characteristic of the landscape is the screen of trees and shrubs on the perimeter, which blocks out many of the sights and sounds of the bustling city, while offering a relatively quiet and peaceful oasis in the centre of the city.	It is acknowledged that the loss of trees on St Stephen's Green East will have a significant impact on the landscape and visual amenity in the area. However this will be mitigated by planting mature and semi-mature trees to replace the existing trees, to shorten the period of re-establishment. Please also refer to response (3) above. It should also be noted that vegetation is not an effective barrier to noise transmission and so the removal of vegetation will not have a significant effect on noise levels within the Park. Also noted within Appendix A27.3 Arboricultural Impact Assessment, of the 64 trees to be felled: 15 of the trees were found to be a state of decline and recommended to be removed, 14 of the trees were of low quality, 45 of the trees are moderate quality and only 5 were found to be of the highest quality.	
18	4.3 Current Use/Uses (Functions of the Green)	18	(1) Creating an oasis within our ever-increasing urban population According to the latest census, almost two thirds of our increasing population are now living in an urban area. “Over half, 55%, of the world's population are now living in urban areas. By 2050 this is projected to be 68%”. This is moving us further away from the natural environment and increasing the pressure on government agencies to provide trees and green space for urban populations in areas where the space is at a premium. People in built up areas are now relying more and more on public amenities, accessible green spaces, parks, and parkland. Parks such as the Green really are the lungs of the city. They are where people can escape to, run, unwind, and relax a place to get back to nature and reconnect. One of the great features of these historic parks is the open/accessible designed treed landscapes that they incorporate. Large mature trees are an integral part of this landscape experience. St. Stephen's Green Park is a green island floating in a sea of concrete. The essence of the Green is its continuous tree lined perimeter as is evident from the image below.	This point is acknowledged, however it is important to note that: • During construction only 5% of the total Park is taken up by MetroLink, while in the operational phase / permanent state, this is just 0.2% and therefore TII maintain this will not have significant impact on the Park. • 64 trees will be lost during the construction phase, confined to the east side (adjacent to the Park fence line) with all trees felled to be replaced. The combination of a MetroLink station at this location and the high quality amenity that is St. Stephen's Green Park will enhance access to this very important amenity for the public at large, allowing people an opportunity to improve wellbeing, while also reducing car dependency, Green House Gas (GHG) emissions, noise levels and improving air quality, while allowing citizens to enjoy St Stephen's Green long into the future.	
19	4.3 Current Use/Uses (Functions of the Green)	18	(2) Improvements to the air quality we breathe This innate desire to be close to or have contact with nature is known as the Biophilia hypothesis. Considerable worldwide research has been carried out on the many benefits of trees but probably the most current/topical of these benefits is environmental. According to the World Health Organisation (WHO), “air pollution now kills around 7 million people, globally, every year”. Mature trees such as those within the Green capture air pollutants and fine dust particles and helps to clean our atmosphere.	The removal and replacement of 64 trees is a fraction of the total number of trees contained within the Park and will therefore not have a significant impact in terms of air pollution. Furthermore, all trees and vegetation removed will be re-established post construction. While it is acknowledged that the reestablishment of trees will take time, the MetroLink project itself is a key infrastructural project for Ireland in terms of modal shift away from cars and thereby improving the air quality in the receiving environment.	
20	4.3 Current Use/Uses (Functions of the Green)	18	(3) Combatting the effects of Climate Change A recent study in the UK has shown that “increasing tree cover in Urban areas by 10% can reduce urban surface temperatures by as much as 4 degrees Celsius”. That may be considered the difference between a comfortable and an uncomfortable day, whereas in some countries it can be the difference between life and death. The Tree Council of Ireland's theme for National Tree Week in 2019 was “Planting for our planet”, a nod to how trees can benefit us all worldwide. The removal of over 64 trees on the perimeter of the Green will take decades to recreate the canopy we have today.	The temporary removal of 64 trees is a fraction of the total number of trees contained within the Park and will therefore not have a significant impact in terms of urban surface temperature overall. Furthermore, all trees and vegetation removed will be re-established post construction. While it is acknowledged that the reestablishment of trees will take time, the MetroLink project is a key infrastructural project for Ireland in terms of achieving greenhouse gas emission reduction targets, with an ultimate long term aim to reduce the effects of climate change including excessive heat.	

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21	4.3 Current Use/Uses (Functions of the Green)	19	(4) The physical and psychological health benefits of trees Research has shown that “the closer you live and work to trees and the natural environment the better off you are, physically and psychologically”. ▪ Asthma. ▪ Mental health/psychological well-being. ▪ Stress and lower glucose levels in diabetics.	The removal and replacement of 64 trees is a fraction of the total number of trees contained within the Park and these trees will be replaced leading to the reestablishment of the area. However, during the short to medium term the majority of St Stephen's Green will remain in situ (only 5% of the Green taken during construction) providing the significant physical and psychological benefits referred to. In addition, it should be noted that as outlined in Chapter 10 Human Health and Chapter 11 Population and Land use, there will be a significant benefit to the population from a human health and well perspective from the provision of MetroLink at this location.	
22	4.3 Current Use/Uses (Functions of the Green)	19	(5) Biodiversity This revised proposed construction zone will result in the removal of over 64 trees along with the associated understory planting. Some of these trees exceed heights of 15-20m with the tallest measuring 26m in 2018. The main species include Horse Chestnut, Sycamore, Birch and Holm Oak, a species associated with Lord Ardilaun. One of the last surviving Elm trees is the city centre is located with the proposed construction zone. This scheme will significantly impact the environmental and biological benefits, these habitats provide to the environment and wildlife.	Please refer to response (3) above. In relation to the Elm trees, TII regret the loss and recognise its importance. The AIA Report notes that there are 3 elm trees that will be felled. TII will explore a means by which these trees can be excavated/stored and replanted.	
23	4.4 Planning Context	19	as outlined in the Planner's Report of the Draft Railway Order 2022, “No planning applications are affected by the tunnel alignment between St. Stephen's Green Station and Charlemont.” It is noted that DOWNEY have also carried out an examination of the planning history pertaining to the property subject to this submission, which determined there are several planning applications made within proximity to the Green. An overview of the most relevant applications are as follows: Reg. Ref. 4951/22 - By Order dated 23rd November 2022, Dublin City Council granted planning permission for a development on lands at the National Concert Hall, Earlsfort Terrace, Dublin 2,..... Reg. Ref. 4559/22 - Registered on the 27th of July 2022 by Dublin City Council, the proposed development on lands at No. 23 St. Stephen's Green (Protected Structure) and rear of No. 22 St. Stephen's Green, (Protected Structure), Dublin 2,..... Reg. Ref. 5099/22 - Registered on the 21st of October 2022 by Dublin City Council, the proposed development on lands at 92 and 93, St. Stephen's Green, Dublin 2,..... It is important to consider the above developments in the context of the construction phase of the Project.	The planning applications listed in the submission relate to works in proximity to the proposed works. The projects listed would be considered within the cumulative assessment. They had not been previously assessed due to them being submitted after the assessment cut off date in May 2022 but will be considered in a gap assessment that will be carried out prior to an Oral Hearing if they have been granted permission at that time. Please also refer to 'Cover Letter' and response (10) that outlines the process for seeking permission to develop in the vicinity of MetroLink infrastructure. In addition, we will assess future developments when they are at sufficient level of design maturity to allow an assessment as to its potential impact to be made and mitigated. TII will work with developer to enable such development to take place over and adjacent to MetroLink as is evidenced current discussions with developers etc.	
24	4.4 Planning Context	20	In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy and legislation at National, Regional, and Local levels, is included in Appendix 1 of this submission, the Board are invited to refer to this for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project regarding existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property.	TII have undertaken a full assessment of the planning policy and planning guidelines in the Planning Report that was submitted as part of the Railway Order Application based on policy and planning guidelines in force at that time. All changes to planning policy will be considered in a gap assessment that will be carried out prior to an Oral Hearing	
25	4.4 Planning Context	20	DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessments, including public consultation.	Given planning policy and strategy are being updated periodically, TII will undertake a further review of planning policy in advance of the oral hearing to allow for an updated presentation to An Bord Pleanala on the Project's consistency with active policy requirements. The adherence to planning policy will be tracked all the way through the Project's design. There are no draft Development Plans or Local Area Plans of relevance to the proposed railway works at this location. The Board is only entitled to take into account Development Plans and Local Area Plans that have been adopted as of the date of the decision to grant the Railway Order, albeit it can request information in relation to such draft Plans before they are adopted in order if it anticipates they may be adopted before it makes its decision.	

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26	5.0 Material Considerations	21	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04025 and the Contour drawing ML1-JAI-EIA-ROUT_XX-DR-Y-21148 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly within the Kildare Street, Merrion Square and St. Stephen's Green areas.	The alignment shown on drawing ML1-JAI- EIA-ROUT_XX-DR-Y-04025 is correct and the contours on drawing ML1-JAI-E1A-ROUT_XX-DR-Y-21148 reflect the same alignment. The tunnel centreline on drawing ML1-JAI-E1A-ROUT_XX-DR-Y-21148 deviates slightly from the contours and is a drawing error. The error is clear on the face of the drawing. There is no deficiency with the assessment. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments. It is not clear what point the OPW makes when it refers to "an SID application submitted under section 2 of the Planning and Development Act 2000". The current application is not an SID application and section 2 of the Planning and Development Act 2000 is the definitions section. The current application is an application for a Railway Order submitted under Section 37 of the Transport (Railway Infrastructure) Act 2001.	
27	6.0 Legal Considerations	21	Duplicate of matters raised in the OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland, page 2 Legal Requirements and page 6 Legal Agreements	We have covered this in our response to that document.	
28	6.1 Legal Status of Saint Stephen's Green	22	Saint Stephen's Green ("the Green") has a special statutory status as a public park. This is provided for under the Saint Stephen's Green (Dublin) Act 1877 ("the Act of 1877"), which is expressly maintained in force under section 2 and Schedule 1 of the Statute Law Revision Act 2012. It should be noted that this is the specific and original statutory status of the Green, separate from any consideration of the Green as a national monument within the meaning of the National Monuments Acts 1930 to 2014 and any issues arising in that regard. Arising from a series of transfers of statutory functions since the 1990s, ownership of the Green under the Act of 1877 is vested in the Minister for Housing, Local Government and Heritage, as are all functions under the Act of 1877 which do not relate to day-to-day operation of the Green. The ownership of the Minister extends not only to the area enclosed within the railings surrounding the Green, but also to the area outside the railings but within the surrounding posts (see section 6 of the Act of 1877). The day-to-day operation of the Green is, by reason of the transfers of statutory functions just mentioned (see in particular S.I. No. 690 of 2003), vested in the Minister for Finance and discharged on that Minister's behalf by the Office of Public Works.	This is consistent with our understanding of the park's legal status and does not need to be addressed.	
29	6.1 Legal Status of Saint Stephen's Green	22	Accordingly, the Green is one of only a handful of public parks in the State afforded the status of being specifically established under its own particular statute, the others being the Phoenix Park (under the Phoenix Park Act 1925) and the Bourn Vincent Memorial Park at Killarney (under the Bourn Vincent Memorial Park Act 1932). Section 15 of the Act of 1877 provides that the Green shall be maintained as "an ornamental park or pleasure ground for the recreation or enjoyment of the public" and that the Green shall be allowed to be "used and enjoyed as a public park for the recreation and enjoyment of the public, and not for any other purpose". Section 116 of the Dublin Transport Authority Act 2008 dis-applies section 15 of the Act of 1877 in respect of railway works carried out pursuant to a railway order under applicable legislation and in respect of the operation of a railway or metro in or under the Green. However, this provision appears to govern the situation after a railway order has been granted and does not require that such an order be granted. While the Green evolved historically over a long period, its current form largely arises from statutorily required works carried out under the provisions of section 4 of the Act of 1877. By reason of its great heritage importance, the Green also falls into the definition of "national monument" for the purposes of section 2 of the National Monuments Act 1930 and, as it is currently owned by the relevant Minister under the National Monuments Act 1930 (as amended), i.e. the Minister for Housing, Heritage and Local Government, is subject to a legal requirement under section 14 of the Act of 1930 for consent for any works to it or ground disturbance around or in proximity to it. The Green is also a Protected Structure under the Planning and Development Act, 2000 (as amended).	This is consistent with our understanding of the park's legal status and does not need to be addressed.	

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30	7.0 Engineering Considerations	23	The option studies have been reviewed by the OPW and its engineering consultants, who have concluded that some of the key assumptions adopted to reach their conclusion are flawed. The OPW wishes to work jointly with TII to develop a solution that satisfies the requirement for a station in the vicinity of the Green, a National Monument, but has no impact on the Park.	Please refer to response (1) above. TII are committed to working with OPW to minimise any potential impacts on St Stephen's Green Park but would reiterate that TII consider the station location selected is the optimum solution based on the work and options studies carried out by TII.	
31	7.1 Route Alignment	24	Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Draft Railway Order and EIAR difficult.	The Plans of Proposed Railway Works - Alignment Drawings show the chainages. These have been and continue to be available online since TII lodged the application for a Railway Order.	
32	7.3 Park Infrastructure	24	The perimeter wall, railings and paving are fundamental elements of the park that will be affected by the construction of the running tunnel and station box. The lakes within the park are both fed and drained through a network of pipes and these need to be considered in future assessments.	Please refer to response (14) above regards the perimeter wall, railings and paving. EIAR Chapter 18 Hydrology, section 18.4.3.4.5 identifies the hydrological connections to the ponds at St. Stephen's Green and confirms these will not be impacted by the proposed MetroLink station construction.	
33	8.0 Impacts on St. Stephen's Green Park	24	Having carried out a detailed examination of the Park, with its numerous protected structures, the OPW is not satisfied with the level of impact the proposed Project, in its current form, will have on this National Monument.	TII acknowledge and understand the OPW position. TII are committed to working with OPW to minimise any potential impacts on the Green during the construction phase and to ensure that all elements of St Stephen's Green are correctly reinstated following the completion of construction.	
34	8.1 Tree loss &Impact on Biodiversity	24	The proposed station will have a significant impact on biodiversity of the Park, which serves as a natural reserve for the wider area. Of 800 trees within the Green, 225 may be impacted by this Project (28.2%). The proposal to fell 64 trees, and to impact on the roots and structures of more than a quarter of all trees within this National Monument is an unprecedented proposal which will damage a flagship green, tranquil spaces within Dublin City Centre.	TII does not agree that the Project will have a significant impact on the biodiversity of the Park, or that 225 trees will be impacted by the proposed construction works. The Arboricultural Impact Assessment (AIA) undertaken (EIAR Appendix 27.3) identified that just 64 of the trees in St Stephen's Green Park could not be saved. This is 5% of all the trees in the Park. The 225 trees refers only to the number of trees surveyed, not the trees impacted. It should also be noted that the majority of the trees are lower value trees (category B, C and U trees) with just 5 Category A trees as stated in responses above.	
35	8.1 Tree loss &Impact on Biodiversity	25	In addition, 75% of the trees, shrubs and ground cover that line the eastern boundary are to be removed. Five of the 225 trees that were surveyed are classed as Category A trees in that "They are large, high-quality trees which should be retained. They are capable of making a significant contribution to the area for 40 or more years" and they are particularly good examples of their species, especially if rare or unusual, or those that are essential components of groups or formal or semi-formal Arboricultural features (e.g., the dominant and/or principal trees within an avenue) Trees, groups or woodlands of significant conservation, historical, commemorative or other value. These mature trees support the lives of many organisms. Birds, small mammals, and other wildlife such as bats and invertebrates use the trees for food, shelter, and nesting. During times of extreme weather, animals can seek shade and shelter under the trees without being away from their food sources. This revised proposed construction zone will result in the removal of over 64 trees along with the associated understory planting.	TII acknowledge that the loss of any trees at St. Stephen's Green. Please also refer to response (3) above. The Park has also been identified as being important for Bat species and Breeding Birds (as identified in Chapter 15 of the EIAR). However the potential impacts are predicted to be not significant due to the very small habitat loss and the implementation of mitigation measures (such as the installation of nest boxes).	
36	8.1 Tree loss &Impact on Biodiversity	25	Some of these trees exceed heights of 15/20m with the tallest measuring 26m in 2018. The main species include Horse Chestnut, Sycamore, Birch and Holm Oak, a species associated with Lord Ardilaun. One of the last surviving Elm trees in the city centre is located with the proposed construction zone. This scheme will significantly impact the environmental and biological benefits, these habitats provide to the environment and wildlife. These trees are critical to the historic boundary of this National Monument. They are also critical to protecting the people of Dublin using the Green from harmful pollutants in the air. The park is surrounded by 3-4 lanes vehicular traffic, Luas, and buses. These trees significantly reduce noise emanating from the city, the trees control temperature extremes, reduce the risk of flooding and remove carbon dioxide from the atmosphere.	Please refer to the above responses in relation to quality of trees being felled.	

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37	8.1 Tree loss &Impact on Biodiversity	25	The unprecedented impact that the construction of the station would have on biodiversity in Dublin's city centre contravenes the policy within the Dublin City Development Plan 2022-2028. The impacts on the biodiversity of the Green can be considered as follows: ▪ Landscape, historical, and visual character of the Green will be lost. Extensive parkland will be removed from the public to facilitate storage and construction works outside the footprint of the station and tunnel. ▪ The continuous tree lined perimeter and Victorian landscape character of the Green will be lost. Lime walk may be impacted. ▪ Removal of 64 mature trees, plus semi mature trees, shrubberies, and spring floral displays. ▪ Removal of external perimeter path and removal of access to a large portion of the internal perimeter path used by thousands daily. ▪ Noise pollution and visual intrusion and loss of habitats for wildlife. Habitats for Flora and Fauna will be impacted with the loss of tree canopy. ▪ Impact on tourism during the construction period. ▪ We cannot ascertain if large trees will re-establish at this location. As a result of the underground structure, the depth of soil may not be sufficient to ensure adequate rooting zones for large trees. ▪ The social and environmental benefits as outlined above will be compromised. ▪ The proposed reinstatement treatment is not in keeping of the historic fabric of the Green, Dublin's oldest public park. The placement of infrastructure within the green will require planting exclusion zones and maintenance access areas, further reducing the space available for public enjoyment and habitat provision.	MetroLink is a transformative piece of new public transport infrastructure, the first of its kind in Ireland and impacts are unavoidable. This section makes an unparticularised assertion that there is a breach of Development Plan policy. TII have fully assessed and reported on the impacts throughout the EIAR and consider that the proposed mitigation measures presented in the EIAR as outlined in the response to this submission will ensure that the proposed development does not contravene the Dublin City Development Plan policy. Having regard to the points being raised by OPW as the basis for the statement that MetroLink contravenes the CDP, TII would note the following: Most of the impacts identified here are not biodiversity impacts, which have been fully assessed in Chapter 15 of the EIAR. Of the remainder, many are short term impacts. The landscape, historical and visual character of the Green will not be lost as all heritage elements of the park including railings, bollards, paving slabs etc will be reinstated following the construction phase (as described by response (4) above) and trees lost will be replaced by similar. (as described by response (3) above). The replanting proposals will follow a planting plan to allow the continuous tree lined perimeter and Victorian landscape character to be reinstated and the lime walk will not be impacted. Specifically for this location and the re-establishment of trees, it should be noted that the station roof slab has been designed to ensure that a minimum of a 2m depth of soils will be available to allow for the re-establishment of mature trees. Some temporary habitat loss due to the removal of trees and disruption to this area of the Green (just 5% of the Park area) will occur as described in the EIAR. However these impacts are temporary and cover a limited area of the park allowing the majority of the Park to function as normal. The planting exclusion zones and maintenance access areas are imposed to protect the trees not being felled and therefore is keeping with the historic fabric of the park as far as practicable.	
38	8.1 Tree loss &Impact on Biodiversity	26	The Dublin City Development Plan outlines a number of policies with respect to the Green and the importance of biodiversity and green infrastructure. We would respectfully request that TII re-evaluate the proposal to ensure compliance with the following: G13 Multi-functionality To ensure delivery of multifunctional green and civic spaces that meet community needs, support biodiversity, promote active and passive recreation, flood and surface water management and local habitat improvements. The multifunctionality of spaces will be balanced against the need to protect and enhance local habitat and the recreational and functional requirements of parks.	The Dublin City Development Plan 2017-2022 and the then Draft Dublin City Development Plan 2022-2028 have been taken account of in the preparation of the EIAR. TII does not see any conflict with this current policy and as outlined previously, TII considers they have balanced the need to protect and enhance St Stephen's Green as evidenced by the station alternatives considered and assessed. TII would also note that the proposed St. Stephen's Green Station adds functionality to St Stephen's Green in accordance with the policy and will enhance this area by providing Dubliners and visitors alike with high quality public transport access to St. Stephen's Green and to this area of the city, thereby reducing car dependency, noise levels and improving air quality, while allowing citizens to enjoy St Stephen's Green long into the future.	
39	8.1 Tree loss &Impact on Biodiversity	26	G107 National Biodiversity Action Plan 2017-2021 To support the management targets for nature conservation sites set out in the National Biodiversity Action Plan 2017 (and as updated) and the objectives for local authorities to address threats to biodiversity.	The National Biodiversity Action Plan 2017-2021 has been taken into account in the preparation of EIAR Chapter 15 Biodiversity.	
40	8.1 Tree loss &Impact on Biodiversity	26	G108 Dublin City Biodiversity Action Plan 2021-2025 To support the implementation of the 'Draft Dublin City Biodiversity Action Plan 2021–2025' (or as updated), which sets out key themes and objectives for biodiversity conservation and restoration and measurable targets and actions, in partnership with all relevant stakeholders.	The draft Dublin City Biodiversity Action Plan 2021-2025 has been taken into account in the preparation of EIAR Chapter 15 Biodiversity.	

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41	8.1 Tree loss &Impact on Biodiversity	27	GI24 Multi-Functionality To incorporate new open space into the green infrastructure network for the city and providing a multi-functional role including outdoor recreation, biodiversity, urban drainage, flood management, connection, and carbon absorption without compromising public access to and the amenity function of open space (see Section 15.6: Green Infrastructure and Landscaping). 15.6.1 Green Infrastructure To support the green infrastructure network, any proposed development for sites which adjoin either core areas or any buffering parks and open spaces shall include an assessment of impacts on biodiversity and make provision for enhancement of ecological features. The following measures to strengthen the city green infrastructure (GI) network plan will be required. ▪ Increase habitat protection to support the wider GI network. ▪ Provide additional green space to meet deficiencies in connectivity of the GI network. ▪ Ensure retention of mature habitats and provide for long-term ecological succession. ▪ Increase connections and improve accessibility for pedestrians and cyclists to the wider GI network. ▪ The use of drainage systems (SuDS) and soft/nature-based engineering solutions for surface water management to control the rate of run-off, protect water quality and mitigate the environmental impacts of flooding and erosion. ▪ Provide for public access to ensure that the benefits of access to the GI network is available to all citizens. ▪ Ensure that proposed developments do not create negative impacts on the existing GI network.	This policy of both the Dublin City Development Plan 2017-2022 and the Dublin City Development Plan 2022-2028 relate to the provision of new open space. The proposed Project includes elements that are located in lands that are zoned for open space use. In each of these locations, the detail of the design ensures that the open spaces will be reinstated to open space use following completion of the construction phase. Mitigation measures will be implemented during construction and operation to minimise the effects of habitat loss and habitat degradation on biodiversity.
42	8.1 Tree loss &Impact on Biodiversity	27	15.6.10 Tree Removal Where a proposal impacts on trees within the public realm, a revised design will need to be considered to avoid conflicts with street trees. Where a conflict is unavoidable and where a tree, located on street, requires removal to facilitate a new development or widened vehicular entrance and cannot be conveniently relocated within the public domain, then when agreed by Parks Services and the Planning Department by way of condition to a grant of permission, a financial contribution will be required in lieu. The financial contribution is calculated by the Capital Asset Value for Amenity Trees (CAVAT) by an Arboriculturist. The payment is required to be lodged with Dublin City Council before the tree can be removed. The removal of 28% of the trees within the park is also a clear violation of the St. Stephen's Green Park Conservation Management Plan 2015-2020. It lists the following objectives specifically for nature and biodiversity: "- To continue to adopt management measures sensitive to biodiversity, to identify areas where such measures would have precedence and to develop action plans to maximise biodiversity, - To raise awareness of biodiversity, - To protect and enhance the condition of rare and important species of flora and fauna, - To continue research and development and monitoring on all aspects of biodiversity, in order to support the decision-making process in management practices for the overall enhancement of biodiversity,"	TII do not agree that a financial contribution should imposed for tree loss. The trees that have been identified as requiring removal are being replanted as close to the original location as possible will carried out in accordance with the proposed landscaping plans. TII do not recognise the figure of 28%, as noted above it is 5% during construction and 0.2% for operational phase. Please see response (34) above. TII also do not consider that they are in violation of the St. Stephen's Green Conservation Management Plan 2015-2020. The EIAR demonstrates that the Project has adopted across the scheme management measures sensitive to biodiversity whilst taking account of the other benefits that are provided by MetroLink.
43	8.1 Tree loss &Impact on Biodiversity	28	The loss of biodiversity due to the impact of the Project on the Green, will have a detrimental impact on the biodiversity of the park and the city as a whole. Good planning promotes the growth and intensification of biodiversity within green spaces in the city centre. The development is in clear violation of this and would be an unprecedented regression and destruction of one of Dublin's vital green infrastructure spaces.	Please refer to response (35) above. TII do not agree the Project is in violation of good planning, nor that this is an unprecedented regression and destruction of St. Stephen's Green. Responses (1) to (5) set out the balanced considerations that have determined the proposed location of St Stephen's Green Station.
44	8.2 Impacts on the Built Heritage	28	The proposed plan would replace the historic elements of this Park with a contemporary plaza, which is incongruent with the wider character of the area. The Green is a square park, and all four corners of that square should read as a whole and not be diluted by a contemporary plaza to one corner. The existing granite slabs located around the exterior pavement of the Green is laid to an historic bond, the proposed feature pavement is completely out of the historic character. The proposed 36 stainless steel security bollards and contemporary standard lighting are not in keeping with the historic park and are further evidence of an inaccurate assessment of the historic importance of this Park.	TII do not agree. The primary visual impact public realm / landscape design for each MetroLink station has been designed to integrate with the existing predominant forms, colouring, materials etc within the local context. The proposal for a station entrance at the north east corner of St Stephen's Green is consistent with the current layout where there is already a plaza. TII will commit to restoring the existing granite slabs and will consult with OPW in relation to method statements. The Hostile Vehicle Management (HVM) bollards are a safety/security requirement. TII will work with OPW to reduce the intrusiveness of the HVM bollards and light stands when finalising these design details.

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45	8.2 Impacts on the Built Heritage	29	The station will directly impact two Dublin City Record of Protected Structures and three NIAH sites the list is as follows. List of RPS impacted by the station: ▪ Railings, gates, and plinth walls of perimeter boundary on St. Stephen’s Green (REF NO. 7751). ▪ Surrounding bollards and traditional-style lampposts (REF NO. 7752). List of NIAH sites impacted by the station: ▪ Wolfe Tone Memorial (NIAH REG NO. 50100265) (Regional rating). ▪ Famine Memorial (NIAH REG NO. 50100264) (Regional rating). ▪ St. Stephen’s Green Park (NIAH REG NO. 50100259) (National Rating). This is in violation of the policies stated in the Dublin City Development Plan 2022-2028 with regard to Built Heritage, which read as follows: BHA2 Development of Protected Structures..... BHA3 Loss of Protected Structures..... BHA4 Ministerial Recommendations..... BHA5 Demolition of Regional Rated Building on NIAH.....	As outlined in EIAR Chapter 26 Architectural Heritage, a number of structures of architectural heritage significance will need to be removed into safe storage from the surface in advance of the construction phase. At the completion of the construction phase, these elements will be reinstated in their original locations (where possible) in accordance with a method statement prepared by the Project Conservation Architect (PCA). The OPW and the Minister’s office (Housing) will be consulted on the method statement prior to commencement of works. All works of removal, transportation, storage and reinstatement are to be supervised by the PCA. TII would also point out that there is no building demolition associated with this station. This complies with each of the policies of the Dublin City Development Plan 2022-2028
46	8.2 Impacts on the Built Heritage	30	The removal of built heritage will result in the degradation of the importance of the surrounding of the Green. The dilution of historic monuments and spaces of historical and national significance is to be avoided or justified according to the Dublin City Development Plan 2022-2028. MetroLink is in contravention of the built heritage and archaeology chapter of the Development Plan.	TII do not agree. All of these features will be temporarily removed by a specialist heritage contractor in accordance with a method statement to be prepared by the Project Conservation Architect (PCA), brought into secure storage for the duration of the works and conserved as necessary. At the completion of the construction phase, these elements will be reinstated in their original locations (where possible) in accordance with a method statement prepared by the PCA. All works of removal, transportation, storage and reinstatement are to be supervised by the PCA and will be consulted with the OPW and the Minister’s office (Housing) prior to the works. It is also of note that the MetroLink works are taking place over a very limited area of the Park, just 5%, reinstated on completion so they impact just 0.2% of the Park. It is therefore considered that the importance of the Green overall will not be degraded. Furthermore, in accordance with responses (1) to (5) above, TII have explained the rationale justifying the location of the proposed St Stephen’s Green Station.
47	8.2 Impacts on the Built Heritage	30	It also goes against the specific objectives for Archaeology, Architecture and Built heritage outlined in the St. Stephen’s Green Park Conservation Management Plan 2015-2020. These are as follows:.....	This is not correct. The proposed Project does not contravene the objectives of the management plan in this regard. The provisions cited set out general principles and OPW does not explain how they are inconsistent with the proposed Project.
48	8.3 Landscape & Visual Impact	31	The proposed station will completely disrupt the Park’s Victorian square design by implementing a plaza at the north-eastern corner. The plaza will upset the existing symmetry and completely alter the character of the Green. St. Stephen’s Green is a square park, and all four corners of that square should read as a whole and not be diluted by a contemporary plaza to one corner. The square design is an essential aspect of the park’s character and of Victorian and Georgian parks across Dublin. The Green participated in “Square Day” which is held in association with the Dublin Civic Trust, to celebrate the city’s unique square parks.	Please refer to response (44) above.
49	8.3 Landscape & Visual Impact	31	The development of a plaza along the north-eastern corner is contrary to the vision outlined for the protection of the Green in the Dublin City Park Strategy 2019-2022 which states that “The long-term vision for St. Stephen’s Green combines its protection, conservation and, where appropriate, restoration as an important and unique historic landscape with the facilitation of appropriate access and use.”	The policies cited are general statements of principle and OPW has not explained how the proposed Project is inconsistent with them. As stated previously, at the completion of the construction phase, Park railings, bollards, lamp standards, paving outside the park railings, the Wolfe Tone monument, and the Famine sculpture will be reinstated in their original locations (where possible) in accordance with a method statement prepared by the Project Conservation Architect (PCA). OPW and the Minister’s office (Housing) will be consulted on the method statement prior to commencement of works. All works of removal, transportation, storage and reinstatement are to be supervised by the PCA a).Furthermore, the Park layout will be reinstated following the construction phase, with only minor amendments to the fence line of the Park at the proposed station entrance. Once completed, elements of the Station that will be visible at the surface, will represent just 0.2% of the Park area. TII do not agree that this intervention will impact the ability of the Park to comply with the Dublin City Park Strategy 2019 - 2022.

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50	8.3 Landscape & Visual Impact	31	This development will completely alter the landscape and historical layout of the park and contravenes the specific objectives of the St. Stephen's Green Park Conservation Management Plan 2015-2020. These are as follows: "- To encourage the planning authorities to have regard to the landscape setting of the Green, including its perimeter footpath. - To ensure that trees and plantations continue to thrive in the Green..... - To conserve the existing topography of the Green - To conserve and enhance buildings, structures, and works of art - To ensure that, where any new features, services and amenities in the Green are required, it is essential that they are appropriate and sensitive to the historic character of the Green. - To continue to develop educational materials on the historical and designed landscape of the Green."	TII do not consider that the proposed location and design of St Stephen's Green Station contravenes the St. Stephen's Green Park Conservation Management Plan 2015-2020 or the items listed. TII would also note that: (1) the existing topography of the Park will not be impacted by the proposed Development (2) All structures and monuments will be reinstated following the construction phase and no buildings or works of art will be impacted (3) The proposed new features within the Park area have been minimised to ensure that their effect on the Park is minimal, and as such will occupy just 0.2% of the park area. Nor does TII consider that the Project will completely alter the landscape and historical layout of the Park as noted by response (44) above. As previously stated, TII are committed to continuing to consult and engage with the OPW to refine the design to minimise any impact on the Green.
51	8.4 Access & Public Use	32	The construction of the station will impede upon how people use the historic public park. The proposed alignment of the entrance to the MetroLink would encourage commuters to transverse the Green, in order to connect with the southern shopping district or change for the Luas Green Line. This will change the use of the park to become a cut through for commuters and shoppers on their way to other parts of the city, disturbing visitors walking at a gentle pace in a tranquil environment. The Green was not designed to facilitate this kind of movement and no design or thought has gone into how commuters will connect from the Luas green line Luas stop with the proposed MetroLink station at each end of the square. The Green will become a transport hub and very little is being done to create routes for commuters to connect with other modes of transport without impacting the serenity of the Park.	As detailed in EIAR Chapter 9, Traffic and Transport, the Luas Green Line stop at St. Stephen's Green (and the adjacent shopping district) lies within the 10 minute walking catchment of the proposed station on St. Stephen's Green East. The shortest route from the proposed station to these trip attractors will be via St Stephen's Green North (ie along the footpath that lies between the railings and the road). An analysis of the pedestrian comfort levels on St. Stephen's Green North demonstrates that increased passenger flows on this footway will not reduce current comfort levels between the north-east and north-west corners of St. Stephen's Green. Therefore, use of this footway will not be discouraged by increased commuter flows. Walking through the Park will be a longer and more convoluted route and is likely to be used by members of the public who are in less of a hurry to get to their final destination. Therefore the Green is not likely to become a "transport hub".
52	8.4 Access & Public Use	32	While the Green is not designated as a major mobility hub, the proximity to connections with the Luas Green line, Dublin Bus, and other modes of transport, as well as it being a city centre location, will make it a major interchange. The Draft Greater Dublin Area Transport Strategy 2022-2042 states the following about the integration and inclusion of public transport modes: "The features of a well-integrated transport system include the physical environment of stops and stations; the length and quality of the walk between services; crossing points; travel information; fares integration; cycle parking; shelter; frequency and capacity of connecting services." It goes against Measure INT5 of the Draft Strategy: "Measure INT5 – Interchange: It is the intention of the NTA, in conjunction with local authorities and transport operators, to ensure that passengers wishing to change between services on the transport network are provided with as safe, convenient and seamless interchange experience."	EIAR Chapter 7, Consideration of Alternatives, and associated Appendix 7.3 St Stephen's Green Report, details how the Emerging Preferred Route assessment identified St Stephen's Green East as the preferred location for a station at St Stephen's Green due to the direct interchange required at Tara Street DART station. St. Stephen's Green East plays an important role in the city's transport network, as it is designated as a secondary strategic pedestrian route, a primary cycle route in the Greater Dublin Area Cycle Network Plan (NTA, 2013), is within a 10 minute walking distance to the Luas Green Line, and is an important link in Dublin's bus network serving the south-east of the city. As a result, the location of the station on St. Stephen's Green East facilitates strong integration with all modes within the transport network, including public transport services, and is therefore not in contravention of INT5.

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53	8.4 Access & Public Use	33	This anticipated increase in footfall between the north-east and north-west corners of the Green will generate greater commuter footfall traffic that has not been accounted for in the planning statement. It is critical for the design of the MetroLink station to accommodate this interchange and provide an appropriate interchange, and not for the historic park to become a walkthrough for multi-modal transport use. The change in access and public use change in use is a contravention of the objectives outlined in the St. Stephen's Green Park Conservation Management Plan 2015-2020. These are as follows: "- The overall objective is to provide a world-class visitor experience within the setting of a National Historic Park, - To facilitate an appropriate balance of recreational use and public appreciation..... - To facilitate and encourage a greater public understanding of the national and international significance of the Green..... - To ensure that all events demonstrate that they will minimise their carbon footprint within the Green, - To reduce the environmental impact of traffic & transport infrastructure on the perimeter of the Green, - To maintain the current high levels of access to the Green 365 days per year. - To respect and conserve the layout and distribution of the designed features and facilities, - To promote St. Stephen's Green including its landscape, natural amenities, and wildlife..... - To develop educational and tourist programmes..... - To continue to implement high standards of security and policing of the Green."	As set out by EIAR Chapter 9, Traffic and Transport, the Luas Green Line stop at St. Stephen's Green lies within the 10 minute walking catchment of the proposed MetroLink station on St. Stephen's Green East. When MetroLink is operational, an analysis of the pedestrian comfort levels on St. Stephen's Green North demonstrates that increased passenger flows on this footway will not reduce current comfort levels between the north-east and north-west corners of St. Stephen's Green. Therefore, use of this footway will not be discouraged by increased commuter flows. Regarding the connection to Luas Green Line, the more direct and shorter route to the MetroLink station is on the northern footway along the R138 as the entry and exit point to the Park are along this route and the Park route will be longer and more convoluted. The policies cited from the St Stephen's Green Park Conservation Management Plan 2015-2020 are broad statements of principle and OPW has not explained how the proposed Project is inconsistent with them.	
54	9.1 Monitoring	33	Once an agreement on the location of the Station has been agreed between the OPW and TII, we request that An Bord Pleanála attach a condition to the Draft Railway Order that ensures continuous monitoring of the Green to prevent any negative impacts on this National Monument. Access to all sections of the Green for monitoring, must be agreed in advance with the OPW. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and at least 6 weeks post the operational stage of the MetroLink.	It is not open to OPW and TII to agree a different Station location. OPW's submission, if adopted, would require a fundamental redesign to the Project in order to meet the GDA Transport Strategy's objective of linking Charlemont, Dublin City Centre, Dublin Airport and Swords. For the reasons outlined in the Planning Report, the EIAR and these responses, TII's position is that the Board should grant a Railway Order with no chance to the station location in St Stephens Green. Information on monitoring during the construction phase is outlined in Section 4.2.2 of Appendix A5.1 Outline CEMP of the EIAR. A number of documents will be provided by the Contractor and incorporated into the detailed CEMP and can be seen within Section 1.3 of the same document as above. TII will consult with the OPW and its clients in relation to final details of all monitoring affects properties and buildings under OPW's management. This monitoring information to be provided to the planning authority will be agreed separately with the planning authority. TII will consider any proposals from OPW in relation to appropriate monitoring of the National Monument.	
55	9.2 Security Issues	34	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.—(1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	Section 181 is a provision intended to facilitate development for the purposes of security infrastructure (such as a naval base) by removing the requirement for planning permission. Section 181(1)(b)(iii) is one of a number of provisions dealing with alternative means of public consultation in relation to such security infrastructure. It has no application to developments that might affect security infrastructure as OPW appears to suggest.	
56	9.2 Security Issues	34	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of the OPW properties, including the operation of St. Stephen's Green Park. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of the Park takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State properties are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	These are valid concerns, but they relate to the safe transmission and storage of State security information and, as such, are outside the scope of the Railway Order application. It is envisaged that OPW will require TII to give certain contractual commitments in relation to its data security before any such information can be shared.	
57	9.2 Security Issues	34	All employees contracted to work on behalf of TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to all persons entering or working in proximity of the property. The day-to-day operations of the property cannot be interrupted by disruptions to any utilities. The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards. TII will minimise any disruption to utilities, and in the unlikely event a service interruption is necessary, OPW will be consulted and necessary measures put in place to minimise the impact to St Stephen's Green.	

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58	9.2.1 Ground Movement	35	Stage 2: Stage 2 assessments of the walls, monuments and statuary in the Green shall be undertaken.	Appropriate ground movement assessments will be undertaken of all affected monuments, walls and statuary that are at risk of being impacted by construction generated ground movements and are not required to be temporarily relocated.	
59	9.2.1 Ground Movement	35	Stage 3: The EIAR states that Stage 3 assessment will be carried out where required for National Monuments by the Contractor appointed to construct this section of the MetroLink. The OPW expects to be consulted on the detail, scope of this assessment and programme for these assessments. It would be helpful if TII were to develop a Design Standard to ensure that all Stage 3 analyses of the OPW properties are carried out equally.	A design standard will be prepared that reflects the methodology described in EIAR Appendix 5.17. TII will consult with OPW to ensure they are appraised of the work being undertaken with regards to OPW property.	
60	9.2.1 Ground Movement	36	No mention of Stage 4 or 5 has been found in the Draft Railway Order or EIAR. Industry best practice as applied to London’s Elizabeth Line (Crossrail) required that two further Stages in the Assessment of ground movement were undertaken during the project.	The development of monitoring, mitigation and contingency plans and the subsequent close out of the impacts of settlement will form part of the scope of the Project for the detail design and construct phases. TII will develop the process to be adhered to by the contractor and this will be included in the contract documentation prepared for that contract. TII notes the description of stages 4 and 5 as included as Appendix D and confirm that the MetroLink Specification will reflect similar requirements to achieve the desired outcomes.	
61	9.2.1 Ground Movement	36	Stage 4 (Construction Stage): This stage is where any mitigation is implemented, and the monitoring of the stakeholders’ infrastructure is carried out. Also, the preconstruction defect surveys are carried out prior to any excavation. The OPW requires to review the detailed proposals for mitigation and monitoring. Monitoring proposals submitted to the OPW for review should include deep level monitoring and ground water level monitoring in addition to the building and surface monitoring typically implemented. The deep level monitoring will provide valuable data relating to the rock behaviour and has been usefully employed on HS2. The OPW will facilitate and observe the preconstruction defect surveys. It is noted that these shall be carried out by Professionally Qualified Engineers or Surveyors. The OPW requests that only Engineers or Surveyors with proven competence in regard to (historic) buildings of this fabric type, period and nature are selected. The contractor(s) will coordinate pre-construction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works.	Information on monitoring during the construction phase is outlined in Section 4.2.2 of Appendix A5.1 Outline CEMP of the EIAR. A number of documents will be provided by the Contractor and incorporated into the detailed CEMP and can be seen within Section 1.3 of the same document as above. TII will consult with the OPW and its clients in relation to final details of all monitoring affects properties and buildings under OPW’s management. This monitoring information to be provided to the planning authority will be agreed separately with the planning authority. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.	
62	9.2.1 Ground Movement	36	Stage 5 (Close out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW expects to be provided with close out reports for the monitoring of its property. As a minimum the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.	
63	9.2.2 Utilities	36	It is likely that significant utility diversions will be required on St. Stephen’s Green East to facilitate St. Stephen’s Green station construction.	Utilities diversions will be required where construction of the Station extends into the highway, including path, but noting access along St Stephen’s Green East will be maintained. Utility diversions are fully assessed in Chapter 22 (Infrastructure and Utilities) of the EIAR.	
64	9.2.3 Noise and Vibration	36	(a) Tunnelling EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requests specific vibration limits that will be applied to the Green and that a monitoring regime to be implemented. EIAR Table 6.2- ANV16. sets out requirement for pre- and post-construction surveys of structures vulnerable to vibration induced damage. The OPW seeks to ensure pre- and post-construction surveys of structures vulnerable to vibration induced damage are carried out and this should include the Green.	It should be noted that the modelling presented in Chapter 14 of the EIAR has identified that vibration levels from the advancement of the TBM does not exceed the limits set out in Chapter 14 and therefore will not be at a level that will cause any structural damage to buildings. As a result TII are confident that the Park area will not be impacted by vibration resulting from the TBM advancement. Please also note that prior to the commencement of the construction phase, all sensitive monuments, railings, and other features will be removed from the works area and stored such they will not be at risk of damage from the proposed construction works. TII confirm that construction generated vibration will be monitored.	
65	9.2.3 Noise and Vibration	37	(b) Station Excavation The assumption is that the lowest charge would be implemented to avoid damage. The Green is located above and adjacent to the planned station box. At this distance, ground vibrations from the excavation may register up to 2.7mm/s.	As presented in EIAR Chapter 14, the thresholds for vibration values due to blasting activities are 8mm/s for standard buildings and 3mm/s for listed or potentially vulnerable buildings. In this case the vibration value is below both threshold limits. As a result, no significant impact is expected to the buildings or to the Park.	

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66	9.2.4 Work Sites	37	(a) Dust Appendix A16.4 of the EIAR requires a Dust Management Plan to be produced and implemented. The tunnelling will not generate dust in the vicinity of the Green. The station construction is in the Green and therefore dust from these constructions' sites may affect this building.	An Air Quality Management Plan, detailing dust mitigation methods will be prepared prior to construction works (EIAR Chapter 16 Air Quality, section 16.6.1.1) covering each works site, including that at St Stephen's Green. The plan will include measures to minimise dust impacts arising from the proposed Project on the surrounding area including the following: - Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; - Any blasting will be completed by specialised contractors with a specific blasting dust management plan; - Liaison with the OPW, Dublin City Council and other stakeholders; and - Hoarding will be provided around the entirety of the construction area. When the dust minimisation measures detailed in the mitigation section (section 16.6) of EIAR Chapter 16 are implemented, fugitive emissions of dust from the site are not predicted to cause damage to property or impact human health.	
67	9.2.4 Work Sites	37	(b) Ground Water Control There is an assumption that the tunnelling will not affect the ground water above the tunnel. However, there should be a ground water monitoring scheme implemented to confirm this and a contingency plan to manage any residual risk.	Groundwater levels will be monitored (baseline, during construction and for close out) and contingency plans will be in place linked to predetermined trigger levels.	
68	9.2.4 Work Sites	37	(f) Intervention Strategy The Green is located at the construction site of St. Stephen's Green Station. The construction of this station will generate additional lorry movements, for both deliveries and spoil removal and other associated construction activities. There is significant risk that this will impact on the historic, fabric, structure, and elements of this important Protected Structure. It will be necessary that TII and their contractors demonstrate that this risk will be addressed and that all measures are taken to ensure there is no impact arising.	Lorry movements will not impact the historic fabric, structure and elements of St Stephen's Green as there will be no risk of collision between HGVs and any sensitive structures. As stated previously, prior to the commencement of the construction phase, all sensitive monuments, railings, and other features will be removed from the works area and stored such they will not be at risk of damage from the proposed construction works. There is estimated to be between 20 and 60 vehicle movements per day on average, with a maximum of 136 vehicle movements predicted for a four day period. This level of vehicle activity is very low when compared to existing traffic movements on St Stephen's Green East and will not result in any potential impact to the historic fabric, structure and elements of St Stephen's Green, including vibration.	
69	9.3 During Operation of the MetroLink	38	9.3.1 Noise and Vibration The OPW requests that floating track slab is installed between Chainage 17+980 and 18+400 (St. Stephen's Green Station). This would mitigate the noise and vibration to acceptable levels under all the Government buildings, museums and the National Concert Hall and other significant Protected Structures along this route such as St. Stephen's Green. The vibration during railway operations will not impact the building fabric or structure.	As identified in EIAR Chapter 14, the operation of the proposed MetroLink will not result in any structural impact on buildings and/or parks. As a result there is no requirement for floating slab track generally, except for buildings that have "sensitive uses". In these cases floating slab track will be provided, including for certain OPW buildings as identified by Table 14.47. Floating slab track will be installed at Ch. 17+980, Ch. 18+100 and Ch. 18+760, Ch. 18+940 to reduce impacts on National Museums, National Gallery and the National Concert Hall.	
70	9.3 During Operation of the MetroLink	38	9.3.2 Evacuation Strategy The Green, being a station location, will de facto also incorporate, evacuation routes, access for firefighting and associated ducts. The Green is located close to this station and so may be impacted by such interventions. As a significant building forming part of the important east terrace of protected structures addressing the Green and station, it is important that all interventions and impacts in this quarter are considered at the both the urban scale, individual building and down to individual elements of fabric and detail.	Access and egress from the proposed station will be by way of the main entrance to the station and lifts provided outside the Park on St Stephen's Green East. Any requirement for emergency services or evacuating passengers to enter the Park will be discussed and agreed with OPW as part of the finalisation of the Station Fire and Safety Strategy and plan. The intent of the Plan will be to minimise any Park intervention. Fire Service Access and Facilities are discussed in Section 6.6.5.6 of Chapter 6 of the EIAR. TII also confirm that all impacts and interventions in this quarter sympathetically take account of the urban realm. Please also refer to response (44) above.	
71	9.4 Contractual Arrangement	38	The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	Agreed.	
72	9.4 Future Development	38	The OPW reserves the right to development the subject property in the future, this includes property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop these, in advance, in tandem or post operation of the MetroLink Project.	This item is not relevant to this location as oversite development will not be permissible over the proposed station within St Stephen's Green park.	

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73	10.0 Conclusion	39	With regards to the Gall Zeidler assessment, the OPW asserts that the risk of damage to St. Stephen's Green Park, a National Monument, is unacceptable in its current form. The option studies have been reviewed by the OPW and its engineering consultants who have concluded that some of the key assumptions adopted to reach their conclusion are flawed.	Please refer to responses (1) to (5) above.
74	10.0 Conclusion	39	This proposal will have a significant negative impact on the Green. The OPW has several concerns regarding the design and location of St. Stephen's Green Station. The current design of the Station will have irreparable impacts on the biodiversity, built heritage, landscape and design, and the experience of the public park. It will dilute the historical significance of the Park and weaken its separation from the active and loud streetscapes, that it currently acts as an oasis from.	TII do not agree with this statement for the reasons set out by the above responses.
75	10.0 Conclusion	39	The design and the submission from MetroLink must provide clear and specific detail as to how the Station will impact the Park. We are of the view that any dilution of the Park's historic or ecological importance is a clear violation of local planning guidelines and must be avoided. The Green is a special and unique part of Dublin and Ireland's heritage and a key aspect of the city's green infrastructure that must be protected going forward.	The submitted Railway Order has fully assessed the impacts on St Stephen's Green and presented the results in the EIAR. The above responses also address these observations.
76	Appendix 1: List of Planning Legislation & Policy Documents	40	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Draft Railway Order and further assessment, including public consultation.	Please refer to response (25) above.
77	Appendix 2: Ground movement Assessment	45	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Please refer to 'Cover Letter' and response (19).

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1	Report Under OPW Cover Letter Executive Summary	N/A	With respect to this property, the OPW requests that An Bord Pleanála notes the sensitivity of the historic buildings and national collections located within. The OPW also seeks: That ABP note the historic importance of this iconic building and ensure that all necessary conditions are attached to any Railway Order to ensure its full protection and use prior to, during and post the MetroLink development and operation. 1) To ensure there is minimum disruption to public access of the GPO and its day-to-day uses and functions. 2) To ensure no damage to the building and its architectural detailing, pre-construction and postconstruction surveys, trials and monitoring are required as there is potential for major noise and vibration impact (at both stages). These factors can damage the building, which is of historical significance, as well as affect the operations of the building which is Dublin's primary post office. 3) Disruptions to traffic may happen during construction phases, wayleaves for the GPO and staff, as well as unrestricted access for postal vans & lorries will be required. 4) Precedents to be applied to the risk assessments to ensure the contractors are utilising best industry practice within the implementation of the Project. 5) To ensure impact on future development ofGPO is minimised, particularly in relation to emergency works which may need to be carried out on the building, including repairs and refurbishment. 6) To mitigate noise and vibration to acceptable levels for this cultural and historical block, the installation of a floating track slab at this portion of the alignment would be the preferred option.	TII thank you for your comments. Further to TII's response to the OPW Covering letter, the matters raised here specific to this building are addressed in responses (2) through to (42) below.
2	3.0 Overview of the Draft Railway Order	9	While extensive pre-planning consultations also took place between TII and the OPW, a detailed assessment of the individual properties affected has not yet taken place. The draft Railway Order application 2022 is a Draft Order, and should the route be approved by An Bord Pleanála, further detailed design will be submitted which will require further consideration and approval. Factors such as the internal uses of the properties, their construction methods, age and historical importance and the effect of construction on these sensitivities has not been assessed as part of the Project thus far. Additional consideration needs to be given to the potential effects on the built environment before a route and construction method can be confirmed. The OPW reserves the right to make further commentary, pending more detailed design proposals.	TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the RO documentation within Appendix 5.17 of the EIAR. Appendix B2 of that document indicates the list of special buildings that would be subject to a subsequent Phase 3 assessment irrespective of the engineering need to do so. Many OPW buildings are in this category. It should be noted that the further assessments that will be done by the contractor if the RO is granted will likely reduce the impacts on the buildings as the Phase 2 assessment is a conservative assessment whose results are generally more significant than the results of a Phase 3 assessment. This point was discussed with OPW and their consultants in January 2023. TII will consult with OPW in relation to the results of any Phase 3 assessments and any requirements for monitoring and / or other mitigations that eventuate will be discussed with OPW. TII are satisfied that the approach adopted to date follows an industry standard approach undertaken on tunnelling and underground projects around the world including on the Channel Tunnel Rail Link and Crossrail in London, the Dublin Port Tunnel and currently on High Speed 2 in England, and therefore that further assessment is not required and should not be delivered prior to the route being consented. The General Post Office has been included in the building damage assessments to date. The assessment concludes that this building would be subject to very slight impact due to ground movement. As the building has been designated a "special" building it will progress to a detailed assessment despite the negligible impact predicted.
3	4.1 Property Location & Description	12	The retained classical elevation and the limestone side elevations belie a modern structure. Any assessment of the building will need to be based on a full understanding of the construction and materials of the building, the effects of different period of building. Iron cramps secure stone to the elevations. Bronze windows will be very inflexible. Historic glass is thinner and more fragile than modern glass. A complex roof relies on metal for waterproofing and will be vulnerable to movement. Extensive decorative plasterwork will be vulnerable to movement	TII welcome this information which will be incorporated into the Phase 3 assessment as noted in EIAR Appendix A5.17.
4	4.1 Property Location & Description	14	The following is a non-exhaustive list of building sensitivities to take into account in the Stage3 and further assessments (construction and operation stage). We would recommend close liaison with GPO,Department and the OPW personnel at all stages of the project: Building Sensitives ■ Building structure and heterogeneity The response of a building that combines early nineteenth century, early twentieth century, and likely late 20th century repairs and interventions may be difficult to predict. The giant order portico surmounted by replica statues. There may be differences in the stiffness of structures, iron and steel that will be present. The presence of iron cramps/dowels fixing stone. ■ Windows, rooflights There are innumerable rooflights in the building complex which will be sensitive to movement - very fragile. The arcades have fully glazed roof. c. 1925 bronze windows with some original glass; bronze is very stiff. c. 1925 hardwood windows, other early windows with early glass.	Refer to Item 3.

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			■ Special finishes and features Bronze wail mounted lights; Bronze clock. The statues surmounting the portico. The bronze Cuchulainn sculpture. Terrazzo floors. Historic joinery, counters etc. ■ Other aspects of note Disturbance of ground water levels resulting from the excavation of the station; potential for impact on foundations, for dampness. Monitoring of basements required. Monitoring of roofs and flashing and rainwater goods to ensure they do not admit water to the building. Potential impact on sensor activated or sampling building systems. Concern during construction stage of disturbance of rodents during the works to the nearby MetroLink Station box.	
5	4.3 Current Use/Uses	15	Uninterrupted access to the building is necessary at all times for the conduct of business and for access by emergency services (e.g., fire services and ambulance). The OPW and/the State, and their authorised agents, require access to the building at all times for the purpose of facilities management, maintenance, repairs and any major conservation, repair or development programs planned, or as may arise during the construction period of MetroLink.	Access to the building will not be impacted by MetroLink. As outlined in Section 7.8 of Appendix 9.5 Scheme Traffic Management Plan - Construction Traffic will not enter O'Connell St, which itself has been found through models to see a net decrease in traffic volumes. With no other adverse impacts identified for O'Connell St.
6	4.4 Planning Context	19	As outlined in the Planner's Report of the Draft Railway Order 2022, "/Vo planning applications are affected by the tunnel alignment between St. Stephen's Green Station and Charlemont." It must be noted that there are currently no live planning applications pertaining to the GPO. However, there are live applications near the site on O'Connell Street which are relevant. Most notably relating to Clery's Quarter and Dublin Central - which if approved will facilitate the O'Connell Street MetroLink Station. The applications associated with Clery's Quarter are as follows: ■ Reg. Ref 3442/16: By Order dated 8th December 2016 Dublin City Council approved a mixed-use scheme for the refurbishment, extension, and partial change of use of the Clery's Building at 18-27 O'Connell Street Lower. Mix uses approved on site include retail, restaurant, cafe, hotel, and offices. Works have commenced on site and several compliances have been submitted by the developer and approved by Dublin City Council. Design amendments have also been approved on site under Reg. Ref 3933/19 and Reg. Ref 3576/21. Moreover, the Clery's Quarter (Reg. Ref 3442/16) was granted an extension of duration of planning permission until 28 the July 2025. Furthermore, there are now 2 no. live planning applications on the Clery's site as follows: ■ Reg. Ref 4995/22: By Order dated 29th November 2022, Dublin City Council approved planning permission for "Flannels" signage comprising 3 distinct types as indicated on drawings.... ■ Reg. Ref 5171/22: By Order dated 13 the December 2022, Dublin City Council granted planning permission for amendments to the permitted development Reg. Ref. 3442/16 as extended..... Dublin Central is a regeneration project relating to lands encompassing a new quarter on O'Connell Street, Moore Street and Henry Street.3 The live applications relating to Dublin Central are as follows: ■ Reg. Ref. 2863/21 (ABP-313947-22): By Order dated 23rd June 2022, Dublin City Council granted permission to Dublin Central GP Ltd. for "for a period of 15 years at a site..... ■ Reg. Ref. 2862/21 (ABP-312642-22): By Order dated 12 the January 2022, Dublin City Council granted permission to Dublin Central GP Ltd. for "7 years ■ Reg. Ref. 2861/21 (ABP-312603-22): By Order dated 12th January 2022, Dublin City Council granted permission to Dublin Central GP Ltd. for "Hotel, ... The most recent application lodged to Dublin City Council in relation to the regeneration of O'Connell Street, was submitted on the 26th of October 2022 under Reg. Ref. 5126/22 and by order dated 13 the December 2022, Dublin City Council requested Additional Information.	The planning history set out in the planning report examined all live planning applications and extant planning permissions at each of the construction sites along the route. The pattern of planning applications where the works are solely carried out by way of the TBM were not reported on, where above ground development potential is not affected by below ground tunnelling. At the time of assessment the Planning Applications referenced 2863/21, 2862/21 and 2862/21 decisions were on appeal. The additional projects listed by OPW would be considered within the cumulative assessment. They had not been previously assessed due to them being submitted after the assessment cut off date but will be considered in a gap assessment that will be carried out prior to an Oral Hearing.

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			It must be noted that Upper O'Connell is the proposed location for the O'Connell Street MetroLink Station and is within the proposed development boundary of Dublin Central regeneration project. While the Transport Infrastructure Ireland station will be subject to a separate application, provision has been made for the future location of the station under Reg. Ref. 5126/22. The proposed development under Reg. Ref. 5126/22 provides for the construction of a "bare" station box for the O'Connell Station, known as the MetroLink Enabling Works (MEW). There are items within Dublin City Council's Additional Information request relating to the enabling works timeline and the proposed demolition & excavation methodology. The applicant will have a 6-month statutory timeframe to respond, unless extended. The Clery's Development and the proposed Dublin Central regeneration are large-scale schemes that would transform O'Connell Street. Moreover, the permissions sought under the Dublin Central proposal seek planning permission for periods of 7 and 11 years. Furthermore, the latest planning proposal includes infrastructure provisions to accommodate the independent construction and operation of the planned O'Connell Street MetroLink Station by Transport Infrastructure Ireland. In relation to the Draft Railway Order's consistency with planning policy and planning guidelines, a non-exhaustive list of planning policy, legislation, and guidelines, is included in Appendix 1 of this submission, to which the Board are invited to refer for further details. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property.	
7	4.4 Planning Context	22	DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Draft Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered to within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	The only policy relevant to the decision on whether to grant the Railway Order and the necessary conditionality is the policy in force at the date of the grant of the Railway Order, as has been made clear in numerous High Court decisions including Element Power v An Bord Pleanála [2017] IEHC 550 and the Railway Order cannot be made conditional on compliance with future, yet to be developed policy. As planning and policy and strategy are being updated constantly, TII will undertake a further review of planning policy in advance of any oral hearing to allow for an updated presentation on the projects consistency with active policy requirements to be presented to An Bord Pleanála.
8	4.5 Potential Development of the Property	23	This building itself is a protected structure under the Dublin City Council Development Plan 2022 to 2028 and a property of national importance in a sensitive location. The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop the property, in advance, in tandem or post operation of the MetroLink Project	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.
9	5.0 MATERIAL CONSIDERATIONS	23	The alignment drawing ML1-JAI-EIA-ROUT_XX-DR-Y-04024 and the Contour drawing ML1-JAI-EIA- ROUT_XX-DR-Y-21146 show different alignments. This error has resulted in deficient information within the SID application submitted under Section 2 of the Planning and Development Act 2000 (as amended), to assess the vulnerability of damage due to vibration cause by both tunnelling and operation of underground train on this section of the alignment. This affects several buildings under the management of the OPW particularly with Kildare Street, Merrion Square and St. Stephen's Green areas.	On two drawings (Figures 20.16 Settlement Contours, sheets 27 and 28 of 30) in EIAR Appendix 5.17 Building Damage Report, the tunnel centreline is plainly incorrect as it is deviates from the centre of the settlement contours between Tara and St. Stephen's Green stations. The settlement contours are correct and reflect the proposed Railway Order alignment and as such the drawing serves its core purpose, which is to identify, describe and assess the settlement impact of the railway works. In any event, revised drawings will be submitted to the Board to rectify the error. The correct alignment has been used for all environmental impact assessments including tunnel induced settlement, and construction and operational noise and vibration impact assessments.

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10	6.0 LEGAL CONSIDERATIONS	23	The Commissioners of Public Works would seek to enter into appropriate, property-specific legal agreements with TII, to ensure the protection of key State property and of the State's activities undertaken within those and other properties. Given the importance of such properties and activities, the Commissioners of Public Works consider it appropriate that An Bord Pleanála would make the Railway Order conditional on such legal agreements being in place between TII and the OPW. Creating such legal agreements between TII and the OPW would be possible only after TII make available the more detailed design and risk-mitigation measures for the construction and operational phases of the MetroLink project, and before any development begins. Therefore, the Commissioners of Public Works would request that this aspect be reflected in the conditions set out by An Bord Pleanála to TII, as this would provide assurances to the Commissioners of Public Works relating to future legal agreements that protect and secure State property and activities from risks associated with the construction or operations of the MetroLink.	TII's preference is carry out all of the permitted railway works with the agreement of affected landowners and prescribed bodies. However, it should not be condition of the railway order that TII reach such agreement with OPW. In the event that agreement cannot be reached with OPW, TII should be entitled to carry out the railway works over their objections provided that it complies with the terms and conditions of the Railway Order. The Board's function is to satisfy itself that those terms and conditions are adequate to ensure that the construction and operation of the railway works will be consistent with proper planning and sustainable development and have acceptable impacts on the environment. TII believes that the RO application and the EIAR in particular sets out mitigation and monitoring measures that are sufficient for that purpose
11	7.1.1 Route Alignment	24	Many of the reports refer to chainages along the alignment. However, there are no plans that indicate these chainages, and this makes reviewing the Draft Railway Order and EIAR difficult.	Reference to chainages along the alignment are provided within the Railway Order Plans\Drawings under Alignment Drawings.
12	7.1.1 Route Alignment	25	Beneath the GPO O'Connell Street, the proposed MetroLink will be excavated through Argillaceous Limestone rock (CLU) underlying Weathered Rock (QTR) underlying Brown Boulder Clay (Q.BR) containing extensive fluvio-glacial sands and gravels. Cover to the = tunnel crown is approx. 23m comprising Brown Boulder Clay. The invert will be excavated through both weathered and unweathered limestone. This will present a significant challenge to ground movement mitigation using tunnel management.	The comment is noted and part of the reason for proposing a pressurised full face TBM designed to cater for this ground. Further the Contractors will be required to prepare a Tunnel Management Plan which will dictate the controls to be implemented to suit the varying ground conditions to minimise any impact so far as reasonably practical.
13	7.3 Contractual Arrangement	25	The contractor(s) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed Project. The contractor(s) is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.	TII's contractors will be bound by the Railway Order, further agreements entered into by TII and other relevant statutory or MetroLink specific regulation. An Bord Pleanála's statutory responsibility includes satisfying itself that the terms and conditions of any railway order will ensure that the railway works are consistent with the proper planning and sustainable development of the area and will not have unacceptable impacts on the environment regardless of the contractual structure.
14	8.0 POTENTIAL IMPACTS ON THE PROPERTY	25	DOWNEY and Gall Zeidler have carried out an examination of the property subject to this submission. Having regard to the status and current use of the property and identified constraints, the following raises concerns regarding potential impacts of the MetroLink on the property. This has been elaborated to include potential impacts during the construction and operation phases of developing MetroLink, as well as any impediments and/or implications for future development of the property.	Please refer to response number (15) through to (31) below.
15	8.1 Monitoring	26	Given the sensitivity of the uses within this property, coupled with its historic importance, we request that An Bord Pleanála attach a condition to the Railway Order that ensures continuous monitoring of the property to prevent any negative impacts. Access to all properties must be agreed in advance with the owner, occupier and the OPW. It is recommended that this monitoring takes place at least 3 months in advance of the construction of the Project and throughout the operational stage of the MetroLink.	TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting any OPW property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation to the OPW property. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.
16	8.2 Security Issues	26	Given the nature of the State properties affected by the Project, we would respectfully refer An Bord Pleanála to Part XI of the Planning & Development Act 2000 (as amended), which states that: "Development by State authorities. 181.— (1) (a) The Minister may, by regulations, provide that, except for this section F902[and sections 181A to 181C], the provisions of this Act shall not apply to any specified class or classes of development by or on behalf of a State authority where the development is, in the opinion of the Minister, in connection with or for the purposes of public safety or order, the administration of justice or national security or defence and, for so long as the regulations are in force, the provisions of this Act shall not apply to the specified class or classes of development. b(iii) the making available for inspection by members of the public of any specified documents, particulars, plans or other information with respect to the proposed development;"	This provision allows the Minister for Housing to provide that certain State developments do not require planning permission. It is not relevant to the MetroLink project. The MetroLink project is authorised by railway order and does not require planning permission. In that regard, we refer to section 38 of the Transport (Railway Infrastructure) Act 2001, which provides that " <i>Each of the following shall be exempted development for the purposes of the Act of 2000: (a) development consisting of the carrying out of railway works, including the use of the railway works or any part thereof for the purposes of the operation of a railway, authorised by the Board and specified in a railway order or of any incidental or temporary works connected with such development; (b) development consisting of the carrying out of railway works for the maintenance, improvement or repair of a railway that has been built pursuant to a railway order. "</i>

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17	8.2 Security Issues	26	It is essential that security issues do not arise in the event of sensitive information being shared on the structure and operation of these properties. However, the OPW understands the importance of the detailed design stage of the Project and the wish to ensure that the detailed assessment of these properties takes place in the early stages of the design process, in conjunction with the OPW, to ensure that these sensitive State buildings are not negatively impacted upon by the proposed Project. The OPW will liaise with TII and An Bord Pleanála on this matter.	This is understood and agreed. TII propose a meeting is held with the requisite OPW / security experts to discuss potential risks and the management of these risks during the construction and operational phases of the Project. TII and their consultants store all data on secure systems in line with best practice and treat all information as confidential. TII are available to engage with the OPW to discuss any specific requirements the OPW have in regard to data security.
18	8.2 Security Issues	26	All employees contracted to work on behalf of the TII on this Project, and any associated works, must adhere to the properties protocol around access, security, and safety. This applies to ail persons entering or working in proximity of the property.	TII will ensure that contractors working on its behalf on OPW property comply with property protocols around access, security and safety. Once the TII worksites are established, works within those sites will be secured to MetroLink standards.
19	8.2 Security Issues	26	The day-to-day operations of the property cannot be interrupted by disruptions to any utilities.	There is no intent to disrupt the day to day activities. If subsequently, it is found that a disruption to utility provision is inevitable this will be discussed with OPW and the timing and duration of any disruption optimised to minimise said disruption.
20	8.2 Security Issues	26	The design and operation of the MetroLink should be in line with best international practice, in relation to anti-terrorism and security measures.	Safety and security are two priorities for the MetroLink in operation and hence the design will be developed cognisant of the risk in relation to terrorism and best practice applied. Further dialogue with OPW will be undertaken throughout the design and construction to ensure suitable provisions are in place.
21	8.3 During Construction of the MetroLink	27	This building is Dublin city's primary postal office and is a cultural hub & museum. Furthermore, it is a protected structure and of nationally significant heritage/historical value. It provides functional spaces, kiosks & offices. As such, the impact of any proposed works in terms of noise and vibration need to be carefully considered. The area surrounding the property is also used for State commemorations and must continue to be available for same.	It should be noted that a full assessment of groundborne noise & vibration effects during the construction phase have been provided in Chapter 14 of the EIAR. Groundborne Noise: Chapter 14.4.1.8 AZ4 – Groundborne Noise during Construction, Table 14.29, presents the predicted noise levels during TBM Passage compared to the threshold values for noise for the GPO. According to the calculations in table 14.29 the LAmaz,s for TBM Passage at GPO has a value of 50 dB while the Threshold Level for this building is 45 dB, resulting a significant impact on the buildings operation for the limited duration during TBM passage. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from TBMs at source, but noting that the duration of this impact will be in the order of up to two weeks as the TBM passes. TII will liaise with An Post to ensure the timing of these impacts are known. Groundborne Vibration - TBM: The modelling undertaken in this chapter presents the potential impacts arising from all stages of the construction phase of the project, with the TBM Passage predicted 0.154ms-1.75 VDV which is lower than the VDV Threshold Level of 1.6ms-1.75 VDV day indicating no significant impact. As the predicted levels of vibration from TBM passage are below these thresholds then no impact from vibration during TBM passage is expected for the building or for residents of this address. (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results). Groundborne Vibration - Blasting: Based on the blast designs for the O'Connell Street Station assessed in the EIAR (Blasting Strategy Appendix A5.20 - Patterns: 1 and A1 to A3) the modelling results for blasting impacts at the General Post Office are contained in Volume 5 Appendix 14.5- Groundborne Noise and Vibration Blasting Modelling Results (Page 89 of 113) as zero and therefore well below the allowable vibration levels for "Protected or historic buildings" as set out on Table 3-1 of Appendix A5.20. The principal mitigation measures aimed at minimising impacts are as follows: - Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. - TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 Airborne Noise and Groundborne Noise Mitigation Policy).

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22	8.3.1 Ground Movement	27	Stage 1: Defines extent of ground movement using Moderately Conservative parameters. The parameters considered by MetroLink are: ■ Volume Loss, V s = 1.5 ■ Trough Width parameter, k = 0.3 The Volume Loss is considered moderately conservative. However, the trough parameter is very narrow and 0.4 could be considered more conservative. The extent of the zone of influence is defined by the 1mm contour line (Dark Red) and the GPO O'Connell Street lies within the zone of influence and will be subject to up to 50mm settlement.	Please refer to response number (2) above.
23	8.3.1 Ground Movement	27	Stage 3: Detailed Assessment; a Stage 3 assessment is required for this building.	As this is a Protected Structure it is designated as a Special case and will have a full Phase 3 assessment. TII will ensure that those undertaking the assessment are competent to do so. With regard to stages 4 and 5 i.e. the development of monitoring and mitigation plans and the subsequent close out of the impacts of settlement will form part of the scope of the project for the design and construction phases.
24	8.3.1 Ground Movement	28	Stage 4 (Construction Stage): Mitigation may be required for this building and therefore the OPW expects to be consulted. The OPW expects that pre-construction defect surveys and monitoring are carried out for this building. The OPW requests that only Engineers or Surveyors with proven competence in regard to (historic) buildings of this fabric type, period and nature are selected.	All surveys, monitoring and mitigation proposed for OPW property will be discussed and agreed with OPW. TII will employ Professionally Qualified Engineers / Surveyors with the appropriate expertise to undertake the pre and post condition surveys and OPW are welcome to observe the surveys being undertaken of their property.
25	8.3.1 Ground Movement	28	Stage 5 (Close Out): Once the excavation (tunnelling and station excavation) has been completed then the Contractor will want to decommission his monitoring. The OPW will expect to be provided with close out reports for the monitoring of their property. As a minimum, the close out report should include details of any mitigation carried out, a list of any repairs, time history graphs showing the movements monitored.	TII will share the closeout monitoring report that will demonstrate that construction ground movements have ceased, which will also require historical movement information to be presented. In the event of repairs, these will be scheduled.
26	8.3.3 Noise and Vibration	28	(a) Tunnelling During the passage of the Tunnel Boring Machine (TBM) the noise is predicted to be 50 dBtAmax,s exceeds the acceptable threshold (45 dBiAmax,s)and this may last for 2 weeks. The vibration from the passage of the TBM is predicted to be 0.154 VDVdb, ms-1.75 less than the threshold (1.6 VDVdb,ms-i.7s). EIAR Table 6.2- GNV1 states that there is no effective mitigation available and therefore the impact will be managed by detailed consultation with the building owners. The OPW requests that a specific study is carried out for the GPO O'Connell Street to determine whether ground borne noise and vibration will have any impact. Where any impact is identified then threshold limits will need be applied and monitored. Where the building is considered vulnerable to vibration induced damage EIAR Table 6.2- ANV16. sets out requirements for pre and post construction surveys of these structures.	The General Post Office has already been assessed for Groundborne Noise and Vibration. Please refer to response number (21) above.
27	8.3.3 Noise and Vibration	28	(b) Station Excavation GNV2 states that monitoring of blasting and re-optimising the blast design (minimising the explosive charge considering the results) will be carried out as standard. A5.20 Blasting Strategy provides information on the classification of buildings and potential damage due to blasting for the station excavations. There are also calculations for estimated magnitude of the peak particle velocity (ppv) for various explosive charges. The assumption is that the lowest charge would be implemented to avoid damage. The GPO O'Connell Street is located approximately 100m from O'Connell Street Station excavation and the peak particle velocity is predicted to be less than 1mm/s. The OPW requests a specific assessment of the impact of blasting on GPO O'Connell Street.	The General Post Office has already been assessed for Groundborne Noise and Vibration. Please refer to response number (21) above.

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28	8.3.4 Work Sites	29	(a) Dust Appendix A16.4 EIAR requires that a Dust Management Plan must be produced and implemented. The tunnelling will not generate dust in the vicinity of the GPO O'Connell Street. The station construction site is 100m from the GPO O'Connell Street and therefore dust from these constructions sites is likely to affect this building.	TII acknowledge your concern and will put measures into place to ensure your property / equipment is not damaged by dust. An Air Quality Management Plan, detailing dust mitigation methods will be prepared prior to construction works (Section 16.6.1.1 Chapter 16 Air Quality). A summary of dust mitigation measures to be implemented are as follows (Section 16.6.1.1, Chapter 16): - Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; - Any blasting will be completed by specialised contractors with a specific blasting dust management plan; - Liaison with local authorities and community groups; - Hoarding will be provided around the construction compounds; and - It is anticipated that methods of collecting rainwater and recycling for general site use, will be adopted where practical. When the dust minimisation measures detailed in the mitigation section (Section 16.6) of EIAR Chapter 16 are implemented, fugitive emissions of dust from the site are not predicted to cause damage to property or human health.
29	8.3.4 Work Sites	29	(b) Ground Water Control There is the potential for ground water lowering for the construction of O'Connell Street station to impact GPO O'Connell Street. The OPW requests that TII provides an assessment and limits that will be applied to dewatering for the Construction of O'Connell Street Station.	As outlined in EIAR Chapter 19 (Hydrogeology), groundwater assessment and monitoring was and will continue to be undertaken for the proposed Project. Section 19.4.11.4 describes how continuous data logging of water levels was carried out at approximately 38 locations from Northwood to Charlemont (AZ4), which includes O'Connell Street Station and therefore water levels in the area around this proposed station footprint. A Groundwater Hydrograph (Diagram 19.11) at O'Connell Street -NBH23A (overburden) & NBH23W (bedrock) indicates minimal change in recorded groundwater levels for overburden well NBH23A screened within gravel strata (0.20m) for the period presented and possibly reflects the lack of localised recharge due to hardstanding ground cover in the Dublin City Centre setting. A series of dewatering pumping tests were undertaken at O'Connell Street (Section 19.4.13.2.4). Overall, the maximum drawdown (mBGL) achieved at O'Connell Street for the [significant water-bearing] Gravels borehole was ~10.5m (using a 50m3/hr pump size capacity, and 24-hour test only) and ~32.9m for the well screened in the underlying bedrock. The target drawdown depths were generally achieved at both wells, with a reducing outflow rate observed at the bedrock borehole only, over the full duration of each test. Based on the results of the pumping tests, water-bearing granular lenses, spatial/environmental setting and interpreted regional flow direction, a qualitative Risk Level 'H' is applied here. The test area is located within an area where the possibility of a 'barrier effect' exists (refer Section 19.5.3.6). As outlined in Section 19.5.1, dewatering and unmitigated releases to ground during the Construction Phase could have permanent water quality and quantity impacts on the hydrogeological (and hydrological/ecological) environment if not effectively mitigated. However, for the proposed Project, Construction Phase management includes mitigation measures presented in the EIAR and outlined in the outline Construction and Environmental Management Plan (CEMP) (Appendix A5.1) for the proposed Project to protect receiving waters (groundwater and surface water) and ensure continued conveyance of natural groundwater flow patterns, as well as of surface water courses. Section 19.5.3.5 assesses the potential for groundwater lowering associated with underground construction in the context of the station boxes including at the proposed O'Connell Street station. For the current proposed Project, the ZOI has been modelled (refer Appendix A19.8) and details on the interpreted results are presented for each of the stations discussed under Section 19.5.3.4 in the EIAR Chapter 19. It is stated under Section 19.5.3.5 that 'lowering of the phreatic level, prior to excavating (or because of tunnelling works), may also cause immediate settlement to occur in layers or lenses of compressible soils, as well as in weathered rocky materials. The impact of such lowering of the groundwater table varies in proportion to its magnitude and radius of influence (i.e. ZOI)'. For the proposed O'Connell Street station, dewatering during works will be temporary only with the anticipated radius effect of dewatering reducing as the station construction progresses towards full perimeter and base seal (i.e. full watertight conditions) including toe grouting assumed to 1.50m below base of D-wall. Note: The modelling for O'Connell Street station box footprint and drawdown/ZOI results presented for this location are appropriate to the site as a whole i.e. irrespective of whether or not the proposed Hammersons [Hotel] Development (i.e. Phase 1 of the Developer's phased construction strategy) is constructed before the station box (i.e. Phase 2A, Phase 2B and Phase 2B) which is the current proposal for the O'Connell Street over site development. Finally, in the short-term term following completion of the Construction Phase, groundwater levels will re-stabilise to pre-construction patterns and any ZOI associated with Construction Phase dewatering activities will fully dissipate. There is no active dewatering associated with the operational phase.
30	8.3.4 Work Sites	29	g) Traffic There will be significant traffic diversions required to construct O'Connell Street station site that will impact personnel and clients attending the GPO O'Connell Street.	Please refer to response number (5) above.

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31	8.5 Future Development	30	The OPW reserves the right to develop the subject property in the future, including property above and below ground, subject to normal planning criteria. It is important that the development of the MetroLink does not interfere with extant planning permissions pertaining to the subject property and the right of the applicant to develop this property, in advance, in tandem or post operation of the MetroLink Project.	Please refer to response number (8) above.
32	9.0 CONCLUSION	30	The most significant impact of the MetroLink project on the GPO will be from the construction of the running tunnel between O'Connell Street and Tara Stations generating ground movement, noise, and vibration. The OPW seeks assurances from TII that Stage 2 and 3 ground movement assessments will be carried specifically for this building. These ground movement assessments should carefully consider the parameters that are used.	Phase 2 assessment has been carried out and results in a Very Slight damage category - refer to the EIAR Appendix 5.17, Building B67. A Phase 3 assessment will be undertaken as stated in that document.
33	9.0 CONCLUSION	30	Once the railway is in operation it is possible that there will be major noise the OPW seeks assurance that a detailed evaluation will be performed.	Please refer to response number (21) above.
34	9.0 CONCLUSION	30	Reading this within the context of the building and its requirements, the main concerns for the GPO are as follow: 1) That ABP note the historic importance of this iconic building and ensure that all necessary conditions are attached to any Railway Order to ensure its full protection and use prior to, during and post the MetroLink development and operation.	TII are aware of the importance of the GPO to Dublin and have therefore designated this building as a special building for consideration with regard to any impacts on the structure due to settlement. Appendix A 5.17 Building Damage Report Table 5.2 the GPO assessments to date indicate that the building falls into the very slight damage category and hence, technically, further assessment is not required. That said, due to the architectural heritage role of the building it has been designated "special" and hence a further assessment will be undertaken by the main works contractor. This further assessment will pick up on the building's condition close to the time when the building will be impacted.
35	9.0 CONCLUSION	31	2) To ensure there is minimum disruption to public access of the GPO and its day-to-day uses and functions.	Please refer to response number (5) above.
36	9.0 CONCLUSION	31	3) To ensure no damage to the building and its architectural detailing, pre-construction and post- construction surveys, trials and monitoring are required as there is potential for major noise and vibration impact (at both stages). These factors can damage the building, which is of historical significance, as well as affect the operations of the building which is Dublin's primary post office.	The impacts are fully assessed in the EIAR and are noted above. Pre and post construction surveys and in construction monitoring will be undertaken.
37	9.0 CONCLUSION	31	4) Disruptions to traffic may happen during construction phases, wayleaves for the GPO & staff, as well as unrestricted access for postal vans & lorries will be required.	Please refer to response number (5) above.
38	9.0 CONCLUSION	31	5) Precedents to be applied to the risk assessments to ensure the contractors are utilising best industry practice within the implementation of the Project.	TII intend to apply industry best practice to build and operate the MetroLink whilst minimising impacts to 3rd parties.
39	9.0 CONCLUSION	31	6) To ensure impact on future development of GPO is minimised, particularly in relation to emergency works which may need to be carried out on the building, including repairs and refurbishment.	Please refer to response number (5) above.
40	9.0 CONCLUSION	31	7) To mitigate noise and vibration to acceptable levels for this cultural and historical block, the installation of a floating track slab at this portion of the alignment would be the preferred option.	The outcome of the Noise and Vibration assessment during construction phase is outlined in response number (21) above. The modelling undertaken in chapter 14 presents the potential impacts arising from all stages of the construction phase of the project. The assessment has identified that there will be no potential for structural damage due to vibration and no disturbance due to noise, operational noise level of 35 dBLamax thresholds of 40 dBLamax for General Post Office. (Please refer to Appendix 14.5 - Groundborne Noise and Vibration and Blasting Modelling Results Page 89 of 113). In conclusion there is no need for floating track slab in this area. Chapter 14 of the EIAR, Table 14.47, provides the proposed locations of where Floating Slab Track on MetroLink.

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41	APPENDIX 1: LIST OF PLANNING LEGISLATION & POLICY	32	This appendix provides a non-exhaustive list of planning policy, legislation, and guidelines. We would respectfully request that An Bord Pleanála ensure that TII have fully assessed the Project with regard to existing planning policy, as well as adherence to the relevant local policies and guidelines pertaining to each individual property. DOWNEY note that this proposed Draft Railway Order is a strategic long-term development and An Bord Pleanála may consider Development Plans in assessing the Project. It is also crucial to note that on foot of a granted Order and during the detailed design stage, a revision to planning policy is expected, whereby adopted plans and legislation may have to be adhered within this stage. This may require an amendment to the Railway Order and further assessment, including public consultation.	Please refer to response number (6) above.
42	Appendix 2: Ground movement Assessment	37	Duplicate of Appendix to D to OPW Cover Letter - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022 – Submissions by the Commissioners of Public Works in Ireland	Refer to OPW Cover letter.

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Submission by Orwell Park (Templeogue) Residents Association on the MetroLink Proposal				
1	Letter - introduction	1	This submission concerns only that portion of the proposal which goes south of St Stephens Green. The MetroLink proposal from St Stephens Green is based on bad analysis. This bad analysis relates to public transport in the area between the Red and Green Luas lines ("South West Dublin") and the related proposal to continue MetroLink to Charlemont / Manders Terrace rather than to South West Dublin.	TII do not agree that the proposal from St. Stephen's Green is based on bad analysis for the reasons set out below. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an interchange at St Stephen's Green Station. The section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. This is detailed in Chapter 7 (Consideration of Alternatives) section 7.7.8. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).
2	1 Transport Modelling and the demand for public transport in South West Dublin	1	The analysis in the Strategy Development and Modelling Report, NTA, November 2021, estimated public transport demand for the peak hour in-bound on the Rathmines and Harolds Cross corridors in 2042. The Report estimated that if there were very good public transport provision along these corridors, in-bound demand in the peak hour would amount to 15,900 (page 91). This is almost four times the existing supply of public transport¹. However, the Modelling Report concluded that, with BusConnects, demand for public transport in 2042 would be less than the current supply (buses) on these corridors. Rather than trying to supply as much as possible of the underlying demand for public transport, the NTA is sticking rigidly only to BusConnects for the next 20 years in South West Dublin! Indeed, the Modellers acknowledged the overriding constraint on their work as follows: <i>"Objectives are considered achieved in Phase 3 if the lower end of the plausible future demand estimates can be accommodated <u>on the public transport schemes currently in planning, (i.e. BusConnects) given</u> these schemes must be delivered to meet climate goals to 2030. "</i> (page 89) Clearly, this constraint was inappropriate and led to the ridiculous result whereby public transport demand in 20 years' time was projected to be lower than current supply!	Work undertaken as part of the Strategy Development and Modelling Report by the NTA (2021) is not part of this Railway Order. This report has not informed any of the works presented in the Railway Order. TII do not deem it necessary to comment on this report.

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3	2 BusConnects and the proposed supply of public transport in South West Dublin	1 and 2	The BusConnects proposal involves a trivial increase in bus supply for South West Dublin. The following table shows the proposed supply of public transport in the peak hour, in-bound. (table in PDF) The NTA has contended that many more buses could use these corridors. However, this is not plausible. Due to the narrow corridors in South West Dublin, there is very little scope to increase the supply of buses. For example, Corridors 10 and 12 (from Tallaght and Rathfarnham) merge at Terenure Road East - currently a very narrow 2 lane stretch of road - see the photo. It has been reported that this would be the busiest corridor in Dublin.	Please refer to response item (1) above in relation to the continuation of the Project to Charlemont. As noted, the location of the interchange at Charlemont does not preclude onward extension southwest. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The sufficiency of NTA proposals for BusConnects are not part of this Railway Order.	
4	2 BusConnects and the proposed supply of public transport in South West Dublin	2 and 3	Under Busconnects, buses would turn right from Rathfarnham Road into Terenure Road East. That road would also receive buses and general traffic from Terenure Place, which is right opposite Terenure Road East. Terenure Place would receive buses from Templeogue Road, which would only contain buses and bikes. General traffic which now uses Templeogue Road would be diverted at Templeogue Bridge and Templeville Road to the KCR. There they could go to town via Crumlin (Stannaway and Clogher Roads) or they could turn right and access Terenure via Terenure Road West; it is likely that many motorists would choose this option. In addition to receiving 20 'A' buses in the peak hour, Terenure Road East would be expected to also receive 6 'S4' orbital buses and 4 '81' buses via Terenure Road West, giving a total of 30 buses per hour. This is a bus every 2 minutes, in addition to cars, vans, taxis, bikes etc. (photo in PDF)	Please refer to response item (3) above.	
5	2 BusConnects and the proposed supply of public transport in South West Dublin	3	Currently, Terenure Road East receives 19 in-bound buses in the peak hour and is highly congested in peak periods. To increase the number of buses in the peak hour by over 50 per cent, as proposed in BusConnects, would be a formidable challenge. The notion, as proposed by the NTA, that even more buses could be accommodated is difficult to comprehend.	Please refer to response item (3) above.	
6	3 Local impact in the Templeogue area	3	This is one example of the effects of failure to provide substantial public transport capacity in South West Dublin. Traffic congestion is set to become much worse in the absence of metro in South West Dublin. Essentially, the forecast for the whole GDA under the Draft Transport Strategy for the Greater Dublin Area 2022-2042 is that, following the full implementation of all elements of the Strategy, car trips will decline by only 1.8 per cent by 2042.	Please refer to response item (3) above.	
7	3 Local impact in the Templeogue area	3	In South West Dublin, which has no high capacity public transport, it is highly likely that car traffic will increase over the coming years. The highly populated areas of Knocklyon, Firhouse, Scholarstown etc. currently have three car routes into the city: • Via Cypress Grove Road onto Lower Kimmage Road: Under BusConnects Lr Kimmage Road would be closed to general traffic. • Via Templeogue Road: Under BusConnects this would be closed to general traffic. • Via Wellington Lane, Whitehall Road, Stannaway Road, Clogher Road. Under BusConnects this would remain open to general traffic. Under BusConnects this would be the only one of the three routes that would remain open to general traffic.	Please refer to response item (3) above.	

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8	3 Local impact in the Templeogue area	3 and 4	The Wellington Lane Walking and Cycling Scheme, Part 8 Report (DBFL, 2022) has some interesting statistics regarding traffic congestion on the one remaining route for general traffic. According to survey data in the Report, in the morning 8am-9am peak, 1,008 vehicles entered Wellington Lane from the Spawell roundabout. In the same hour, 1,052 vehicles went from the Spawell roundabout towards Templeogue Village; let us assume that the vast majority of these were city-bound. If BusConnects proceeds as planned, very few of the 1,052 vehicles will proceed towards Templeogue Village as their options will be severely limited as described above. Most of them will enter Wellington Lane. In other words, the volume of traffic on Wellington Lane is likely to double. This would mean that the volume of traffic on Wellington Lane - with one traffic lane in each direction - would match the volume of traffic on the Tallaght Bypass - with two lanes plus a bus lane in each direction! The inevitable result of the lack of high capacity public transport in South West Dublin between the Red and Green Luas lines (in effect, metro, as the streets are too narrow for Luas) coupled with the funnelling of the general traffic from three routes onto one road under BusConnects would be that the volume of traffic along Wellington Lane would be at least twice its current level. Wellington Lane would turn quickly into a slow moving car park.	Please refer to response item (3) above.	
9	3 Local impact in the Templeogue area	4	This would have severe, negative implications for: - o The proposed F2, 81 and 82 bus services along Wellington Lane; - o The functioning of the Spawell roundabout / intersection; - o The build-up of traffic on the Tallaght Bypass and on the link road between the Tallaght Bypass and the Firhouse Road; - o Emissions from slow moving 'stop-start' traffic.	Please refer to response item (3) above.	
10	3 Local impact in the Templeogue area	4	The continuation of MetroLink towards Tallaght would remove many cars from the streets of South West Dublin and thereby facilitate cycling and buses.	Please refer to response item (1) above in relation to the continuation of the Project to Charlemont. As noted, the location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise."	
11	3 Local impact in the Templeogue area	4	We have seen above that BusConnects would lead to a trivial increase in the supply of public transport; now we see that it would bring about increased congestion.	Please refer to response item (3) above.	
12	4 The Metro to Knocklyon Feasibility Study, NTA/Jacobs, 2021	4	The Metro to Knocklyon Feasibility Study, NTA/Jacobs, 2021 rejected the continuation of MetroLink to South West Dublin. However, this Report had many flaws, including: (a) The proposal that was made by the Metro South West Group was not examined. This proposal is that MetroLink would proceed directly from St Stephens Green to a new station at Portobello, with the Tunnel Boring Machine being parked under Cathal Brugha Barracks; as a Phase 2, MetroLink would be continued to South West Dublin.	The Metro to Knocklyon Feasibility Study (NTA, 2021) is not part of this Railway Order. Please refer to response item (1) in relation to the continuation of MetroLink to Charlemont.	
13	4 The Metro to Knocklyon Feasibility Study, NTA/Jacobs, 2021	5	b) No assessment was carried out of continuing MetroLink as far as Tallaght Town Centre (a major attractor and population centre). The option of examining the continuation of MetroLink to Tallaght was disallowed by the NTA.	The Metro to Knocklyon Feasibility Study (NTA, 2021) is not part of this Railway Order.	

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14	4 The Metro to Knocklyon Feasibility Study, NTA/Jacobs, 2021	5	c) The radius around potential stations ("buffer zone") to determine their suitability and from which passengers are to be sourced was too small at 600m. This is just a 'rule of thumb'. It assumes that all passengers would access the station on foot. However, the Metro South West Group carried out research on this matter across the outer suburbs between the Red and Green Luas lines. This research shows that, based on just two potential stations with Park and Ride and Cycle and Ride, substantial time savings could be achieved from a wide area by cycling or driving to a metro station and completing the journey by metro. This research was not even referred to much less incorporated in the Feasibility Study.	The Metro to Knocklyon Feasibility Study (NTA, 2021) is not part of this Railway Order.
15	4 The Metro to Knocklyon Feasibility Study, NTA/Jacobs, 2021	5	(d) There was no provision for Park and Ride nor Cycle and Ride and they are completely absent from the Feasibility Study. Nor is there any consideration of orbital feeder buses to the metro.	Please refer to response item (14) above in relation to the Metro to Knocklyon Feasibility Study (NTA, 2021).
16	4 The Metro to Knocklyon Feasibility Study, NTA/Jacobs, 2021	5	(e) No consideration was given to the opportunities to 'capture' motorists on the N81 to leave their cars at a Park and Ride at a location such as Spawell and complete their journey city wide by public transport	Please refer to response item (14) above in relation to the Metro to Knocklyon Feasibility Study (NTA, 2021).
17	4 The Metro to Knocklyon Feasibility Study, NTA/Jacobs, 2021	5	(f) Over 100,000 vehicles pass by the Spawell exit on the M50 every day. Many of these motorists are based in Dublin and they are cruising around the motorway as a way of accessing different destinations in the city. Why was no consideration given to the opportunities to 'capture' some of these drivers so that they might leave their cars at a Park and Ride at a location such as Spawell and complete their journey city wide by public transport. MSWG research shows that substantial time savings would accrue. For example, a motorist driving from Spawell to the city in the morning could expect a journey time of c. 40 minutes (per Google Maps); the same journey by metro would take 15 minutes	Please refer to response item (14) above in relation to the Metro to Knocklyon Feasibility Study (NTA, 2021).
18	4 The Metro to Knocklyon Feasibility Study, NTA/Jacobs, 2021	5	(g) Excessive reliance was placed on the Eastern Regional (Transport) Model. This model predicts behaviours based on current options. As metro has no precedent in Ireland, deeper analysis is required which goes beyond people's current transport decisions, which are based on current options.	Please refer to response item (14) above in relation to the Metro to Knocklyon Feasibility Study (NTA, 2021). The ERM has been utilised to provide the majority of the input transport data for the assessment of the proposed Project, as indicated in section 9.4.3.1 of EIAR Chapter 9 (Traffic and Transport). The ERM provides a multi-modal forecasting capability required for the assessment of large-scale projects. It includes full geographic coverage of the eastern region (counties Dublin, Wicklow, Kildare, Meath, Louth, Wexford, Carlow, Laois, Offaly, Westmeath, Longford, Cavan and Monaghan), a detailed representation of the road network, a detailed representation of the public transport network and services, a detailed representation of all major transport modes including active modes, accurate mode choice modelling of residents, a detailed representation of travel demand of four time periods (AM- morning peak, 07:00-10:00, LT-lunchtime, 10:00-13:00, SR-school run, 13:00-16:00, and PM, evening peak, 16:00-19:00) and a prediction of changes in trip destination in response to changing traffic conditions, transport provision and/or policy. The ERM has been used to provide forecast transport movements, such as passenger numbers, origin/destination and changes in travel behaviour due to the proposed Project.
19	4 The Metro to Knocklyon Feasibility Study, NTA/Jacobs, 2021	5	(h) Direct use of POWSCAR data, in conjunction with data on metro availability and speeds, would have enabled better forecasts to be made of metro patronage and Transport User Benefits.	Please refer to response item (14) above in relation to the Metro to Knocklyon Feasibility Study (NTA, 2021).

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20	4 The Metro to Knocklyon Feasibility Study, NTA/Jacobs, 2021	5	(i) Environmental benefits were excluded from the Feasibility Study. These are major shortcomings. All of them have a similar effect: to reduce Transport User Benefits and adversely affect the Benefit to Cost ratio. There is little doubt that if these shortcomings were addressed, the Benefit to Cost ratio would increase significantly from the 0.8, which was reported in the Feasibility Study, and exceed 1 by a substantial amount.	Please refer to response item (14) above in relation to the Metro to Knocklyon Feasibility Study (NTA, 2021).	
21	5 Why An Bord Pleanála should not approve of MetroLink going to Charlemont/Manders Terrace	6	From the above flaws in the NTA/Jacobs Feasibility Study, it is clear that this Feasibility Study provides no basis for rejecting the proposal that MetroLink should proceed from St Stephens Green to Portobello/Rathmines, pending its continuation to South West Dublin as a Phase 2 project.	Please refer to response item (14) above in relation to the Metro to Knocklyon Feasibility Study (NTA, 2021).	
22	5 Why An Bord Pleanála should not approve of MetroLink going to Charlemont/Manders Terrace	6	The NTA/TII proposal that MetroLink would proceed to Charlemont / Manders Terrace: • Would seriously deplete the Transport User Benefits of continuing MetroLink to South West Dublin, as the highly populated and attraction-rich areas of Portobello, Harold Cross and most of Rathmines would be bypassed;	Please refer to response item (1) in relation to the continuation of the Project to Charlemont.	
23	5 Why An Bord Pleanála should not approve of MetroLink going to Charlemont/Manders Terrace	6	• Would merely duplicate the existing Green Luas line from Charlemont to St Stephens Green for negligible additional Transport User Benefits;	Please refer to response item (1) in relation to the continuation of the Project to Charlemont. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station.	
24	5 Why An Bord Pleanála should not approve of MetroLink going to Charlemont/Manders Terrace	6	• These negligible benefits would cost around €650m;	Please refer to response item (23) above in relation to the benefits associated with continuing to Charlemont.	
25	5 why An Bord Pleanála should not approve of MetroLink going to Charlemont/Manders Terrace	6	• This would represent serious pre-funding of one southside option: converting the Luas Green Line to metro;	Please refer to response item (1) in relation to continuing the Project to Charlemont, partly due to the decision to postpone the future upgrade of the Green Line to metro services.	

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26	5 Why An Bord Pleanála should not approve of MetroLink going to Charlemont/Manders Terrace	6	There is no Government nor civil society approval for converting the Green Line to metro.	Please refer to response item (13) above in relation to the future continuation of Metro along the green line.	
27	5 Why An Bord Pleanála should not approve of MetroLink going to Charlemont/Manders Terrace	6	Indeed, according to the NTA's Draft Transport Strategy 2022-2042: <i>"The challenges associated with the upgrading of the Luas Green Line to a metro standard of service have led to the emergence of an alternative proposal which seeks to meet travel demand from south of Sandyford along a new light rail corridor which serves UCD post-2042".</i> Thus, there will be no need in the future to convert the Luas Green Line to metro, as there is a wide road all the way from Stillorgan to St Stephens Green, which could accommodate a Luas service; this would be a cheaper alternative and it would not require the closure of the Green Line for an extended period.	Please refer to response item (1) in relation to the continuation of the Project to Charlemont. Any feasibility studies for Green Line extensions or routes are subject to the planning, design and appraisal of the NTA.	
28	5 Why An Bord Pleanála should not approve of MetroLink going to Charlemont/Manders Terrace	6 and 7	In the absence of - Any justification for including the advance subsidy of the conversion of the Green Line in the MetroLink proposal, and - A proper evaluation of the Rathmines / South West Dublin alternative, there is no basis for An Bord Pleanála to approve sending MetroLink to Charlemont / Manders Terrace, as this would diminish the substantial economic, social and environmental benefits of continuing MetroLink to South West Dublin, while increasing its capital cost. Therefore, An Bord Pleanála should adopt a conservative approach.	Please refer to response item (1) in relation to the continuation of the Project to Charlemont	
29	5 Why An Bord Pleanála should not approve of MetroLink going to Charlemont/Manders Terrace	7	If An Bord Pleanála gives its approval for MetroLink to go no further than St Stephens Green, the Government will have many options. For example, Government may wish to apply for a further Railway Order, or a Variation of an existing Railway Order: - To continue to South West Dublin (The MetroLink TBM to continue to South West Dublin "running through"); - To continue to Rathmines as an interim measure (with its good bus connectivity). Neither of these options would be possible if MetroLink goes to Charlemont / Manders Terrace as set out in the application for a Railway Order.	Please refer to response item (1) in relation to the continuation of the Project to Charlemont. As noted, the location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise."	
30	6 Conclusion	7	OPTRA agrees with Frank McDonald: <i>"Although the thorny issue of whether MetroLink would consume most of the Luas Green Line has been "parked" for another day, there is an overwhelming case to extend it to serve Rathmines - including Cathal Brugha Barracks, now the subject of a Government-sponsored feasibility study for a major housing scheme - and onwards via Harold's Cross, Terenure and Templeogue to Tallaght . "</i>	Please refer to response item (29) above in relation to Charlemont Station and the potential for future extensions to the south and south west.	

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Submission by Orwell Park (Templeogue) Residents Association on the MetroLink Proposal				
31	6 Conclusion	7	He goes on to say: "In November 2021, the NTA announced that it planned to develop new Luas lines serving UCD Belfield and Knocklyon/Rathfarnham to take pressure off the existing Green Line - but only after 2042 - with the aim of removing the need for it to be upgraded to metro standard south of Charlemont. What all of this indicates is that the NTA is making it up as it goes along ."	Please refer to response item (29) above in relation to Charlemont Station and the potential for future extensions to the south and south west.
32	6 Conclusion	7	OPTRA recommends that An Bord Pleanála should approve the Railway Order minus its continuation to Charlemont / Manders Terrace. NOTE: OPTRA is a founding member of the Metro South West Group and supports its analysis which was submitted to ABP before the original deadline in November 2022.	TII wish to thank you for your submission. Please refer to the responses provided above in relation to your concerns, and to the responses to the Metro South West Group submission (Submission Number 189) for further details.

Submission No.			242		
Organisation Name or Name of Submitter			O'Scanaill Veterinary Hospital (represented by Hughes Planning & Dev Consultants)		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
RE: Planning Observation, ABP Reference No. NA29N 314724, Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order					
1	1.0 Introduction (page 1 of submission)	1	From the outset, this submission requests that An Bord Pleanála duly consider the negative implications arising on our clients' business. It is strongly contended that the proposed development has had no regard to the viability of our client's business at O'Scanaill Veterinary Hospital, Milton Fields, Pinnockhill, Swords, nor has regard been had to the future development of our client's lands. The lands in question also accommodate our client's family home and would thus be subject to significant disruption.	We have reviewed the submission and provided detailed responses for the issues and concerns raised below.	
2	2.0 Site Description (page 1 of submission)	1	The proposal will disrupt access to the site during construction and operational stages which will impact on our client's property and business.	We acknowledge the significant impact that the MetroLink scheme will have on access to the business, and we understand the concerns raised by the respondent. TII will maintain access to the business at all times during the construction and operation of MetroLink (See for example Plan Drawing No. ML-RO-301 S-T showing the entrance maintained as the metro is underground here).	
3	2.0 Site Description (page 1 and 2 of submission)	1&2	Our clients are committed to its future in Fingal but are of the strong belief that an alternative location will have to be sourced for their enterprise should the Railway Order be approved and subsequently carried out. It is requested that An Bord Pleanála note that the O'Scanaill Veterinary Clinic has been part of the Fingal commercial community for over seventy years, generating employment and revenue for the Fingal Area, providing an essential service to animal and pet owners in Swords and surrounding area and, in turn, supporting the region's growth and that the impacts on viability of this business are considered. Our clients have also lived in the area for a number of years with the family home being located south of the veterinary clinic which was originally built in 1954 and has accommodated generations of the family.	TII recognise the disruption likely to be caused to land, property and business owners along the route as a consequence of the delivery of MetroLink. As will be the case with all third party landowners/businesses, and in agreement with the respondent, TII and their appointed Contractors will maintain access to this business to ensure its ongoing viability during the course of the construction work.	
4	4.0 Proposed Railway Order (page 7 of submission)	7	As indicated above the proposal directly interferes with our clients' premises and operational requirements.	Please refer to responses to Item nos. (2) and (3) above	
5	5.1 Fingal County Development Plan 2017-2023 (page 7 of submission)	7	The relevant development plan against which any planning application at our client's premises would be assessed against is the Fingal Council Development Plan 2017-2023.	The MetroLink Project has been assessed against the Fingal Development Plan 2017 – 2023 as shown in the Planning Report. However a new Fingal Development Plan 2023-2028 is set to come into effect from the 5 th of April 2023 and so this has also been considered. An Bord Pleanála's legal obligation is to have regard to the the Fingal Development Plan 2023-2028 (including any variations in force at the date of its decision on the Railway Order) and disregard the Fingal Development Plan 2017-2023.	
6	5.1.2 Relevant Policies (page 8 of submission)	8	The proposal is considered to put our client's existing business at risk due to uncertainty arising on functionality. This is not considered to be justifiable. Whilst it is our client's intention to continue operations at this site of the veterinary service, it is also a concern that the proposal may hinder any development potential at the site and may hinder development of high quality employment schemes, thus is inconsistent with the zoning objective.	The zoning objective of the land is HT – High Technology in both the current Fingal Development Plan 2017-2023 and in the new Fingal Development Plan 2023-2029. The vision of this objective is to "facilitate opportunities for high technology, high technology and advanced manufacturing, major office and research and development-based employment within high quality, highly accessible, campus style settings. The HT zoning is aimed at providing a location for high end, high quality, value added businesses and corporate headquarters. An emphasis on exemplar sustainable design and aesthetic quality will be promoted to enhance corporate image and identity." The Proposed Project aligns with the HT zoning as it improves access to these lands and facilitates the vision of the objective.	

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7	6.0 Concerns on Submitted Application (page 9 of submission)	9	As stated throughout this submission, the principal concern of our clients arising from the proposed railway order application relates to functionality and viability of our clients' business which has operated on site for a large number of years. The application as submitted, is to be located along both existing vehicular access points to the business. Due to the nature of the business, it is essential that access to the site is kept clear and safe. The Veterinary Service requires regular and safe accessibility for staff and clients who come and go from the premises on a continued basis throughout the day. The application is a clear infringement on the existing standard of access as it will be significantly impacted at construction and operational stages of the development, if approved.	Refer to Item no. (2) and (3) above and (12) below.
8	6.0 Concerns on Submitted Application (page 10 of submission)	10	Construction of the MetroLink is anticipated to commence in 2025 based on the outcome of the planning and procurement processes. Plans are underway to make the project operational in the early 2030s. More specifically, construction works along our client's northern boundary will be ongoing for at least five years with potential to be increased due to unforeseen delays resulting in longer construction times.	The timescales are outlined within the EIAR and RO application and as noted are estimated at approximately 5 years in this location. The EIAR considers the reasonable worst case scenario in relation to these timelines. To minimise impact on this business, it is the intention of TII to complete the construction and reinstatement works for MetroLink around this business in the shortest possible time . The time needed to undertake the works are influenced by the need to maintain access to this business as well as considering other external matters, such as local traffic management and utility diversions.
9	6.0 Concerns on Submitted Application (page 10 of submission)	10	The full impact of the proposal on our clients' premises has not been adequately demonstrated in the submitted documentation as it does not include an aerial overlay of the scheme. Such a drawing would have made it more evident to An Bord Pleanála that the scheme directly interferes with the operations of the business. The submitted drawings do not make this clear. The railway and associated works will unduly impact a number of land parcels associated with the O'Scanaill premises.	The details of the proposed temporary and permanent landtake around this property are detailed in the following document within the Railway Order: Property Drawings - Property Details Book 1 of 2 Fingal County Council: Sheet 24 of 66, detail 301 ML-P-301 S-T. These details are also presented in the respondents correspondence figure 9.0. Further details (overhead plan view) of the scheme intent in this area are found on Alignment Drawing 301 ML-RO 301 S-T. Also the EIAR Section 5 Chapter 27 section 27.1 Photomontages V07.2 and V07.3 provide further visual aids of the impact on this property. TII confirm that the area of temporary landtake shown on this document is the minimum area needed to provide the room necessary to maintain access into the business while the construction works are progressed. Permanent landtake is required where permanent works are needed (such as the construction of the new entrance. Temporary landtake is required to facilitate temporary needs such as construction access and will be returned to the owner in the same condition it was received.
10	6.0 Concerns on Submitted Application (page 10 of submission)	10	As acknowledged in the Planning Report submitted with the Railway Order Application, our client's premises will be subject of temporary acquisition during the constructional stage of development, as well as a number of permanent lands which may be acquired. The temporary acquisition includes a significant proportion of lands, comprising of plots of ground / footpath; entrances; laneway and a plot of land accommodating the house/grounds/building lands. While these lands are stated to be temporarily acquired, no finite amount of time has been provided, creating an uncertainty on the length of time our clients will suffer from the loss of their lands. As stated, construction is anticipated to take upwards of 5 years along this specific area and this would have severe implications on our client's business, as well as amenity afforded to the family dwelling.	TII acknowledge that the landtake, both temporary and permanent, proposed for the MetroLink Works will have an impact on this business, particularly maintaining access. Please refer to response numbers (2) and (3) above. When the land is temporarily acquired (for a period of approximately 5 years), its primary purpose is to create space for installing hoarding and site demarcation, while also ensuring continued access to the business and property. Taking into consideration the concerns expressed during several meetings, TII has made revisions to the construction hoarding line, aiming to minimize its impact on accesses, footpaths, and parking areas. These adjustments are intended to facilitate the smooth day-to-day operation of the aforementioned business
11	6.0 Concerns on Submitted Application (page 10 of submission)	10	In terms of lands to be acquired, our client's lands afflicted consist of entrances, plots of ground, a laneway and a field. Our clients are currently using the entirety of the landholding for the business operations and the family dwelling. The loss of land, both temporarily and on a permanent nature will be of grave impact on our client, as well as hindering future growth of the business.	See response to item (10) regarding landtake requirements for MetroLink.

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12	6.0 Concerns on Submitted Application (page 11 of submission)	11	As demonstrated in the following image, the access to our client’s business will completely be impacted by the proposed route. It is indicated that the existing entrance will be 'reinstated' for use by the owners, staff and clients of the veterinary clinic. However, this access will entail traversing the railway line to enter and exit the premises which is quite a hazard. This issue is further worsened by the frequency of the route, with the Planning Report submitted by the Applicant noting that the trains will be operating 19 hours per day, 365 days a year; with 20 no. trains operating per hour at a frequency of three minutes in the opening year operations between trains. The trains are expected to be 64m long trains running up to every 100 seconds at peak demand. This will cause unsurmountable levels of disruptions and to accessing and existing the site and may result in clientele seeking alternative veterinary practices, thus damaging the viability and vitality of our client’s premises. This impact has been neglected by the planning application. It is noted that this impact will affect the business throughout the week as the premises operates 7 days a week, with full days provided Monday to Friday, half days on Saturdays and 2 hours on Sundays.	The access to the property during the MetroLink operation phase will not entail traversing the railway line. The proposed railway line at that location will be situated below ground level. The track will be covered with a slab, and the metro will travel within a cut and cover structure. The Metro route and the route into the property are thus entirely separated and can work independently of each other. To ensure the safety and convenience of metro and clinic users, the open section will be equipped with a vehicle restraint system, effectively preventing any hazards or disruptions caused by MetroLink operations. Consequently, access to and from the Surgery will be fully reinstated and there will be no disruption to the property entrance during the operational phase. See Plan Drawing No. ML-RO-301 S-T where hatched lines indicate below ground (tunnel) sections including across the property entrance.	
13	6.0 Concerns on Submitted Application (page 11 of submission)	11	At present, the R125 which adjoins our client's premises is considered to be highly utilised and has resulted in significant traffic congestion, particularly within and surrounding the Airside Business Park. This will be worsened by the Metrolink route and will have knock on impacts on the surrounding area, including our clients' premises.	During the construction phase, the R125 arm of Pinnock Hill Junction will be closed for a duration of six to nine months, causing traffic to redistribute to the south of the junction. Increases in traffic volumes will be seen on the surrounding roads in both the AM and PM peaks however traffic modelling has indicated that the associated delays will be moderate, with an average delay per vehicle of less than 5 minutes. To reduce the severity of the impact on the road network, diversions have been identified. The proposed diversion will route traffic via the Nevinstown signalised junction and Airside roundabout. At its longest distance the diversion will be approximately 1.5km. For vehicles routing from the north or north-east of this area, there is also the option to use Mountgorry Way as an alternative diversion. To mitigate this impact, alternative HGV routing has been identified for the Swords area and will be encouraged throughout the construction phase to potentially reduce the congestion seen in the construction modelling results by 30%. Following the completion of the construction phase, this impact will then be removed. Additionally, MetroLink have planned for construction logistics sites along the R132 to moderate construction traffic movements during the day and particularly at peak times. One such logistic site is immediately north of the Pinnock Hill Roundabout and the Veterinary Surgery. Whilst a drop-off facility is proposed at Fosterstown Station via the R125, during the operational phase it is anticipated that the Project will provide for improvements to the public transport network, resulting in decreases in car usage/trips (with the exception of trips to and from the Park and Ride Facility at Estuary). As detailed in Appendix A9.2-F (Fosterstown Station Traffic and Transportation Assessment), there will be a reduction of up to approximately 3,600 car trips to and from the zones in this location during the operational phase (over the 12hr period in 2065).	

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14	6.0 Concerns on Submitted Application (page 12 of submission)	12	Our clients are also concerned with the extent of works located along their boundary, including any required excavations, tunnelling and rail laying that will occur. Such works will have significant disturbances on our clients' property including by way of, for example, noise, vibration and dust generation.	Chapter 13 Airborne Noise and Vibration includes an assessment of airborne noise and vibration from the construction of the project. Chapter 13 presents the potential significant airborne noise impacts, with Table 13.44 summarising potential significant noise impacts during construction of the cut and cover and retained cut sections of the route. The predicted magnitude of impact at this location is Significant to Very Significant, prior to the consideration of any noise mitigation. Chapter 14 Groundborne Noise and Vibration considers the assessment of groundborne noise and vibration from the construction and operation of the project. Groundborne vibration from piling along this section of the route is discussed in Section 14.4.1.1 which concludes that there will be no significant vibration from works at any buildings, including at this location (see details below). In order to mitigate airborne noise an outline Construction Environmental Management Plan (CEMP) has been prepared and is included as Appendix A5.1. This is a working document that will be updated by the contractor prior to commencement of construction and regularly as the project progresses. The key principals for mitigation measures for airborne noise & vibration impacts are as follows: - Noise control at Source: Selection of quiet plant, site layout, attenuation at source, operational control (hours and periods); - Noise Control along Pathway: Localised screening to plant items on site, enclosures, site buildings, site hoarding and noise barriers; and - Noise Control at Receiver: Noise Insulation (NI) - Hoarding is proposed at this location with a height of 4m. - Prior to the commencement of the construction works at each compound, the Contractor will conduct an individual site assessment to verify the height and position of screening to control noise impacts based on the most up to date construction methodologies and input data. - An outline CEMP was prepared as part of the EIAR and it will continue as a live document for the appointed contractor to use throughout the construction of the project. Chapter 14 Groundborne Noise and Vibration considers the assessment of groundborne noise and vibration from the construction and operation of the project. Groundborne vibration from piling along this section of the route is discussed in Section 14.4.1.1 which concludes that there will be no significant vibration from works at any buildings, including at this location. As provided in the Outline Construction Environmental Management Plan (CEMP) within Volume 5 Appendix 5.1, standard working hours will apply at this location. In preparation for the construction phase the appointed contractor will prepare their Construction Environmental Management Plan (CEMP) in accordance with the requirements set out in the outline CEMP in EIAR Appendix A5.1. The contractors CEMP will include a Construction Noise & Vibration Management Plan (CNVMP). The contractor will consult with and obtain the approval of the CEMP from Fingal County Council prior to commencing the works. TII will utilise best practice techniques to curtail dust generation including: hoarded compounds, wheel wash facilities and dust suppression for all areas prone to dust (damping down, water misters / sprays, local extraction and filtering). Public health impacts are not anticipated as the dust levels on site will be controlled to strict levels for protection of the workforce in accordance with statutory health and safety legislation.

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15	6.0 Concerns on Submitted Application (page 12 of submission)	12	Two Road Counter Surveys have been commissioned by our clients and completed by IDASQ which provides detailed traffic counts to the site in November 2020 and August 2022. These show that the Swords Veterinary clinic experiences a very high proportion of traffic visiting the premises. These reports have been submitted as Appendix A and Appendix B of this submission and included under separate cover. We request that this submission is read in conjunction with the documentation. The reports show a very high level of traffic into the premises, highlighting the demand in the area. This may be jeopardised by the proposal.	It is TII's intention to maintain full access to this business and engage and communicate in advance with the respondent on any local temporary traffic management changes that might impact on this business during the course of the MetroLink Works. TII and their appointed Contractors will also offer to support the respondent in communicating these changes to their customers. These commitments can be further developed with the respondent for their full agreement, with these commitments forming an essential part of the access, logistics communication and engagement requirements placed in the Contract with the Main Works Contractor procured to deliver the scheme while maintaining access to the respondents business Please refer to response item 13 in relation to predicted impacts to traffic during both the construction and operational phases.
16	7.0 Conclusion (page 13 of submission)	13	The proposed railway has been designed without due regard to our client's existing veterinary practice located at Pinnock Hill Roundabout, along the route. Our client's practice has existed for over 30 years and serves a large area, providing essential care to clients in the immediate Swords area, while also having a collection area extending further. The premises operates 7 days a week, with full days provided Monday to Friday, half days on Saturdays and 2 hours on Sundays. Thus, there is constant traffic to the premises throughout the week. The proposal, as per the submitted drawings, is considered to give rise to a loss of space associated with our clients' business premises, including temporary and permanent acquisitions of lands, entrances and additional property, resulting in unmeasurable impacts on the operation of the business. The impact of the proposed route on our client's lands would be detrimental to the viability of the O'Scanaill Veterinary Clinic and would raise uncertainty of the group's capability of functioning at the site. The route also reduces residential amenity afforded to the residents who currently reside in the family home which is also located within the lands.	TII accept that the MetroLink Scheme will have an impact on the business, in the short term during the construction phase. These impacts have been assessed and can be mitigated such that they are reduced from significant to moderate [See EIAR Chapter 23, Table 23.17 LO7.PR1]. TII recognise that further discussion is required to allow the business to influence mitigation measures to maintain its operation without disruption during construction

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Proposed locations on Ballymun Road, relative to the operation and long-term viability of the Our Lady of Victories Schools				
1	Alternatives at Albert College Park - Location	3	The location of the proposed metro is not suitable due to its proximity to our campus. The original and alternative siting at Albert College Park for the station box, has not, in our view, been given the consideration it merits. The proposed location of the station 10 meters from our front door poses numerous safety and logistical issues. There is an obvious alternative possible in the swapping of the ventilation shaft proposed for Albert College Park with the station box at Our Lady of Victories Church. The significant excavation required for a station box would be immeasurably better suited if sited in Albert College Park, which would still provide ample access to DCU - the excavation of a ventilation shaft is very much a lesser of two evils in terms of disruption to the school campus. The government have already spent over €1,000,000 in the early 00's securing a site for a Metro station via a CPO, that will now remain unused due to the relocation of the station in the updated plan. The green field site at Albert College Park would, by the admission of TII's own engineers, be a cost neutral switch at this point- the enabling works etc. would be considerably less impactful on the school, church and residents of Albert College Drive and Grove. The specific reasons are laid out below, in no particular order.	TII acknowledge that there is potential for significant environmental effects on the surrounding area due to the proposed MetroLink station if not mitigated effectively. However as referred to in responses below and as detailed in relevant chapters of the EIAR, TII consider that it is possible to mitigate the potential impacts identified at this location during the construction period. In addition, once the construction phase is completed the location of a MetroLink station here will provide significant positive benefits to the local community in terms of enhanced public transport provision, reduced traffic and the resultant improvements in the environment, with reduced noise and air quality pollution. As outlined in section 7.7.10.7 of Chapter 7 of the EIAR the assessment undertaken for the Emerging Preferred Route (EPR) identified a preferred route option including the proposed station location in front of Our Lady of Victories Church. This location for the station provides a number of advantages when compared to other options which are; (1) It allows the project to achieve a core project objective of providing public transport that is integrated in the existing and future proposed transport network, allowing as it does for interchange between bus routes both on Collins Avenue and on Glasnevin road. A station location further south at the northern section of Albert College Park would not allow for this interchange potential as there would be over 300m separating potential bus stop locations and the MetroLink station. (2) The proposed Collins Avenue station would have a significant catchment area and analysis undertaken leading to the Emerging Preferred Route (EPR) identified that this route option had the highest potential passenger numbers when compared with other route options. (3) During the construction phase, the location of a station within the frontage to Our Lady of Victories means that traffic disruption would be reduced, when compared to the location of a station within the road corridor (partially or fully). With regards to the cost neutrality of switching the location of the proposed Albert College Park Intervention Shaft and Collins Avenue Station, the reasons for why the location of Collins Avenue Station is preferred is explained by (1) and (2) above.
2	Environmental Impact and human Health - AQ	3	The air quality measurements taken in the Environmental Impact study were totally inaccurate as they were measured during the Covid pandemic and therefore took readings during the time period when there was a reduced volume of traffic and prior to the works that have happened on Mobhi Road and Griffith avenue. We feel strongly that we are already experiencing air quality that is in excess of the acceptable maximum levels of Nitrogen dioxide. We feel that these readings should be taken again. An accurate survey must-happen. We, as those who are caring for vulnerable children, should be entitled to evidence from real time environmental monitors as to the precise readings of pollution and particulate matter in the air.	Site-specific baseline monitoring study was undertaken from September 2018 to September 2019 as part of the air quality assessment for NO2, dust deposition, PM10 and PM2.5 for this assessment which was prior to the Covid-19 pandemic (EIAR Section 16.3.3.2 Chapter 16 Air Quality). In order to supplement this data, EPA data was also used to inform the baseline. It has been recorded by the EPA that the pandemic had an impact on Air Quality in many areas by reducing levels of pollutants, particularly those generated by traffic. However, as the baseline survey data used for the Air Quality chapter was collected before the effects of the Pandemic on traffic occurred, TII are satisfied that this data was suitable for determining the baseline in Section 16.8 of Chapter 16 Air Quality.
3	Environmental Impact and human Health - Vermin	3	We are hugely concerned by potential of displacement of vermin during the work and we must insist that this issue be addressed	Prior to start of construction, any disease/vermin protocols and biosecurity measures will be identified and the contractor will be required to comply with these to (1) protect and prevent the spread of pests and diseases (Table 6.12 - outline CEMP) and to (2) direct arrangements for regular disposal of food and material attractive to pests (Section 5.4 outline CEMP)

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4	Traffic Management	3	The proposed realignment of Ballymun Road services and the associated enabling works have the potential to make the actual access to the school near impossible. The suggestion that a traffic management plan during the three years of enabling works will protect our school population on a day to day basis is unrealistic and the reality is that any further stress on this massively over used intersection outside our school will lead to a tragic accident.	Prior to the enabling works and the main construction phase a Traffic Management Plan will be developed (Refer to Appendix A9.5 of the EIAR). Contrary to the opinion offered, the use of a traffic management plan is critical to the management of construction phase traffic and vulnerable road users such as cyclists and pedestrians. The contractor will be legally required by the Railway Order to adhere to the requirements of the plan on a day by day basis and so any such measures will be implemented with a focus on managing traffic movements to ensure that there are no accidents. It should also be noted that as outlined in Table 9.64 in Chapter 9 of the EIAR, enabling works in this area will be undertaken such that one lane of general traffic and one bus lane in each direction will remain open. Dedicated cycle lanes will also be provided during the construction phase. Furthermore, as outlined in EIAR Appendix A9.5 section 2.5.2.2, construction vehicles will be controlled in terms of the hours of operation (i.e. construction traffic will be prohibited during periods of very heavy traffic and during school drop off and pick up periods). Additionally, there will be controls at the entrance and exits of sites for construction vehicles in order to ensure the safety of other road users. The mitigation measures outlined in Chapter 9, Appendix A5.1 Outline CEMP and Appendix A9.5 STMP will reduce the risk of ant tragic accidents occurring as a result of enabling works in the area.
5		3	The unpredictable nature of these works means that there will be inevitable delays and confusion around access to the school. For the many children who travel alone to school by foot or by bike - any confusion or changes are extremely difficult to negotiate. Children do not adhere to signage well. They need huge levels of input to understand, process and negotiate change. Currently 84% of the children cross the 6 lane dual carriageway on a staggered pedestrian crossing. Our crossing guards regularly express huge concern for the safety of the children and we regularly address the issues around safe use of the road with the children and their parents. There are in fact 19 lanes of traffic within 15 meters of the entrance to the school The already out of date infrastructure will be stressed to the level of breaking point when these works commence for both Metrolink and BusConnects. When we applied to DCC for pencil barriers to eliminate illegal parking (a common feature available and recommended to most schools) the assessor expressed huge concerns about the amount of illegal turns and blatant ignoring of the lights and the speed limits in our area. Although these barriers were agreed to in principle over 6 months ago-they have not been implemented and this shows you how, in real terms, we are continually fobbed off and our school community are not given the safety provisions they need. We have regular communication with Ballymun Garda station to request assistance with illegal parking. We believe that any further deterioration in traffic management will lead to a tragic event at the gates of our school as we know the reality of the promises that are made and how they fall short over and over again.	As outlined in EIAR Appendix A9.5, section 2.5.2, a number of remedial measures will be put in place to mitigate the impacts of the construction traffic. Alternative arrangements will be provided if road closures are unavoidable, i.e. diversions, signage strategies for access traffic and through traffic, as well as imposing reduced speed limits on roads adjacent to construction sites in order to ensure the safety of all road users. Additionally, at this location, the traffic management will reduce the R108 Ballymun Road in this section to 4 lanes - one general traffic lane in each direction, and one bus lane in each direction. TII acknowledge the fact that school age children will need to be provided with additional and ongoing information to ensure that there is a full understanding of the safe access and egress arrangements from the school during different phases of work. To this end, TII would like the opportunity to engage with the school authorities to agree an information campaign that can be used. Informal parking in the bus lane on the R108 will be restricted as part of the works.
6		4	The access to the carpark at the rear of the OLV church via the Ballymun road will be impossible to use due to its proximity to the proposed hoarding/barrier to the site. The proposal is that traffic will be directed to this carpark via Collins Avenue. The pedestrian access to enable crossing of Ballymun Road to the schools is again, a significant challenge- there is no clear pedestrian route from the carpark to the school, nor is it clear if there is to be a road level pedestrian access route maintained during the realignment phase. The site hoarding will seal off the vehicular access to Albert College Drive, again preventing pedestrian or other access from the rear of the church to the school. The volume of traffic currently using Collins Avenue at school times is already at such a level as to cause significant congestion to traffic travelling east toward DCU from Glasnevin Avenue. The proposal to divert traffic into the rear of OLV church via Collins Avenue will cause serious delays to those parents who must bring children to school by car and raises significant accessibility issues for any pupils who may be wheelchair users, or indeed staff members in this cohort. We have very legitimate concerns that this will have an adverse effect on people's choices and whether they send their children to this school	As outlined in EIAR Appendix A9.5 section 7.4.5.3.2, the existing right turn from Ballymun Road to Albert College Court will be banned, requiring vehicles to access this area via Collins Avenue. While the exact diversion routing will vary depending on the vehicles origin/destination, the most direct diversion is approximately 750m and as a worst-case scenario (modelled during the PM peak period) would result in a journey time increase of 5 minutes. As outlined in EIAR Appendix A9.5 section 7.4.6.3.6, during both the Advanced Enabling Works and Main Works, the signalised pedestrian/toucan crossing outside of the front of the school will be retained during all works and will continue to allow safe access for pedestrians and vulnerable users. While there will be short term, slight negative impacts during the Construction Phase for pedestrians and vulnerable users in this area it is not envisaged that this should impact the decision for parent's sending their children to your school. As noted in Chapter 11, Section 11.5.3.4.2 The proposed Project will provide a frequent, high quality transport option along the route and improve accessibility within the area through a more accessible public transport network. Overall, the impact is considered to be a positive, moderate, permanent effect at the neighbourhood, local and regional level during operation of the proposed Project and will increase connectivity to your school.

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7	Accessibility and Health and Safety	4	The location of the site and excavation is approximately 30 from the main entrance of a primary school. During the construction phase, the volume of heavy plant and equipment that will traverse the main thoroughfare immediately outside the gates of the school will be in the hundreds of trips every day. This will make the access to and from the school impossible for children, parents and staff with the obvious increased risk profile to the pupils. 84% of our total student population (regardless of how they travel to school) use the pedestrian crossing and crossing guards directly outside the school at Our Lady of Victories Church to travel safely to and from school.	As outlined in EIAR Appendix A9.5 section 7.4.4, vehicle movements associated with the works at Collins Avenue have been calculated to range between 40 and 80 movements per day, however, for the majority of the construction period, daily vehicle movements are lower than this range. The maximum number of daily movements is 118, and this occurs for 16 days out of the entire construction programme, and therefore is short-term in nature. As outlined in EIAR Appendix A9.5 Section 8 the current assessment, uses 2028 as the most impactful construction year, and therefore the impacts during other years will be less significant. As outlined in EIAR Appendix A9.5 section 7.4.6.3.6, during both the Advanced Enabling Works and Main Works, the signalised pedestrian/toucan crossing outside of the front of the school will be retained during all works and will continue to allow safe access for pedestrians and vulnerable users.
8		4	This pedestrian crossing also offers us direct access to OLV Church. The relationship between OLV Schools and OLV Church dates back to 1965, prior to the construction of the church, when the school hall was used to celebrate parish Mass, Communion and Confirmation. The relationship continues to thrive to this day, with regular visits to Daily Mass and specific school celebrations- November Remembrance Ceremonies, Spring Services, Class Masses, Graduation Masses etc. Our children’s faith formation is now being put in jeopardy due to the proposed location of this station. What was once a safe three minute walk door-to-door for the past 55+ years, will turn into a precarious journey of varying routes over an 8 year period surrounded by large construction vehicles and significantly increased risk of traffic accidents. Our children are entitled to a safe passage to their place of worship.	As outlined in EIAR Appendix A9.5 section 7.4.6.3.6, during both the Advanced Enabling Works and Main Works, the signalised pedestrian/toucan crossing outside of the front of the school will be retained during all works and will continue to allow safe access for pedestrians and vulnerable users. As noted in Chapter 11, Table 11.61 access will be maintained to the church via Albert College Drive throughout the duration of the Construction Phase.

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9		5	It is extremely worrying to the Boards that TII have failed to take account of the proximity of a massive construction site to a school premises - in particular a primary school that is catering for children from the ages of 4 to 12 - it is quite extraordinary that no common sense has been applied here. There are likely to be accidents involving children and these plant movements, be they in traffic on Ballymun Road, or through incursion onto the site. In either circumstance it is obvious who will come off worst, and in the event of such an appalling outcome -let the record show that this was highlighted by the Boards of Management and parent body as an accident waiting to happen.	As outlined in EIAR Chapter 9, there will be additional traffic at Our Lady of Victories Schools during construction, however a Traffic Management Plan will be implemented to ensure that there are no significant impacts on students, parents and staff. All HGV movements will be managed in line with the measures set out in Appendix A5.1 Outline CEMP, Chapter 5 (MetroLink Construction Phase) and Appendix A9.5, Section 2.5.2 to ensure that there are no accidents involving construction phase vehicles. These measures will include control of the movement of HGVs to and from the site during school drop off and pick up times. It should also be noted that during all phases of construction the pedestrian crossing between Our Lady of Victories church and the schools will be maintained to ensure safe access across the road. To minimise disruption, where practicable, construction work requiring short term disruption and road closures will be carried out when traffic volumes are lower, such as at night, at weekends and during school holidays (Section 9.7.1.2, EIAR Chapter 9). TII regret that you feel as though common sense has not been applied as there has been extensive work and analysis that has been carried out as part of the EIAR in relation to impacts on the school. Appropriate traffic management and health and safety best practice will be strictly adhered to during construction with public safety in mind. These measures will cater to all vulnerable users including children. There will be a construction management team on-site for the duration of the Construction Phase who will ensure mitigation measures are implemented, and that construction impacts and nuisance are minimised. All construction work in connection with the proposed Project will be carried out in accordance with relevant health and safety legislation and best practice, with particular regard to: •Safety, Health and Welfare at Work Act, 2005; •Safety, Health and Welfare at Work (Construction) Regulations 2013; and •Other relevant Irish and EU safety legislation. As required by the Regulations, a Health and Safety Plan will be formulated which will address health and safety issues from the design stages through to completion of the construction and maintenance phases. The plan will be reviewed as the development progresses. A Project Supervisor Construction Stage will be appointed by TII and a Safety File prepared for the Construction Phase (EIAR Section 5.11, Chapter 5 (MetroLink Construction Phase)). Vulnerable road users such as pedestrians and cyclists will be prioritised for protection in the Scheme Traffic Management Plan. Temporary pathways will be installed where appropriate and provisions will be made to ensure access for the mobility impaired is maintained. As noted in thr paragraph above, the signalised pedestrian/toucan crossing outside of the front of the school will be retained during all works and will continue to allow safe access for vulnerable users. (EIAR Section 9.6.1.2.4.3, Chapter 9 (Traffic & Transport)).
10		5	The Boards of Management of the three schools do not consider that the current proposed location of the station is at all suitable in terms of the construction phase or its long term operation, despite many representations during the consultation phase. The size, scale and impact of the project in the area immediately across the road from the entrance to our premises is totally at odds with the safe operation of a school campus as is highlighted in the paragraphs that follow.	Please refer to Response 1

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11	Provision and access to services - Health and Safety	5	There has been an estimated 2-3 year timeline given to the realignment of Ballymun road and associated enabling works directly outside our schools. The Boards of Management have serious concerns regarding the impending unplanned school closures that will inevitably occur during this three year period, thus interrupting the education of the most vulnerable children in the education system. In order to be fully open and accessible to students and staff, schools by law must have heating, light and water. Whilst it is currently not a legal requirement, schools now also need a functioning internet to operate at any kind of basic level.	As outlined in EIAR Chapter 9 Section 9.6.1.2.4.3, during construction Our Lady of Victories Schools will remain safely accessible for all users including vulnerable users who may have decreased mobility. An Outline Construction Environment Management Plan (CEMP) and Temporary Traffic Management Plans will be used to manage traffic during construction (Chapter 9 Section 9.7.1.2). TII do not envisage that any school closures will take place as a result of the works in the area. Disruption to utility services will occur as planned service disruptions will be required to facilitate the connection of existing services to newly diverted services. In such cases, the unique requirements of individual premises served by the utility will be taken into account in determining the type, duration and phasing of the planned disruption. In most cases the duration of disruption should be no more than a number of hours (EIAR Appendix A5.1 Table 6.14) and could potentially be arranged out of hours. There will be agreements in place between TII and the utility providers that guarantee continuation of service during utility works, with the exception of the agreed outages. TII will endeavour to ensure that no outages to services will occur however we cannot guarantee that this will be the case as unforeseeable circumstances may arise which may mean that outages occur. The risk is low and TII are committed to using best practice in every regard to avoid such outages.
12		5	With all due respect to the planning guidelines and agencies involved, if the planned works get the approval of An Bord Pleanála, what guarantees can we be given that there won't be serious disruption to our pupil's education for prolonged periods of time, due to one or more service outages? Even the shortest break in routine can cause serious disruption to the education of children with SEN and those coming from disadvantaged backgrounds, who already-display-school-refusal, punctuality-and attendance issues. What guarantees can we be given that our properties won't be damaged due to service outages- fire alarm, security alarms both depend on 24/7 electricity supply. Flooding of our properties is also a real concern following water outages. What guarantees can An Bord Pleanála stand by, that during this three year period of service realignment, our campus will be accessible at all times to emergency response vehicles in the event of a life or death situation? The fact of the matter is that we can't be given any guarantees on any of the above.	In relation to utility outages please refer to Response 12. As noted previously, as outlined in Table 9.64 in Chapter 9 of the EIAR, enabling works in this area will be undertaken such that one lane of general traffic and one bus lane in each direction will remain open along with measures to retain pedestrian access. Emergency vehicular access will not be prevented at any time.
13		5	It is therefore the Boards belief that by granting permission for the Bus Connects and Metrolink plans to proceed, An Bord Pleanála are jeopardizing the education of some of the most vulnerable children in the country, but more significantly An Bord Pleanála are risking the lives of all staff and pupils on the campus. Again let it be noted, that the Boards of Management and parent body are stating on record that this is an accident waiting to happen, in fact there is a significant risk of loss of life.	The safety and security of children, parents and staff is of paramount importance to TII and will not be jeopardised. TII do not accept that there is a significant risk to life. Table 11.70 Residual Impacts in EIAR Chapter 11 outlines that there is potential for negative, moderate, medium term impacts on the schools during the construction phase. So, while TII acknowledge that there will be disruption associated with the construction of such a major project, the project certainly will not jeopardise the education of children attending the schools. The construction works will be managed in line with the requirements of the Outline CEMP (EIAR Volume 5, Appendices, Chapter 5 (Metrolink Construction Phase) and a Traffic Management Plan (Refer to Appendix A9.5, Section 2.5.2 of the EIAR) to minimise the nuisance to the schools. TII are keen to work closely with the schools to minimise any potential effects on the operation of the school and to implement further measures if required at the school i.e. additional facilities for vulnerable students such as those with Autism Spectrum Disorder (ASD).
14	Preservation and Enhancement of Outdoor Learning and Habitats on our School Grounds	6	An alternative entrance to the school must be explored, should Bus Connects proceed as our Outdoor Classroom has been created commencing from the perimeter wall flanking the dual carriageway. The three schools on the campus have a reputation for being educationally progressive and have embraced and actively promote Outdoor Learning as core to our values, as is evidenced from the entrance of the campus to the far boundary hemmed by several mature towering Carpinus botulus trees, the leaves of which are being raked and composted this month.	This query is in relation to the BusConnects project and therefore we cannot comment.

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15		6	The proposed addition of thousands of tonnes of concrete into the area so close to the school will mean that the water table will be affected (due to this project happening so close to the culvert of the river Wad) . This will cause flooding and destroy our approximately 100 mature trees on the campus. The flooding will , without a doubt, affect health and safety on the campus.	As outlined in EIAR Appendix A18.5 Flood Risk Assessment (FRA), a new drainage scheme will be required to facilitate the construction and operation of the proposed Collins Avenue Station (Section 6.3.10). As noted in Chapter 18, Section 18.5.3.3, during construction temporary pumping of groundwater will be undertaken to permit construction of underground scheme elements. It also notes that the predicted impact from dewatering is considered temporary, impercetible to not significant based on promixity to the Wad River culvert. Historical flooding of the River Wad was caused by a blockage of the Wad Bridge and insufficient capacity of the surface water drainage system of Ballymun Road (Table 4.2 Appendix A18.5). Both of those occurrences will be mitigated against. The discharge of any groundwater to surface water receptors will be subject to consent and controlled to ensure no adverse impact on flood risk. The elevation of the proposed overground infrastructure across the scheme and nature of surface strata as impermeable clay, means the above ground emergence of groundwater is highly unlikely. There are also no reports of groundwater flooding across the proposed Project . The risk of groundwater flooding to the scheme is therefore considered to be low and therefore there is no impact predicted on the trees in your campus. (Section 5.7 Appendix A18.5).	
16		6	Year on year, we have won several awards based on outdoor initiatives- Global Action Plan Environmental Awards in addition to RTE appearance for All Ireland G.I.Y (Grow it Yourself) winners and we are proud to have an exceptional 7-year-old pupil recently selected on the 35 pupil strong assembly on the Children and Young People’s Assembly on Biodiversity Loss (D.C.U., U.C.C., Terre des Hommes). In addition, our school was invited to partner with the National Botanic Gardens Educational Garden and we have close ties with D.C.C and have won Tidy Town awards etc. Outdoor Inquiry based learning in science, and education for sustainability are key active areas in our plans, guided by Dr Sandra Austin, M.I.E. (Austin, S (2021) Education about, through and for the environment: a scientific approach). We are trialing several outdoor inquiry - based initiatives across the campus for STEAM/Science Week 2022. Outdoor Inquiry Based Learning has been identified in our newly written 2022-2025 DEIS plans which are open to inspectorate assessment. The exemplary and pioneering work that Our Lady of Victories Schools carry out in this area is to be celebrated and recognised and more importantly protected. Colleges of Education are linking in with our school community for research purposes; it is imperative that we maintain and improve the opportunities for children on our school grounds, without compromise or any impingement vis-a-vis any potential adverse risk of construction nearby- noise, pollution, dust, access, visiting the local park for STEAM activities etc. which is embedded in our current practice on a very regular basis. Our schools’ values support The United Nations Committee on the Rights of the Child where consideration that play should involve children having both space and opportunity to play outdoors unaccompanied in a diverse and challenging physical environment; opportunities to experience, interact with and play in natural environments and the animal world; and opportunities to explore, understand and shape the cultural and artistic heritage of their community (Committee on the Rights of the Child, 2013). Moreover, the child’s education must be directed to, amongst others, ‘the development of respect for the natural environment’ (art 29(1)), rights which are instrumental to the conservation of natural heritage.	TII commends the pro-active approach that the school takes to outdoor based learning and specifically in the areas of sustainability and biodiversity. While the local concerns on the construction phase are fully acknowledged, it should be noted that the proposed MetroLink project is a project of national importance in driving sustainable development. It will allow for sustainable and compact development by providing a high quality and high frequency alternative to car based transport. This will have a long term positive benefit to the school by reducing both noise and air quality emissions in the vicinity of the school (Please refer to section 3.4 of Chapter 3 of the EIAR for more details). As outlined in responses to items (19), (21),(22),(23) and (24), undertaking major construction works in urban areas is manageable and the mitigation measures proposed in each of the relevant chapters will ensure that potential for effects on the activities at the schools including outdoor based work will be minimised. Furthermore, TII are keen to work closely with the schools to minimise any potential effects on the operation of the school and to implement further measures if required at the school i.e. Noise barriers specific to the outdoor working areas to reduce noise levels at these sensitive locations further.	
17	Availability of Expert Advice- not what was indicated.	7	In summary, the prospect of any pejorative impact on our outdoor campus by virtue of major external construction is of a source of highly significant concern to our collective school community, especially voiced by our Children’s Wellbeing Committee (Pupils); it is imperative that we listen to the children’s voices.	Please refer to response (16) above and responses to subject specific queries to items (19),(21),(22),(23) and (24) below.	

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18		7	The School was told on several occasions that expert advice would be provided to the Boards around environmental impact and traffic surveys etc. This did not happen and is a clear indication of the poor planning and execution of the consultation process as run by TII	TII regret that this incorrect statement was made to you. The IE services are only available for residents groups.
19		7	The three Boards of Management are deeply concerned that the vibration, dust and vermin which will be disrupted as result of the excavation so close to the school grounds will potentially render the campus uninhabitable for the duration of the build. It is inevitable as the ground works commence that mice and, of more concern rats will be displaced from sewer movements. Our school is in the direct line of fire for this issue. The estimated volume of earth to be extracted from the station box at OLV Church is approximately the same as that of the Crake Park Stadium.	As outlined in EIAR Chapter 14 Section 14.4.1, Table 14.31 during excavation, groundborne noise and vibration will be below the threshold of significance at this location. Construction dust tends to be quite large in size (greater than 30 microns in diameter) and falls to the ground relatively quickly. This gives the potential for soiling of cars or windows in the vicinity, however, from a human health perspective would not be deemed to have a significant adverse health impact as the dust does not stay airborne and is not inhaled (EIAR Section 10.5.1.1 Chapter 10). As outlined in EIAR Appendix A16.4 Section 6.3, a Dust Minimisation Plan (DMP) will be submitted for approval to the relevant planning authority to reduce airborne dust. Further information on dust mitigation is outlined in Appendix A5.1 (Outline CEMP), A16.2 (Site Specific Potential for Construction Phase Dust Impacts) and Appendix A16.4 (Dust Management Plan) of the EIAR. Implementation of mitigation measures will ensure that the campus will not be uninhabitable for the duration of works. As outlined in Appendix A5.1 Outline CEMP, effective prevention of infestation from pests and vermin will be implemented at all construction sites, including arrangements for regular disposal of food and material attractive to pests. The estimated volume of soil to be extracted at the proposed Collins Avenue Station is significant at c80,000m3 (EIAR Appendix A24.1 Section 3.3 Table 3.2). However, Croke Park Stadium is significantly larger. (A rough estimate of the volume of Croke Park based off length,width and height of the stadium is 204m*248m*44m = 2,226,048m3) this is approx. 27 times the volume of Collins Avenue Station)
20		7	This earth and rock will be extracted via drilling, piling and will require the use of heavy plant and equipment all day, every day from early morning throughout the entire school day- for the duration of some children's ENTIRE school life.	Please refer to response to Item 10 in relation to noise and vibration impacts. In addition, it is important to note that as outlined in EIAR Chapter 5 Table 5.15, the estimated construction duration anticipated for the principal construction elements at Collins Avenue Station Compound / Deep Station is 99 months which equates to 8.25 years. However, the duration of major civil engineering work that would generate noise and dust would be approx. 36 months (up until roof slab is on which will significantly reduce emissions). In addition, as stated in a number of responses here, while there is potential for effects during the construction phase, impacts will be minimised through the implementation of the Construction Environmental Management Plan (CEMP) (EIAR Appendix A5.1 Diagram 2.1). A Stakeholder Communications Plan will also be put in place by the contractor, which will detail the estimated duration of each phase of works and the working hours. This plan will provide a two-way mechanism for members of the public to communicate with a designated member of the contractor(s)'s staff and for the contractor(s) to communicate important information on various aspects of the proposed Project to the general public (EIAR Appendix A5.1 Section 3.3.1).
21		7	The vibration and noise that will result at such close quarters will have significant negative effects on a cohort of children who have sensory processing issues.	Limits have been set for noise and vibration in Chapter 13 and Chapter 14 of the EIAR to protect sensitive receptors all along the alignment during both the construction and operational phases which will go a long way to protect those sensitive students with ASD. However, in line with the principles of TIIs Airborne Noise and Groundborne Noise Policy (Appendix A14.6 of the EIAR), TII are available to work closely with the schools to minimise any potential effects on students with sensory processing issues.

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22		7	Another major concern to the boards is the air quality in the area for the duration of the build as a result of the excavation and piling etc. This is in addition to the use of thousands of tonnes of concrete dust through the mixing and grinding operations on site. TII have undertaken to have some flagging/ monitoring mechanism in place to monitor air quality. The practicalities around potentially having to close a school at short notice due to some such event breaching an established norm begs the question as to how this will work. All working parents will need to be available at a moments notice to collect their child from a potentially hazardous situation. What independent oversight of this would be provided to ensure that appropriate actions would be taken? It is the Boards view that there is a grave risk to the long-term safety and workability of the schools windows would likely have to remain sealed to prevent ingress of harmful dust particles. This will make the school uninhabitable in the circumstance where public health guidelines mandate open-windows, such as recently witnessed as part of the management of the Covid pandemic. No thought has been given to this that we can see, and it cannot be ignored as it is a significant risk that cannot be mitigated - dust will rise and travel.	There are stringent rules in place to control construction emissions as much to ensure the health and safety of the operatives on site in very close proximity to the source let alone to outside parties. Construction works are common in built up areas and these risks are manageable. Chapter 16, Table 16.46 notes that dust health impact risk is negligible to low once mitigation measures have been implemented at this location. Therefore it is unlikely that windows will have to remain sealed during the construction works. In relation to Independent Oversight, in the first instance the appointed Contractor will have to comply with the provisions of a number of health and safety legislations such as the Safety, Health and Welfare at Work Act, 2005, the Safety, Health and Welfare at Work (Construction) Regulations 2013, the Safety, Health and Welfare at Work (Construction) (Amendment) Regulations 2021 as is best practice. This will also involve having a weekly site safety meetings which will include environmental issues such as monitoring, incidents and complaints. In the second instance, the appointed Contractor will also be subject to inspections from the Health and Safety Authority. TII will also appoint a Public Liaison Officer. Their role will be to provide a two-way mechanism for members of the public to communicate with a designated member of the contractor(s)'s staff and for the contractor(s) to communicate important information on various aspects of the proposed Project.	
23		7	At its closest, the tunnel bore route will pass approximately 10 linear meters from the foundation perimeter of the school on the south-eastern corner of the original infant school building. The vibrational transfer from the TBM will likely render this end of the building entirely unusable due to noise and vibration. The wider geological and structural impacts on the school are unknown at this point, however this is another significant and grave concern.	Predictions of groundborne noise and vibration have been made for the passage of the TBM at the closest sensitive receptors to the tunnel route. In EIAR Chapter 14.4.1.8 AZ4 – Groundborne Noise during Construction, Table 14.29, are presented the predicted groundborne noise levels during TBM Passage compared to the threshold values for noise for various sensitive receptors (including Our Lady of Victories School). The predicted LAmax,s for TBM Passage at Our Lady of Victories School has a value of 43 dB while the Threshold Level for this building is 45 dB, resulting a not-significant impact on the buildings operation during TBM passage. The Table 14.32, presents the predicted vibration levels during TBM Passage compared to the threshold values for vibration for various sensitive receptors (including Our Lady of Victories School). According to the calculations in Table 14.32 the VDV (Vibration Dose Value) for TBM Passage at Our Lady of Victories School has a value of 0.179 m/s-1.75 which is much lower than the VDV Threshold Level for this building of 1.6 m/s-1.75, resulting a not significant impact on the buildings operation. The duration of TBM passage past a given location is anticipated to be for a 2-week period, and TII will advise the timing of this passage in advance once the program is finalised. The geological and structural impacts are known. The tunnel is located on the other side of the Ballymun Road and your buildings are set back from the road meaning there is some distance between the tunnel and your buildings and hence no structural impacts are predicted due to the tunnelling. In fact, the residential properties located opposite, and in far closer proximity to the tunnel, will similarly not suffer any structural impacts. These impacts have been assessed and presented in the EIAR Appendix 5.17.	

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24		7	The School Boards and Principals, charged as we are with looking after the best interests of the children in our care implore An Bord Pleanála to consider these matters, in the context of those children who have issues such as Autism Spectrum Disorder, where noise, vibration and other such external inputs have the potential to be hugely distressing to the individual and how they can manage to regulate their condition. While we acknowledge the long term benefits of the overall MetroLink project, the siting of the station box does not work.	Please see Response 21.
25	Potential Impact on Numbers	8	The volume of traffic and disruption to school routine has the potential to erode the viability of the campus where the site becomes so inaccessible to vehicular and pedestrian traffic. The access to the school has the potential to become such a factor so as to render the schools a “white elephant”- a school that cannot attract a quorum of students to guarantee its viability will fail and along with it the heart of a mature community. These schools have formed part of Glasnevin north since the mid 1960s, and have contributed immensely to the social fabric of the surrounding areas of Ballymun and Santry also. With rising population numbers in the district, if this eventuality were to play out, this would put untold pressure on other schools in the area who are currently all oversubscribed.	As outlined in Response Item 5, the traffic management at this location will reduce the R108 Ballymun Road in this section to 4 lanes - one general traffic lane in each direction, and one bus lane in each direction, maintaining general traffic access. Additionally, the signalised pedestrian/toucan crossing outside of the front of the school will be retained during all works and will continue to allow safe access for pedestrians and vulnerable users. This will not impact the viability of schools during the Construction Phase and will be a positive addition once the proposed Project is operational.
26	Potential for “stranger danger”	8	On completion of the proposed Metrolink station, there is proposed to be a highly active public transport hub. Our school population includes children from 2nd-6th class who travel back and forth to school unaccompanied. The location of a station so close to the school is questionable. Again the safety of our students is taking a back seat to improved infrastructure, when there is a very clear option to move the station back to the original site of Albert College, thus removing this element of danger.	Please refer to responses to items 1 and 4 for the location rationale. TII do not agree that safety of students is taking a back seat in favour of the proposed Project. CCTV will be provided at stations.
27	Conclusion	8	There are severe and grave concerns around how the proposed construction and operation of this metrolink at Collins Avenue/ Ballymun Road will impact on the day to day management of our schools.	As outlined above, in the responses to numbers 3, 4, 5, 7, 9, 11, 12, 13, 15, 19, 21, 22 and 23, any potential impacts on the schools will be minimised by the adoption of mitigation measures as outlined in the relevant EIAR chapters and the Construction Environmental Management Plan (CEMP) (Appendix A5.1). As such management of the school should not vary significantly to that undertaken currently. Furthermore, there will be ongoing consultation between TII and the schools in order to address any concerns that arise during this phase of the project.
28		8	The concerns range from the siting of the station through the consultation process and the engagement from TII which has been disappointing from our perspective. The latest disappointment being informed that the “independent expert” on traffic and construction etc would not be made available to “institutions” such as our schools. We are now going into this process with no expertise available to us to inform us of the potential risks around the following: A) Noise B) Dust particulates C) Water Table Disturbance D) Traffic and Access Management E) Structural Damage F) Risk Management We are completely hamstrung on this due to incorrect information provided on a number of public meeting calls during the C19 pandemic where we were advised that independent expertise would be provided. This is unfair at best, underhand at worst. This lack of expert advice has hampered our ability to bring the degree of professional presentation to our submission which we are hopeful that An Bord Pleanála members will take into account when making their assessment.	TII regret that this incorrect statement was made to you. The IE services are only available for residents groups.

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29		8	The Boards of management of the three schools are obliged to highlight to An Bord Pleanála that we do not consider that any serious consideration has been given to how a primary school can operate with a long term, major infrastructural construction site so close. We draw particular attention to; The documentation shared after date of publication : “Collins Avenue Station: Environmental Assessment Report of the Options”	As outlined in the responses provided above, as part of the analysis presented in the EIAR, there has been significant analysis of the potential effects of the proposed development on these schools. Arising from this analysis TII have no evidence that the schools will not be in a position to continue to operate during the construction phase of the proposed project. Furthermore, TII are keen to work closely with the schools to minimise any potential effects on the operation of the school and to implement further measures if required at the school.
30	“4.2.2 Option 2: Metro North - DCU Ballymun Road opposite St. Pappin’s Road	9	This option is close to a number of sensitive residential receptors as well as facilities such as College Gate Dental Clinic which is located across Ballymun Road, all of which could experience access restriction during construction activities at this location. It would have a direct impact to a property operating as a pre-school/after-school club. There would also be temporary and permanent land take from the green space/verge immediately east of Ballymun Road and north of Albert College Park, which is assumed not to be in private ownership. Whilst the station box would be beneath the verge, the construction area may extend into the road, leading to traffic disruption” OLV SCHOOLS' COMMENT :: The impact on a dental clinic is considered, as is an afterschool club in this circumstance by way of justifying the site being ruled out. Why is our school not respectfully considered in a similar manner in the context of the preferred site?	For rationale of location, please see Responses 1 & 4. Upon finalisation of the Preferred Route, TII undertook a highly comprehensive EIA which continued to take the schools at this location into account. The schools have been fully considered throughout the preparation of the EIAR. Chapter 9 Traffic of the EIAR notes the importance of continued and safe access to the schools.
31	“4.2.3 Option 3: Metro North - DCU Ballymun Road within Albert College Park	9	This option would be within an existing park and would involve significant vegetation removal, hence there would be impacts on local biodiversity, landscape and visual amenity. The landscape impact of felling matured trees would have an effect until replanted vegetation matured. This location is also close to other sports grounds, hence construction work at this site may reduce the amenity and disrupt access for the users for these grounds. No properties are anticipated to be demolished for this option and impacts on traffic are also less-compared-to-other options-as-it is not o-the-main-road. The number of sensitive receptors- close to this site is also less than the other options, hence the overall impact on the environment is less.” OLV SCHOOLS' COMMENT : This document calls out this location as less impactful- there is mention of trees and vegetation, but less “sensitive receptors”. This supports the position to move the station box to Albert College Park- yet TII refuse to countenance this still.	TII have to consider all factors. Interchange with other transport corridors is a key driver to the location of MetroLink stations. With the station location closer to the R108/Collins Avenue junction it provides the best location to meet the requirements of both transport strategy policy documents for the Dublin area and the overall project objective to support an ‘integrated and accessible public transport service’. Assessment during development of the Emerging Preferred Route indicated that Options with a station near Collins Avenue as opposed to a station further south in Albert College Park provided the best opportunity for integration whilst serving a large number of key trip attractors. Further transport assessment during preliminary design development indicated that DCU remains a large contributor to the station usage with the station location as proposed by the church.
32	“4.2.4 Option 4: Metro North -DCU Campus Collins Avenue	9	This location would be within the DCU campus and would involve the demolition of a multi- storey car park. A number of residential receptors are within close vicinity and could be exposed to construction noise, dust and visual impacts. Students and staff visiting the DCU campus would also be experiencing these impacts. There could be access restrictions in the adjacent local roads which would impact businesses nearby. Helix Theatre, an active venue within the DCU campus, is adjacent to the construction site, which could be affected by noise, vibration and disruption during construction. There is a historic watercourse beneath the site, which could be directly affected, thus flows would be likely to need to be diverted. There are no green space or sports ground likely to be impacted by this option.” OLV SCHOOLS' COMMENT : Students and Staff at DCU are called out as being potentially affected- again this is noted as a negative ground by way of pushing the argument against this alternative location. Why is the effect on OLV schools, staff and students not measured in the same manner as being a negative for the proposed site?	Impacts on the OLV schools have been measured in the same manner. In consideration of locations, please note that the key difference between these two options is the fact that the current station location avoids any demolition of property. While a location in DCU would result in the demolition of a major building on the campus. This can be seen in the Collins Avenue Station: Environmental Assessment Report of the Options Report by TII.

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33	" 4.2.5 Option 5: Metro North - DCU Collins Avenue Junction	9	Construction work in this location would have a significant impact on traffic and access to surrounding facilities, as it would be within the carriageway of the R108, at its junction with Collins Road. This would require significant traffic management arrangements to be in place during construction. Similar to the EPR/PR option, there are a number of sensitive receptors in close proximity which can be impacted from construction noise, dust, visual impacts and access restrictions. These include Our Lady of Victories Church, a number of schools, a library and residential properties. The northern end of the construction site would be very close to a historic watercourse, presumed now to be in culvert, which could be directly impacted. Three residential properties would require demolition for construction of a station at this location." OLV SCHOOLS' COMMENT ; Here, in what is possibly the most breath-taking part of the report- the location is deemed unsuitable for a myriad of reasons including - "there are a number of sensitive receptors in the close proximity which can be impacted from construction noise, dust, visual impacts and access restrictions. These include Our Lady of Victories Church, a number of schools" This site is no further from the alternative site in question than our schools are from the preferred route.	As with the response to Item No. 32, TII were keen that wherever possible the demolition of property should be avoided. In addition, the provision of a station construction in the middle of this very busy junction would cause unavoidable traffic congestion for the duration of the works. Due to the location, there would be very little opportunity to mitigate these impacts. It is recognised by TII (as outlined in the EIAR) that the current proposed location for the station has potential for significant environmental effect. However it avoids the demolition of property and removes the construction area from the roadway, thereby allowing traffic management measures to be implemented that can safely manage access and egress to all properties at this location as well as maintain effective through traffic.
34	"10.5 Predicted impacts of the proposed Project." - Human Health Chapter in EIAR	10	It is acknowledged that it is not possible to predict the full effects on an individual and it referred specifically to those with ASD. Our school must be categorised as 'Very highly sensitive' in Section 10 as we have a large number of children diagnosed with ASD whose entire primary school years will have the metro and associated works effectively preventing them from accessing their education.	Please refer to responses (20), (24) and as outlined in the EIAR Chapter 10 Human Health the section 10.3.4.2 on sensitivity. The sensitivity of an area or building in this context refers to the vulnerability of the population. Reasons for this include inherent vulnerability such as is the case for the very young or old. Locations where there are higher numbers of vulnerable individuals such as hospitals and nursing homes are considered to be 'very highly sensitive' and require special consideration where potential effects are possible. Where it is clear however that very highly sensitive receptors have negligible effects, perhaps because of their distance from the line, these are scoped out. Residences, schools, workplaces, commercial areas and places of worship are considered 'highly sensitive'. This is because these areas will include populations of elderly, young people and people with health conditions. However, the majority of the population in these locations are likely to be less vulnerable than those in the very highly sensitive locations. Areas where recreational activities are carried out are considered to be 'sensitive' as these locations are typically only occupied during the day, and not necessarily continually. They will be used by children and the elderly but usually only for limited periods of time. it is not envisaged that the works here will prevent those children from accessing their education.
35		10	It is our position that this EIAR does not support the location selected and has taken a very "chequered" approach to the input factors on which the report is based- In some cases, the location of a school or college nearby is deemed a factor in rejecting an alternative site- yet for the "emerging preferred route" our school is roundly and manifestly ignored, despite many representations during the public consultation period.	Please refer to responses to Items (1), 33 and 34 above. As noted in the Collins Avenue Station: Environmental Assessment Report of the Options report, the educational facilities considered for rejecting an alternative site was in relation to demolition requirements. The preferred option means that no demolition on any buildings are required.
36		10	The issuance of updated EIAR documentation via the TII website in the days leading up to the statutory deadline for the submission of documents was less than helpful. This release of updates during October and November did not afford a reasonable opportunity to meaningfully reflect on, or even identify updated information.	Please note that the extension of the statutory consultation period provided an additional 6 weeks over and above the statutory consultation period, thereby giving significant additional time for submissions to be generated. The additional information provided at that stage was clearly identified on the Metrolinkro.ie website and had no effect on this location.

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37		11	There has been a manifest plain failure to engage on the part of TII regarding the potential damage possible to the day-to-day experience of going to school for a huge cohort of these pupils. During the course of the construction phase of the project 2024-2032, we estimate that 1300-1500 pupils will pass through our doors. Is An Bord Pleanála prepared to take responsibility for the potential damage that could be caused to the education of these children, and indeed to guarantee their physical safety across this 8 year period? There appears to be a blind push to get this into place regardless of issues raised. Children are entitled to be able to play and learn outside, go on a nature walk to nearby park, without having to wear ear defenders.	Please refer to item (13) and (16) above.
38		11	They are entitled to sit in a classroom where the windows do not need to be kept constantly closed; ventilation is currently mandatory! They are entitled to go to a classroom and yard where there is no need to have rat traps/ poison scattered as a matter of course to prevent infestation. They are entitled, as are their parents, to have a reasonable expectation of going to school and completing the day there without potentially being told “the air quality is below X level we have to close”. They are entitled to be able to leave the school and get home without being forced into significant detours, potentially placing them in harm's way.	Please refer to responses (3), (5), (8), (9), (16) and (22) above.
39		11	Should ABP decide that this station site should go ahead in its current format, then that is to endorse the TII position that the above does not apply, and that our children are second class citizens, and not “as entitled” as those in other schools nearby where changes were made to locations. This will not go unchallenged, should this be the outcome These are not scaremongering statements or exaggeration. The issues raised above are highly likely outcomes affecting the school building and community- Safety, Noise, Dirty Air. Pest. There can be no equivocation on these matters and we do not accept that “mitigating” measures will allay these problems.	TII acknowledge that there is potential for significant environmental effects on the surrounding area to the proposed MetroLink station if not mitigated effectively. However as referred to in responses above and as detailed in relevant chapters of the EIAR, TII consider that it is possible to mitigate the potential impacts identified at this location during the construction period. In addition, TII are keen to point out that once the construction phase is completed the location of a MetroLink station here will provide significant positive benefits to the local community in terms of enhanced public transport provision, reduced traffic and the resultant improvements in the environment, with reduced noise and air quality pollution. TII regret that you feel that the mitigation measures will allay your problems but are keen to note that the mitigation measures outlined within the EIAR are derived from best practice and through specialist input. TII will endeavour to ensure that impact on the schools is reduced as far as practically possible.
40		11	The current siting of the main entrance of our schools is not compatible with a construction site and access compound.	Please refer to responses (4-9) above, which outline that full and safe access to the school will be maintained during the construction period. Furthermore, as identified above TII are keen to work closely with the schools to minimise any potential effects on the operation of the school and to implement further measures if required at the school.

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Our Lady of Victories Church - Re: Railway (Metrolink–Estuary to Charlemont via Dublin Airport) Order 2022, specifically Collins Avenue Station – Submissions by The Parish Pastoral Council of Ballymun Road which is Our Lady of Victories Church, written by Fr. Frank Reburn & Ger Casey (Chairperson)				
1	Unhappy with Collins Avenue Station proposal	1	We acknowledge the benefit that such a development would bring to our city. However, we feel that the proposal re: Collins Avenue Station would impact greatly on the spirit and life of our church community.	TII welcome your acknowledgment of the benefits that the proposed Project will have as a whole. We will endeavour to alleviate your concerns throughout this submission.
2	CPO - Unhappy with Collins Avenue Station proposed to be on the grounds of the church	1	Our Lady of Victories parish is a vibrant community serving the pastoral needs of its parishioners. Our church is the centre of this vibrant community. We feel deep frustration and unease that our, and many past generations' spiritual faith family home for over 50 years, a place we hold precious at the deepest and dearest level, is under threat by the building of a station within our grounds. Arrangements for the CPO and use of the 'Plaza' area to the front of the church grounds are of concern. The CPO will deprive our community of this valuable space that has been used over the years for parish picnics and family days. Indeed, our very first Parish Priest, Fr Bernard Brady, was buried in the lawn in front of the church in 1987 (consult www.olv.ie/history). Trees have been planted, also, in the front lawn, marking special occasions in the history of the parish.	As noted in Chapter 11, Table 11.61 that access to Our Ladies of Victoryies church will remain accessible and operational via Albert College Drive during the construction phase of the project. Unfortunately it will not be possible to fully reinstate the green area in front of the church to their current state. The landscape proposal upon completion of the works is will better define the very public space from the more passive and tranquil garden to the rear of the area, which is clearly related to the church. The new proposed garden will continue to offer a degree of privacy for the church from the road and remains a social space into which mass and church events can spill out. It is TII's intention that that post completion the restored green area will continue to be available to our Ladies of victory Church for parish picnics and family days and TII will work closely with church represenatives to encouge and faciliate events of this nature TII will ensure that Fr Bradys grave is protected and undisturbed during all stages of the MetroLink Construction works.
3	Access	2	It would prove almost impossible to cope with the inaccessibility of our two major front entrances for/funerals, weddings, special occasions, necessary and important to-ing, and fro-ing of groups of children and their teachers from our schools to the church. A number of these children suffer from disabilities such as ADHD, Autism with sensory issues and Down Syndrome and are particularly fragile, vulnerable, and especially frightened by noise and disruption. Some of our parishioners who struggle with mobility issues to get here will have further difficulties to endure. Their health and safety are a key concern. Following on from Covid restrictions, all parishes are trying to encourage their congregations to return, and the proposed works will make attending less appealing and very difficult. Many of the congregation are elderly and further inconvenience is unhelpful. In our opinion, it is imperative that conditions be imposed to alleviate the disruption that this project will cause to our community, our school population and our parishioners.	We understand that Our Lady of Victories Church is an invaluable asset to the community and is used by groups with varied levels of mobility. Measures will be implemented in order to maintain access to the church during construction and operation of MetroLink. As noted in Chapter 9, Section 9.8.1.5, members of the community who use public transport to travel to the church will not be impacted during construction of the Collins Avenue Station. The existing bus line on Collins Avenue will be maintained in both directions, with journey times for public transport unlikely to be significantly impacted. Chapter 9, Section 9.6.1.2.4.1 notes only one bus stop, 115, will be temporarily relocated via a temporary path to the east of the church. During the construction of Collins Avenue Station, footways will either be retained in their existing location or realigned to a similar standard. Chapter 9, Section 9.8.1.3 notes there are no footway, footpath or cycle lane closures that would require users to significantly divert from the existing routing, therefore maintaining access to the church for people who walk or cycle. There will also be a temporary footpath constructed to the rear of the church in order to maintain access from Albert College Court. Vehicles accessing the church car park will be required to use a diversion via Albert College court, maintaining access during all project stages. Further details of construction impacts on transport are found in more detail in Section 9.6.1.2.4.1. and Section 9.6.1.2.4.3 of Chapter 9 (Traffic and Transport). Environmental impacts (e.g. noise, air quality) from construction activities are expected to negatively impact user amenity, however mitigation will be implemented to reduce impacts on church users. Limits have been set for noise and vibration in Chapter 13 and Chapter 14 of the EIAR to protect sensitive receptors all along the alignment during both the construction and operational phases which will go a long way to protect those sensitive students with disabilities. However, in line with the principles of TIIs Airborne Noise and Groundborne Noise Policy (Appendix A14.6 of the EIAR), TII are keen to work closely with the community and the local schools to minimise any potential effects on children with disabilities. Limited noise impacts are predicted to the church as construction activities will be timed to occur outside of service hours, as outlined in Chapter 13 (Airborne Noise & Vibration). Full access of the church to the public will be reinstated during operation, with further street furniture implemented to increase pedestrian comfort levels (Section 9.6.2, Chapter 9). Collins Avenue Station will create another means of travel to and from the church, opening it to the wider community.

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4	Architectural heritage - concern over potential structural damage to the church	2	The church building is one of the finest churches of its age on the Northside of Dublin with considerable architectural merit and has many decorative stained-glass windows; the main stained-glass artist, Helen Moloney, created stained glass windows for only 11 churches in Ireland so our windows are precious and rare. We have major concerns in relation to potential structural damage during construction works.	Our Lady of Victories Church is recognised as an important architectural heritage asset in Dublin and is included in the NIAH (reference 50130121). Measures will be implemented during construction to ensure the church is not damaged. The method of construction will take into account the sensitivity of the church, in particular the stained glass windows. As per the Cultural Heritage Strategy, the stained glass windows will remain in situ during construction. Detailed mitigation measures to protect the church during construction can be found in Table 26.66 of EIAR Chapter 26 (Architectural Heritage). Our Lady of Victories Church is recognised as a Noise Sensitive Location (NSL) and it is predicted that Construction Noise Levels (CNLs) will exceed Construction Noise Thresholds (CNTs) (65 to 75dB LAeq,T) during different phases of work (Table 13.59, EIAR Chapter 13 (Airborne Noise & Vibration)). In terms of vibration, the threshold of 3PPV during blasting at the nearby station box is not predicted to be exceeded at Our Lady of Victories Church, however the predicted level of 2.7PPV is close to the threshold (EIAR Chapter 14, Ground-borne Noise and Vibration). During TBM passage the predicted level of vibration is 0.206ms-1.75 VDV (Vibration Dose Value), which is below the threshold level of 1.6ms-1.75, indicating no significant impact on the building. As the church is a sensitive building, mitigation from blasting will be implemented and vibration monitors are to be provided in the church in the vicinity of the works. As noted in Appendix A5.20 Blasting Strategy, prior to works an additional review from an Architectural Heritage Specialist takes place to determine if any additional mitigation measures are required before blasting activities take place. There will be no significant effects on the church with regard to ground-borne noise and vibration during the operational phase (Section 14.6.2.1, Chapter 14 Ground-borne Noise and Vibration) as predicted levels of operational vibration are predicted to be 0.002ms-1.75 VDV, well below the 0.4ms-1.75 VDV threshold value for human response within the church, with thresholds for building damage being much higher than these. With regard to Settlement / Ground Movement an assessment of the effects of ground movements and potential impacts on existing buildings has been carried out. The approach to ground movement and building damage assessment follows the industry standard three-phased ground movement impact assessment process that is undertaken on tunnelling and underground projects around the world, that includes Channel Tunnel Rail Link (CTRL), Dublin Port Tunnel, Crossrail and High Speed 2. EIAR Appendix A 5.17, Building Damage Report, covers the assessed impacts of construction generated ground movements on properties. Table 5-2 outlines the results of the Phase 2a Building Damage Assessment conducted on your building. Table 5-2 shows that B-124 Old Lady of Victories Church has been assessed as falling within the "Slight damage" category. The description of this impact is cracks can be easily filled and redecoration could be required.
5	Fear that concerns will be ignored	2	While recognising the value of this project and the work which has been done to date, we as the PPC of Our Lady of Victories parish fear that our very valid concerns will be ignored. In our option, it is imperative that conditions be imposed to alleviate the disruption that this project will cause to our community, our school population and our parishoners.	TII note your concerns and hope that you feel that we have adequately answered your concerns throughout this submission. TII feel that an exhaustive assessment of impacts on the community has been carried out and have developed mitigation measures to reduce the impact insofar as reasonably possible.

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1	1. Request for inclusion in the property owners' protection scheme	3 to 6	When cross referencing the requirements to be eligible for the property owners' protection scheme with the Metrolink property drawings we noticed that part of the apartment complex could be outside of the 30-meter edge of the Metrolink zone of influence of the tunnel and other works. (*For ease of reference we included screenshot images of the drawings marked up in yellow at the bottom of this document). Request 1 from Nelson Property Management Co: Based on proximity to the tunnel route (which runs under 6 Nelson Street), the fact that the three properties form one apartment complex and the evidence that our Company has acted as a proud and responsible guardian of North Inner City Georgian architecture for the last two decades we would like the Bord to consider this and help us in our endeavours by including all structures highlighted in the image above in the TII property Protection Scheme.	Thank you for your submission and for sharing your concerns/observations related to the MetroLink Project. We have reviewed the submission and provided response to the observations/concerns raised in detail below. The Property Owner Protection Scheme (POPS), committed to by TII, allows residential property owners to register with TII if their residential property is within thirty (30) metres of the edge of the MetroLink alignment or fifty (50) metres of station structures. The POPS comprises condition surveys of residential properties along the route of the proposed Project. The purpose of the condition surveys is to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether same may be attributable to the proposed Project, and subsequently to recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in swift and accurate verification of any property damage claims which may be received from property owners. The POPS is designed to cater for / address repair work which may be necessary for any damage (attributable to the proposed Project) to a qualifying residential property up to a threshold of €45,000. The POPS will be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Further information on POPS is available in Chapter 11 (Population & Land Use). Useful information can also be found in the MetroLink Frequently Asked Questions document which can be found online at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/ , and this is where useful updates will be made available as the proposed Project progresses. In cases where parts of properties are occupied, access to the remaining unoccupied parts will be maintained, where it is possible and safe to do so. Protection such as hoarding will be used to ensure that the boundary of any construction site will be maintained, and damage would not occur outside of this boundary. Where damage could not be avoided, it would be repaired. Information regarding any situations requiring relocation and the process for financial compensation for property impacts directly related to the proposed Project is provided in Chapter 11 (Population & Land Use) and Chapter 21 (Land Take) of the EIAR.

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2	2. Request for impact mitigation Noise, vibration, traffic mitigations	6 and 7	After studying the Metrolink Environmental Impact Assessment we make the case for noise, dust and vibration monitoring, secondary glazing, traffic restrictions and temporary rehousing for residents in the property to reduce the human impact of construction. Based on proximity to construction site to 9-10-11 Nelson Street we request the following environmental monitoring and mitigation measures: • Our properties to be included in noise and vibration modelling and updates • Allow our owners to opt in for secondary glazing in the bedrooms and living rooms • That noise and dust monitors be put on our buildings - We are happy to be representative of the area • Get the windows cleaned from construction dust every 6 months during construction • Be informed one month in advance of night works and abnormal working hours • Vulnerable residents to be considered for rehousing and assurances landlords will not be out of pocket.	Given the location of your properties, boas ion site at Mater Station and the Tunnel alignment, and with the controls proposed in the EIAR, the impacts on your properties during the construction phase will be limited to groundborne noise impact from the passing TBM, a likely increase on parking pressure as a consequence of parking suspension around Four Master Park, a slight increase in construction traffic and redistribution of local traffic. Construction Phase – Groundborne Noise and Vibration EIAR Chapter 14 (Groundborne Noise and Vibration), Appendix 14.5 presents the predicted groundborne noise levels during the construction phase of the project for 9 Nelson Street: • The predicted level of groundborne noise during TBM passage is 47 dB LASmax, which is above the 45 dB LASmax threshold resulting in an impact "Noticeable to all and disturbing to some" on the occupants of the building for the relatively short duration of TBM passage. • The predicted level of groundborne vibration during TBM passage is 0.211 ms-1.75 day and 0.177 ms-1.75 night, below the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) Threshold Level of 1.0 ms-1.75 day and 0.5 ms-1.75 night, resulting in a not significant impact on the building. This impact will occur only during the period (approximately 2 weeks) of the TBM passing close to the property. Please note: The impact has also been assessed for 10 & 11 Nelson Street and results (as shown in EIAR Appendix 14.5) indicate that these properties face lesser impacts when compared to No. 9 above. As noted in Appendix A5.1 Outline CEMP, there are no statutory standards in Ireland relating to noise and vibration limit values for construction works. The contractor(s) will work within the noise and vibration significance threshold levels identified in the EIAR for both airborne and groundborne noise and vibration and the limits contained within the Railway Order approval, if granted. In addition, the contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project which will be a live document. Where all reasonable measures have been taken to reduce noise levels using the mitigation measures through source and pathway control, but residual levels are such that widespread community disturbance or interference with sleep is likely to occur, TII will consider whether the provision of further Noise Insulation (NI) or Temporary Rehousing (TRH) will be appropriate at locations where eligibility for either has been established. Construction Phase - Traffic Appendix A9.5 provides the Scheme Traffic Management Plan, of which section 7.7 refers to Mater Station. While the works will attract additional traffic to and from Mater Station, the assessments of vehicle movement during the peak construction phase will add an average range of approximately 20 to 35 additional daily movements each way to the existing traffic flows. The pre-construction planning and construction approvals process for Traffic Management at Mater are set out below (please refer to response item (6) below). Chapter 5 of the EIAR (MetroLink Construction Phase), explains that traffic management plans for the construction phase of the Project have been developed to minimise the impact on road users, and to maintain access to businesses and other premises. The Scheme Traffic Management Plan Appendix A9.5 section 7.7 refers to the traffic assessment undertaken at the proposed Mater Station with the route to and from the site and the M50 provided on Figure 7-28, with the intention not to use Nelson Street for Construction Traffic. The works will result in the closure of Eccles Street for general traffic, with access maintained for emergency traffic. Local traffic diversions as a consequence of this are outlined on Figure 7-33 of Appendix A9.5 Scheme Traffic Management Plan. Appendix A5.1 Outline CEMP includes measures such as the establishment of Local Community forums which will cover areas local to each station, where stakeholders will have an opportunity to inform the traffic management element of the project including impacts to on street parking. Other measures include the control of construction vehicles in terms of their hours of operation and restrictions on vehicle size and weight. The potential impacts associated with the construction phase activities of the proposed Project on the residences and businesses are addressed in Chapter 11 (Population & Land Use) of the EIAR, with mitigation measures proposed where required. The construction site will be located in Four Masters Park. This will give rise to inconveniences and disturbances affecting activities and services at a localised level. This includes potential noise and vibration impacts from construction activities as detailed in Chapter 13 (Airborne Noise & Vibration) and Chapter 14 (Groundborne Noise & Vibration), and dust risk as detailed in Chapter 16 (Air Quality).

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				Measures to mitigate and monitor these impacts as a result of construction activity across the proposed Project are detailed in Chapter 5 (MetroLink Construction Phase) and summarised in Chapter 31 (Summaries of the Route Wide Mitigation & Monitoring Proposed). Additionally, the appointed contractor will prepare detailed design and construction methodologies in the form of a detailed Construction Environmental Management Plan (CEMP) to ensure all environmental impacts are managed and mitigated in accordance with the EIAR and Railway Order, assuming an Enforceable Railway Order is granted. This detailed CEMP(s) will be provided to DCC for consultation and approval in advance of any construction works on site. An Outline CEMP is included in Appendix A5.1 of the EIAR that will be developed further by the appointed contractors. Monitoring instrumentation will also be used throughout the works to monitor potential environmental impacts, including those discussed above to ensure that acceptable limits are not breached. For example, an Air Quality Management Plan and a Dust Management Plan will be submitted for approval to the relevant planning authority. As detailed in Appendix A5.1 Outline CEMP, TII and the contractor(s) will take all reasonable steps to engage with stakeholders in the local community, especially those who may be affected by the construction works including residents, businesses, community resources and specific vulnerable groups. TII and its appointed contractor(s) will ensure that residents, occupiers, businesses, local authorities and all other stakeholders affected by the proposed construction works, as outlined in the EIAR, will be informed in advance of work taking place. The notifications will detail the estimated duration of the works, the working hours, and the nature of the works. All notifications will include a local helpline number, and will be available on the Project website.	
3	3. Upgrade of the local amenities on side streets of Eccles St. and Berkeley Road	7 and 8	Even though our buildings are not listed, they are protected and help to maintain the authentic and literary character and identity of the city which attracts tourists and business to the city. We request an upgrade of all utilities, renewal of road surface and higher quality footpaths. The high volumes of traffic will deteriorate the road surface dramatically.	To ensure the protection of architectural heritage throughout the alignment, a Project Conservation Architect has been engaged to oversee the implementation of the Project. A specialist Heritage Works Contractor will also be appointed to remove, store and conserve and constraints during the construction phase, to ensure they are protected for reinstatement prior to the Operational Phase. TII recognise that the area around Mater Station has important heritage and architectural connotations, and therefore the construction of the station will require stringent environmental management measures during restoration of the urban realm. As noted in response item (2) above, the peak construction phase will add an average range of approximately 20 to 35 additional daily movements each way to the existing traffic flows. Therefore, no significant impacts are expected on the road network. As detailed in Appendix A5.1 Outline CEMP, suitable spoil removal routes have been identified in order to direct construction traffic onto suitable roads, and to minimise the negative effects of increased HGV traffic on the environment. Localised pavement and highways works associated with MetroLink will be limited to work to improve access to the new station. To accommodate the station entrance, the current footways and traffic lanes on Eccles Street will be realigned as part of the proposed Project. Chapter 4 (Description of the MetroLink Project) details the proposed changes and improvements to the urban realm around each of the stations upon completion of the construction works. At Mater Station, the design includes the signalisation of the junction of Berkeley Road, Eccles Street and St Vincent's Road North. The width of Eccles Street will be reduced locally at this junction. Provision of shared space will be incorporated on Eccles Street in the vicinity of the junction with Berkeley Road, with the shared space demarcated from the road edge by a raised kerb for the safety of pedestrians and cyclists. The upgrade of utilities, renewal of road surfaces and the provision of higher quality footpaths at this location do not form part of the Railway Order Application for MetroLink.	

Submission No.			247	
Organisation Name or Name of Submitter			Owners of 9, 10 and 11 Nelson Street (Nelson Property Management Company)	
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Letter Re: Submission for Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022				
4	3. Upgrade of the local amenities on side streets of Eccles St. and Berkeley Road	8 and 9	We see the arrival of the Metrolink and the Mater stop as an important boost for the area and want the overall master plan between TII and Dublin City Council to include betterment works and upgrades of 'forgotten side streets' like Nelson Street and Joseph's Parade. The increased footfall in the area also warrants for bins to be installed on footpaths in the adjoining streets to keep the streets litter free during operations.	TII wish to thank you for stated support for the delivery of MetroLink in recognition of the benefits it will bring to the local areas surrounding the stations. MetroLink provides for urban realm improvements in the vicinity of the station entrances, however works as described on streets beyond the Project boundary are under the remit of Dublin City Council (and Fingal County Council in respective areas). However, TII will continue to engage with Dublin City Council, and other relevant stakeholders, throughout both the construction and operational phases to ensure any works, including the provision of wastebins, do not impede on the pedestrian networks around station locations.
5	3. Upgrade of the local amenities on side streets of Eccles St. and Berkeley Road	9	We need trees in the general Mater Stop area, including Nelson street, to make the north inner city a friendlier environment for people to live and thrive. Trees have a positive effect on an area from an aesthetic, anti-vandalism and ecological point of view. It makes people take better care of their neighbourhood and reduces aggression. Nelson Street is marked as a Feeder street in the Greater Dublin Area Cycle Network Plan - National Transport. We want to see traffic reduction measures in the street, e.g. flower boxes or bollards to make the street more cycle and pedestrian friendly in the final road layout solution as part of the carbon reduction efforts of Dublin City Council.	EIAR Chapter 27 (The Landscape) details the impact on the landscape and visual amenity of the stations during both the construction and operational phases. As noted during the operational phase at Mater Station, on completion of the station box, the surface features will be substantially reinstated as per the project description (please refer to response item (3) above). The Park and its surroundings will be updated and improved, particularly in respect of the shared space to the front of the original hospital building, the refinement of the Park layout and the tree and plant species selection. Over the initial period after completion of the construction, the maturity and ambience created by the existing trees cannot be matched. However, as the new trees mature, this too will return with views along the adjacent streets and into the Park, much as they were and therefore a positive impact is anticipated. As noted in response item (3) above, when the Project is operational it is anticipated that general traffic levels will reduce in line with a modal shift towards public transport, therefore reducing the potential conflict between road users and cyclists.

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Organisation Name or Name of Submitter			Owners of 9, 10 and 11 Nelson Street (Nelson Property Management Company)		
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6	4. Ban on construction traffic and rat running during construction	11	We conclude that in addition to all the extra traffic (see point a) and diversions on Nelson Street (see point b), and above-mentioned alterations and re-routing in side streets, this will cause a high impact of nuisance and safety reduction in residential areas. We are convinced that by its location in relation to the site, the Nelson Street (one way street) and Josephs Parade, Joseph's Place side streets will be used as rat runs. There is also concern around access to the Mater Hospital for emergency services during the works.	Please refer to response item (2) above in relation to the anticipated impacts on traffic and transport during the construction phase. During the Enabling Works, the introduction of temporary shuttle signals along Berkeley Road will result in a moderate impact on general traffic volumes. During both the AM and PM peak periods, the redistribution of traffic results in a 40% decrease on Berkeley Road northbound, and a 70% decrease in the southbound lane. The majority of this traffic during the evening peak routes via Eccles Street, and therefore it is not anticipated that Nelson Street will be utilised as a rat-run. Increases in volume are also seen on the R135 Western Way and on the R101 North Circular Road. However, this redistribution of traffic only results in very slight delays in the local area, with a high of 20 seconds increase in delay recorded on Berkeley Road southbound lane during the morning peak period. During the Main Works, the partial closure of Eccles Street will result in a redistribution of traffic with only slight levels of delay, with a maximum 27 second delay during the evening peak. Chapter 5 of the EIAR (MetroLink Construction Phase), explains that traffic management plans for the construction phase of the Project have been developed to minimise the impact on road users, and to maintain access to residential and other premises. Prior to implementation, all traffic management measures will be agreed with Dublin City Council and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The design of traffic management measures and highways works is based on achieving the key objective of maintaining continual access to all properties during the works. Where necessary, a safe alternative route will be provided for pedestrians and vulnerable road users, such as children, and persons with restricted mobility, to maintain pedestrian access to premises. Where detour routes are required, these will be kept as short as possible and detour signage will be clear and easy to understand. All construction sites will be designed to be as unobtrusive as possible. It is anticipated that, overall, the proposed Project will provide for improvements to the public transport network, resulting in decreases in car usage/trips, increases in public transport usages, and will facilitate walking and cycling to the stations, without significantly impacting on the operation of the networks in the area. There may be a requirement for further work in conjunction with DCC to determine full effective mitigation measures, such as reconfiguration of street furniture or reallocation of space to maximise available width. EIAR Appendix A9.5 section 7.7 details the construction traffic management associated with Mater Station. As identified, in Phase 2 and Phase 3 of the construction works, general traffic will not be able to access Eccles Street from Berkeley Road, however Emergency Vehicle access will be maintained from this location therefore ensuring there is no interface with the ability of emergency vehicles entering or leaving the hospital. As presented by EIAR Appendix A9.5, Figure 7.32 Proposed Traffic Management Phase 3, the road width available at the Eccles Street/ Berkeley Road junction will be reduced to the construction footprint, and therefore general traffic flow cannot be maintained at this location only. General traffic access to the hospital will be maintained through the detailed diversion, i.e. Eccles Street will not be closed in its entirety, access will be facilitated for all traffic as far as the area of reduced width, which will be used for Emergency Vehicles only. Therefore, there should be minimal impact on the Hospital's operations throughout the works. To clarify, access to Eccles Street will be maintained via the N1. Vehicles seeking to route from Berkeley Road to Eccles Street will be diverted and approach Eccles Street from the N1 via either North Circular Road or Blessington Street. Vehicles travelling away from Eccles Street will be diverted southbound along Nelson Street and from there can continue to travel along Berkeley Street, Mountjoy Street or Blessington Street. Therefore, access to the hospital is maintained at all times for staff, patients, patient visitors, suppliers and goods and services vehicles. Similarly, access to the emergency department and underground car park is maintained, and can be accessed from Eccles Street via the N1. TII will continue to work closely with Mater Hospital throughout the duration of the construction works to ensure minimal impact to the delivery of the new Major Trauma Centra, which is of national importance. TII will closely monitor all closures to determine if they are required at all points of the works, or if they can be reinstated temporarily. As noted, access to Eccles Street will be maintained from the N1 direction, with the closure only impacting on the western junction with Berkeley Road. All diversions and closures will be displayed on appropriate signage, and a comprehensive publicity and information campaign will take place prior to the commencement of the Construction Phase. A Project Construction Traffic Forum will be formed, including representatives from key stakeholders such as Mater Hospital to ensure any issues or concerns can be addressed quickly and efficiently.	

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Letter Re: Submission for Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022				
7	4. Ban on construction traffic and rat running during construction	11	To reduce impact of construction and other traffic we request that construction traffic and HGVs are banned from Nelson Street and Joseph's Parade. We also request that local access one way traffic policed strictly to avoid rat run Nelson Street and subsequent traffic incidents. Emergency services travelling through Nelson Street need to be forbidden from using sirens between 8pm and 8am on weekdays and 8pm and 10am on weekends to allow residents peaceful enjoyment of their home environment.	Please refer to response items (2) and (6) above related to traffic management around Nelson Street. It is for the emergency services to consider how best to use sirens and lights for maximum effectiveness and minimum environmental disturbance. Subject to the regulations and any guidance from those services, drivers of emergency vehicles are expected to use their professional judgment to decide when and where the use of sirens and blue lights is appropriate. Drivers ought to be fully aware that sirens must be used with restraint, particularly at night, so as not to cause a nuisance to residents or other road users. There will, however, always be occasions when it is necessary for the emergency services to use sirens and/or blue lights in the interests of road safety and the protection of the public.

Submission No.			248	
Organisation Name or Name of Submitter			Pat and Barbara McCormack (1-1A St. Mobhi Road, Glasnevin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Intended application by the NRA (operating as Transport Infrastructure Ireland) for the Railway (MetroLink-Estuary to Charlemont via Dublin Airport) Order (2022)				
1	Letter	1	While we fully support the proposed MetroLink we have concerns in relation to the potential structural damage that might occur to our property during the construction stage. We would therefore request that TII indemnify us against any structural damage or any loss of rental income that is caused as a direct result of this development being approved and going ahead. If TII are not willing to give this undertaking then we object to the project.	TII wish to thank you for your submission and for sharing your concerns related to the MetroLink Project. We have reviewed the submission and provided response in detail below. A comprehensive Settlement Assessment has been undertaken to determine the potential impacts that construction of the proposed Project will have on sensitive receptors such as buildings and infrastructure from the advance of the TBM (Tunnel Boring Machine). The ground movement predictions and the building damage assessment methodology adopted for MetroLink is based on the approach adopted in most tunnel projects around the world, including London Crossrail and High Speed 2 in England. This is described in EIAR Section 5.4.11 (Ground Settlement Monitoring and Mitigation Works). EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. Section 5.2 of this report sets out the rationale for the assessment of properties. The results of the assessment provided in Table 5.2 shows that your property (Ref B-164) has been assessed as falling within the 'Negligible' category. The building risk categories shown in Table 4-4 of the aforementioned report are used to define the degree of building damage related to the Risk Category. According to this Table, the Negligible damage category refers to hairline cracks. Therefore, it is not anticipated that there will be any significant structural damage to your property. As your property is within the negligible category no further assessment beyond the Phase 2a Building Damage Assessment is required. This is detailed in EIAR Appendix A5.17 Building Damage Report section 4.5. The EIAR Chapter 14, Groundborne Noise and Vibration, presents predicted vibration levels arising from mechanical excavation and blasting. In all cases vibration levels will be maintained within limits that do not cause damage to property. This is detailed in section 14.4.1.9, which details that the calculated vibration levels are below the threshold for structural damage for any building type, as presented in Table 14.8. The Property Owner Protection Scheme (POPS), committed to by TII, allows residential property owners to register with TII if their residential property is within thirty (30) metres of the edge of the MetroLink alignment or fifty (50) metres of station structures. The POPS comprises condition surveys of residential properties along the route of the proposed Project. The purpose of the condition surveys is to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether same may be attributable to the proposed Project, and subsequently to recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in swift and accurate verification of any property damage claims which may be received from property owners. The POPS is designed to cater for / address repair work which may be necessary for any damage (attributable to the proposed Project) to a qualifying residential property up to a threshold of €45,000. The POPS will be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Further information on POPS is available in Chapter 11 (Population & Land Use). Useful information can also be found in the MetroLink Frequently Asked Questions document which can be found online at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/ , and this is where useful updates will be made available as the proposed Project progresses.

Submission No.			249	
Organisation Name or Name of Submitter			Councillor Patricia Roe	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: MetroLink Submission Railway Order (RO), ABP Ref: NC06F.302010				
1	First and second paragraph	1	I do not consider the current proposal for a station in the grounds of OLV church and the positioning of a ventilation shaft and car park within the current area of Albert College Park to be the optimum option. A much better long-term option would be to situate the station in the park, which would have a smaller footprint, post construction, and would allow for ease of access by the public and, in particular those accessing Dublin City University. An underground station would have far less lasting negative impact on the park and would fulfil the current Z9 zoning of the park lands. I do not think that the repositioning of the station from the church lands to the park would have an adverse impact on passenger use and access to current and future bus routes. Albert College Residents Association (ACRA) including Ballymun Road North Residents have suggested an alternative location for the station in the Park which would entail one minute walk to main entrance to DCU (the main driver of passenger use at this location) and seven minute walk to Collins Avenue, to east/west bus connections.	As outlined in EIAR Chapter 7, Consideration of Alternative, section 7.7.10.7, the assessment undertaken for the Emerging Preferred Route (EPR) identified a preferred route option including the proposed station location in front of Our Lady of Victories (OLV) Church. This location for the station provides a number of advantages when compared to other location options, including Albert College Park: (1) It allows the Project to achieve a core project objective of providing public transport that is integrated in the existing and future proposed transport network, providing for interchange between bus routes both on Collins Avenue and on Glasnevin Road. A station location further south at the northern section of Albert College Park would not provide a good level of interchange as there would be over 500m separating potential bus stop locations on Collins Avenue and the MetroLink station. (2) The proposed Collins Avenue Station will have a significant catchment area, noting the analysis undertaken at the Emerging Preferred Route (EPR) stage identified this route option had the highest potential passenger numbers when compared with other route options. (3) During the construction phase, the location of a station within the frontage to Our Lady of Victories means that traffic disruption to Dublin would be reduced when compared to the location of a station within the road corridor (partially or fully). TII acknowledge that there is potential for significant environmental effects on the surrounding area to the proposed MetroLink station if not mitigated effectively. However, as detailed in relevant chapters of the EIAR, TII's assessment shows that it is possible to mitigate the potential impacts identified at this location during the construction period. Once the construction phase is completed, the location of a MetroLink station at OLV Church will provide significant positive benefits to the local community in terms of enhanced public transport provision, reduced traffic (EIAR Chapter 9, section 9.8.2.2) and the resultant improvements in the environment, with reduced noise (EIAR Chapter 13, section 13.5.3.1) and air quality (EIAR Chapter 16, section 16.5.3.2) pollution. EIAR Chapter 7, section 7.7.11.1 also covers the environmental impact assessment undertaken considering the possible locations for the intervention shaft, and why Albert College Park was determined as the optimum location for reasons of; it is no more than 1000m from either Collins Avenue or Griffith Park stations; it is adjacent to the tunnel on the west side of the park in order to reduce the length of connecting tunnel; the park area is the only "open space" on the MetroLink route between the two stations and as a result the location of the intervention shaft here avoids the requirement for any demolition; and the tunnel intervention shaft can be accessed easily by emergency vehicles with enough area for safely congregating passengers in an emergency.
2	Third and fourth paragraph	1	If the station were relocated to Albert College Park, as outlined above, the ventilation shaft could be located at a vacant site adjacent to Ballymun Library directly along the Metrolink route. Residents in the area, in particular the representative Resident Associations, have actively engaged with every stage of the consultation and feel very strongly that alternative locations for the station and ventilation shaft have not been adequately considered. While work on the station, if located in the park, will put several playing pitches out of commission for the duration of the build, and will cause disruption to park users and its wildlife, the location of a shaft, proposed carpark and access for emergency vehicles will also cause disruption whereas a similarly designed station as the Griffith Park Station would minimise the impact on the park with far less permanent land take than the proposed ventilation shaft.	Please refer to response (1) that explains the rationale for the proposed location of Collins Avenue Station and thus the intervention shaft.

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Organisation Name or Name of Submitter			Councillor Patricia Roe	
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Letter Re: MetroLink Submission Railway Order (RO), ABP Ref: NC06F.302010				
3	Fifth paragraph	1	Works at the church will permanently impact access/egress to Albert College estate, will have a negative impact on residents in the two adjoining Assisted Living complex, the Church and particularly, OLV primary school located opposite the proposed station site. Works at the OLV site would also have a more negative impact on traffic flows for the duration of the pre-and build stage, preventing access to/from Albert College Estate, and onto Collins Avenue and due to the proximity to the major junction at Collins Ave / Ballymun Road and the drop off/collect parking requirements at OLV Primary schools.	TII would first of all like to confirm that there will be no permanent impact on access/egress to Albert College estate. Local access will be impacted, as indicated in section 7.4.5.3.2 of Appendix A9.5 Scheme Traffic Management Plan, however a diversion has been proposed in order to maintain access/egress. The restriction is also a temporary impact, as opposed to permanent, as it will not be required following the completion of the construction phase. The proposed Collins Avenue Station location allows construction to be undertaken mostly clear of the R108 and hence minimises traffic disruption. Other construction impacts on nearby receptors have been assessed and mitigation proposed as documented by the EIAR and summarised in EIAR Chapter 31. <u>Traffic Management and Access</u> Chapter 5 of the EIAR, MetroLink Construction Phase, explains that traffic management plans for the construction phase of the Project have been developed to minimise the impact on road users and to maintain access. Prior to implementation, all traffic management measures will be agreed with the relevant local authority, and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The design of traffic management measures and highways works is based on achieving the key objective of maintaining continual access to all properties during the works. Where necessary, a safe alternative route will be provided for pedestrians and vulnerable road users, such as children, and persons with restricted mobility, to maintain pedestrian access to premises. Where detour routes are required, these will be kept as short as possible and detour signage will be clear and easy to understand. All construction sites will be designed to be as unobtrusive as possible. Measures will be implemented in order to maintain access to the Church during the construction of MetroLink. There are no footway, footpath or cycle lane closures that would require users to significantly divert from the existing routing, therefore maintaining access to the Church and surrounding area for people who walk or cycle. There will also be a temporary footpath constructed to the rear of the Church in order to maintain access from Albert College Court. Vehicles accessing the Church car park will be required to use a diversion via Albert College Court, maintaining access during all project stages. (EIAR Chapter 11, Table 11.61) As outlined by EIAR Chapter 9, Traffic and Transport, Table 9.64, enabling works in this area will be undertaken such that one lane of general traffic and one bus lane in each direction will remain open, as well as dedicated cycle lanes being provided. Section 9.6.1.2.4.3 also confirms that during the enabling works, footways will either be retained in their existing location or realigned to a similar standard. During the main works, there will be a temporary footpath constructed to the rear of OLV Church to maintain access from Albert College Estate. The Enabling Works and Main Works will have an impact on accessing the OLV Schools if not mitigated. For those who walk to the premises, the signalised pedestrian/toucan crossing outside the front of the school will be retained during all works and will continue to allow safe access for pedestrians and vulnerable users. Furthermore, as outlined in EIAR Appendix A9.5 Section 2.5.2.2, construction vehicles will be controlled in terms of the hours of operation (i.e. construction traffic will be prohibited during periods of very heavy traffic and during school drop off and pick up periods). In addition, there will be controls at the entrance and exit of sites for construction vehicles in order to ensure the safety of other road users.

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Organisation Name or Name of Submitter			Councillor Patricia Roe	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: MetroLink Submission Railway Order (RO), ABP Ref: NC06F.302010				
			Response (3) continued.	<u>Noise and Vibration</u> Mitigation will be implemented to reduce impacts on church users and residents, that will include: •The provision of a noise barrier (4m) on the east, south and northern boundaries; •The Contractor undertaking the works will be required to take specific noise abatement measures to the extent required and comply with the recommendations of BS 5228–1 (BSI 2014a); •The selection of plant items will be required to comply with European Communities Noise Emissions by Equipment for Use Outdoors (Amendment) Regulations 2006 (S.I. No 241/2006); •The outline Construction Environmental Management Plan (CEMP) contained in EIAR Appendix A5.1 includes a Construction Noise and Vibration Management Plan (CNVMP) that will be developed further for the construction phase and will be used by all contractors based on the application of the mitigation measures outlined in EIAR Chapters 13 (Airborne Noise & Vibration), and 14 (Groundborne Noise & Vibration); •The CNVMP will take account of detailed assessment of potential noise and vibration impacts associated with each construction compound. The assessment will identify through modelling and calculation, predicted construction noise levels, identification of potential exceedance of Construction Noise Thresholds (CNTs), identification of required noise mitigation measures specific to each work area to minimise noise and vibration impacts so far as is reasonably practicable; and •As part of the CNVMP a baseline noise study will be undertaken prior to the commencement of construction works to characterise the prevailing noise environment at impacted Noise Sensitive Locations (NSLs). These measures will effectively reduce noise levels from construction to below the CNT. As outlined in EIAR Chapter 10 (Human Health) Table 10.14, following mitigation, construction may cause annoyance to users, but no residual health effects are predicted. As outlined in EIAR Chapter 14, section 14.4.1, groundborne noise and vibration at this location will be below the threshold of significance for construction. Vibration will only be perceptible to school occupants for single events or short-term durations and therefore will be tolerable as assessed and documented by EIAR Chapter 10, Human Health, section 10.5.1.2. <u>Air Quality</u> Construction dust tends to be quite large in size (greater than 30 microns in diameter) and falls to the ground relatively quickly. This gives the potential for the soiling of cars or windows in the vicinity. As explained by EIAR Chapter 10, Human Health, section 10.5.1.1, this would not be deemed to have a significant adverse health impact as the dust does not stay airborne and is not inhaled. As outlined in EIAR Appendix A16.4 Section 6.3, a Dust Minimisation Plan (DMP) will be submitted for approval to the relevant planning authority to minimise airborne dust. Further information on dust mitigation is outlined in EIAR Appendices; A5.1 Outline CEMP, A16.2 Site Specific Potential for Construction Phase Dust Impacts, and A16.4 Dust Management Plan.
4	Conclusion	2	I agree with and wish to support submissions from local resident associations: GADRA and ARCA(&Ballymun Road North Residents). The relocation of the station to Albert College Park and the ventilation shaft to empty land beside Ballymun library is a positive option from both short term and long term objectives. Short term advantages: Less adverse impact on traffic on surrounding roads Less adverse impact on OLV Schools Removes risk of Seniors having to vacate homes at Albert College Court and Hampstead Court Long Term advantages: Smaller station footprint with less adverse impact on surrounding area Less land take from Albert College Park More convenient for those accessing DCU (largest driver of passenger movement at this stop) Less risk of impeding/changing flow of underground river Wad = less risk of flooding for Ballymun Road residents Retains OLV church frontage and architectural appearance	TII have set out in the above responses the rationale for the proposed location of Collins Avenue Station and hence the need for an intervention shaft south of the proposed Collins Avenue Station, including the preferred location for this shaft in Albert College Park, and the environmental mitigation measures that will be employed to mitigate temporary environmental impacts, including traffic management and access, noise and vibration and air quality. TII would also like to confirm that the environmental impact assessment undertaken does not indicate a risk of Seniors having to vacate homes at Albert College Court and Hampstead Court as suggested.

Submission No.			250	
Organisation Name or Name of Submitter			Patricia Whyte	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metro Link Estuary to Charlemont via Dublin Airport) Order 2022Ms. Patricia Whyte 2 Harcourt Terrace Dublin 2 DO2E722 Ref: ML6EU16				
1	Introduction	1	With regards to the above matter I can confirm that I have been instructed to act on behalf of the above named party in relation to the above compulsory acquisition order as it effects their property. My client's property is part of a set piece regency terrace which was developed in the 1830's and is unique in that it is still largely intact and is therefore of significant architectural and historical significance. The property is also a protected structure under the current Dublin city Development plan.	Thank you for your submission. TII acknowledge the architectural and historical significance of the property and recognise that the property is also designated as a protected structure. Hence, the property has been included in the impact assessment and presented in the EIAR Chapter 26 (Architectural Heritage), Table 26.25: “BH-565 - 2 Harcourt Terrace - Three-storey, two-bay semi-detached house with rendered façade and with ionic pilasters at ground-floor level; single storey porch to side; RPS 3562 DCC; NIAH 50110464”.
2	Draft of Proposed RO (paragraph 1)	1	My client was issued a letter dated the 20th of September 2022, which included several extracts from plans and a copy of the public advertisement placed in the Irish Independent on the 17th of September 2022, which proports to indicated they have applied for the relevant railway order. However, in their letter they refer to relevant extracts from the "draft of the proposed Railway Order". Indeed the booklet provided is called the Draft Railway order.	TII confirm that a letter (Ref. CAP_ML_1275_52) was issued on 20th of September 2022 to Ms. Patricia Whyte at 2 Harcourt Terrace with reference to 'Intended application by the National Roads Authority (operating as Transport Infrastructure Ireland) for the Railway (MetroLink–Estuary to Charlemont via Dublin Airport) Order [2022]'.Please note that the reference to a "draft Railway Order" is correct and that it reflects the fact that it is a description of what is proposed by TII for approval. The "draft" railway Order will become a "Railway Order" only if and when An Bord Pleanála approve it and update to include any specific additional requirements that the Board identify as being required.
3	Draft of Proposed RO (paragraph 2)	1&2	In my view there should be no draft involved at this juncture either TII wish to apply for a railway order or they don't. If they wish to apply for a Railway Order to the Bord then both the Bord and Land owner should know exactly what is in the order and there should be no equivocation, which appears to be the case here were the documents are only draft. It begs the question of when will the final Order be submitted and will it be any different from the Draft Order. It is difficult to see how a land owner can make submissions or how the Bord can make decisions based on a draft.	Please refer to response item (2) above in relation to the term 'Draft'.
4	COMPUSORY PURCHASE AND SUPPORTING INFORMATION	2	In respect of the draft Order I would point out that reference is consistently made to the schedules which are not attached. In particular in part three makes reference to several schedules which are meant to indicate the lands being acquired. Again without these schedules and plans it is not possible for us to properly identify the lands being acquired and the possible effects on our property. I would also draw the Bords attention to section 7.59 of the Non - Technical summary which states that there is are "limits of deviation during the construction phase. There is no such provision allowed in law. In fact schedule three of the 1966 Housing act states "the compulsory purchase order shall be in a prescribed form and shall describe by reference to a map the land to which it relates and shall incorporate, subject to the modifications here and after mentioned any necessary adaptations" Clearly the documentation provide to date does not meet this legal requirement.	Individual property letters were issued. Notification letter CAP_ML_1275_52 issued on 20th of September 2022 at 2 Harcourt Terrace includes relevant extracts from the Book of Reference to the plan, indicating the identity of the owners and of the occupiers of the lands described in the Plan. The unique land take referencing and numbering for 2 Harcourt Terrace is "ML6E-U18". The book of reference - third schedule (substratum land which may be acquired) under 2 Harcourt Terrace (ML6E-U18) is attached to the above mentioned notification letter. Relevant extracts of plans (including maps or drawings) which indicate the extent of the lands or land rights affected were also enclosed to the notification letter and include: • Individualised Property Details (Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-03764, ML6E-U18), which is the drawing marking out your property (only), which is extracted from the below property plan. • Property Details Hatch Street Lower to Grande Parade (Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-01097, ML-P 306 E-O), which shows the extent and types of land acquisition that TII proposes to acquire to facilitate the construction, operation, and maintenance of the MetroLink project along the section of the route close to your property. • Alignment Long Section 18 (Plan drawing no. ML-LN O-O18), which shows the indicative depth of the tunnel along the section of the route close to your property. • General Arrangement Hatch Street Lower to Grande Parade (Plan drawing no. ML-RO 306 E-O), which shows the general arrangement of the tunnel along the section of the route close to your property. The design includes for a limit of deviation which is required to allow for unforeseen obstructions and construction tolerances which may necessitate a change to the alignment. In the highly unlikely event that this were to occur, any resulting environmental impacts will comply with the limits set by the enforceable Railway Order. TII has carried out a comprehensive set of ground investigations in accordance with relevant guidelines and best practice. It has a high confidence that MetroLink can be constructed along the proposed alignment without requiring vertical or horizontal adjustment. However, in order to guard against rare and undetectable subterranean conditions that might interfere with construction, the Railway Order provides for limits of deviation (as have other railway authorisation since at least the 1840s). The impacts of potential changes within the Limits of Deviation are considered in the Wider Effects Report (Appendix A5.19).

Submission No.			250	
Organisation Name or Name of Submitter			Patricia Whyte	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metro Link Estuary to Charlemont via Dublin Airport) Order 2022Ms. Patricia Whyte 2 Harcourt Terrace Dublin 2 DO2E722 Ref: ML6EU16				
5	SUBSTRATUM DEFINITION (paragraph 1)	2&3	The documentation supplied to date makes reference to acquiring substratum. There is no definition supplied as to what this is. Is it measured from the top or the bottom of the Tunnel? When they say the surface what do they mean, is it the floor of a basement and what consideration has been given to any structures with piled foundations or underground car parking? One can only presume that TII will attempt to rely on rule 17 as introduced by section 48 of the Planning and development (strategic infrastructure Act 2006 which states "the value of any land 10 meters or more below the surface of that land shall be taken to be nil, unless it is shown to be of a greater value by the claimant". All the other rules for the assessment of compensation are based on the open market Value of the lands, which can be determined by an Arbitrator in default of agreement. It is simply not credible that legislation can be introduced where the state has in essence predetermined a nil value to part of someone's property. Indeed even in the case of a half road bed which is controlled by a local authority this is not the case. We would ask that the Bord should seek legal clarity from the Courts as to whether this legislation is legal in the first instance.	Substratum' refers to an underlying layer or substance, in particular a layer of rock or soil beneath the surface of the ground. The substratum land take has been generated by creating a limit of deviation (LOD) ranging from 5 metres vertically upwards and 10 metres downwards to 15 metres laterally for the tunnel alignment. Substratum land take is shown on the Property Drawings submitted with the RO application (please refer to the 2 Harcourt Terrace property details plan mentioned at Item 4 above) and on Figure 21.1. of the EIAR Chapter 21 (Land Take). Rule 17 introduced by Section 48 of the Planning and Development (Strategic Infrastructure) Act 2006, states: 'The value of any land lying 10 metres or more below the surface of that land shall be taken to be nil, unless it is shown to be of a greater value by the claimant'. For MetroLink project, the depth of tunnel will vary along the route but it is expected that the average depth will be approximately 24m from ground level to track level. In the vast majority of cases the subsoil can be acquired without affecting the above ground property. For 2 Harcourt Terrace property the following data are shown on the individualised property details plan (please refer to Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-03764, ML6E-U18. listed at Item 4 above): • Ground level to crown of tunnel (m) - 17.3; • Ground level to track (m) - 24. EIAR Chapter 21 (Land Take), Section 21.6.1.2, outlines the Compensation for Compulsory Purchase process. Under the Transport (Railway Infrastructure) Act 2001 (as amended) (the 'Act') upon commencement of the Railway Order (RO), TII will be authorised to acquire compulsorily any land or rights in, under or over land or any substratum of land specified in the RO, and, for that purpose, the RO shall have effect as if it were a compulsory purchase order (as referred to in Section 10(1) of the Local Government (No.2) Act 1960 (as inserted by Section 86 of the Housing Act, 1966) which has been duly made and confirmed) with modifications. Accordingly, TII is authorised to serve a notice to treat pursuant to the provisions of the Housing Act, 1966, including Section 79 thereof. TII also has the right to enter onto other lands for the purposes of carrying out the works permitted under the RO in certain circumstances. The acquisition of the various specified rights and interests in land and property, is necessary in order to ensure the delivery of the MetroLink project in its entirety. Further information can be obtained from the MetroLink Compulsory Purchase Order Guideline document (September 2022) which can be found on-line at: https://www.metrolink.ie/media/0jlpbyso/metrolink_cpoguideline_final_september-2022.pdf
6	SUBSTRATUM DEFINITION (paragraph 2)	3	The lack of detailed design drawings means that we have no indication of where the top of the Tunnel will be in relation to the underside of our basement floor level of our property or any foundations. This will have serious implications for the property in terms of risk from Vibration during the works and also when the Rail is operational, and also in relation the possible interpretation of rule 17, as referred to previously.	Relevant preliminary drawings (alignment longitudinal section, general arrangement, property details) have been issued to 2 Harcourt Terrace property - please refer to Item no. 4 above. The detailed design drawings will be prepared by a Design and Build Contractor after the Railway Order is granted by An Bord Pleanála. With regards to your concerns related to potential vibration impacts, EIAR Appendix A14.5, Groundborne Noise and Vibration and Blasting Modelling Results, 14.4 Section AZ4 Northwood to Charlemont, presents the predicted day and night VDV levels (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) for TBM passage during construction phase and for railway operation, with the results for 2 Harcourt Terrace summarised below: • The predicted day and night levels of groundborne vibration during TBM Passage are 0.255ms-1.75 (VDV day) and 0.214ms-1.75 (VDV night). Both of these values are lower than VDV Threshold Levels of 1ms-1.75 (VDV day) and 0.5ms-1.75 (VDV night) presented Levels presented in EIAR Chapter 14.2.1.2.3 Vibration from Construction Sources other than Blasting, meaning that no significant impact is expected on the property as a result of vibrations during TBM passage. • The predicted day and night levels of groundborne vibration during railway operation are 0.007ms-1.75 (VDV day) and 0.004ms-1.75 (VDV night). Both of these values are lower than the VDV Threshold Levels of 0.8ms-1.75 (VDV day) and 0.4ms-1.75 (VDV night) presented in EIAR Chapter 14.2.1.2.4 Vibration from Operation, meaning that no significant impact is expected on the property as a result of vibrations during railway operation.

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Organisation Name or Name of Submitter			Patricia Whyte	
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Re: Railway (Metro Link Estuary to Charlemont via Dublin Airport) Order 2022Ms. Patricia Whyte 2 Harcourt Terrace Dublin 2 DO2E722 Ref: ML6EU16				
7	APPROPRIATE ASSESSMENT (paragraph 1)	3	We also note that the Historic nature of Harcourt Terrace doesn't feature anywhere in the non -Technical summary not even in section 10.17 of the non -Technical summary which purports to deal with Archaeology and Cultural Heritage. One can only conclude that it has not been considered in TII's deliberations in relation to possible effects on a architecturally significant part of Dublin.	The Non-Technical Summary document summarises in non-technical language the Environmental Impact Assessment Report (EIAR), including the likely significant effects identified, the mitigation and monitoring measures proposed, as well as any residual effects arising from MetroLink that have been identified during the Construction and Operational Phases to inform the planning consent process. This document does not present the detailed assessments undertaken. The specific chapters of the EIAR present details on the impact assessment of the MetroLink Project on the receiving environment during the Construction Phase and Operational Phase. In this sense, the EIAR Chapter 26 (Architectural Heritage) describes and assesses the likely direct and indirect significant effects of the proposed Project on Architectural Heritage. The protected structure status of the building is known (see Table 26.25: Architectural Heritage Constraints from St Stephen’s Green Station to Charlemont Station) hence your property has been subject to impact assessment and the results are presented in the Section 26.5.4.15 St Stephen’s Green Station to Charlemont Station. According to the findings of impact assessment, no direct impacts on architectural heritage are predicted during Construction Phase in this section of the study area. Also, no direct or indirect impacts on architectural heritage are predicted during Operational Phase.
8	APPROPRIATE ASSESSMENT (paragraph 2)	3	In relation to Section 10.12 Soils and Geology, in the non-technical summary. It is our view that it is far too vague, so as to be of little use when considering possible impacts on our property. We would like to put on record that there is a granite rock seam which runs through the lands adjacent to Harcourt Terrace and our property which will in our view constitute a risk of damage occurring to our property, especially during the works. This would appear not to have been considered. We also that there is a underground river called the river Steyne which flows below the Terrace, similarly, there has been no cognizance or consideration of this demonstrated within these proposals.	As stated in response item (7) above, the Non-Technical Summary document summarises in non-technical language the Environmental Impact Assessment Report (EIAR), including the likely significant effects identified, the mitigation and monitoring measures proposed, as well as any residual effects arising from MetroLink that have been identified during the Construction and Operational Phases to inform the planning consent process. This document does not present the detailed assessments undertaken. The local geological conditions were considered (including the presence of River Steyne/Stein) and presented in detail in the EIAR Chapter 20 (Soils and Geology). EIAR Appendix A5.17, Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. The settlement contours calculated were used to undertake the buildings damage assessment. It is important to recognise that your property is a 'special' building (designated protected structure) and hence will be further assessed (Phase 3) at the detailed design stage to verify the impacts. Currently, the building is assessed at Damage category 2 or below. The damage categories are described in section 4.3.2 of the EIAR Appendix A 5.17, Building Damage Report. The Phase 3 assessment will take account of final design and construction methodology details. A detailed survey will be carried out as part of the Phase 3 assessment to provide the necessary additional information to inform this detailed analysis of how the individual elements of the building would be affected by the predicted ground movements. The method and extent of the detailed analysis will be determined on a case-by case basis and may include a more sophisticated semi-empirical or a detailed soil-structure interaction using finite element modelling methods. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. 2 Harcourt Terrace building is a designated protected structure and as referred to EIAR Chapter 26 (Architectural Heritage), in all cases where the built heritage structures are in the vicinity of the proposed tunnelling these buildings will be included in the Property Owner Protection Scheme (POPS), whereby they are to have condition surveys carried out prior to the commencement of tunnelling and again after completion. In those cases where the POPS survey identifies that damage has occurred as a result of the tunnelling works repairs are to be to be prepared in accordance with method statements prepared by the POPS Conservation Architects and approved where necessary by the MetroLink Project Conservation Architect (PCA). It is currently envisaged that all such repairs will relate to the infilling of cosmetic cracking and will not constitute ‘works’. Further detail on the POPS process can be found in Chapter 26 (Architectural Heritage), Chapter 21 (Land Take) and Chapter 11 (Population & Land Use) of the EIAR. The Property Owners’ Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor.

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Re: Railway (Metro Link Estuary to Charlemont via Dublin Airport) Order 2022Ms. Patricia Whyte 2 Harcourt Terrace Dublin 2 DO2E722 Ref: ML6EU16				
9	APPROPRIATE ASSESSMENT (paragraph 3)	3	For the reason stated above we feel that the Bord should reject the draft order as submitted and also on the basis that the acquisition of our lands would constitute a breach of my Clients constitutional right to the quiet enjoyment of their property.	This is a matter for ABP.
10	Conclusion	4	In conclusion we would request that in any decision the Bord makes they should direct that my Clients costs, incurred in dealing with this matter should be discharged by the TII.	See item 5 above.

Submission No.			251	
Organisation Name or Name of Submitter			Paul and Brian Connell (105 Phibsborough Road, Dublin 7)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Objection to "Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022" (case ref. NA29N.314724)				
1	Letter	1	From the plans I have received, the tunnel will be just 18m below my house and I have serious concerns that structural damage will be done to my house during construction of the tunnel. The vibration and boring of the tunnel so close to my house I believe will cause damage to the foundations and the building itself and this is the reason for my objection to the project.	Thank you for your submission and for sharing your concerns related to the MetroLink Project. We have reviewed the submission and provided response in detail below. A comprehensive Settlement Assessment has been undertaken to determine the potential impacts that construction of the proposed Project will have on sensitive receptors such as buildings and infrastructure from the advance of the TBM (Tunnel Boring Machine). The ground movement predictions and the building damage assessment methodology adopted for MetroLink is based on the approach adopted in most tunnel projects around the world, including London Crossrail and High Speed 2 in England. This is described in EIAR Section 5.4.11 (Ground Settlement Monitoring and Mitigation Works). EIAR Appendix A 5.17 Building Damage Report covers the assessed impacts of construction generated ground movements and settlement on property. Section 5.2 of this report sets out the rationale for the assessment of properties similar to yours. The results of the assessment provided in Table 5.2 shows that property Ref B-116, as one of the representative properties selected similar to your property, has been assessed as falling within the '<i>Negligible</i>' category. The building risk categories shown in Table 4-4 of the aforementioned report are used to define the degree of building damage related to the Risk Category. According to this Table, the <i>Negligible</i> damage category refers to hairline cracks. EIAR Chapter 14 (Groundborne Noise and Vibration) presents predicted vibration levels arising from mechanical excavation and blasting. In all cases vibration levels will be maintained within limits that do not cause damage to property.
2	Letter	1	I also have concerns about high-speed trains running every 3mins, 24 hours a day if the project was to be approved and built. With high-speed trains running both directions just 18m under my house, I believe there will be noise, vibration and nuisance caused to the occupiers of my house.	As detailed in Chapter 06 (MetroLink Operations and Maintenance), services will operate between 05:30 and 00:30 every day, and therefore will not operate 24hrs per day. At weekends, service frequency is also reduced. EIAR Chapter 13 (Airborne Noise and Vibration) and EIAR Chapter 14 (Groundborne Noise and Vibration) present a comprehensive and detailed assessment of operational groundborne and airborne noise and vibration. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and results in a not significant to slight impact when added to the prevailing noise environment. Section 14.4.2.6, AZ4 Northwood to Charlemont (including Glasnevin Station) of EIAR Chapter 14, Groundborne Noise and Vibration, presents the results of the assessment of potential groundborne noise and vibration impacts from the operational railway sources. The threshold of a significant impact from groundborne noise for receptors in AZ4 is 40dB L_{Amax,s}. Contours of groundborne noise are presented in Figure 14.6, the contours indicate a groundborne noise contour of 40dB L_{Amax,s} at an approximate distance of 16m from the track centre. There are no exceedances predicted of the groundborne noise threshold for residential receptors in the geographical area of AZ4. The calculated vibration levels are below the threshold for structural damage for any building type, as presented in Table 14.8. Section AZ4 Northwood to Charlemont. Calculations of groundborne vibration during the Operational Phase are presented in Table 14.45. There are no predicted significant impacts for vibration from railway operation in the geographical area of AZ4. EIAR Chapter 13, sections 13.2.3.2 and 13.5.3.2.3 recognise that ventilation systems if not designed and mitigated effectively are potential airborne noise sources during the operational phase. Section 13.6.2.3 outlines the detailed considerations that will be included in the design to ensure that the ventilation systems do not exceed limits as per BS 4142, including: • Reduction of induct flow rates; • Reduction of elements in the airflow; • In duct attenuators; • Orientation of grilles and louvres away from sensitive receptors; • Acoustic louvres; and • Anti-vibration mountings and couplings will be incorporated into the design to control vibration. Measures to mitigate noise from the use of public address systems is also detailed in Chapter 13 (sections 13.5.3.2.4 and 13.6.2.4). Best practice design principles as outlined in EIAR Appendix 5.1 will be employed to minimise noise breakout at the surface from these systems via escalators, lift shafts and stairwells.

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Organisation Name or Name of Submitter			Paul and Brian Connell (105 Phibsborough Road, Dublin 7)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Objection to "Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022" (case ref. NA29N.314724)				
3	Letter	1	I think the planning applicants should have designed the tunnel to be further down than just 18m under my house and they could they have designed the tunnel to be under the front garden or Phibsborough road itself rather than right under the main foundation of my house.	Chapter 07 (Consideration of Alternatives) details the decision-making process that has led to the development of the proposed Project, including route alignment options and alternative station locations. Section 7.6.5 details the selection of Glasnevin Station. At this location, the railway lines are at their closest point horizontally and vertically, thereby providing an opportunity for a MetroLink station to be constructed and to capture interchange more effectively than other locations, in line with the Project's objective. Information about the tunneling works are provided in EIAR Chapter 05 (MetroLink Construction Phase) and Chapter 04 (Description of the MetroLink Project). The tunnel sections are designed to ensure that there is maximum operational efficiency of the proposed Project while also reducing potential impacts on the developed urban areas above the alignment. For the MetroLink project, the depth of tunnel will vary along the route but it is expected that the average depth will be approximately 24m from ground level to track level. In the vast majority of cases the subsoil can be acquired without affecting the above ground property. For 105 Phibsborough Road property the following data are shown on the individualised property details plan (please refer to Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-03276, ML50-U20): •Ground level to crown of tunnel (m) - 18.5. •Ground level to track (m) - 25.1. Please refer to response item (1) in relation to the assessment of vibration and structural damage to your property during the construction works. As detailed, in all cases vibration levels will be maintained within limits that do not cause damage to property. By way of support for affected properties, TII is committed to having a Property Owner Protection Scheme (POPS) in place prior to construction works commencing. The scheme allows residential property owners to register with TII if the property is within thirty metres of the edge of the MetroLink alignment or fifty metres of station structures. The POPS comprises condition surveys of private properties and other selected properties along the route of the proposed Project. The purpose of the condition surveys would be to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether the same may be attributable to the proposed Project and recommend repairs as appropriate. The Property Owners’ Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor.The POPS would be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/ In cases where parts of properties are occupied, access to the remaining unoccupied parts will be maintained, where it is possible and safe to do so. Protection such as hoarding will be used to ensure that the boundary of any construction site will be maintained, and damage would not occur outside of this boundary. Where damage could not be avoided, it would be repaired. Information regarding any situations requiring relocation and the process for financial compensation for property impacts directly related to the proposed Project is provided in Chapter 11 (Population & Land Use) and Chapter 21 (Land Take) of the EIAR.

Submission No.			252	
Organisation Name or Name of Submitter			Paul Cusack (on behalf of residents of 153 Ballymun Road)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Collins Avenue Metro Station				
1	Summary	1	We submit based on considerations of service provision, community and environmental impact, both in the operational and construction phases, that relocation of the proposed DCU stop (also known as Collins Avenue Station as illustrated in diagram no. 14 below) to a location of ultimately small visible footprint along the western periphery of Albert College Park is a more suitable option. This community strongly believes this would be a superior solution to the current design proposal to locate the station on the forecourt of our Lady of Victories Church on Ballymun Road.	As outlined in EIAR Chapter 7, Consideration of Alternatives, section 7.7.10.7, the assessment undertaken for the Emerging Preferred Route (EPR) identified a preferred route option including the proposed station location in front of Our Lady of Victories (OLV) Church. This location for the station provides a number of advantages when compared to other location options, including a location at the western periphery of Albert College Park: (1) It allows the Project to achieve a core objective of providing public transport that is integrated in the existing and future proposed transport network, providing for interchange between bus routes both on Collins Avenue and on Glasnevin Road. A station location further south on the R08 at the northern section of Albert College Park would not provide a good level of interchange as there would be over 500m separating potential bus stop locations on Collins Avenue and the MetroLink station. (2) The proposed Collins Avenue Station will have a significant catchment area, noting the analysis undertaken at the Emerging Preferred Route (EPR) stage identified this route option had the highest potential passenger numbers when compared with other route options. (3) During the construction phase, the location of a station within the frontage to Our Lady of Victories means that traffic disruption to Dublin would be reduced when compared to the location of a station within the road corridor (partially or fully). As stated in section 7.7.10.7 of EIAR Chapter 7 (Consideration of Alternatives), the placement of a station within Albert College Park, including on the periphery, would also require the provision of an intervention shaft between that location and Ballymun station in an area where there is very limited space for such a shaft in the absence of demolition. TII acknowledge that there is potential for significant environmental effects on the surrounding area to the proposed MetroLink station if not mitigated effectively. However, as detailed in relevant chapters of the EIAR, TII's assessment shows that it is possible to mitigate the potential impacts identified at this location during the construction period. Once the construction phase is completed, the location of a MetroLink station at OLV Church will provide significant positive benefits to the local community in terms of enhanced public transport provision, reduced traffic and the resultant improvements in the environment, with reduced noise and air quality pollution.

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Organisation Name or Name of Submitter			Paul Cusack (on behalf of residents of 153 Ballymun Road)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Collins Avenue Metro Station				
2	Summary	1	We further submit that such relocation would avoid or significantly reduce many of the adverse disturbance effects. The most prominent concern is the disruption and obstruction of current access routes for schoolchildren and their parents to our Lady of Victories School campus which will be caused by the major scale of the construction and the associated continuously ongoing rolling road closures. This disruption includes and is not limited to, the complete removal of already limited, scarce parking spaces available to parents dropping and collecting children. Also of significant concern is the expected noise, vibration and air quality issue during an anticipated construction period of between 7-10 years.	Please refer to response item (1) above in relation to the rationale for the proposed location of a station at Collins Avenue. TII acknowledge that there is potential for environmental effects on the surrounding area to the proposed MetroLink station if not mitigated effectively. However, as detailed in relevant chapters of the EIAR, TII's assessment shows that it is possible to mitigate the potential impacts identified at this location during the construction period. Once the construction phase is completed, the location of a MetroLink station at OLV Church will provide significant positive benefits to the local community in terms of enhanced public transport provision, reduced traffic and the resultant improvements in the environment, with reduced noise and air quality pollution. Specifically with regard to the points raised: School Campus access routes School access will be maintained at all times, as presented in EIAR Appendix A9.5 Scheme Traffic Management Plan. Chapter 5 of the EIAR, MetroLink Construction Phase, explains that traffic management plans for the construction phase of the Project have been developed to minimise the impact on road users and to maintain access. Prior to implementation, all traffic management measures will be agreed with the relevant local authority, and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The design of traffic management measures and highways works is based on achieving the key objective of maintaining continual access to all properties during the works. Where necessary, a safe alternative route will be provided for pedestrians and vulnerable road users, such as children, and persons with restricted mobility. Where detour routes are required, these will be kept as short as possible and detour signage will be clear and easy to understand. All construction sites will be designed to be as unobtrusive as possible. The temporary traffic management measures have been designed in line with the road user hierarchy of the Transport Strategy for the GDA, which prioritises pedestrian/cyclist, public transport and commercial needs provision over private vehicles. As stated in section 7.4.6.3.6 of EIAR Appendix A9.5 Scheme Traffic Management Plan, the signalised pedestrian/toucan crossing outside the front of the school will be retained during all works and will continue to allow safe access for pedestrians and vulnerable users. There are no footway or cycle lane closures that would require users to significantly divert from the existing routing, therefore maintaining access to the schools and surrounding area for people who walk or cycle. Therefore, provisions will be maintained for parents to park in the surrounding area and walk with the children to and from the schools. Due to the constrained lane capacity on the R108 during the works, and the relocation of bus stops, informal bus lane parking on the R108 used as a 'drop-off' will be restricted. However, as stated above, the pedestrian crossing will be maintained and therefore parking on the southbound side of the R108 will still facilitate safe access to/from the school. There will be a temporary footpath constructed to the rear of the Church in order to maintain access from Albert College Court. Vehicles accessing the Church car park will be required to use a diversion via Albert College Court, maintaining access during all project stages. This diversion is presented in section 7.4.6.3.2 of EIAR Appendix A9.5 Scheme Traffic Management Plan. As outlined by EIAR Chapter 9, Traffic and Transport, Table 9.64, enabling works in this area will be undertaken such that one lane of general traffic and one bus lane in each direction will remain open, as well as dedicated cycle lanes being provided. For those who walk to the premises, the signalised pedestrian/toucan crossing outside the front of the school will be retained during all works and will continue to allow safe access for pedestrians and vulnerable users. Furthermore, as outlined in EIAR Appendix A9.5 Section 2.5.2.2, construction vehicles will be controlled in terms of the hours of operation (i.e. construction traffic will be prohibited during periods of very heavy traffic and during school drop off and pick up periods). In addition, there will be controls at the entrance and exit of sites for construction vehicles in order to ensure the safety of other road users.

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			Response (2) continued.	Noise and vibration impact: As outlined in EIAR Chapter 14, section 14.4.1, Table 14.29 groundborne noise and vibration at Our Lady of Victories Girl's School will be below the threshold of significance for construction. Vibration will only be perceptible to school occupants for single events or short-term durations and therefore will be tolerable as assessed and documented by EIAR Chapter 10, Human Health, section 10.5.1.2. Single events or short-term durations could include blasting, or the 2-week duration of the TBM passage. Regarding the possible noise and vibration impact on Our Lady of Victories National School (girls, Boys and Infants) and 153 Ballymun Road during construction phase: The EIAR Appendix 13.7 Airborne Noise Construction Phase Modelling presents predicted airborne noise levels, following mitigation, to construct Collins Avenue Station. Receptor 65 represents 153/155 Ballymun Road and receptors 69 represents the School Campus. Predicted construction noise levels are below the construction noise threshold levels at both locations during all working phases, indicating no significant adverse impacts. As presented, the threshold for significance is 45 L_{Amax,s} dB, however the noise at Our Lady of Victories Girl's School will be below this at 43 L_{Amax,s} dB. As stated above, vibration will only be perceptible to school occupants for single events or short-term durations and therefore will be tolerable as assessed and documented by EIAR Chapter 10, Human Health, section 10.5.1.2. Single events or short-term durations could include blasting, or the 2-week duration of the TBM passage. In the EIAR Appendix 14.5 Groundborne Noise and Vibration Blasting Modelling Results, the predicted noise and vibration levels during TBM Passage, Mechanical Excavation and Blasting are presented. The results demonstrate that there is no significant impacts on the buildings or occupants at 153 Ballymun Road. Predicted VDV (Vibration Dose Value) during TBM Passage at 153 Ballymun Road has a value of 0.191 m/s-1.75 and for Mechanical Excavation, 0.001 m/s-1.75, which are below the VDV Threshold Levels for this building of 1.0 m/s-1.75 and 0.8 m/s-1.7 respectively. Therefore, there will not be significant levels of vibration on the building and its occupants. During Blasting a vibration level of 2.1mm/s PPV (Peak Particle Velocity) is predicted, compared to the Threshold Level for this building of 3mm/s resulting in a not significant impact. The Air Overpressure Level during blasting at 153 Ballymun Road is 103.3 AOpdB, below the Threshold Level for this building of 125 AOpdB, resulting in a not significant impact. Predicted groundborne noise values L_{Amax,s} at 153 Ballymun Road are 44 dB for TBM Passage and 31 dB for Mechanical Excavation, lower than the Threshold Levels for this building of 45 dB for TBM Passage and 40 dB for Mechanical Excavation. Therefore, there will not be significant levels of noise at this location. The results demonstrate that there is no significant impacts on the buildings or occupants at Our Lady of Victories Girls Primary School (School Campus) Predicted VDV (Vibration Dose Value) during TBM Passage at Our lady of Victories Girls Primary School has a value of 0.179 m/s-1.75 and for Mechanical Excavation, 0.001 m/s-1.75, which are below the VDV Threshold Levels for this building of 1.0 m/s-1.75 and 0.8 m/s-1.7 respectively. There, there will not be significant levels of vibration on the building and its occupants. During Blasting a vibration level of 1.2mm/s PPV (Peak Particle Velocity) is predicted, compared to the Threshold Level for this building of 3mm/s resulting in a not significant impact. The Air Overpressure Level during blasting at Our Lady of Victories Girls Primary School is 99.6 AOpdB, below the Threshold Level for this building of 125 AOpdB, resulting in a not significant impact.

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			Response (2) continued.	Mitigation will be implemented to reduce impacts on schools, church users and residents as detailed in Appendix A5.1 Outline CEMP section 6.2, that will include: •The provision of a noise barrier (4m) on the east, south and northern boundaries of the construction site; •The Contractor undertaking the works will be required to take specific noise abatement measures to the extent required and comply with the recommendations of BS 5228–1 (BSI 2014a); •The selection of plant items will be required to comply with the European Communities (Noise Emissions by Equipment for Use Outdoors) (Amendment) Regulations 2006 (S.I. No 241/2006); •The outline Construction Environmental Management Plan (CEMP) contained in EIAR Appendix A5.1 includes a Construction Noise and Vibration Management Plan (CNVMP) that will be developed for the construction phase; •The CNVMP will take account of detailed assessment of potential noise and vibration impacts associated with each construction compound. The assessment will identify through modelling and calculation, predicted construction noise levels, identification of potential unmitigated exceedance of Construction Noise Thresholds (CNTs) and the identification of the required noise mitigation measures specific to each work area - to minimise noise and vibration impacts so far as is reasonably practicable; and •As part of the CNVMP a baseline noise study will be undertaken prior to the commencement of construction works to characterise the prevailing noise environment at impacted Noise Sensitive Locations (NSLs). These measures will effectively reduce noise levels from construction to below the CNT. As outlined in EIAR Chapter 10 (Human Health) Table 10.14, following mitigation, no residual health effects are predicted. Air Quality As presented in the EIAR Chapter 10, Human Health and detailed in the EIAR Chapter 16, Air Quality, the Construction Phase of the Air Quality assessment identifies a generally negligible or slight negative impact on air quality in the vicinity of the proposed project during the Construction Phase post mitigation. No exceedances of air quality standards are predicted, therefore, no significant adverse human health impacts are predicted. As detailed in Chapter 16 (Air Quality) section 16.6.1.1, in order to ensure that no dust nuisance occurs, a series of measures will be implemented, these have been detailed in Appendix A16.4. In summary, the measures which will be implemented will include: * Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; * Any blasting will be completed by specialised contractors with a specific blasting dust management plan; * Liaison with local authorities and community groups; * Hoarding will be provided around the construction compounds; and * It is anticipated that methods of collecting rainwater and recycling for general site use, will be adopted where practical. Requirements for dewatering installations at deep station and tunnel portals can also provide a valuable source of water for general site use. Strict dust prevention will be in place at all times, to minimise any potential emissions and these procedures will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations. Consistent implementation of good dust minimisation practices will ensure that the impact from construction dust is Long-Term, Localised, Reversible and not significant when considered with respect to the EPA description of effects (EPA 2022).

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3	Our Lady Of Victories School Campus	2 and 3	Construction of an open cast underground Metro station at this location will result in severely compromised safe access to Our Lady of Victories National Schools. The proposal to locate the station along with the sizeable construction site compound in this location will remove the available parking spaces as both the Church car park and on-street parking on Ballymun Road/Albert College Drive will no longer be available. Parking in this area during school access times is already at a premium and the almost total removal of existing parking space will pose a significant risk to the safety of these children and their parents as they try to access the school. There is no practical alternative parking space available in the area due to the built-up urbanised nature of the surrounding landscape. There will also be several hundred construction personnel involved in this project, some of whom presumably will also be competing for the very limited remaining parking spaces. This situation is acknowledged in the Bus Connects document titled 'Ballymun to City Centre Draft Preferred Route Options Report' drafted in November 2020. It clearly states that the 200 metre section of Ballymun Road on the opposite side to the OLV church is already prone to congestion. The following is an excerpt from the Bus Connects Document: "South of Collins Avenue junction there is parking and stopping activity at various times on the western side of the road associated with Our Lady of Victories National School on the western side, across the road from the church of the same name. There is no vehicular drop-off zone at the school which gives rise to disorganised on-street parking at school collection times, (shown as a dashed yellow line on the aerial photograph below'). This blocks the northbound cycle lane over a length of 200m or so, as well as partially encroaching into the bus lane as shown in the following photographs. (photographs are not included) As it stands residents along this stretch frequently have their access blocked by parents parking across entrances during drop off and collection times, and this will be greatly exacerbated for 5 -7 years during construction.	Safe access will not be compromised. Please refer to response (2) regarding the access to the Our Lady of Victories National Schools and the proposed mitigation measures to ensure safe access. Response item (2) also details the impacts to informal bus lane parking/drop-off on the R108. As detailed, the pedestrian crossing will be maintained so that drop-offs can be facilitated from other locations. Therefore, there will not be any increased risk to children and parents as a result of the removal of available parking. As presented in the EIAR Appendix A9.5 Scheme Traffic Management Plan, the existing parking spaces on Albert College Drive will be removed as part of the station construction. This will result in the removal of 42 public parking spaces on this street, which equates to 42% of public parking spaces within a 200m area. The parking at this location is not residential permit parking and removal of the parking shouldn't directly impact on residential parking in the area. As detailed in the Scheme Traffic Management Plan (EIAR Appendix A9.5 section 2.1), a hierarchical approach to traffic management has been adopted in line with the Transport Strategy for the Greater Dublin Area 2022-2042, with pedestrians/cyclists, public transport and commercial needs provision taking preference over private car usage. EIAR Appendix A5.1 Outline Construction Environmental Management Plan notes that all construction staff and workforce will be encouraged to make their way to site and home from site by public transport, by project specific transport (e.g. minibuses), by bicycle or on foot. Limited parking spaces will be provided for vehicles required for the construction activity and for employees. The nominated contractor(s) may provide a transfer pick-up and drop-off service from suitable public transport hubs. A Construction Mobility Plan will be prepared for by the proposed Project by the contractor(s) to outline access arrangements to construction sites by sustainable travel modes. Further details on this can be found in section 5.15 of EIAR Appendix A5.1 Outline CEMP. Each site will need a specific plan for project personnel mobility. The following measures will need to be considered within the final Construction Mobility Plan: * The provision of showers/changing rooms for construction staff; * The provision of cycle parking for staff; * Ensuring safe and segregated pedestrian access to site; and, * Provision of site specific transportation (minibuses) where frequent movements are going to be occurring (e.g. between different work sites).

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4	Diversion of Utilities	3	Construction of a station in the proposed location will necessitate moving the existing services which lie on the east side of Ballymun Road to the opposite (school) side. According to TII this will be carried out over 8 construction phases and will progress for a period of 16 months minimum prior to station construction commencement. To put this into context, this will involve digging trenches on the west side of Ballymun Road to accommodate pipes and cables with dimensions as follows: Surface Water Pipes 1,350 Millimetres in diameter, mains Water Pipes 800mm in diameter, Sewerage Pipes 450mm in diameter followed by electricity cables. These are major structures and this plan will result in an additional major construction project being placed along this same section of road which is already heavily congested during peak times, for reasons outlined above, for up to two years, before the station build even starts. The rolling closures of different sections of the main road on both sides of the carriageway will result in serious access challenges not to mention safety concerns for parents and children who, with the already additional stresses caused by difficulty finding a parking space must now cope with running the gauntlet between heavy construction machinery as well as constantly changing obstructions and diversions along their route to the schools.	As stated in Chapter 22 (infrastructure and utilities) section 22.6.1, where there is interaction between the proposed Project and existing infrastructure, the locations of the interactions have been identified and planned for, and therefore the potential for any service disruption is limited. The potential for the proposed Project to impact or interrupt utility supply has been assessed. Utility services near the proposed Project have been identified using the methods detailed in Sections 22.3.3 and 22.4.4 and locations where the proposed alignment crosses existing infrastructure have been established. Consultations have been undertaken with all known service providers, as outlined in Table 22.3, and their requirements have been identified and incorporated into the design. Designs for utility diversions and/or protection of infrastructure have been agreed in principle with the relevant utility providers. Design refinement will be subject to further consultation with the utility providers and targeted excavation by slit trenching to expose services and validate their position and depth, in accordance with PAS 128:2014 Quality Level A. All impacted utilities will be reinstated in accordance with current standards and specifications for the relevant utility (as specified by the utility owner). In the case of older utilities, this means that the replacement section will be constructed with modern materials. There may be a localised positive environmental impact associated with this, for example, the replacement of cast iron pipes with ductile iron or HDPE pipes, which are more durable and less prone to leakage, and the replacement of underground oil or fluid filled electricity cables with plastic insulated cables. The work on utilities is incorporated into the Advanced Enabling Works programme, and therefore the temporary traffic management proposed also captures these works. As stated in EIAR Appendix A9.5 Scheme Traffic Management Plan section 7.4.5.3.5, footways at this location are either retained in their existing location, or realigned to a similar standard. There are no footway or footpath closures that would require users to significantly divert from the existing routing. Please refer to response (2) regarding the access to the Our Lady of Victories National Schools and the proposed mitigation measures to ensure safe access. Furthermore, as outlined in EIAR Appendix A9.5 Section 2.5.2.2, construction vehicles will be controlled in terms of the hours of operation (i.e. construction traffic will be prohibited during periods of very heavy traffic and during school drop off and pick up periods). In addition, there will be controls at the entrance and exit of sites for construction vehicles in order to ensure the safety of other road users.

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5	Station Excavation and construction	3	This initial disruption caused by the utilities relocation prior to station excavation will continue and will be further exacerbated during station construction. The station box excavation area has a very large footprint as shown on the illustration no.14 and is approximately 175 metre long x 45 metres wide x 25 metres deep. To put this into context, it is almost the length of Croke Park football pitch, half as wide and in terms of depth underground, is a mere 5 metres less than the height of the stands. The amount of spoil or earth to be excavated will be enormous and the plan is that this material will be removed from the site by convoys of trucks operating constantly between 7am and 7pm Monday to Friday and on Saturdays between 7am and 1pm. There will be road / lane closures on the Eastern carriageway, with removal of the central reservation and closure of the Albert College Drive/Ballymun Road junction. In short there will be resultant gridlock for both north and southbound traffic and residents in both Albert College Estate and along Ballymun Road, will experience severe access restrictions to and from their properties for a period of 7 -10 years. Spill over traffic will ultimately back up into all feeder and adjacent roads and housing estates thus exacerbating the traffic gridlock that already happens during peak times in the locale.	Please refer to response item (4) above in relation to impacts to utilities. As detailed in Chapter 5 (MetroLink Construction Phase) section 5.3.2, haul routes will be required for the transport of excavated material and movement of construction materials, equipment and plant to and from the Construction Compounds. The haul routes have been determined based on a review of all potential road crossings/access points for traffic to and from the construction sites/compounds and based on the identification of those road crossings/access points with the potential capacity to accept a large number of vehicle movements. The haul routes have been developed in line with the Dublin City Council (DCC) Heavy Goods Vehicles Management Strategy (DCC, 2007), which aims to enhance Dublin City Centre through banning 5+ axle vehicles during the hours of 07:00-19:00 sever days a week, unless a valid permit is obtained. Regional roads, primary roads and sections of the M50 Motorway will be used at every opportunity in order to reduce traffic impacts to local roads with reduced capacity. Prior to implementation, all traffic management measures will be agreed with the relevant local authority (FCC or DCC) and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The temporary traffic management measures have been designed in line with the road user hierarchy of the Transport Strategy for the Greater Dublin Airea 2022-2042, which prioritises pedestrian/cyclist, public transport and commercial needs provision over private vehicles. This is detailed in EIAR Appendix A9.5 Scheme Traffic Management Plan section 2.1. Appendix A9.5 Scheme Traffic Management Plan section 7.4.5.3.1 presents an assessment of the impact of the Advanced Enabling Works on general traffic. As detailed, the temporary traffic management associated with these works will result in a slight impact on traffic volume and distribution of traffic on the local network. There is anticipated to be increases in traffic flow on local roads to west of the works location, mainly due to traffic routeing to avoid the Collins Avenue/Ballymun Road signalised junction. An increase in driver delay in the local area is primarily due to the reduction in capacity on Ballymun Road. This results in a moderate impact in the area, specifically on the approaches to the south and west arm of the Collins Avenue/Ballymun Road signalised junction where delays range between two to four minutes per vehicle. This level of impact is prevalent in both the AM and PM peak periods. Section 7.4.6.3.1 details the impact of the Main Works on general traffic. During Collins Avenue Station Main Works construction, it is determined that there will be a severe impact on local traffic. The reduction of capacity on Ballymun Road results in a severe impact on traffic volume increases in the area. While traffic in the local area does redistribute primarily to avoid the Collins Avenue/Ballymun Road junction, there are still some increases in traffic volume on the junction approach arms. The HGV routing profile for Collins Avenue Station, as well as the site traffic for Griffith Park Station, utilise Ballymun Road and route north to south, and vice versa, through the junction. Junction analysis indicates that the Collins Avenue/Ballymun Road junction will operate over capacity during the peak construction year. This will result in increases in driver delay during both peak periods, but specifically high delays of 96 seconds and queues of up to 188 PCUs during the AM peak period, along R103 southbound. Delays during the evening peak are most significant along Glasnevin Avenue and Ballymun Road with delays of 281 seconds and 422 seconds respectively. Detailed modelling results are presented in Appendix D of Appendix A9.5 Scheme Traffic Management Plan. As detailed in Appendix A9.5 Scheme Traffic Management Plan, the closure of Ballymun Road and Albert College Court junction is necessary due to the construction site footprint. Alternative access for residents in Albert College Grove, Court, Avenue, Court and Lawn, will be provided from the existing Collins Avenue Extension to the north of the site. Figure 7-15 in Appendix A9.5 illustrates the proposed access to Albert College Park, in which the estate becomes a cul-de-sac. This option removes the potential of 'rat-running' through the area, which may become worse when MetroLink works are in place. As outlined in EIAR Chapter 9, there will be additional traffic at Our Lady of Victories Schools during construction, however a Traffic Management Plan will be implemented to ensure that there are no significant impacts on students, parents and staff. All HGV movements will be managed in line with the measures with further details found in the Outline CEMP (Volume 5, Appendices, Chapter 5 (MetroLink Construction Phase) and Appendix A9.5, Section 2.5.2 to ensure that there are no accidents involving construction phase vehicles. These measures will include control of the movement of HGVs to and from the site during school drop off and pick up times. It should also be noted that during all phases of construction the pedestrian crossing between Our Lady of Victories church and the schools will be maintained to ensure safe access across the road. To minimise disruption, where practicable, construction work requiring short term disruption and road closures will be carried out when traffic volumes are lower, such as at night, at weekends and during school holidays (Section 9.7.1.2, EIAR Chapter 9).

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6	Senior Citizens In Albert College Court Assisted Living Accommodation	4	Our concerns are threefold: 1. The major scale and the resultant noise and vibration caused by the excavation equipment that will be deployed to insert the station diaphragm walls which are in such close proximity to these houses.	The EIAR Appendix 13.2 Airborne Noise Construction Phase Modelling presents predicted airborne noise levels, both before and following mitigation, to construct Collins Avenue Station. Receptor 39 represents Albert College Court. Predicted construction noise levels are below the construction noise threshold level of 75 dB at this location during all working phases, indicating no significant adverse impacts. As outlined in EIAR Chapter 14, section 14.4.1, groundborne noise and vibration at this location for the station construction will be below the threshold of significance for construction.
7	Senior Citizens In Albert College Court Assisted Living Accommodation	4	2. The extreme proximity of the periphery of the construction site compound located at the main entrance of Albert Court on the church side of the complex. The current compliment of allocated street parking spaces for these residents will be subsumed into the construction site further increasing access issues for these residents.	Please refer to response item (3) in relation to the loss of parking at Albert College Court. Please note that it is pay and display parking spaces (not resident parking spaces) that are impacted, as indicated in Appendix A9.5 Scheme Traffic Management Plan section 7.4.6.3.5.

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8	Senior Citizens In Albert College Court Assisted Living Accommodation	4	3. The very close location of the site exit point where trucks carrying removed spoil from the excavation will leave (up to 20 per day) the site is again uncomfortably close to these housing units. It would therefore seem inevitable that due to the aforementioned access issues, coupled with extreme noise, vibration, airborne contamination from construction equipment and the resultant dust and mud that a large proportion of these residents would have to be relocated possibly permanently as their lives would be unbearable given the above challenges. This would result is major stress and anxiety for all of these residents, many of whom are elderly and some who do not enjoy good health. TII have not confirmed whether these residents face relocation. Nor to our knowledge has there been any meaningful communication from TII given the lack of availability of any spokesperson for these residents to inform them of the plight they face, which seems grossly unfair.	Please refer to responses (2), (3) and (5) in relation to the temporary traffic management measures proposed at this location. Noise and Vibration The EIAR Appendix 13.2 Airborne Noise Construction Phase Modelling presents predicted airborne noise levels, both before and following mitigation, to construct Collins Avenue Station. Receptor 39 represents Albert College Court. Predicted construction noise levels are below the construction noise threshold level of 75 dB at this location during all working phases, indicating no significant adverse impacts. As outlined in EIAR Chapter 14, section 14.4.1, groundborne noise and vibration at this location will be below the threshold of significance for construction. During the passage of the TBM there are exceedances of groundborne noise at all buildings within 75m of the tunnel centre for a period of up to two weeks. In the EIAR Appendix 14.5 Groundborne Noise and Vibration Blasting Modelling Results, the predicted noise and vibration levels during TBM Passage, Mechanical Excavation and Blasting are presented. The results demonstrate that there is no significant impacts on the buildings or occupants at Albert College Court. Predicted VDV (Vibration Dose Value) during TBM Passage at Albert College Court has a value of 0.242 m/s-1.75 and for Mechanical Excavation, 0.002 m/s-1.75, which are below the VDV Threshold Levels for this building of 1.0 m/s-1.75 and 0.8 m/s-1.7 respectively. Therefore, there will not be significant levels of vibration on the building and its occupants. During Blasting a vibration level of 4.3mm/s PPV (Peak Particle Velocity) is predicted, compared to the Threshold Level for this building of 8mm/s resulting in a not significant impact. The Air Overpressure Level during blasting at Albert College Court is 107.8 AOpdB, below the Threshold Level for this building of 125 AOpdB, resulting in a not significant impact. Dust and mud from the construction site, As presented in the EIAR Chapter 16, strict dust prevention will be in place at all times, to minimise any potential emissions and these procedures will be strictly monitored and assessed. Construction dust tends to be quite large in size (greater than 30 microns in diameter) and falls to the ground relatively quickly. This gives the potential for soiling of cars or windows in the vicinity, however, from a human health perspective would not be deemed to have a significant adverse health impact as the dust does not stay airborne and is not inhaled (Section 10.5.1.1 Chapter 10 of the EIAR). As outlined in EIAR Appendix A16.4 Section 6.3, a Dust Minimisation Plan (DMP) will be submitted for approval to the relevant planning authority to reduce airborne dust. Further information on dust mitigation is outlined in Appendix A5.1 (CEMP Outline), A16.2 (Site Specific Potential for Construction Phase Dust Impacts) and Appendix A16.4 (Dust Management Plan) of the EIAR. Before commencing relevant works, an Air Quality Management Plan shall be prepared and submitted for approval to the relevant planning authority. The plan will be developed by the contractor and for each worksite shall include details of control measures, details of dust monitoring arrangements, including the location of sensitive receptors, monitoring locations, monitoring equipment to be used; and details of the air quality reporting requirements. Further details on this can be found in EIAR Chapter 16 (Air Quality) and EIAR Appendix A5.1 Outline CEMP. As detailed in Chapter 16 (Air Quality), section 16.6.1.4, HGV traffic leaving site will pass through a wheel wash; Public roads outside the site will be regularly inspected for cleanliness and cleaned as necessary. If public roads are deemed to require additional cleaning where possible a suction device for road cleaning will be utilised which can access spaces around cars and other street furniture more effectively; and during movement of materials both on and off-site, trucks will be stringently covered with tarpaulin at all times. Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for dust emissions, mud or other construction particles. Residents relocation, No relocation of the residents in Albert College Court is deemed to be required as mitigations planned to be implemented will reduce the impacts. This conclusion has been reached as a result of the assessments set out above. If however, residual construction noise levels remained above the Noise Insulation or Temporary Rehousing trigger values, application of TII Airborne and Groundborne Noise Mitigation Policy will be implemented with further control measures introduced such as Noise Insulation (NI). Further details on this can be found in EIAR Appendix A14.6 TII Airborne and Groundborne Noise Mitigation Policy.	

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			Response (8) continued.	The CNVMP(Construction Noise and Vibration Management Plan) will set out a detailed analysis of each construction compound relating to noise levels, durations and number of properties impacted and the planned approach for managing same, as indicated in EIAR Appendix A5.1 Outline CEMP. It is reiterated again that prior to any construction work commencing on any of the main work sites a detailed acoustic impact assessment will be undertaken which will involve a baseline noise study, model of the contractors final site layout, plant and equipment models, numbers and on-site location and the inclusion of all available on-site noise control measures. This is detailed in section 6.2 of EIAR Appendix A5.1 Outline CEMP. There are no statutory standards in Ireland relating to noise and vibration limit values for construction works. The contractor(s) will work within the noise and vibration significance threshold levels identified in the EIAR for both airborne and groundborne noise and vibration and the limits contained in the Railway Order approval. This is considered to be an approach in line with best practice. Lack of consultation TII disagree that meaningful communication has not taken place. TII have undertaken stakeholder and public consultation throughout the Project development. Consultation has included, but was not limited to, the Emerging Preferred Route consultation, Environmental Impact Assessment Scoping Consultation, Preferred Route Public Consultation and the Albert College Park Local Area Consultation. As detailed in Appendix A8.19 Meetings Register, five meetings were held with Albert College Residents Association, with eight meetings held with Ballymun Road Area Association (residents association), and one meeting with the Collins Avenue Residents Association.	
9	Our Lady of Victories Church	5	Access by parishioners to Our Lady of Victories Church, many of whom are elderly with mobility issues will also be severely compromised for a number of years for all of the above reasons. Grieving families attending funeral services will face additional difficulties due to severely restricted access as well as the gross reduction in parking spaces as a result of the church forecourt, car parks and on street parking on Albert College Drive being impounded. This will result in an irreversible decline in church attendance as parishioners who have already had to forego face to face spiritual fulfilment in the face of Covid restrictions for almost two years will once again be placed in a similar situation as access to the church building will undoubtedly be hindered due to route closures and lack of parking spaces. In excess of 900 signatures were received against the plan to locate the station at Our Lady of Victories Church on a church gate petition. According to TII documentation, this number is second only to the number of objections submitted by stakeholders in the Mobhi Road /Na Fianna area against the previous plan to build a station on/under Na Fianna playing pitches.	TII understand that Our Lady of Victories Church is an invaluable asset to the community and is used by groups with varied levels of mobility. Measures will be implemented in order to maintain access to the church during construction and operation of MetroLink. Please refer to response (2) in relation to temporary traffic management measures proposed at this location. There will be a temporary footpath constructed to the rear of the Church in order to maintain access from Albert College Court. Vehicles accessing the Church car park will be required to use a diversion via Albert College Court, maintaining access during all project stages. This diversion is presented in section 7.4.6.3.2 of EIAR Appendix A9.5 Scheme Traffic Management Plan. Members of the community who use public transport to travel to the church will not be impacted during construction of the Collins Avenue Station. The existing bus lane on Collins Avenue will be maintained in both directions, with journey times for public transport unlikely to be significantly impacted. Only one bus stop, 115, will be temporarily relocated via a temporary path to the east of the church. During the construction of Collins Avenue Station, footways will either be retained in their existing location or realigned to a similar standard. The assessment of impacts on all modes can be found in section 7.4 of EIAR Appendix A9.5 Scheme Traffic Management Plan. There are no footway, footpath or cycle lane closures that would require users to significantly divert from the existing routing, therefore maintaining access to the church for people who walk or cycle. There will also be a temporary footpath constructed to the rear of the church in order to maintain access from Albert College Court. Access to the church will be maintained at all stages of the Project as vehicles accessing the church car park at the rear of the church will be facilitated by a diversion via Albert College Court. Further details of construction impacts on transport are found in Section 9.6.1.2.4.1. and Section 9.6.1.2.4.3 of Chapter 9 (Traffic and Transport). Existing access to the church for the public will be fully reinstated during operation, with the design of street furniture to ensure acceptable pedestrian comfort levels (Section 9.6.2, Chapter 9). In addition, TII are keen to point out that once the construction phase is completed the location of a MetroLink station at this location will provide significant positive benefits to the local community in terms of enhanced public transport provision, reduced traffic and the resultant improvements in the environment, with reduced noise and air pollution. TII acknowledge that there are impacts associated with these works, however please refer to response item (1) in relation to the reasons why this is identified as the preferred station location.	

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10	Environmental Impacts summarised	5 and 6	The increased levels of airborne dust generated by construction and excavation will be further exacerbated by the expected stagnation of bidirectional road traffic due to flow restrictions caused by lane closures, with an associated increase in traffic pollution caused by a build-up of exhaust fumes. There will also be a higher density of heavy construction traffic and machinery in the area adding to the level of pollutants. Both these factors in such close proximity to schools and residences will result in a significant deterioration in air quality which currently is regarded as ‘fair 1’ as monitored by local weather app. The heightened awareness of the importance of effective schoolroom ventilation in reducing the spread of airborne infection is now well acknowledged. It is difficult to understand how classroom windows can be opened to facilitate this extra ventilation, particularly during warmer weather given the aforementioned deterioration in air quality.	Please refer to responses (2) and (8) in relation to predicted impacts on air quality during the construction phase. As detailed, no exceedances of air quality standards are predicted, therefore, no significant adverse human health impacts are predicted. The modelling of road traffic for impacts on human and ecological receptors has found no significant impacts that require mitigation measures with respect to the modelling of emissions. However, some mitigation measures can be put in place to minimise emissions: * Implement a policy which prevents idling of vehicles both on and off-site including HGV holding sites; * Construction Phase traffic should be monitored to ensure construction vehicles are using the designated haul routes; * Additional vehicular traffic will be managed through the CEMP and Temporary Traffic Management Plans for the proposed Project and stations as per Chapter 9 (Traffic & Transport); * Efficient scheduling of deliveries to minimise number of deliveries required, and in turn their emissions; and * Construction vehicles should conform to the current EU emissions standards and where reasonably practicable, their emissions should meet upcoming standards prior to the legal requirement date for the new standard. This will ensure emissions on haul routes are minimised. Mitigation measures are required for the control of dust with respect of HGV moments on site and deliveries to/from the site: * HGV traffic leaving site will pass through a wheel wash; * Public roads outside the site will be regularly inspected for cleanliness and cleaned as necessary. If public roads are deemed to require additional cleaning where possible a suction device for road cleaning will be utilised which can access spaces around cars and other street furniture more effectively; and * During movement of materials both on and off-site, trucks will be stringently covered with tarpaulin at all times. Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for dust emissions.
11	Environmental Impacts summarised	6	This added to excessive construction noise and vibration will seriously impact the ability of teachers to effectively deliver teaching in the 3 schools due to constant distractions caused by this noise and vibration.	The works will not seriously impact on teachers ability to teach. As outlined in the EIAR and above in response item (2), noise and vibration at this location will be below the threshold of significance for construction. Vibration will only be perceptible to school occupants for single events or short-term durations and therefore will be tolerable as assessed and documented by EIAR Chapter 10, Human Health, section 10.5.1.2. Single events or short-term durations could include blasting, or the 2-week duration of the TBM passage.
12	Safety Concerns	6	The safety of the most vulnerable groups of stakeholders in the area - namely primary school children and their parents and our elderly neighbours In Albert College Court is of prime concern.	The safety and security of all is a priority for MetroLink both during construction and once operational. Please refer to responses (2, 3 and 10) above in relation to the predicted construction impacts at this location and the proposed mitigation measures to ensure the safety of vulnerable groups in this area.

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13	Residents on upper Ballymun Road	6	There are approximately 20 houses located both along the eastern and western section of the main road opposite the OLV church and closely bordering the proposed station entrance on the church side between the church and Collins Avenue junction. The lives of these residents will be severely impacted for all the above reasons for the duration of the utility relocation and station construction phases. Those residences on the east side of the road to the north of the church are in very close proximity to the planned station entrance. These residents will undoubtedly face significant construction noise and vibration as well as noise due to anti-social behaviour and disturbance late into the night as passengers and indeed revellers enter and leave the station. A number of these residents have young families and this would place an intolerable burden on these families.	EIAR Chapter 13 presents the assessment of impacts arising from Airborne Noise and Vibration, with EIAR Chapter 14 detailing the assessment of impacts on Groundborne Noise and Vibration. As presented above in response item (2) generally no significant impacts are predicted for the construction of the station. Impact on some of the properties opposite the Our Lady of Victories Church will arise from the noise from the TBM Passage where the noise from TBM will be above the threshold value of 45 dB resulting in a significant impact. In terms of vibration, the threshold of 3PPV is not predicted to be exceeded at Our Lady of Victories Church, however the predicted level of 2.7PPV is close to the threshold (Chapter 14, Ground-borne Noise and Vibration). The results from the noise and vibration modelling can be found in Appendix A13.7 and 14.5 of the EIAR. As the church is a sensitive building, mitigation from blasting will be implemented and vibration monitors are to be provided in the church in the vicinity of the works with alarms to identify any vibration that exceeds acceptable levels. In the event of the alarms being triggered works are to cease until the cause of the vibration is identified and systems modified to prevent recurrence. Further details can be found in section 26.7.1 of Chapter 26 (Architectural Heritage). Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from the TBM at source but noting that the duration of this impact will be temporary and of the order of up to two-weeks as the TBM passes. TII will undertake advanced consultation and stakeholder engagement to prepare people for the passing of the TBM and ensure the timing of these impacts are known. TII's contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project as referred to in EIAR Appendix A5.1, Outline Construction Environmental Management Plan (CEMP). The CNVMP will be a live document and will include a full monitoring and auditing programme which will be agreed with the Local Authorities prior to the commencement of the Construction Phase, including predetermined monitoring trigger levels to ensure noise and vibration limits are not breached, noting that it is not possible to mitigate TBM groundborne noise and vibration at source. Table 6.2: Noise and Vibration Measures of the Outline CEMP outlines the monitoring programme requirements. The Transport Infrastructure Ireland (TII) Airborne Noise and Ground-borne Noise Mitigation Policy (Appendix A14.6 of EIAR Chapter 14) also sets out the construction noise insulation and temporary rehousing measures to be implemented where required. Please refer to responses (2), (8) and (11) in relation to impacts to air quality. Response (2) also details the temporary traffic management measures at this location and the associated proposed mitigation measures. Regarding anti-social behaviour, as presented in the EIAR Chapter 6,MetroLink Operations and Maintenance, one of the outcomes of the architectural and urban realm design is to discourage anti-social behaviour, for example through the attractive setting, use of public lighting, open sight-lines, and avoidance of areas where individuals and groups of people can hide. Subject to data protection impact assessment and compliance with the General Data Protection Regulation (GDPR) anti-social behaviour on the trains and within the stations will be observed through CCTV (Closed Circuit Television) and if required staff sent to manage the situation. The ACID (Access control and intrusion detection) system will also identify intruders trying to enter locations where unauthorised access is prohibited.

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14	Structural Damage	6	There are also concerns relating to structural damage to OLV church and these nearby residential properties caused as a result of heavy drilling, rock breaking and rock-blasting. The following text and images are excerpts from the TII station plan presentation. The reference to controlled blasting through 5 metres of roach in such close proximity to schools and nearby houses does little to dispel the sense of alarm felt by stakeholders in the area. Construction of Collins Avenue Station Bulk Excavation of the Station Box * Excavation of the station will be Brown Boulder Clay for the top 12m * The next 12m is the transition from softer clay to Limestone rock. * The final 5m of the station is in Limestone rock. * Boulders may be encountered in the Clay. * large boulders will need to be broken mechanically. * In the transition zone excavators with mechanical breakers will be used. * Localised drilling and controlled blasting may also be required. * Controlled blasting is anticipated in the final 5m in Limestone. Excavation of rock by controlled blasting * Controlled Blasting is a sophisticated technical process. * Stringent restrictions are put in place and must be adhered to regarding the storage, transportation, use and disposal of explosives. * Restrictions also include limits on noise and vibration, blasting times, fumes and fly-rock. * Each blast is designed to limit vibration(ppv) and air overpressure (AOP) to recognised limits assigned by Structural Engineers at the closes sensitive receiver. * Each blast is monitored to verify ppv and AOP Initial blasts are conservatively designed.	Our Lady of Victories Church is recognised as an important architectural heritage asset in Dublin and is included in the National Inventory of Architectural Heritage (NIAH) (reference 50130121). Measures will be implemented during construction to ensure the church is not damaged. The method of construction will take into account the sensitivity of the church, in particular the stained glass windows. Further details on the impacts at this location can be found in Chapter 26 (Architectural Heritage). Mitigations for Our Lady of Victories Church are detailed in section 26.7.1 of Chapter 26 (Architectural Heritage). As per the Cultural Heritage Strategy, the stained glass windows will remain in situ during construction. Detailed mitigation measures to protect the church during construction can be found in Table 26.66 of the EIAR Chapter 26 (Architectural Heritage). In terms of vibration, the threshold of 3PPV is not predicted to be exceeded at Our Lady of Victories Church, however the predicted level of 2.7PPV is close to the threshold (Chapter 14, Ground-borne Noise and Vibration). As the church is a sensitive building, mitigation from blasting will be implemented and vibration monitors are to be provided in the church in the vicinity of the works with alarms to identify any vibration that exceeds acceptable levels. In the event of the alarms being triggered works are to cease until the cause of the vibration is identified and systems modified to prevent recurrence. Further details can be found in section 26.7.1 of Chapter 26 (Architectural Heritage). There are no significant vibration impacts to other residential properties causing structural damage, as detailed in response item (2) above which considers the impacts to properties in proximity to the station location. Further details on this assessment can be found in Appendix A5.17 Building Damage Report. There will be no significant effects on the church with regard to ground-borne noise and vibration during the operational phase (Section 14.6.2.1, Chapter 14, Ground-borne Noise and Vibration). The EIAR has considered the impacts of blasting, as identified in Chapter 14 (Groundborne Noise and Vibration). Mitigation measures to reduce the impact of blasting entail the following: * Prepare a correct blast design based on a survey of the rock face profile prior to design; * Minimisation of the explosive charge per delay. This could involve the following: - Reducing the drilling diameter of the hole for explosives. - Shortening the length of the holes for explosives; - Initiating charges at different times; and - Using the maximum number of detonators possible. * Choose an effective delay time between holes and rows which would avoid wave interaction and give good rock displacement; * Set the explosive initiation sequence in a way that it progresses away from the structures to be protected; * Use an adequate powder factor (weight of explosives per volume of excavated material). When the powder factor is lower than what is needed, the increase in charge confinement leads to an increase in intensity of vibrations. Excessive consumption will create an unnecessary overload, accompanied by great disturbing effects; * Create shields or discontinuities between the structures to be protected and the blasting; * Monitoring of blasting and re-optimising the blast design considering the results, changing conditions and experience should be carried out as standard; * Increase confinement of the explosive charges with a long stemming height (more than 25 times the hole diameter, but not excessive) and use adequate, inert material; *Place barriers between blasting area and sensitive receptors if required; * Cover the blasting area carefully with a blast mat or similar; and * Cover the voids and use acoustic sheds, if required.

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			Response (14) continued.	It should be noted that the impact of air overpressure as an effect of blasting accompanying ground vibration is strongly dependent on the degree of confinement of the blast. In the assessment carried out, “total confinement” as defined in the IEEE Blaster’s Handbook 18th edition has been assumed, and that represents the maximum available mitigation for air overpressure. Notwithstanding the implementation of the above measures, potential significant impacts have been identified at six receptors where preconstruction condition surveys will be undertaken, and any required pre-construction repair work identified and undertaken. The receptors identified in Section 14.4 are listed and include Our Lady Queen of Heaven Church. Should the above-mentioned mitigation measures not result in a significantly reduced noise and vibration levels such that they are still above the criteria set, then alternative non-explosive excavation methods will be used such as the following: * Use of non-explosive blasting techniques, such as expanding grout or rock sawing; and * Use of mechanical excavation instead of blasting. However, avoidance of blasting would mean extended periods of groundborne noise and vibration impact as alternatives such as mechanical excavation would result in protracted effects throughout the working times over a long period. However, the use of expanding grout and sawing as a means of rock breaking may mitigate the effect at the expense of a protracted programme.
15	Public Mandate	8	The key stakeholder groups in the area are as follows: Our Lady of Victories Schools; Our Lady of Victories Church; Albert College (Estate) Residents Association Albert College Court Residents; Ballymun Road North Residents Association; Griffith Avenue and District Residents Association. The overwhelming majority of members of the above groups are strongly opposed to the current plans to locate the station at OLV Church forecourt.	Please refer to response (1) in relation to the rationale for the proposed location of Collins Avenue station. As noted in response (8), TII have undertaken stakeholder and public consultation throughout the Project development. Consultation has included, but was not limited to, the Emerging Preferred Route consultation, Environmental Impact Assessment Scoping Consultation, Preferred Route Public Consultation and the Albert College Park Local Area Consultation. As detailed in Appendix A8.19 Meetings Register, five meetings were held with Albert College Residents Association, eight meetings held with Ballymun Road Area Association (residents association), and one meeting with the Collins Avenue Residents Association.
16	A Tale of Two Stations - Griffith Park Station and Collins Avenue Station	8	The initial proposal to locate the Griffith Park station and the tunnel boring machine launch site on the Na Fianna sports complex, in close proximity to three schools has been well publicised. The reason given for locating the station in this area was, according to the then CEO of TII, Mr Michael Nolan, to avoid the impact on housing and businesses in the area' The sense of public outrage elicited by the proposal to locate the Griffith Park station site so close to the schools adjoining Na Fianna and the temporary loss of such a valuable sporting amenity and nationally recognised football club led to widespread public resistance. This public opposition campaign also gained uncompromising political support at the highest level in government. It is well acknowledged that the sitting Taoiseach and the Minister for Finance of the day both resided within the catchment area and were also strongly opposed to this plan leading to its ultimate rejection. In the face of this strong opposition, during early 2019 TII were obliged to revise the existing plan as follows: * The station location was moved slightly south from Na Fianna grounds to the western periphery of Home Farm Football pitches adjoining the main Mobhi Road * The station footprint was reduced in size to facilitate this relocation * The construction timeframe was reduced from 5-7 years to 3 years maximum * The proposal to locate the tunnel boring machine launch site in this area was reversed * The Home Farm playing fields are to be fully reinstated overhead and returned to full use when the underground station is constructed * home Farm were granted a sum of €5 million to allow them to lease alternative facilities during the construction phase.	Section 7.7.10.8 of Chapter 7 (Consideration of Alternatives) details the selection of a station location at Griffith Park, including the environmental assessment of alternative locations. As indicated, the preferred route option (as proposed in the Railway Order) was considered to be preferable over the previous option in the Emerging Preferred Route assessment from an environmental perspective. * Population: The construction of a station underneath the GLG Na Fianna playing pitches would have potential for a significant impact on the operation of an important community-based organisation. The alternative location for the proposed construction of a station underneath the Home Farm FC playing pitches would also result in potential for a significant disruption to the operations of this club, but they would be significantly less than those at GLG Na Fianna because Home Farm have their main playing pitches further east of this location. Construction of any of the station location options assessed would have potential to impact on the local schools in the absence of sufficient mitigation measures due to potential for short term increases in traffic congestion, increased noise levels and dust generation. * Noise & Vibration: Both proposed station location options would have potential to impact on local sensitive receptors during the Construction Phase due to the generation of noise and vibration, if not sufficiently mitigated. * Hydrology/Biodiversity: In the absence of mitigation measures there is potential for uncontrolled discharges to the Tolka River that would cause environmental effects on the water quality and biodiversity. As the proposed station location at Home Farm FC grounds is in closer proximity to the Tolka, the potential impacts are slightly higher for this proposed station location. However, there is an historic culverted river channel progressing underneath the GLG Na Fianna site which would have potential to be impacted. Both proposed station locations have potential impacts on biodiversity due to the requirement for vegetation clearance and tree felling. There may also be potential for impacts on winter birds (House Sparrow, Herring Gull and Swift) identified within 30m of this area. * Architectural Heritage: The proposed station location at the Home Farm site would be in closer proximity to Whitehall College which is on the DCC Record of Protected Structures (RPS 7746), however both station location options have potential to impact on the curtilage of this protected site.

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17	Comparison between the proposed Collins Avenue Station and the previous Griffith Park Station designs	8 and 9	There are a number of common denominators between the two locations. Both are sensitive receptors due to the presence of (three) schools at each location as well as having an impact on sporting/green amenities. In addition, Collins Avenue station has the added negative effect on those groups mentioned previously. We believe that stakeholders in our catchment area, particularly children and parents at OLV schools, senior residents at Albert College Court, churchgoers, Ballymun Road and Albert College Estate residents are no less deserving of the same considerations which were largely based on concerns relating to safety and environmental impacts, as was afforded to stakeholders in the Griffith Park station catchment area. We are appealing for fairness, parity and equality. It is obvious that the initial location of Griffith Park station was seen as severely flawed and was overturned due to a 'who can shout loudest' campaign. Our groups clearly do not have the same critical mass or political influence as was the case in the aforementioned situation, but we nevertheless believe that our request for a revised station location should be afforded the same consideration. Station relocation was clearly seen as the correct and only action to take at Griffith Park and we believe that given the similarities between the two sites, the same actions are Justified at the Collins Avenue station which is after all just one kilometre further up the road.	TII consider all stakeholders to be of equal importance and does not discriminate. All station locations were chosen following a multi-disciplinary analysis taking full consideration of all environmental disciplines as presented in detail in the EIAR Chapter 7, Consideration of Alternatives. Please refer to response (8) in relation to the consultation and engagement that has been undertaken with the residents and stakeholders at this location throughout the Project. Section 7.7.10.8 of Chapter 7 (Consideration of Alternatives) details the selection of a station location at Griffith Park, including the environmental assessment of alternative locations. As indicated, the preferred route option (as proposed in the Railway Order) was considered to be preferable over the previous option in the Emerging Preferred Route assessment from an environmental perspective. Please refer to response (1) in relation to the rational for the proposed location of Collins Avenue Station.
18	Alternative Location / Metro North summary and why a station in the park for Metrolink should not be ruled out on the previous premise used in Metro North	9 to 13	It is our firm belief that with the same level of public and political support and motivation, that TII could revise the current station location, design plan, and construction timeframe as was the case at Griffith Park. We see no reason why, with station relocation onto the western periphery of Albert College Park along the main Ballymun Road, that the parkland could not also be reinstated overhead as is happening in the revised plan at Griffith Park. There are plans in place to construct a major intervention shaft and ancillary buildings on this location and this plan could be revised to upgrade the shaft to a functioning station serving DCU campus. During the previous Metro North proposal in 2007 the RPA at that time suggested a number of possible station locations including two park based options. We are strongly of the opinion that there is merit in examining and considering a variation on what in 2007 the RPA proposed as Option 4 'Underground station at the North West corner of Albert College Park' as outlined in the following image (image from page 10 in the submission). We submit that it would seem feasible to locate and construct a similar station design as that above (Griffith Park Station) alongside the western periphery of Albert College Park and reinstate the parkland overhead post construction as in the following non-professionally generated impression - images from pages 12, 13, 14. Community criteria The table from page 15 summarizes our assessment of the comparative ratings, from a community perspective, of the two station options in terms of their impacts during the operational and constructional phases of the Metro project.	Please refer to response (1) above related to the rationale for the location of the proposed Collins Avenue Station, including an alternative station location at Albert College Park. As detailed in Chapter 7 (Consideration of Alternatives) section 7.7.10.7 presents details of the analysis that was undertaken to identify the preferred location, such as transport analysis of the interchange value of the preferred location, which supports the project objectives. Further details on each impact can be found at the following locations: * User Accessibility: Considered in Chapter 9 (Traffic and Transport); * Operational Noise: Chapter 13 (Airborne Noise and Vibration) & Chapter 14 (Ground Borne Noise and Vibration) * Passenger Nosie: Chapter 13 (Airborne Noise and Vibration) & Chapter 14 (Ground Borne Noise and Vibration) * Light Pollution: Chapter 5 (MetroLink Construction Phase) * Vibration: Chapter 13 (Airborne Noise and Vibration) & Chapter 14 (Ground Borne Noise and Vibration) * Safety Concerns: Chapter 5 (MetroLink Construction Phase), Appendix A5.1 Outline CEMP * Traffic Disruption: Chapter 9 (Traffic and Transport); * Parking Disruption: Chapter 9 (Traffic and Transport); * Anti-Social Behaviour: Chapter 6 (MetroLink Operations and Maintenance) *Proportionate loss of green space amenity: Chapter 27 (The Landscape) * Visual effect: Chapter 27 (The Landscape) * Safety Concerns: Chapter 5 (MetroLink Construction Phase), Appendix A5.1 Outline CEMP * Construction logistics: Chapter 5 (MetroLink Construction Phase), Appendix A5.1 Outline CEMP * Construction Noise: Chapter 13 (Airborne Noise and Vibration) & Chapter 14 (Ground Borne Noise and Vibration) * Construction dirt/dust: Chapter 16 (Air Quality)
19	Comparison of Options	14	Requirement for an Interventional shaft We understand that relocation of a station to Albert College Park which would lie approximately 1 km north of the Griffith Park Station will result in the need for a ventilation shaft between the Albert College Park/DCU Station and the Ballymun Station. The placement of a Park based station will remove the need for the currently proposed Ventilation Shaft in the park which has aroused widespread public dissatisfaction across all stakeholder groups. All groups view this as a needless and permanent land-take, in effect taking almost as large an area as that which would be occupied by a fully functioning station without offering any of the associated benefits which a station would provide. We propose that the new location for this ventilation shaft could be moved north of Collins Ave junction, between the Dentist and Ballymun Library. This will not only reduce the traffic impacts south of Collins Ave but will also greatly reduce the impact on residents, church goers and the schools. Given TII's stated dimensions of the current park ventilation shaft plan, there would appear to be adequate space at this newly proposed location.	Please refer to response (1) above related to the alternative station location at Albert College Park. EIAR Chapter 7, section 7.7.11.1 also covers the environmental impact assessment undertaken considering the possible locations for the intervention shaft, and why Albert College Park was determined as the optimum location for reasons including; (1) it is no more than 1000m from either Collins Avenue or Griffith Park stations; (2) it is adjacent to the tunnel on the west side of the park in order to reduce the length of connecting tunnel; (3) the park area is the only "open space" on the MetroLink route between the two stations and as a result the location of the intervention shaft here avoids the requirement for any demolition; and (4) the tunnel intervention shaft can be accessed easily by emergency vehicles with enough area for safely congregating passengers in an emergency.

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20	Added value to DCU and TII	15	As part of the An Bord Pleanála Metro North Oral hearing, during 2009 the RPA prepared a document titled 'Proof of Evidence, Description of Scheme, System Concept and Route Alternatives' Paragraph 2.2.12 states: 'DCU Stop serves the 10,000 students and staff at Dublin City University and the 1,800 seat Helix Theatre, as well as serving the local residential areas'. We would respectfully suggest that DCU will be by far the greatest beneficiary of the stop and should the station be in even closer proximity to the College this presumably would be seen as a positive advantage. It is noteworthy that the original station was referred to as 'DCU stop' at that time, which seems a more appropriate title than 'Collins Avenue Station' as in essence it is intended for the most part, to serve DCU not Collins Avenue. The distance from the currently proposed station entrance to the north of OLV church to DCU Collins Avenue entrance is approximately 750 metres which may seem undesirable for some users. A park based station that is approximately 400 metres closer to DCU's Ballymun Road entrance than that proposed at OLV church would presumably bring a valuable enhancement in terms of improved and increased access to this important service for both TII and DCU passengers over the life of the project.	Please refer to response (1) above in relation to the rationale for the proposed location of a station at Collins Avenue, and why this is the preferred location over a location within Albert College Park. Please refer to response (19) in relation to the location of the Intervention Shaft within Albert College Park. As noted in these responses, various options were considered for a station at this location, and it was identified that a station located at Our Lady of Victories Church is the preferred option.
21	Towards Optimisation	15 and 16	In expressing a strong preference for a park based station location, we recognize that, as presented by TII to local communities, this option may evoke certain concerns. We also recognize that it is amenable to further improvement. As residents in the area we would empathize with the view that permanent - and indeed temporary - disturbance to the park should be minimized. We appreciate and enjoy the amenity value which the park provides and would not wish to advocate a solution that would diminish such an amenity in any substantial way. We submit that an accommodation of everybody's interests can and should be achieved by a well-designed park based solution which allows a most judicious and economic use of the parkland. This we hope would better serve the interests of DCU, TII, patrons of OLV Schools and church, residents in the immediate and wider area and indeed road users from outside the area who could all potentially suffer a significant loss in their quality of life if a less than optimum station location is chosen.	Please refer to response (1) above in relation to the rationale for the proposed location of a station at Collins Avenue, and why this is the preferred location over a location within Albert College Park. Please refer to response (19) in relation to the location of the Intervention Shaft within Albert College Park. As noted in these responses, various options were considered for a station at this location, and it was identified that a station located at Our Lady of Victories Church is the preferred option. Please note that a station compound within the park would impact a greater area (25-30% larger) during construction leading to a higher amenity impact. TII has sought to minimise the impacts on the Park as a result of the location of the intervention shaft, however, the proposed Project will result in loss of existing mature trees along the western boundary of the Albert College Park, contiguous with the land take for the construction site. The mature trees along the Hampstead Avenue boundary edge will not be affected. The existing hedge boundary along the outer edge of the Park will also remain intact, except for breaks created to facilitate the access roads. Further details on the impact to Albert College Park can be found in section 27.5.4.17 of Chapter 27 (The Landscape). Whilst the proposed Project includes for replacement tree planting around the intervention shaft facility there will be a time lag to their maturing, to match that of the existing trees.

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1	Provision for a Community Fund	1	Provision should be made for a community fund, the impact of this construction on the property and inhabitants of the Berkeley Road area is going to be profound and largely negative nature.	Thank you for your submission and for sharing your observations with regards to the MetroLink project to which we have responded below. TII will work with established Community Groups through the proposed local community liasion offices along the route to identify projects at local level that would involve the community in the delivery of MetroLink and its legacy. Such projects could include: - A local school learning programme. - Enhancement of community amenity within agreed funding limits. - Engagement with final landscape and finishing options. TII are willing to explore mechanisms for investing in local initiatives to support affected communities during the works, such initiatives will be subject to funding being made available. TII disagree with the statement that the impact of construction on the property and inhabitants of the Berkeley Road area is going to be profound and largely negative in nature. Chapter 5 (MetroLink Construction Phase) details the construction works at Mater Station and the anticipated impacts. Temporary closures and diversions of roads and footways will be required during various phases of the works, however access to properties and premises will be maintained throughout the works. Similarly, 24hr access for emergency vehicles to Mater Hospital will be maintained throughout the works, ensuring services are not disrupted. As noted, no demolition of existing properties is required at this site. Please refer to Response (4) below in relation to the anticipated impacts of construction noise and vibration, and to Response (8) in relation to air quality and dust during the construction phase. As noted in both responses, appropriate mitigation measures will be implemented to reduce the impacts as much as possible. EIAR Appendix A5.1 Outline CEMP highlights that ongoing monitoring and inspection (both internal and external) will take place throughout the construction phase to ensure exceedances of criteria do not occur. Any exceedances of criteria must be reported to TII to allow for corrective action to take place. A Freephone helpline (e.g 0800) will also be available to allow for any concerns from the public to be communicated and resolved where possible.
2	Provision for a Community Fund	1	The community should be administered by representatives of the local stakeholders (The residents and business associations, DCC, TIA, Mater Hospital, D7 Alliance).	Please refer to Response (1) above in relation to a community fund. As outlined in Appendix A5.1. Outline CEMP, TII and the contractor(s) will take all reasonable steps to engage with stakeholders in the local community, especially those who may be affected by the construction works including residents, businesses, community resources and specific vulnerable groups. The contractor(s) will be responsible for putting in place a Stakeholder Communications Plan which will be developed under the consent of a Public Liaison Officer appointed by TII. This plan will provide a two-way mechanism for members of the public to communicate with a designated member of the contractor(s)'s staff and for the contractor(s) to communicate important information on various aspects of the proposed Project to the general public.
3	Provision for a Community Fund	1	Ordinary people have invested in this area in terms of their houses, their flats, their businesses - these personal and monetary investments will be on hold for the duration of the project. Another important consideration is that the lives of the people living in this area will be challenged by potential health issues such as air quality, dust and noise. Changes to our daily lives will be required to facilitate the impact of parking and access issues.	Regarding impact to property values, rental income and loss of business, whilst there will be disruption during the MetroLink construction activities, TII believe that once the Scheme has opened, property values will increase as is generally the case with projects of this nature. As detailed in EIAR Chapter 5, MetroLink Construction Phase, the programme for the construction of the proposed Project has been optimised to minimise the duration of the Construction Phase in order to lessen the duration of potential environment impacts, while ensuring that the areas surrounding the work sites remain operational and functional. Work will run concurrently at all MetroLink site locations to ensure the Project is delivered in an effective and timely manner. Once a contractor has been appointed, TII will seek to further optimise the programme with a view to reducing the overall duration of works at the proposed Mater Station. TII will consult with stakeholders on any such proposals received from the contractor.

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				Potential impacts associated with the construction phase activities of the proposed Project on the residences and businesses are addressed in Chapter 11 (Population & Land Use) of the EIAR, with mitigation measures proposed where required. The construction site for Mater Station will be located in Four Masters Park. This will give rise to inconveniences and disturbances affecting activities and services at a localised level and Berkeley Road in particular. This includes potential noise and vibration impacts from construction activities as detailed in EIAR Chapter 13 (Airborne Noise & Vibration) and Chapter 14 (Groundborne Noise & Vibration), disturbances to the local road network as detailed in Chapter 9 (Traffic & Transport), and dust risk as detailed in Chapter 16 (Air Quality). Measures to mitigate and monitor these impacts as a result of construction activity across the proposed Project are detailed in Chapter 5 (MetroLink Construction Phase) and summarised in Chapter 31 (Summaries of the Route Wide Mitigation & Monitoring Proposed).
				Additionally, the appointed contractor will prepare detailed design and construction methodologies in the form of a detailed Construction Environmental Management Plan (CEMP) to ensure all environmental impacts are managed and mitigated in accordance with the EIAR and Railway Order, assuming an Enforceable Railway Order is granted. This detailed CEMP(s) will be provided to DCC for consultation and approval in advance of any construction works on site. An Outline CEMP is included in Appendix A5.1 of the EIAR that will be developed further by the appointed contractors. Monitoring instrumentation will also be used throughout the works to monitor potential environmental impacts, including those discussed above to ensure that acceptable limits are not breached. As noted in response item (1), temporary closures and diversions of roads and footways will be required during various phases of the works, however access to properties and premises will be maintained throughout the works. Similarly, 24hr access for emergency vehicles to Mater Hospital will be maintained throughout the works, ensuring services are not disrupted. Appendix A9.5 Scheme Traffic Management Plan details the impact to parking and loading during the construction of Mater Station in section 7.7. As detailed, Pay and Display and Resident Permit parking will be removed on Berkeley Road and on Eccles Street, with a temporary relocation of the taxi rank during the works (location to be agreed with Dublin City Council). With the partial closure of Eccles Street for general traffic (with the exception of emergency vehicles accessing Mater Hospital), diversions for local traffic will utilise Berkeley Road and Blessington Street towards the N1. However, there are minimal impacts on traffic flows and driver delay as a result of this. Berkeley Road, on approach to the new priority junction, will see an 11 second increase in driver delay during the morning peak, with a maximum delay of 27 seconds in the evening peak. Please refer to Response (8) below in relation to the anticipated impacts on air quality and dust. Please refer to Response (4) related to the anticipated impacts on noise and vibration.
4	Provision for a Community Fund	1	The extent and duration of this project will have a profound effect on the businesses and retail outlets on Berkeley Road, the majority will not be able to survive, especially the businesses in nos 10 - 18 Berkeley Road. This row of shops defines Berkeley Road and will be the most effected by the vibrations and noise levels. Investment by TII should be put into reinstating the shops on Berkeley Road according to the DCC Shopfront Design Guide as this street is zoned as a Conservation Area.	TII are committed to working with the local business community around the Mater Station to ensure that disruption to normal business operations as a consequence of MetroLink are kept to a minimum. As noted in Response (1), support for community projects could include support for the businesses noted on Berkeley Road. In order to manage and mitigate any impacts as a consequence of the works at Mater, the appointed Contractor will be required to set out in their Construction Environmental Management Plan (CEMP) their plans to mitigate impacts and ensure criteria is not exceeded, an outline of which is included in EIAR Appendix A5.1. Traffic Please refer to response item (3) in relation to the impacts on road users during the construction works. Chapter 5 of the EIAR (MetroLink Construction Phase), explains that traffic management plans for the construction phase of the Project have been developed to minimise the impact on road users, and to maintain access to businesses and other premises. Prior to implementation, all traffic management measures will be agreed with Dublin City Council and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The design of traffic management measures and highways works is based on achieving the key objective of maintaining continual access to all properties during the works. Where necessary, a safe alternative route will be provided for pedestrians and vulnerable road users, such as children, and persons with restricted mobility, to maintain pedestrian access to premises. Where detour routes are required, these will be kept as short as possible and detour signage will be clear and easy to understand. All construction sites will be designed to be as unobtrusive as possible.

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				Airborne Noise and Vibration EIAR Chapter 13.5.2.6.6 Mater Station sets out the assessment of airborne noise and vibration during the construction of Mater Station and includes the consideration of a number of receptors on Berkeley Road, including no. 9. As stated in EIAR Chapter 13: Airborne Noise and Vibration, section 13.2.6.1.3, the principles for the management of Airborne Noise & Vibration in the EIAR are based on BS 5228-1. Based on this standard the Construction Noise Threshold (CNT) was calculated for receptors on existing rounded ambient noise levels. In accordance with this standard, the CNT is set at 70 dBA at no. 9 Berkeley Road. The CNT threshold will be mandated to the contractors and enshrined in the Railway Order. Before commencing works, Contractors will then need to provide best practice mitigation to reduce the impacts. If the Contractor is unable to reduce the impacts sufficiently, and the residual levels are such that widespread community disturbance or interference with sleep is likely to occur, TII will consider whether the provision of further Noise Insulation (NI) or Temporary Rehousing (TRH) would be appropriate at locations where eligibility for either has been established. Please refer to the TII Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6).
			Response (4) continued.	Table 13.64 of Chapter 13 also presents the potential significant airborne noise impacts during the construction of Mater Station. At no. 9 Berkeley Road the Construction Noise Threshold set is predicted to be exceeded during a number of the earlier construction phases unless action is taken to mitigate. Mitigation in the form of plant selection, noise reduction at source and the provision of 4m high acoustic hoarding will reduce the impact, although it is possible that some residual impact may remain and would require further consideration in the form of the TII Airborne and Groundborne Noise Mitigation Policy. Prior to commencing construction, the appointed contractor undertaking the construction of the works at Mater will be required to undertake noise & vibration monitoring at representative noise sensitive locations to evaluate and inform the control requirements and take specific noise abatement measures to the extent required and to comply with the recommendations of BS 5228-1 (BSI 2014a). In order to manage and mitigate airborne noise, the Contractor will be required to set out their proposals in the Construction Environmental Management Plan (CEMP), an outline of which is included in EIAR Appendix A5.1, and specifically Construction Noise and Vibration Management Plan (CNVMP) for Dublin City Council approval. The requirements for the control of Airborne Noise & Vibration are included in section 6.2 Noise and Vibration. Groundborne Noise and Vibration Appendix 14.5 Groundborne Noise and Vibration and Blasting Modelling Results presents predicted groundborne noise and vibration levels during the construction phase of the project for buildings on Berkeley Road. With the exception of groundborne noise impacts during the passing of the TBM, all other predicted levels of noise and vibration during mechanical excavation, blasting and the vibration levels from the passing of the TBM at Mater Station are lower than threshold levels, resulting in a not significant impact on buildings.

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				The predicted levels of groundborne noise during TBM passage is up to 49 dB LASmax, which is above the 45 dB LASmax threshold, resulting in a significant impact during the relatively short duration of the TBMs passage past these buildings, which is anticipated to be within approximately two weeks. Unfortunately, there are no effective methods are available to reduce groundborne noise from TBMs at source. The principal mitigation measures aimed at minimising impacts are as follows: • Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects during construction, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. • TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6). Further Action Should the Project be approved, prior to the commencement of any construction works, a detailed noise assessment for each work site will be undertaken based on the most up to date information for each. There is no published statutory Irish guidance relating to the maximum permissible noise level that may be generated during the Construction Phase of a project. Local authorities normally control construction activities by imposing limits on the hours of operation and consider noise limits at their discretion. Additionally, the Contractor undertaking the construction of the works will be required to take specific noise abatement measure to the extent required and comply with the recommendations of BS 5228-1 (BSI 2014a). The Transport Infrastructure Ireland (TII) Airborne Noise and Ground-borne Noise Mitigation Policy (Appendix A14.6 of Chapter 14) sets out the construction noise insulation and temporary rehousing measures to be implemented where required.

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5	Provision for a Community Fund	1	Given the impact of this project on our area I feel that a substantial investment will be required for improvements to the public domaine, Berkeley Road and street. It is important that these are integral to the station construction. An attractive street invites investment, the rejuvenation and regeneration of Berkeley Road will be essential for the return of commercial activities to this area. There is a very big risk that we will lose our retail and commercial outlets which are an important aspect of our lives and are an important part of the 15 minute city concept.	TII acknowledge and appreciate the potential impact locally as the Project is delivered, and consequently have proposed various measures in the EIAR to mitigate these impacts while the Project is progressed. Once the Project is completed, the benefits to the community and opportunities for local businesses will be enhanced not diminished. Upon completion of the station at Mater, the visual amenity of the area will be largely restored, much to its existing condition though with some minor improvements. The green park will be restored close to its existing condition within the triangle of buildings along with the proposed amendments also made to the original Mater Hospital section of Eccles Street, which will enhance and transform the area around the station on completion. See also Landscape Photomontages LLCA 19: V19.1 to 19.5. Overall, the predicted effects on the visual environment and on visual amenity during the Operational Phase will, in the longer term be significant and positive. As detailed in EIAR Chapter 3 (Background to the MetroLink Project), the proposed Project will by way of modal shift and by taking significant volumes of passenger movement underground, support the transformation of the surface level environment, making it more attractive for people to engage with. People will be more likely to walk or cycle in the area, increasing health benefits, or to frequent shops or restaurants, increasing economic benefits. The stations will also attract a wide range of businesses keen to take advantage of the projected footfall. This will help to boost economic activity and generate an improvement to the urban realm. Studies have found that this could result in an uplift in office rental values, an uplift in retail rental values, declines in vacancy rates, and a boost in walking behaviours. The attractiveness of the urban environment is also a key determinant in where people choose to live. As the proposed Project improves this in North Dublin it will help to attract both people, amenities and businesses into the area, further encouraging compact growth, job opportunities and sustainable housing developments.
6	Provision for a Community Fund	1	The proposed community gain should make provision for the purchase and renovation of the derelict site on the corner of Vincents St and Berkeley Road, this building can be used for local community activities or as a youth club.	Renovation of the derelict site on the corner of Vincents St and Berkeley Road does not form part of this Railway Order Application. However, please refer to Response (1) in relation to a proposed community fund which will consider measures that would support the local community.
7	Provision for a Community Fund	1	The increased footfall provided by the commercial businesses is also important in discouraging crime - which is a factor to be considered with the proposed station site.	Please refer to response item (5) in relation to the improvements to the urban realm and the benefits of the projected increased footfall. In terms of the security provisions planned around each of the completed stations on MetroLink, all are gate secured closed outside of normal operating hours. The entrances to Mater station will be gated with grilles incorporated into the canopies which will be lowered and locked at the end of the operational day and opened in the morning. Also outside of normal operating hours, the public lifts will not be available for use and unauthorised access will be monitored via CCTV and ACID. Please refer to section 6.8.3.3 of EIAR Chapter 6 (MetroLink Operations & Maintenance). MetroLink has been designed as an open system for passengers, so that people can walk through the station and onto the platforms without obstruction. The PSDs (Platform Screen Doors) will stop people accessing the track from the stations. A security fence will be installed along the whole of the above ground sections of the railway and at the tunnel portals. One of the outcomes of the architectural and urban realm design is to discourage anti-social behaviour, for example through the attractive setting, use of public lighting, open sight-lines, and avoidance of areas where individuals and groups of people can hide. Vandalism and anti-social behaviour on the trains and within the stations will be observed through CCTV (Closed Circuit Television) and if required staff sent to manage the situation. The ACID (Access control and intrusion detection) system will also identify intruders trying to enter locations where unauthorised access is prohibited. It will also cover the platform doors to the track (surface and retained cut stations) and to the tunnel (underground stations); entrances to technical rooms, the station incident rooms, and stations (outside operational hours); access to the mainline tracks; entrances to facilities at Dardistown depot (test racks, workshops, garages, OCC (Operational Control Centre), technical rooms, storage areas, offices, and emergency doors); the back-up OCC: electricity sub-stations; tunnel portals; shafts and ventilation shafts and emergency doors. ACID will be integrated with the telephone system, CCTV, SCADA (Supervisory Control and Data Acquisition), Fire Alarm System and the Central Clock System. Subject to a Data Protection Impact Assessment and compliance with the General Data Protection Regulation, there will be a single CCTV system and a single ACID system serving all stations, tunnels, substations, and depot, and managed from Dardistown Depot.

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8	Air, Dust Quality, Airborne Noise	2	Air and dust quality are a major concern for this area. It is a residential area with a mixed generation profile, there is also a national school located near the Black Church. The prolonged nature of this project makes the concerns even greater given that the other proposed developments in the Phibsborough area will go ahead within this time frame (Mc Swiney House, Des Kelly Site, Cross Guns site, Dalymount Park). The basic standard should be the WHO recommended emission standards and benchmarks.	EIAR Chapter 16 (Air Quality) assesses the likely effects of the Project on Air Quality during the construction phase with mitigation measures proposed where required. Air quality during the construction phase will be impacted by traffic and dust emissions resulting from construction activities at the Mater Station site from Earthworks, Construction and Trackout (Maximum Daily HGV Movements). Section 16.5.2.6, Regional Air Quality Assessment – Construction Phase Southern Peak Scenario, has assessed traffic emissions pre-mitigation as being overall Neutral, Not Significant, and short-term. Table 16.44 presents a summary of predicted dust emission magnitudes from the main construction sites, the results for the Mater Station site being: - Earthworks - Large - Construction - Small - Trackout – Large This has resulted in defining the site-specific mitigation level as High and thus mitigation will be required. A detailed list of Dust Mitigation Best Practice Measures for each construction activity is presented in Appendix 16.4 Dust Management Plan. Strict dust prevention will be in place at all times to minimise any potential emissions and these procedures will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations. As specified in the response item above, before commencing relevant works, the Outline Construction Environmental Management Plan (Appendix A5.1) will also be used to manage the construction phase impacts. As part of the updated Construction Environmental Management Plan in advance of commencing construction, an Air Quality Management Plan will also be produced to include for specific working hour measures at sensitive locations. This document shall be prepared and submitted to DCC for approval. The plan will include all appropriate dust and emissions mitigation measures applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. A plan will be developed by the contractor for each worksite, including Mater. The plan will be developed by the Contractor and for each worksite shall include: - o An inventory and timetable of activities which may give rise to emissions or dust; - o Alert levels and system to be used (including notification process); - o Details of control measures; - o Details of dust monitoring arrangements, including the location of sensitive receptors, monitoring locations, and monitoring equipment to be used; and - o Details of the air quality reporting requirements. The types of measures that will be implemented to manage dust will include the following: •Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; •Any blasting will be completed by specialised contractors with a specific blasting dust management plan; •Liaison with local authorities and community groups; •Hoarding will be provided around the construction compounds; and •It is anticipated that methods of collecting rainwater and recycling for general site use, will be adopted where practical. Requirements for dewatering installations at deep station and tunnel portals can also provide a valuable source of water for general site use. Please refer to the EIAR, Chapter 16 Air Quality, section 16.3.2 Relevant Guidelines, Policy and Legislation, which discusses the, Environmental Protection Agency (EPA) guidelines that were considered and consulted in the preparation of this Chapter.	

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9	Air, Dust Quality, Airborne Noise	2	It is completely inappropriate that provisions are being made on eligibility for rehousing and compensation due to airborne noise and dust levels. Tenants and individuals working in the city and the locality such as nurses should not be adversely affected by this construction - the level of homelessness has already impacted many of our essential services. There is also the issue of the property investments made by small landlords being adversely affected and not being eligible for compensation because they are not owner occupiers. " <i>To be eligible for support the owner/occupier must be in occupation of a private dwelling and the dwelling must be located where the predicted construction airborne noise is estimated to exceed the relevant criteria referred to in Appendix A</i> ".	As noted in Response (4), the construction noise threshold will be mandated to the contractors and enshrined in the Railway Order. Before commencing works, Contractors will then need to provide best practice mitigation to reduce the impacts. If the Contractor is unable to reduce the impacts sufficiently, and the residual levels are such that widespread community disturbance or interference with sleep is likely to occur, TII will consider whether the provision of further Noise Insulation (NI) or Temporary Rehousing (TRH) would be appropriate at locations where eligibility for either has been established. Please refer to the TII Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) for further details. The EIAR details the provisions for compensation as a consequence of any impact arising from the Project as follows. TII is committed to having a Property Owner Protection Scheme (POPS) in place prior to construction works commencing. The scheme allows residential property owners to register with TII if the property is within thirty metres of the edge of the MetroLink alignment or fifty metres of station structures. The POPS comprises condition surveys of private properties and other selected properties along the route of the proposed Project. The purpose of the condition surveys would be to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether the same may be attributable to the proposed Project and recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in the swift and accurate verification of any property damage claims which may be received from property owners. The POPS would be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/ The POPS is restricted to residential properties. TII do not intend to put in place a POPS for Commercial Properties along the MetroLink route. To protect commercial properties, TII contractors appointed to carry out the works will, with the agreement of the owners of such properties, commission chartered building surveyors to carry out a precondition survey of commercial properties. Further details are provided in the POPS, Sections 5.3 and 5.4. In cases where parts of properties are occupied, access to the remaining unoccupied parts will be maintained, where it is possible and safe to do so. Protection such as hoarding will be used to ensure that the boundary of any construction site will be maintained, and damage would not occur outside of this boundary. Where damage could not be avoided, it would be repaired. Information regarding any situations requiring relocation and the process for financial compensation for property impacts directly related to the proposed Project is provided in Chapter 11 (Population & Land Use) and Chapter 21 (Land Take) of the EIAR. EIAR Chapter 21 (Land Take), Section 21.6.1.2, outlines the Compensation for Compulsory Purchase process. Under the Transport (Railway Infrastructure) Act 2001 (as amended) (the 'Act') upon commencement of the Railway Order (RO), TII will be authorised to acquire compulsorily any land or rights in, under or over land or any substratum of land specified in the RO, and, for that purpose, the RO shall have effect as if it were a compulsory purchase order (as referred to in Section 10(1) of the Local Government (No.2) Act 1960 (as inserted by Section 86 of the Housing Act, 1966) which has been duly made and confirmed) with modifications. Accordingly, TII is authorised to serve a notice to treat pursuant to the provisions of the Housing Act, 1966, including Section 79 thereof. TII also has the right to enter onto other lands for the purposes of carrying out the works permitted under the RO in certain circumstances. The acquisition of the various specified rights and interests in land and property, is necessary in order to ensure the delivery of the MetroLink project in its entirety. Further information can be obtained from the MetroLink Compulsory Purchase Order Guideline document (September 2022) which can be found on-line at: https://www.metrolink.ie/media/0jlpbyso/metrolink_cpoguideline_final_september-2022.pdf TII will offer compensation to property owners for land that is deemed to be acquired land in accordance with the general compulsory purchase code. Appropriate compensation will also be payable to owners of properties that are subject to short-term and or temporary acquisition. Compensation will be provided through the Compulsory Purchase Order (CPO) process. Details are set out in the LAS (Land Acquisition Strategy) regarding the arrangements proposed for the provision of information and assistance to owners and occupiers of land required for the construction and/or operation of the MetroLink project whether or not the occupier has any interest in the land which may be subject to a compulsorily acquisition.

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10	Construction Impact	2	My home is directly opposite and within 30 metres of the station box, it has very shallow (if any foundations). I am concerned that the impact of the depth and the level of the boring required for the station box construction will result in subsidence and cracks. The provision of a 5 year window (postconstruction) for claims for apparent damage from the construction is too small. This area is a zoned conservation area and lack of provision for structural damage would be detrimental not only for the architectural heritage of Dublin but also for the people living in this area who cannot afford to remedy the potential damage to their homes and properties. A ten year window for subsidence damage is more appropriate.	A comprehensive Settlement Assessment has been undertaken to determine the potential impacts that construction of the proposed Project will have on sensitive receptors such as buildings and infrastructure from the advance of the TBM. The ground movement predictions and the building damage assessment methodology adopted for MetroLink is based on the approach adopted in most tunnel projects around the world, including London Crossrail and High Speed 2 in England. This is described in EIAR Section 5.4.11 (Ground Settlement Monitoring and Mitigation Works). Excavation for the tunnels and other below ground structures could potentially lead to ground movements at the surface and below ground. An assessment of the effects of ground movements and potential impacts on existing buildings has been carried out as part of the Scheme Design. EIAR Appendix A 5.17 Building Damage Report covers the assessed impacts of construction generated ground movements and settlement on property. Section 5.2 of this report sets out the rationale for the assessment of properties. The results of the assessment provided in Table 5.2 shows that your property Ref B-237 has been assessed as falling within the '<i>Very Slight</i> ' category. The building risk categories indicate that damage will consist of fine cracks that can easily be treated during normal decoration. As your building falls within Damage Category 2 or below, no protection works are anticipated for this building and further assessment is not required. Please refer to Response (9) above related to POPS. TII confirm that monitoring will be undertaken in accordance with the CNVMP, referred to in response (4) above. Monitoring and auditing will be transparent. It is envisaged that monitoring data and audit results will be presented and shared in community forums. TII will consider options for sharing that data and results with the public and stakeholders in a timely and transparent way which may include the use of online portals and tools. It proposes that is not fixed by way of condition so that the content and manner of can be adapted to the changing circumstances of the project over time. In relation to the proposed ten year window for subsidence damage remedy, TII note that the highest risk of subsidence will be during the station construction and tunnelling phase that will be completed in the first 6 years of the Project. The scheme will be in place for the full duration of the programme of works at Mater, approximately 9 years.
11	Construction Impact	2	Provision needs to be made not only for damage to all property in the area, resulting from the construction of the station and tunnel but also for the property owners in situations where the inhabitants need to be rehoused due to airborne noise and vibration or are made ill due to the dust and pollution levels during construction. It is inappropriate that compensation would only be given to the occupier / owner when it is a construction project that will affect the properties of the many different categories of ownership and property investment in this area such as home owners, landlords, business owners.	Please refer to Response (9) above related to POPS and compensation.

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1	Statutory Consultation for two projects at a time	1	The decision by the NTA to run the statutory planning consultation for both the Bus Connects Core Bus Corridor and Metrolink projects at the same time was unfair to residents, both projects overlap in a large part of my constituency namely, Northwood, Ballymun and Glasnevin. Both projects involved a fee of €50 and require very detailed analysis, which may deter residents from lodging submissions.	TII recognise the challenge presented to residents in having to participate in statutory public consultation schemes for MetroLink and BusConnects at the same time, however, the required fee for making a submission on the schemes is not a matter for TII	
2	Ballymun Station	1	It is imperative that the proposed station on the old Ballymun Shopping Centre take into account proposals from Dublin City Council for the site	TII have and will continue to liaise with DCC to ensure our plans remain aligned. As noted in the Planning Report (submitted as part of the Railway Order), Ballymun Station lies under lands zoned as Z4, which have the objective to provide for improved mixed-services facilities, and any development proposals in Z4 lands should serve the needs of the surrounding catchment through the provisions of a wide range of retail, commercial, cultural, social and community functions and residential uses that are well served by public transport. The proposed Project will deliver the public transport that will significantly increase the accessibility of the Z4 lands in Ballymun and increase attractiveness of Ballymun town centre as a focus of retail, employment, cultural and social uses. A metro project is directly identified within the Local Area Plan as a key project to regenerate the town. The station location has been selected within the Z4 lands to maximise the available land for these other development uses. The station does not affect the map-based objectives of the Dublin City Development Plan and the proposed station arrangement has been discussed with DCC to ensure compatibility with the future adjacent development. The future development of the proposed Ballymun shopping centre will be subject to a separate planning application and process and does not form part of this submission.	
3	Intervention shaft at Albert College Park	1	There is a lack of information on the proposed shaft in Albert College Park and its potential impact on the environs. There are no definite dimensions or detailed studies on the impact of noise, and residents have also questioned the consultation on this element of the project given it was only needed after changes to the nearby Griffith Park station which warranted a shaft. A hand drawn version of the shaft was provided to residents in 2019, just two days before the deadline on the preferred route. There was a very brief consultation on the shaft in 2020, but that again lacked detailed information.	TII disagree that there is a lack of detail with regard to Albert College Park Shaft. The rationale for the location, layout, access provision, finishing and landscaping of the proposed Albert College Park Shaft are provided in the Report on the ACP Tunnel Intervention Shaft included as Appendix A8.16 of Chapter 8 of the EIAR. Furthermore, as set out in the EIAR Chapter 4, section 4.17.5, and detailed on drawing ML1-JAI-SRD-ROUT_XX-DR-Y-03001 Plan Drawings ML-VT- 304 G-H in EIAR Structures Drawings Book 3 of 3, the shaft is located on the South West corner of Albert College Park. To address the concerns received from the preferred route consultation and developed into the preliminary design the above ground structure will consist of a brick clad building at the top of the access shaft, with the remainder of the structure below ground. Dimensions are included on that drawing. Access and egress has focused on resident feedback with both provided onto Ballymun Road. Assessment regarding the environmental impact of both the construction and operation of the Albert College Park shaft has been undertaken and presented in the relevant EIAR chapters. Regarding airborne noise, information is provided in Chapter 13 (Airborne Noise and Vibration). Construction noise is discussed in section 13.5.2.6.3 Albert College Park Intervention Shaft. Regarding operational noise, section 13.2.5.2.4 Fixed Airborne Noise Sources, the specific noise level from ventilation systems will be calculated as part of the further design development. Specifically, the operational noise level from each shaft and surface grill will be calculated to the nearest sensitive areas to each and specific attenuation designed for each system to not exceed the relevant design criteria for each location. As part of the design development of the station plant and ventilation systems, the background noise level at the nearest and most exposed Noise Sensitive Locations to each fixed item of plant will be determined for day and night-time periods. As referred to in EIAR Appendix A8.15, the outline details of the proposed shaft were shared during the Local Area Consultation in early 2020, refer to the Albert College Park Tunnel Intervention Shaft document provided as part of that consultation and which can be found at https://www.metrolink.ie/media/xayem4da/albert-college-park_technical-document.pdf.	

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4	Impact on schools and the OLV Church on the Ballymun Road.	1,2	As stated in the EIAR for option A (The preferred route) "A station at this location would be requiring temporary and permanent land take from Our Lady of Victories Church grounds. There would be potential direct impacts of noise, visual and dust disturbances during the construction phase on sensitive receptors such as the abovementioned church, nearby schools and residents etc. There could be disruption to traffic along R108 during construction thereby causing access impacts to local population. There is the potential for impacts on the setting of buildings with architectural heritage value, and potential for damage to possible buried archaeological assets during construction" As also indicated in the EAIR the noise assessment is majorly /highly negative scoring 1 (the highest). There are three primary schools, a church, two assisted living complexes as well as several hundred residential properties and family homes within 50 meters of the proposed construction site of the station.	With regard to this observation TII would like to clarify what the EIAR has reported on the environmental impact of the issues raised. TII acknowledge that there is potential for significant environmental effects on the surrounding area to the proposed MetroLink station if not mitigated effectively. However, as detailed in relevant chapters of the EIAR, and described below, TII's assessment shows that it is possible to mitigate the potential impacts identified at this location during the construction period. Once the construction phase is completed, the location of a MetroLink station at OLV Church will provide significant positive benefits to the local community in terms of enhanced public transport provision, reduced traffic and the resultant improvements in the environment, with reduced noise and air quality pollution. Traffic As noted in Chapter 09 (Traffic and Transport) and Appendix A9.5 Scheme Traffic Management Plan, during all phases of the Enabling Works, the existing right turn from Ballymun Road to Albert College Court will be banned. This will require the vehicles accessing this area to route via Collins Avenue and Albert College Park. While the exact diversion routing will vary depending on the vehicle origin/destination, the most direct version is approximately 750m and as a worst-case scenario (during the PM peak period) will result in a journey time increase of 5 minutes. The diversion is illustrated in Appendix A9.5. During both Phase 1 and Phase 2 of the Main Works, the closure of the Ballymun Road and Albert College Court junction is necessary due to the construction of the site footprint. Alternative access for residents in Albert College Grove/Court/Avenue/Court and Lawn, will be provided from the existing Collins Avenue Extension to the north of the site. The diversion is illustrated in Appendix A9.5. Traffic impacts along the R108 are noted in Appendix A9.5, Appendix D - STMP, section 5.3.3 Collins Avenue Construction Phase TTM Works, Traffic Impact Analysis, with proposed traffic management drawings included in Appendix B. Prior to implementation, all traffic management measures will be agreed with the relevant local authority (FCC or DCC) and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. Where detour routes are required, these will be kept as short as possible and detour signage will be clear and easy to understand. A summary of Mitigation Measures in the Construction Phase is presented in Table 9.147 of the EIAR Chapter 9 (Traffic & Transport). The mitigation measure for Ballymun Road for general traffic is to monitor if closure is required at all points, or if it can be reinstated temporarily throughout the works; and to coordinate spoil removal to minimize cumulative impact of HGV routing. Construction vehicles will be controlled in terms of the hours for operation (i.e. construction traffic may be prohibited during periods of very heavy traffic) to minimise disruption. Air Quality EIAR Chapter 16, Air Quality, assesses the likely effects of the Project on Air Quality during the construction phase with mitigation measures proposed where required. Air Quality during the construction phase will be impacted by traffic and dust emissions resulting from construction activities at the Collins Avenue Station site from Earthworks, Construction and Track out (Maximum Daily HGV Movements). Table 16.44 presents a summary of predicted dust emission magnitudes from the main construction sites, the results for the Collins Avenue Station site being: - Earthworks - Large; - Construction - Small; - Track out – Large; This has resulted in defining the site-specific mitigation level as High and thus mitigation will be required. A detailed list of Dust Mitigation Best Practice Measures for each construction activity is presented in Appendix 16.4 Dust Management Plan. Before commencing relevant works, an Air Quality Management Plan Ref EIAR Appendix A5.1 (CEMP) section 6.3 Air Quality and Climate, will be prepared and submitted for approval to the relevant local authority, in this case DCC. The plan will include all appropriate dust and emissions mitigation measures applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. A plan will be developed by the contractor for each worksite, including Collins Avenue Station. Strict dust prevention will be in place at all times to minimise any potential emissions and these procedures will be strictly monitored and assessed to maintain acceptable levels. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations. Refer to EIAR Appendix A5.1, Table 6.3: Air Quality and Climate Measures.	

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			Response (4) continued.	Noise and Vibration Potential impacts associated with noise and vibration during the construction and operational phase of MetroLink are addressed in EIAR Chapter 13, Airborne Noise & Vibration, with mitigation measures proposed where required. The assessment of airborne noise and vibration during the construction of Collins Avenue Station includes the consideration of a number of receptors on Ballymun Road. Table 13.59 of Chapter 13 presents the potential significant airborne noise impacts, which includes receptors with predicted Moderate to Significant, and Significant to Very Significant impacts during some of the work phases. EIAR Chapter 14, Ground-borne Noise and Vibration includes the specific control measures proposed across the Project to control vibration sources with the potential to result in disturbance to building occupants or building damage. EIAR Appendix 14.5 Groundborne Noise and Vibration Blasting Modelling Results presents predicted groundborne noise and vibration levels during the construction phase of the project for buildings on Ballymun Road. Airborne Noise and Vibration (ref EIAR Chapter 13) In order to manage and mitigate airborne noise, the Contractor will be required to set out mitigation proposals in their Construction Environmental Management Plan (CEMP), an outline of which is included in EIAR Appendix A5.1. Should an Enforceable Railway Order be granted, prior to the commencement of any construction works, a detailed noise assessment for each work site will be undertaken based on the most up to date information for each. There is no published statutory Irish guidance relating to the maximum permissible noise level that may be generated during the Construction Phase of a project. Local authorities normally control construction activities by imposing limits on the hours of operation and consider noise limits at their discretion. Additionally, the contractor undertaking the construction of the works will be required to take specific noise abatement measures to the extent required and comply with the recommendations of BS 5228-1 (BSI 2014a). The Transport Infrastructure Ireland (TII) Airborne Noise and Ground-borne Noise Mitigation Policy (Appendix A14.6 of EIAR Chapter 14) sets out the construction noise insulation and temporary rehousing measures to be implemented, if required. Groundborne Noise and Vibration (ref EIAR Chapter 14) During TBM passage at Collins Avenue Station, there is a predicted noise value of LASmax slightly below 50dB. Receptors within 65m of the tunnel centreline will experience significant groundborne noise for a period of up to two weeks as the TBM passes. A summary of the residual impacts from tunnel boring is presented in table 14.49 (EIAR chapter 14), which predicts significant temporary residual impacts for noise and vibration at Scoil and tSeachtar, Our Lady of Victories and Albert College Court during tunnel boring. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from the TBM at source, but noting that the duration of this impact will be temporary and of the order of up to two-weeks as the TBM passes. TII will undertake advanced consultation and stakeholder engagement to prepare people for the passing of the TBM. There will be no significant effects with regard to groundborne noise and vibration during operation at Collins Avenue Station. For further information on residual effects during operation, please see section 14.6.2 of EIAR chapter 14. Architectural Heritage and Archaeological Assets: Please refer to Response (7) below in relation to the impacts to architectural heritage. EIAR Appendix A5.1 (CEMP) identifies the contractor's requirements for the protection of Archaeology, Architectural and Cultural Heritage assets (ref section 6.8). EIAR Chapter 26, Architectural Heritage, section 26.5.4.2 Collins Avenue Station, sets out construction and operational impacts at Collins Avenue station with proposed mitigation indicated in Table 26.66: Proposed Mitigation.

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5		2	If the RO is given the go ahead of this option and in order to alleviate some the issues raised above, Metrolink must have a detailed plan in conjunction with the Church, Schools and local residents associations to lessen some of the impacts.	Please refer to Response (4) above in relation to the proposed mitigation measures to lessen the identified impacts. EIAR Chapter 5: MetroLink Construction Phase, section 5.12.4.5 sets out TII Plans for Community and Engagement during the detailed design and construction Phase. A Stakeholder and Community Engagement Plan has already been developed which has guided the frequency and means of communication to date. The proposed Project will continue to progress community engagement by: • Regularly reviewing and updating stakeholder and community engagement plans; • Actively maintaining partnerships and design focus groups established with the community; and • Communicating in a timely and open manner. Through the ongoing development of this plan, it is proposed that TII and its appointed contractor(s) will ensure that local residents, occupiers, businesses, local authorities and all other stakeholders affected by the proposed construction works, as outlined in this EIAR, will be informed in advance of work taking place. A Project Construction Traffic Forum will also be established with relevant stakeholders, ref Appendix A9.2 Overall Project Traffic & Transportation Assessment, section 7.1.2. In addition a Freephone helpline where concerns can be directed will be provided (ref EIAR Chapter 5 Metrolink Construction Phase, section 5.4.12.	
6		2	There will also be disruption to traffic along the R108 during construction. Access to the church and surrounding open space would be disrupted during construction, and there would be disruption with limited access to the schools.	Please refer to Response (4) above in relation to the identified impacts to traffic during the construction phase. EIAR Appendix A9.5 Scheme Traffic Management Plan, section 7.4, Collins Avenue Station, describes construction impacts associated with the Collins Avenue Station, including traffic, public transport, cyclists and pedestrians and vulnerable users. We understand that Our Lady of Victories Church is an invaluable asset to the community and is used by groups with varied levels of mobility. Measures will be implemented in order to maintain access to the church during construction and operation of MetroLink. Members of the community who use public transport to travel to the church will not be impacted during construction of the Collins Avenue Station. The existing bus lane on Collins Avenue will be maintained in both directions, with journey times for public transport unlikely to be significantly impacted. Only one bus stop, 115, will be temporarily relocated via a temporary path to the east of the church. During the construction of Collins Avenue Station, footways will either be retained in their existing location or realigned to a similar standard. There are no footway, footpath or cycle lane closures that would require users to significantly divert from the existing routing, therefore maintaining access to the church for people who walk or cycle. There will also be a temporary footpath constructed to the rear of the church in order to maintain access from Albert College Court. Vehicles accessing the church car park will be required to use a diversion via Albert College court, hence maintaining access during all project stages. Further details of construction impacts on transport are found in Section 9.6.1.2.4.1. and Section 9.6.1.2.4.3 of Chapter 9 (Traffic and Transport) of the EIAR. Full access of the church to the public will be reinstated during the operation of the proposed Project, with further street furniture implemented to increase pedestrian comfort levels (Section 9.6.2, Chapter 9 of the EIAR). Collins Avenue Station will create another means of travel to and from the church, opening it to the wider community. As outlined in EIAR Appendix A9.5, section 2.5.2, a number of remedial measures will be put in place to mitigate the impacts of the construction traffic. Alternative arrangements will be provided if road closures are unavoidable, i.e. diversions, signage strategies for access traffic and through traffic, as well as imposing reduced speed limits on roads adjacent to construction sites in order to ensure the safety of all road users. Additionally, at this location, the traffic management will reduce the R108 Ballymun Road in this section to 4 lanes - one general traffic lane in each direction, and one bus lane in each direction. TII acknowledge the fact that school age children will need to be provided with additional and ongoing information to ensure that there is a full understanding of the safe access and egress arrangements from the school during different phases of work. To this end, TII will engage with the school authorities to agree an information campaign that can be used. Access to the school will be maintained. Informal parking in the bus lane on the R108 will be restricted as part of the works (ref EIAR Appendix A9.5, section 7.4.6.3.6 Impact on Schools.	

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7		2	In the EAIR it states that "Vibrations may be felt at the Church at times. Suitable mitigation measures would be taken for the stained-glass windows of the adjacent church so that they don't get damaged due the vibration during construction. Construction dust has the potential to impact sensitive receptors in the vicinity of the site". I support residents view that houses in the immediate area of the proposed works on the Ballymun Road/Albert College may also require mitigation measures to deal with the dust and vibrations arising from the works.	Please refer to Response (4) above in relation to the proposed mitigation measures to lessen the identified impacts of dust, noise and vibration. Airborne noise and vibration impacts and proposed mitigation measures are provided in Chapter 13: Airborne Noise & Vibration, with specific building assessments including for properties along the Ballymun Road past the station location, and for Our Lady of Victories Church, presented in EIAR Appendix A13.7 Construction Phase Modelling, Collins Avenue Station. Measures to restrict dust are noted in the EIAR Appendix A5.1 CEMP. Our Lady of Victories Church is recognised as an important architectural heritage asset in Dublin and is included in the NIAH (reference 50130121). Measures will be implemented during construction to ensure the church is not damaged. The method of construction will take into account the sensitivity of the church, in particular the stained glass windows. As per the Cultural Heritage Strategy, the stained glass windows will remain in situ during construction. Detailed mitigation measures to protect the church during construction can be found in Table 26.66 of Chapter 26 (Architectural Heritage) of the EIAR. Our Lady of Victories Church is recognised as a Noise Sensitive Location (NSL) and it is predicted that Construction Noise Levels (CNLs) will exceed Construction Noise Thresholds (CNTs) (65 to 75dB LAeq,T) during different phases of work (Table 13.59, EIAR Chapter 13 (Airborne Noise & Vibration)). In terms of vibration, the threshold of 3PPV is not predicted to be exceeded at Our Lady of Victories Church, however the predicted level of 2.7PPV is close to the threshold (EIAR Chapter 14, Ground-borne Noise and Vibration). As the church is a sensitive building, mitigation from blasting will be implemented and vibration monitors are to be provided in the church in the vicinity of the works with alarms to identify any vibration that exceeds acceptable levels. In the event of the alarms being triggered works are to cease until the cause of the vibration is identified and systems modified to prevent recurrence. There will be no significant effects on the church with regard to ground-borne noise and vibration during the operational phase (Section 14.6.2.1, Chapter 14 Ground-borne Noise and Vibration of the EIAR).
8		2	I share the concerns of residents around the impact on traffic on the Ballymun Road. This section of Ballymun Road is an already heavily utilized area and is one of the busiest throughfares to and from Dublin City Centre. Under normal (pre-Covid) circumstances according to the TII traffic data website, an average of 15,000 cars daily uses the R108/Ballymun Road northbound to access the M50. It is also one of the busiest arterial routes to the city centre for southbound traffic travelling from the M50 and M1 motorways. This is without the proposed changes stated in the Core Bus Corridor projects for the same area. The disruption caused by the construction will have a very negative impact on the surrounding area and daily commuters on all methods of transport, bus, car and bike. Clear sequencing must be put in place for both projects to ensure minimal disruption.	EIAR Appendix A9.5 Scheme Traffic Management Plan presents an assessment of the impact on general traffic on the Ballymun Road during the construction of the Collins Avenue Station. Detailed modelling results for this area are presented in Appendix D of Appendix A9.5. Analysis indicates that the Collins Avenue/Ballymun Road junction will operate over capacity during the peak construction year. This will result in increases in driver delay during both peak periods, with delays of up to 7 minutes on the Ballymun Road in the evening peak. A summary of Mitigation Measures in Construction Phase are presented in Table 9.147 of the EIAR Chapter 9 (Traffic & Transport). The mitigation measure for Ballymun Road ~~for~~ for general traffic is to monitor if closure is required at all points, or if it can be reinstated temporarily throughout the works; and to coordinate spoil removal to minimize cumulative impact of HGV routing, Construction vehicles will be controlled in terms of the hours for operation (i.e. construction traffic may be prohibited during periods of very heavy traffic) to minimise disruption. The impact of the Project has been assessed on the basis that BusConnects works would be completed and operational prior to the commencement of works associated with MetroLink, and therefore BusConnects infrastructure is considered to be part of the baseline receiving environment for MetroLink. As noted in Appendix A9.5 Scheme Traffic Management Plan, the Do-Minimum model network consists of a 2028 base network with the addition of the R132 Connectivity Study, and the proposed BusConnects Infrastructure designs, including the proposed bus gate on St Mobhi Road, and the operational changes around Blackhall Palace. Therefore, it is not anticipated that the construction works for BusConnects will overlap with the works associated with the Project. TII has, and will continue to, engage with BusConnects through the planning and delivery of the Project to ensure disruption is minimised where possible.
9		2	Albert College Residents will have no or restricted access to Ballymun Road.	Please refer to Response (4) above in relation to the impacts to traffic and local access during the construction of Collins Avenue Station.

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10		2	I would share the concerns of the Albert College, and Ballymun Road residents' association that should the station go ahead at the church site that a condition of the RO be that the parking for the school is built next to Ballymun Library and that the Albert College estate walkway for schools is not provided.	As stated in EIAR Appendix A9.5 Scheme Traffic Management Plan, the Enabling Works and Main Works will have an impact on students, parents and teachers accessing the Our Lady of Victories Schools, which are located on the west side of the R108, to the north east of the works areas. For those who walk to the premises, the signalised pedestrian/toucan crossing outside of the front of the school will be retained during all works and will continue to allow safe access for pedestrians and vulnerable users. Due to the constrained lane capacity during the works, and the relocation of bus stops, temporary parking on the R108 as part of a 'drop-off' will be restricted. A hierarchical approach to traffic management has been adopted with pedestrian/cyclists, public transport and commercial needs provision taking preference over private car usage. The use of Ballymun Library is not considered necessary in the EIAR for parking although, as noted above, prior to implementation, all traffic management measures will be agreed with the relevant local authority (FCC or DCC) and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken.	
11		2	The Environmental Assessment Report of the Options for the Collins Avenue station being updated on the 17th of November 2022 was inconsiderate. Many residents group had already lodged their observations as it was released and updated only 8 days before observations closed.	TII published information inadvertently omitted from the EIAR which accompanied the application for a railway order, which contained further information in relation to the likely effects on the environment of the proposed railway works. The information omitted was a section of Appendix A9-2, being Appendix A9-2-M Traffic and Transportation Assessment – St Stephen's Green Station and did not relate to Collins Avenue Station. TII regrets any inconvenience caused as a result of this omission and has made every effort to ensure that this document has been widely circulated for inclusion in the consultation process.	
12		3	Given all of the points made above and noting the submissions by GADRA , Albert College Residents Association & Ballymun Road North Residents and Hampstead Avenue Residents. I would support the moving of the Collins Avenue station to Albert College Park. Overall, this would mean less disruption for residents, traffic on the Ballymun Road, schools and OLV church. This is backed up by the Environmental Assessment Report "Although all the options are situated in an urban setting, Option 3 would be situated within a park, requiring the removal of mature trees, thereby affecting biodiversity and landscape. Option 3 is also the only option that completely avoids construction within a highway, and hence would cause least disruption of traffic"	As outlined in EIAR Chapter 7, Consideration of Alternative, section 7.7.10.7, the assessment undertaken for the Emerging Preferred Route (EPR) identified a preferred route option including the proposed station location in front of Our Lady of Victories (OLV) Church. This location for the station provides a number of advantages when compared to other location options, including Albert College Park: (1) It allows the Project to achieve a core project objective of providing public transport that is integrated in the existing and future proposed transport network, providing for interchange between bus routes both on Collins Avenue and on Glasnevin Road. A station location further south at the northern section of Albert College Park would not provide a good level of interchange as there would be over 500m separating potential bus stop locations on Collins Avenue and the MetroLink station. (2) The proposed Collins Avenue Station will have a significant catchment area, noting the analysis undertaken at the Emerging Preferred Route (EPR) stage identified this route option had the highest potential passenger numbers when compared with other route options. (3) During the construction phase, the location of a station within the frontage to Our Lady of Victories means that traffic disruption to Dublin would be reduced when compared to the location of a station within the road corridor (partially or fully). TII acknowledge that there is potential for significant environmental effects on the surrounding area to the proposed MetroLink station if not mitigated effectively. However, as detailed in relevant chapters of the EIAR, TII's assessment shows that it is possible to mitigate the potential impacts identified at this location during the construction period. Once the construction phase is completed, the location of a MetroLink station at OLV Church will provide significant positive benefits to the local community in terms of enhanced public transport provision, reduced traffic and the resultant improvements in the environment, with reduced noise and air quality pollution. EIAR Chapter 7, section 7.7.11.1 also covers the environmental impact assessment undertaken considering the possible locations for the intervention shaft, and why Albert College Park was determined as the optimum location for reasons of; it is no more than 1000m from either Collins Avenue or Griffith Park stations; it is adjacent to the tunnel on the west side of the park in order to reduce the length of connecting tunnel; the park area is the only "open space" on the MetroLink route between the two stations and as a result the location of the intervention shaft here avoids the requirement for any demolition; and the tunnel intervention shaft can be accessed easily by emergency vehicles with enough area for safely congregating passengers in an emergency. TII further note that due to the necessity of retaining a maximum 1000m between intervention points, locating a station in the south west of Albert College Park would require an intervention shaft between there and the Ballymun station. A station in the northwest corner of ACP would require an additional intervention shaft between that location and Griffith Park station, within the built-up area.	

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13	Impact of Core Bus Corridor projects	3	There appears to be a lack of clarity around the works for the Metrolink and the Core Bus Corridor project, both projects involve significant disruption to the Ballymun Road area.	The impact of the Project has been assessed on the basis that BusConnects works would be completed and operational prior to the commencement of works associated with MetroLink, and therefore BusConnects infrastructure is considered to be part of the baseline receiving environment for MetroLink. As noted in Appendix A9.5 Scheme Traffic Management Plan, the Do-Minimum model network consists of a 2028 base network with the addition of the R132 Connectivity Study, and the proposed BusConnects Infrastructure designs, including the proposed bus gate on St Mobhi Road, and the operational changes around Blackhall Palace. Therefore, it is not anticipated that the construction works for BusConnects will overlap with the works associated with the Project. As noted in Response (8), TII has, and will continue to, engage with BusConnects through the planning and delivery of the Project to ensure disruption is minimised where possible.	
14	Access to Independent expert advice	3	I support GADRA, Albert College Residents Association & Ballymun Road North Residents and Hampstead Avenue Residents belief that it is critical that independent expert advice is available to residents and stakeholders during the enabling works and the construction phase.	Access to the Independent Expert was provided in September 2021, following the appointment of RINA. This appointment coincided with the completion of the preliminary design and was the most appropriate time for the Independent Expert to begin their review of the MetroLink Preliminary Design proposals. The services of the Independent Engineering Expert (RINA) are due to be concluded on completion of the Railway Order process (expected in 2024). The continuation of provision of independent engineering advice for residential stakeholder groups throughout the enabling works and main construction stages of the MetroLink project is currently being considered as part of an overall comprehensive community engagement plan, which will include amongst other initiatives, the appointment of dedicated MetroLink liaison representatives and local community forums which will provide detailed updates on construction activities in their areas.	
15	Points of Contact during the construction phase	3	In the EIAR it states that "The Contractor will provide proactive community relations and will distribute information circulars informing people of the progress of works and any likely periods of significant noise and vibration. A designated noise liaison officer will be appointed to site during construction works. All noise complaints will be logged and followed up in a prompt fashion by the liaison officer." I would support calls for a TII/NTA point of contact be made available to residents also to deal with complaints and issues during construction.	Chapter 5: MetroLink Construction Phase, section 5.12.4.5 sets out TII Plans for Community and Engagement during the construction Phase. A Stakeholder and Community Engagement Plan has already been developed which has guided the frequency and means of communication to date. The proposed Project will continue to progress community engagement by: • Regularly reviewing and updating stakeholder and community engagement plans; • Actively maintaining partnerships and design focus groups established with the community; and • Communicating in a timely and open manner. Through the ongoing development of this plan, it is proposed that TII and its appointed contractor(s) will ensure that local residents, occupiers, businesses, local authorities and all other stakeholders affected by the proposed construction works, as outlined in this EIAR, will be informed in advance of work taking place. A Project Construction Traffic Forum will also be established with relevant stakeholders, along the provision of a Freephone helpline where concerns can be directed. Community Relations Officers (CRO's) will be employed during the construction of the proposed Project and contact details will be provided on the proposed Project website so that stakeholders and communities can make contact as required. The CRO's will be responsible for maintaining open, transparent and positive relationship with members of the public, local businesses, groups and organisations affected by the works. Specifically, the CRO's will work closely with Transport Infrastructure Ireland and the appointed contractor(s) to ensure that all effort to address public concerns are made, and to ensure that information on the nature and duration of all works is provided (ref EIAR Appendix A5.1 CEMP, Table 6.11 topic PL3).	
16	Naming of Stations	3	The name Glasnevin station does not reflect the area it is in as Glasnevin covers a large geographical area, this may cause confusion. There are several reasons for this, Glasnevin Village itself is over a kilometre away from the proposed station. A more appropriate name might be Cross Guns or Prospect station, thus protection the heritage of the city.	The station is name Glasnevin Station for the purpose of the Railway Order Application. There are no current plans to change its name.	
17	Link to other Transport projects	4	Given the expected extension of the Luas to Finglas in the coming years a future link between both projects would add greatly to the connectivity of the city. The distance between the proposed Luas stop at Charlestown and a Proposed Metrolink stop in Northwood is minimal.	The Preferred Route for Luas Finglas has been identified through its own planning and appraisal process as a separate project of the NTA, and therefore has not been considered within this project. Interchange between MetroLink and the Luas Green Line is facilitated at O'Connell Street, St. Stephen's Green and Charlemont, with the Northwood Station offering interchange with future BusConnects services that will serve the wider populations.	

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1	Letter	1	While we welcome the construction of the MetroLink we have the following concerns: A) Noise pollution. We note proposed 24hr round the clock construction at the Glasnevin site. We are concerned about the noise this will generate from increased traffic on the roads as well as the works.	Thank you for your submission and for sharing your observations with regards to the MetroLink project to which we have responded below. As presented in the EIAR Chapter 5 (MetroLink Construction Phase), Section 5.2.4 Working Hours, the majority of works will be done during standard working hours, from 07:00hrs to 19:00hrs on weekdays (excluding Bank and Public Holidays) and from 07:00hrs to 13:00hrs on Saturdays. There are, however, some activities that will require a 24hr per day working program and in the case of Glasnevin station these are: •Sliding new rail bridge into position; •MEP station works; •Blockades or weekend possession work required with Irish railway (GSWR & MGWR). However, vehicles will not require 24hr access to the site. As presented in EIAR Chapter 13 (Airborne Noise and Vibration), traffic noise levels have been calculated along all modelled roads over the full extent of the ERM, associated with the Do Minimum and Do Something scenarios for the northern peak year, 2028 using the AADT data per fleet type for each road. For Botanic Road, the construction traffic noise impacts are neutral to not significant based on the peak construction month in 2028. The construction traffic volumes used in the assessment are based on the reasonable worst case peak scenario which reflects a ‘worst case month’ under which the construction of multiple work sections are taking place concurrently as part of the proposed Project. Mitigation measures to reduce noise from construction traffic are limited to restricting speed limits, maintaining road surfaces and ensuring all vehicles are properly maintained. In addition, any coverings on construction vehicles will be securely fastened before leaving site to avoid excessive ‘rattling’. TII understand the reasons for your concerns and would like to provide the assurance that the potential disturbance impact on your property as a result of the proximity of the proposed tunnel and station has been carefully assessed. This includes the impact of noise and vibrations from: the tunnel boring machine (TBM), mechanical excavation and blasting; construction generated ground movements leading to settlement and possible building and property movement; and the operation of MetroLink. All of which have been assessed and reported in the EIAR and are summarised below. With exception of a temporary disturbance when the TBM passes your property, TII are predicting a ‘not significant’ impact to the building occupants and your building. Construction Phase – Airborne Noise and Vibration EIAR Chapter 13 Airborne Noise and Vibration, Table 13.62 summarises the potential significant construction noise impacts from the construction of the proposed Glasnevin Station, however your property is approximately 400m from the construction site and therefore is not anticipated to have significant impacts. Noise mitigation measures are detailed in section 13.6.1 and include for a proposed 4m high acoustic noise screen along the northern, eastern and southern boundaries of the Glasnevin construction compound. Surface activities to support sprayed concrete tunnel construction will be enclosed within an acoustically clad steel framed building to control airborne noise breakout to surrounding receptors. With these mitigations the construction impacts are reduced.

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Organisation Name or Name of Submitter			Peter and Breda Gregory (78 Botanic Road, Glasnevin)	
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			Response (1) continued.	Construction Phase – Groundborne Noise and Vibration EIAR Chapter 14 Groundborne Noise and Vibration, Appendix 14.5 presents the predicted groundborne noise and vibration levels during the construction phase of the project for 78 Botanic Road: • The predicted level of groundborne noise during TBM passage is 50 dB LASmax, which is above the 45 dB LASmax threshold resulting in a significant impact on the occupants of the building for the relatively short duration of TBM passage. • The predicted level of groundborne vibration during TBM passage is 0.273 ms-1.75 day and 0.23 ms-1.75 night, below the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) Threshold Level of 1.0 ms-1.75 day and 0.5 ms-1.75 night, resulting in a not significant impact on the building. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from the TBM at source but noting that the duration of this impact will be temporary and of the order of up to two-weeks as the TBM passes. TII will undertake advanced consultation and stakeholder engagement to prepare people for the passing of the TBM and ensure the timing of these impacts are known. TII's contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project as referred to in EIAR Appendix A5.1, Outline Construction Environmental Management Plan (CEMP). The CNVMP will be a live document and will include a full monitoring and auditing programme which will be agreed with the Local Authorities prior to the commencement of the Construction Phase, including predetermined monitoring trigger levels to ensure noise and vibration limits are not breached, noting that it is not possible to mitigate TBM groundborne noise and vibration at source. Table 6.2: Noise and Vibration Measures of the Outline CEMP outlines the monitoring programme requirements. The Transport Infrastructure Ireland (TII) Airborne Noise and Ground-borne Noise Mitigation Policy (Appendix A14.6 of EIAR Chapter 14) also sets out the construction noise insulation and temporary rehousing measures to be implemented where required.

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2	Letter	1	B) Construction traffic. We are concerned about the increased traffic on Botanic Road and Harts corner. Hart’s corner is already an extremely dangerous junction for cyclists, pedestrians, and motor vehicles. We are concerned that increased traffic could result in more accidents and possible fatalities if not managed appropriately.	The safety and security of pedestrians, cyclists and other vulnerable road users is a priority for TII. EIAR Appendix A9.5 Scheme Traffic Management Plan presents the proposed mitigation measures to ensure the safety of all road users: - Construction vehicles will be controlled in terms of the hours of operation (i.e., construction traffic may be prohibited during periods of very heavy traffic) and by imposing restriction on vehicle size and weight; - There will be controls at the entrance/exits of sites for construction vehicles in order to ensure the safety of other road users. - Pedestrian routes will be maintained throughout the construction period, either around or through the construction site, where safety risks to the general public will not increase as a result of construction activity; - In very sensitive areas, the designated access and pedestrian routes around the construction sites, particularly at and/or along the hoarding lines, must not be perceived as uninviting by pedestrians. The environment around the sites, therefore, will be designed to ensure that pedestrians and cyclists feel they are entering a safe and accessible environment. This will ensure that impact to businesses and shops adjacent to the works areas is minimised. - Temporary pathways and cycle ways will be installed where appropriate and provision will be made to ensure access for the mobility impaired is maintained; and - Where the existing level of service cannot be maintained in the vicinity of the construction sites, an alternative route will be designated, be clearly visible, be safe and be signed and have the level of service required to cater for the pedestrian demand. - Throughout the Construction Phase, ongoing monitoring will be required of the specified HGV haul routes. EIAR Appendix A9.5 Scheme Traffic Management Plan details the impacts of the temporary traffic management plans on road users. The Advanced Enabling Works for Glasnevin Station result in a slight impact for general traffic. Results indicate that the removal of the bus lane and general traffic lane will result in a reduced capacity, with a 3% increase of volume in the morning peak, and a 2% increase in volume in the evening peak. This increase in volume will result in a delay of approximately 40 seconds. During the main works, the construction site boundary is primarily contained away from the traffic network and therefore there is likely to be no significant impact on traffic flows during this phase. Model outputs indicate a minimal change in HGV volumes. Cyclists using the designated primary cycle route on Prospect Road will be unaffected, however the greenway on Royal Canal Way will be closed. However, a diversion route is proposed, mitigating the severity of the impact. This diversion is presented in EIAR Appendix A9.5 Scheme Traffic Management Plan section 7.6.6.3.2. The haul routes for construction traffic have been determined based on a review of all potential road crossings/access points for traffic to and from the construction sites/compounds and based on the identification of those road crossings/access points with the capacity to accept a large number of vehicle movements. As detailed in Appendix A5.1 Outline CEMP, construction vehicles will be strictly controlled in terms of hours of operation, and by imposing restriction on vehicle size and weight. Traffic management plans have been developed to minimise congestion and disruption to all road users, and to maintain continual access to businesses and other premises. The Dublin City Council urban traffic signal control system will be used to optimise the flow of traffic along the diversion routes to mitigate queuing and delay which would otherwise be expected during peak periods. Further details on the impact to traffic and transport are presented in Chapter 9 and the associated appendices.

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3	Letter	1	C) Subsidence of our property and those around us.	EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. Section 5.2 of this report sets out the rationale for the assessment of properties similar to yours. The results of the assessment provided in Table 5.2 show that your property (represented by reference B-141) has been assessed as falling within the 'Very <i>Slight</i> ' category during the initial Phase 2a Assessment, and '<i>Negligible</i> ' during the refined assessment. The building risk categories shown in Table 4-4 of the aforementioned report are used to define the degree of building damage related to the Risk Category. Negligible impacts refers to hairline cracks. TII is committed to having a Property Owner Protection Scheme (POPS) in place prior to construction works commencing. The scheme allows residential property owners to register with TII if the property is within thirty metres of the edge of the MetroLink alignment or fifty metres of station structures. The POPS comprises condition surveys of private properties and other selected properties along the route of the proposed Project. The purpose of the condition surveys would be to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether the same may be attributable to the proposed Project and recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in the swift and accurate verification of any property damage claims which may be received from property owners. The POPS would be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Further information on POPS is available in Chapter 11 (Population & Land Use). Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/assets/downloads/MetroLink_FAQ.pdf.
4	Letter	1	D) Environmental impact of digging and construction. Presumably there will be pollution from construction traffic.	Before commencing relevant construction works, an Air Quality Management Plan shall be prepared and submitted for approval to the relevant planning authority. The plan must include all appropriate dust and emissions mitigation measures including for asbestos and aspergillus, applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. The plan will be developed by the contractor(s) and for each worksite shall include, as set out in section 16.6.1 of EIAR Chapter 16 (Air Quality): * An inventory and timetable of activities which may give rise to emissions or dust; * Alert levels; * Alter system to be used (including notification process); * Details of control measures; * Details of dust monitoring arrangements, including the location of sensitive receptors, monitoring locations, and monitoring equipment to be used; and, * Details of the air quality reporting requirements. In accordance with the EPA Guidelines (EPA 2022) and considering that the change in concentrations is within the traffic model and ENEVAL (Environmental Evaluation Model) tool margin of variability, the regional likely effects associated with the Southern Peak Construction Phase traffic emissions pre-mitigation are considered overall Neutral, Not Significant and short-term. This is detailed in section 16.5.2.6 of EIAR Chapter 16 (Air Quality). As detailed in Chapter 16 (Air Quality), the modelling of road traffic for impacts on human and ecological receptors has found no significant impacts that require mitigation measures with respect to the modelling of emissions. However, some mitigation measures can be put in place to minimise emissions: * Implement a policy which prevents idling of vehicles both on and off-site including HGV holding sites; * Construction Phase traffic should be monitored to ensure construction vehicles are using the designated haul routes; * Additional vehicular traffic will be managed through the CEMP and Temporary Traffic Management Plans for the proposed project and stations as per Chapter 9 (Traffic and Transport). * Efficient scheduling of deliveries to minimise the number of deliveries required, and in turn their emissions; and, * Construction vehicles should conform to the current EU emissions standards and where reasonably practicable, their emissions should meeting upcoming standards prior to the legal requirement date for the new standard. This will ensure emissions on haul routes are minimised.

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5	Letter	2	We suggest the following integration measures that would also help: 1) Reduction to extended working day hours instead of 24hrs possibly 7am to 10pm or similar.	Please refer to response item (1) above related to the proposed construction working hours.
6	Letter	2	2) Commitment to survey Hart’s corner and make adjustments to traffic accordingly. There is planned development at Botanic Road in Danesfort with new apartments which will further jeopardize traffic.	Please refer to response item (2) in relation to the predicted impacts to traffic and transport during the construction phase. TII do no not consider that there is a need to make adjustments to the traffic layout of Hart's Corner arising from the MetroLink scheme.
7	Letter	2	3) Support of a Residents Monitoring Group to work with your proposed public liaison officer (section 10.5.5 Mitigation of airborne noise and vibration).	A Stakeholder and Community Engagement Plan has been developed which has guided the frequency and means of communication to date. The proposed Project will continue to progress community engagement by: ▪ Regularly reviewing and updating stakeholder and community engagement plans; ▪ Actively maintaining partnerships and design focus groups established with the community; and ▪ Communicating in a timely and open manner. TII and its appointed contractor(s) will ensure that local residents, occupiers, businesses, local authorities and all other stakeholders affected by the proposed construction works, as outlined in the EIAR, will be informed in advance of work taking place. The notifications will detail the estimated duration of the works, the working hours and the nature of the works. In the case of works required in response to an emergency, the local authority, local residents and businesses will be advised as soon as reasonably practicable. All notifications will include a local helpline number. In addition, information on the works will also be available on the proposed Project website. TII will further develop the Community Engagement Plan to encompass the construction and operational phases of MetroLink. Further details on this can be found in EIAR Appendix A5.1 Outline CEMP section 3.3.1. A Project Construction Traffic Forum will be established with local stakeholders to ensure any concerns regarding the temporary traffic management plans or construction traffic can be addressed. This is detailed in EIAR Appendix A5.1 Outline CEMP section 6.1.
8	Letter	2	4) Support of a community fund.	TII will work with established Community Groups through the local community liaison officers along the route to identify projects at local level that would involve the Community in the delivery of MetroLink and its legacy. Such projects could include: - A local school learning programme. - Enhancement of community amenity within agreed funding limits. - Engagement with final landscape and finishing options, including aspects of biodiversity. TII are willing to explore mechanisms for investing in local initiatives to support affected communities during the works, such initiatives will be subject to funding being made available.

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Organisation Name or Name of Submitter			Peter Schneider Energy Consultants	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Observation related to case number NA29N.314724 - Dublin Metrolink				
1	Letter	1	While agreeing that public transport infrastructure in the wider Dublin area needs further development, the 'Metrolink' as proposed will contribute very little to the goals of the National development plan, in particular to the promotion of low carbon transport and facilitation of intermodal transport. Also, it will contradict the goal of balanced regional development.	As part of the Railway Order, the Planning Report has been prepared to set the planning context for the development and implementation of the MetroLink project. The Planning Report identifies the existing policy framework for the Project in the context of relevant national, regional and local planning strategies, plans and policy documents, including the National Development Plan. The NDP sets out a programme of investment that includes indicative Exchequer allocations. MetroLink is specifically identified as one of the five 'Strategic Investment Priorities' that aligns with NSO 4 Sustainable Mobility of the NPF. The NDP outlines under the heading 'Sustainable Mobility' that, 'The National Planning Framework (NPF) recognises the importance of significant investment in sustainable mobility (active travel and public transport networks) if the NPF population growth targets are to be achieved. Investing in high quality sustainable mobility will improve citizens' quality of life, support our transition to a low-carbon society and enhance our economic competitiveness.' EIAR Chapter 03 (Background to the MetroLink Project) details how the Project will address the challenges identified in the National Development Plan, including the following: Transition to a Low Carbon Society: Private vehicles are a significant contributor to Ireland's GHG emissions and providing an alternative to private vehicle-based journeys is a key benefit of the proposed Project. The proposed Project will aim to be a fully sustainable and carbon neutral public transport alternative (by the Design Year of 2050). The proposed Project, as a sustainable mobility option, will have a direct and long-lasting impact on Ireland's transition to a low carbon economy. Demand modelling suggests a diversion of 6.8 million private vehicle journeys per annum in the early years of operation and approximately 360 million car trips diverted by 2055. Accordingly, the proposed Project will support the reduction of GHG emissions, critically improving sustainability and transitioning to a low carbon society. The proposed Project will also be fully electrified. Intermodal Transport: The proposed Project is in many respects the 'missing link' in the public transport system. The proposed Project will facilitate, for the first time, the ability for anyone to complete a journey from their point of origin to Swords and Dublin Airport using existing rail, Luas and MetroLink services. The Project has been designed to ensure interchange with other modes of transport, specifically more sustainable modes such as public transport, walking and cycling. Opportunity for interchange with Luas is provided at O'Connell Street Station, St. Stephen's Green and Charlemont, and interchange with rail offered at Glasnevin and Tara Street. All stations facilitate interchange with both the existing bus network and future BusConnects services. Balanced Regional Development: As noted above, the proposed Project will facilitate travellers and commuters to access MetroLink via Iarnród Éireann services from all parts of Ireland via Glasnevin and Tara Street, as well as enhancing the Dublin-Belfast corridor through the provision of the Park and Ride Facility. This will facilitate transit-orientated development across the region, as accessibility to Dublin City Centre is strengthened in areas far from the alignment.

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2	Reasons for these shortcomings are:	1	1 . Within the Dublin area, the Metrolink would improve connectivity only for a small area, and it will not be economically feasible to extend it to the whole of Dublin.	TII does not agree with this statement. EIAR Chapter 03 (Background to the MetroLink Project) details the overall need for the Project, and how the Project will address challenges such as enhancing both regional and international connectivity. As noted in response (1) above, the proposed Project will facilitate, for the first time, the ability for anyone to complete journey from their point of origin to Swords and Dublin Airport using existing rail, Luas and MetroLink services. In addition, travellers and commuters arriving on Iarnród Éireann services from all parts of Ireland will be able to access MetroLink via existing Luas services or existing rail services at Glasnevin and Tara Street Stations. The proposed Project will improve the performance of the public transport and road networks in North Dublin, including the critical Dublin-Belfast trade corridor, and the supporting infrastructure for Dublin Port and Dublin Airport, leading to efficiency gains for productivity. By creating a new transport mode choice for passengers, the proposed Project will enhance regional and international connectivity and help optimise the transport network, to the benefit of the entire Irish economy. The proposed Project will improve international connectivity as tourists will be able to arrive at Dublin Airport and then access the rest of the rail network efficiently and effectively, confident in their journey time. Business travellers will be able to access Dublin City Centre more easily, increasing and improving the likelihood that international businesses will continue to make Ireland their European base of operations. The proposed Project objective, as established by the NTA and TII and as informed by planning policy context, is to 'provide a sustainable, safe, efficient, integrated and accessible public transport service between Swords, Dublin Airport and Dublin City Centre', and therefore the Project is not proposing to extend to the whole of Dublin at this stage. If future phases were to progress, they would be subject to their own planning and appraisal by the NTA, including an assessment of their economic feasibility.
3	Reasons for these shortcomings are:	1	2. Because of its design as a stand-alone metro, it will not be possible to integrate it with either the LUAS, the DART, or long-distance rail services. 3. As Metrolink does not connect to either of the main Dublin train stations nor to Busáras, its connectivity with the wider Dublin area and the rest of the country will be poor.	As detailed in Chapter 03 (Background to the MetroLink Project), the proposed Project is in many respects the 'missing link' in the public transport system. The proposed Project will facilitate, for the first time, the ability for anyone to complete a journey from their point of origin to Swords and Dublin Airport using existing rail, Luas and MetroLink services. In addition, travellers and commuters arriving on Iarnród Éireann services from all parts of Ireland will be able to access MetroLink via existing Luas services at O'Connell Street, St Stephen's Green and Charlemont, or existing rail services at Glasnevin and Tara Street Stations. Whilst MetroLink, BusConnects and DART+ have been developed as independent standalone projects under the Transport Strategy for the Greater Dublin Area, they, together with the existing transport network and other public transport projects, are designed to provide a fully integrated transport system that will support the Irish economy while helping Ireland reduce its carbon emissions and contribute in the transition towards a climate neutral economy by 2050. Please refer to responses (1), (2) and the above text in relation to the integration of MetroLink with other modes of transport, and its role in enhancing regional connectivity. Connection to the Connolly and Heuston Train stations are facilitated through the interchanges provided at Glasnevin and Tara Street Stations. All stations have been designed to ensure interchange with existing bus services as well as the future BusConnects network, facilitating connection to Busáras.

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4	Reasons for these shortcomings are:	1	4. While better public transport connections to Dublin airport are badly required, it should be taken into account that this airport serves as a main transport hub for the whole country, not just for Dublin. Therefore, a 'heavy' rail connection to the airport, e.g. from the existing Phoenix Park tunnel, would serve connectivity to the airport much better, as it would allow direct trains from anywhere in Ireland and from Dublin stations that are already served by the DART. Also, this airport link could be realized at a fraction of the cost of Metrolink. It could also be extended on surface to Swords and to the main Belfast line	Chapter 07 (Consideration of Alternatives) presents the decision-making process that has led to the development of the proposed Project, including the consideration of alternative transport options. The options assessed included for heavy rail, light rail and Bus Rapid Transit (BRT) options, in addition to combination options. These options included for a heavy rail connection to Dublin Airport. The assessment identified an Optimised Metro North (LR7) as the best medium- and long-term transport project for the Greater Dublin Area for the following reasons: * It was the most economically advantageous scheme when compared to other options, delivering the highest benefit to cost ratio of 1.5; * It generated the highest level of transport benefits when compared to other options, with the highest number of additional public transport trips generated in the morning peak travel period; * It provided a new strategic public transport corridor, avoiding reliance on either the existing heavy rail lines or the Luas Cross City Line; * It delivered a connection right into the centre of the city, serving O'Connell Street and St. Stephen's Green; * It retained the opportunity to extend Luas Cross City to Finglas, which would not be feasible if the tunnelled Luas options were selected, and it avoided reducing the service level on Luas Cross City to Cabra and Broombridge; * Due to the high level of segregation, it was considered to significantly increase capacity to allow for potential future growth along the corridor, when compared to other options; * It could potentially be extended southwards in the longer term to alleviate high travel demand on the Luas Green Line and ultimately form a complete north south metro corridor traversing both the north and south city; and, * This option delivered the highest safety benefits when compared to other options.
5	Reasons for these shortcomings are:	1	5. The Metrolink project will incur enormous costs for rather small improvements and would probably lead to delay or cancellation of other infrastructure projects with a better cost - benefit ratio, such as the heavy rail airport link mentioned above.	Please refer to response (4) above in relation to the reasons MetroLink was identified as the preferred option, including its cost benefit ratio. The business case for the Project has been approved by Government in line with the Public Spending Code based on economic and financial appraisals undertaken in a range of scenarios. The assessment finds that MetroLink is a very positive investment for the people of Ireland, in the country's journey to a low carbon and more sustainable transport network. TII as the Government Agency responsible for delivering MetroLink, are committed to expediting the delivery of this transformative project on receipt of an Enforceable Railway Order, to ensure the benefits of MetroLink can be realised as soon as possible. The proposed Project has been planned as a standalone project, and therefore the planning and delivery of other transport or infrastructure projects should not be impacted.

Submission No.			257		
Organisation Name or Name of Submitter			Peter Twamley FRIAI (31 Brighton Square, Rathgar)		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Railway Order application for the MetroLink Project submitted 30 September 2022 to An Bord Pleanála - Peter Twamley, Observations on the September 2022 Metrolink Planning Submission					
1	Letter - introduction statement	1	These observations are based on the premise that the proposed Metrolink design route south of O'Connell street is fundamentally flawed and misconceived.	TII wish to thank you for your submission, however we do not agree that the proposed MetroLink design route south of O'Connell Street is fundamentally flawed and misconceived. EIAR Chapter 7, Consideration of Alternatives presents the decision-making process which has led to the development of the proposed Project, including alternative route alignments and station locations. The overall Project objective, as established by the National Transport Authority and Transport Infrastructure Ireland and as informed by planning policy context, MetroLink is to 'provide a sustainable, safe, efficient, integrated and accessible public transport service between Swords, Dublin Airport and Dublin City Centre' (National Development Plan 2021-2030). Therefore, the route alignment in this section serves to meet this objective, offering integration with the DART and Luas networks and facilitating a connection through the city centre. As Dublin's public transport network grows through the implementation of higher capacity bus routes, more frequent heavy rail services and coverage, and the expansion of the light rail network it is critically important that to achieve the full benefits and capitalise on these investments that they are integrated fully where appropriate to attain “the network effect”. High quality interchanges can significantly broaden the transport offer for their catchment and add to the appeal and attractiveness of sustainable transport by ensuring that people can easily change services to access a wider range of places by these modes, and each scheme should be designed to ensure that these are as seamless as possible.	
2	THE PROBLEM	1	The new Greater Dublin Transport Strategy 2022 - 2042 states on page 134: - <i>"The south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise. "</i> However, there is an absolute contradiction between the confirmed formal abandonment of the future conversion of the Green Line Luas to Metro use and the current Metrolink Planning application based on a preferred route from Swords to Charlemont. The purpose of this submission is not intended to delay or comment in any way on the design of the Metro on the north side of the city but rather to correct the deficient south side design whilst the works on the north side of the city may proceed apace.	TII do not follow the observation made with regard to the "absolute contradiction between the confirmed formal abandonment of the future conversion of the Green Line Luas to Metro use and the current Metrolink Planning application". The proposed MetroLink alignment has not been extended south of Charlemont for the reasons set out by the GDA strategy , section 12.3.10, "The challenges associated with the upgrading of the Luas Green Line to a metro standard of service have led to the emergence of an alternative proposal which seeks to meet travel demand from south of Sandyford along a new light rail corridor which serves UCD post-2042. As such, the upgrading of the Green Line to metro standard is not being pursued as part of this strategy. Instead, for this strategy period, the capacity and frequency on the current Green Line from Sandyford northwards to the city centre will be incrementally increased through the provision of additional tram fleet and services and associated turnback arrangements to meet forecast passenger demand." Response (1) above outlines why the Project needs to extend beyond O'Connell Street Station and the below sets out the reasons why Charlemont Station is proposed. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. The section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. This is detailed in Chapter 7 (Consideration of Alternatives) section 7.7.8. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location.	

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Organisation Name or Name of Submitter			Peter Twamley FRIAI (31 Brighton Square, Rathgar)		
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Railway Order application for the MetroLink Project submitted 30 September 2022 to An Bord Pleanála - Peter Twamley, Observations on the September 2022 Metrolink Planning Submission					
			Response (2) continued.	An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).	
3	THE PROBLEM	1	The proposed preferred design route south from O'Connell Street fails to integrate comprehensively with Dublin's Luas and Rail public transport systems in a sensible manner. It therefore seriously fails to meet the needs of the population of the south side of the city and as such is totally ill-conceived.	TII disagree that "The proposed preferred design route south from O'Connell Street fails to integrate comprehensively with Dublin's Luas and Rail public transport systems in a sensible manner." A station at Tara Street provides good interchange opportunities, serves important key trip attractors in the study area with high potential passenger trips. This option also takes a direct and short route through areas of high demand in the centre of the study area. The interchange value provided at Charlemont with the Luas Green Line is noted by response (2) above. Fundamentally, the public transport network offering continues to the south of Dublin via the Luas Green Line. As noted by response (1) above, as Dublin's public transport network grows through the implementation of higher capacity bus routes, more frequent heavy rail services and coverage, and the expansion of the light rail network, it is critically important that to achieve the full benefits and capitalise on these investments so that they are integrated fully where appropriate to attain "the network effect". High quality interchanges can significantly broaden the transport offer for their catchment and add to the appeal and attractiveness of sustainable transport by ensuring that people can easily change services to access a wider range of places by these modes, and each scheme should therefore be designed to ensure that these are as seamless as possible.	
4	THE PROBLEM	1	The very earliest Metrolink design to join up and obliterate the Green Line Luas at Ranelagh remains in place and unchanged in the current application despite the many objections from both the public and residents' groups and also multiple political and Ministerial requests for the National Transport Authority to examine a small range of alternatives.	Please refer to response item (2) in relation to the selection of Charlemont Station arising from the decision to postpone the future upgrade of the Green Line to metro services. The selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any feasibility studies undertaken as part of future phases of the study will be subject to the planning, design and appraisal of the NTA as well as consultation with the affected parties.	
5	THE PROBLEM	1	Despite these requests no alternative options were ever put out to Public Consultation for Dublin's largest ever Public Transport project.	Chapter 08 (Consultation) details the stakeholder and public consultation that has taken place throughout the project development, including but not limited to the Emerging Preferred Route (EPR) consultation, Environmental Impact Assessment (EIA) Scoping consultation, and Preferred Route Public Consultation. As detailed, early and continuous public participation has influenced the design and development of the MetroLink project. The MetroLink Project team responded to submissions and feedback received during the above-mentioned non-statutory public consultation periods. The MetroLink Project Team has at all times endeavoured to ensure the widest possible access for the public, stakeholders and landowners to information about the project at all stages of its pre-planning development. As noted in the Transport Strategy for the GDA 2022-2042, the decision to defer the upgrade of the Luas Green Line to a metro standard of service has been influenced by the disruption and challenges it would generate, leading to the development of an alternative proposal which seeks to meet the travel demand from the south of Sandyford along a new light rail corridor which serves UCD post-2042. The capacity and frequency on the current Green Line from Sandyford northwards to the city centre will be incrementally increased through the provision of additional tram fleet and services and associated turnback arrangements to mee forecast passenger demand.	

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6	THE PROBLEM	1	A half-baked feasibility study of a Metro (South West) to Knocklyon option carried out by Jacobs Engineering for the NTA in July 2021 managed to produce an 80% positive cost benefit ratio despite the study not including the potential passenger capacity of inner city Portobello, the suburb of Rathmines including a future redeveloped mainly residential Cathal Brugha Barracks site, the suburb of Firhouse and even Tallaght itself.	Responses (1) and (2) above set out the rationale for why MetroLink is proposed to extend beyond O'Connell Street to Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any feasibility studies undertaken as part of future phases of the study will be subject to the planning, design and appraisal of the NTA as well as consultation with the affected parties. The Metro to Knocklyon Feasibility Study is not part of the submitted Railway Order, or within the scope or remit of the MetroLink Project.
7	THE PROBLEM	2	The Dublin South West Study also carried out by Jacobs Engineering for the NTA as recently as November 2021 to inform the 2022 - 2042 Greater Dublin Transport Strategy says in paragraph 4.2.3 page 27: <i>"The Tallaght Town Centre LAP (2020-2026) proposes to develop a transport hub in Tallaght Town Centre to facilitate seamless interchange between active modes bus, and Luas Red line. Whilst Tallaght Town Centre is not within the study area, it is within close proximity, therefore the improved interchange may impact demand within the study area ".</i>	Responses (1) and (2) above set out the rationale for why MetroLink is proposed to extend beyond O'Connell Street to Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any feasibility studies undertaken as part of future phases of the study will be subject to the planning, design and appraisal of the NTA. The Dublin South West Study is not part of the submitted Railway Order, or within the scope or remit of the MetroLink Project.
8	RESULTS	2	Instead of providing an efficient and economic through running Metrolink option from the northern suburbs to the southern suburbs of the city, this interim route proposal is for a truncated design into the south inner city where it must stop and construct a large underground turn back facility with an unknown life span.	The rationale for extending MetroLink to Charlemont has been set out above by response (2). As previously stated, the proposed MetroLink alignment has not been extended south of Charlemont for the reasons set out by the GDA strategy , section 12.3.10, "The challenges associated with the upgrading of the Luas Green Line to a metro standard of service have led to the emergence of an alternative proposal which seeks to meet travel demand from south of Sandyford along a new light rail corridor which serves UCD post-2042. As such, the upgrading of the Green Line to metro standard is not being pursued as part of this strategy. Instead, for this strategy period, the capacity and frequency on the current Green Line from Sandyford northwards to the city centre will be incrementally increased through the provision of additional tram fleet and services and associated turnback arrangements to meet forecast passenger demand." It is further noted, that the connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services. The section of the line between St Stephen's Green and Charlemont generates considerable benefits for the scheme in terms of increased patronage.
9	RESULTS	2	The Dart Underground as provided for in National Development Plan is Dublin's most significant and critical missing section of Public Transport infrastructure. Extraordinarily no inter-connection is provided with the Dart Underground in this flawed Metrolink route design proposal.	As part of the Transport Strategy for the GDA 2022-2042, DART Underground is proposed to be delivered in a period subsequent to the strategy period, i.e. after 2042. However, interchange with DART services has been provided for at the Glasnevin and Tara Street Stations, enhancing regional connectivity across Ireland.
10	RESULTS	2	The proposed route contains an unnecessary diversion from O'Connell Street to Tara Street Dart and mainline Rail. Yet other connections already exist from O'Connell Street west to Heuston Station and east to Connolly station and Dart via the current Luas Red line.	Please refer to response item (3) which details the strategic need for a MetroLink station at Tara Street. Whilst the Luas Red Line Stop on Abbey Street is within a 5 minute walk from the proposed O'Connell Street Station, as a result it is not considered to be a high-quality interchange in the same way as Glasnevin, Tara Street or Charlemont, in line with the Project's objective noted by response (1) above. This objective is detailed in Chapter 4 (Description of the Project).

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11	RESULTS	2	The route requires the demolition of College Gate Apartments and associated community facilities and has placed owners and tenants in limbo since the concept was first revealed.	TII would only ever propose a demolition where it is considered necessary to deliver the objectives of the Project, and in doing so, are very respectful and cognisant of the impact this has on the owners and tenants of the property in question. The loss of the College Gate Apartments is unfortunately a regrettable significant impact that is necessary for the construction of the important interchange with DART at Tara Street. By way of support, as noted in EIAR Chapter 21, Land Take, TII will offer compensation to property owners for land that is deemed to be acquired land in accordance with the general compulsory purchase code. Compensation will be provided through the Compulsory Purchase Order (CPO) process. In recognition of the impact on residential cases where properties are to be acquired, and given the unique circumstances surrounding the proposed impacts to College Gate Apartment complex, TII will engage the services of a property advisory company to engage directly with property owners. Property owners will be invited to participate in a Discretionary Scheme. The Discretionary Scheme will offer property owners the opportunity to negotiate and reach a 'Pre-Agreement' on both a baseline residential unit price and other matters of compensation that an owner would normally be entitled to under the compensation stage. This will provide the parties with as much certainty as possible at this early stage.
12	RESULTS	2	The diversion travels under Leinster House and subsequently locates a station remotely on the wrong side of St Stephen's Green distant from a planned future Green Line Luas and Dart Underground interchange.	TII do not agree that the proposed St Stephen's Green station is on the "wrong side" of the Green. EIAR Appendix A7.3 St Stephen's Green Report details the assessment of alternative station locations at St Stephen's Green. A station at St Stephen's Green East was identified as part of the Emerging Preferred Route (EPR), (ARUP, 2018) as a result of an in-depth multidisciplinary analysis which also considered options on the west side of St Stephen's Green, in a more central location within the Park, or options with no stations at all in this location. The assessment identified St Stephen's Green East as the preferred option for the following reasons: • It best serves passenger demand along the corridor. • It serves more key trip attractors than other options through the city including St Stephen's Green, the National Concert Hall, the Cultural Institutions such as the National Gallery and the National Museum. Furthermore the route option serves key commercial, retail and office trip attractors such as the Grafton Street. • The strategic need for a station at Tara Street to provide interchange with the DART, in line with the project objectives, was a key driver for the location of a station on St Stephen's Green East; and, • There may be potential environmental impacts on Archaeology, Architecture and Cultural Heritage and Landscape, however it was identified that the majority of impacts could be mitigated during design. Also, as previously noted, an interchange with the Luas Green Line at St Stephen's Green will not be able to deliver the required capacity beyond St Stephen's Green, noting that by extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. Regards DART Underground, as per the GDA 2022-2042 Transport Strategy, DART Underground is proposed to be delivered in a period subsequent to the strategy period, i.e. after 2042. However, interchange with DART services has been provided for at the Glasnevin and Tara Street Stations, enhancing regional connectivity across Ireland.
13	RESULTS	2	Major environmental damage will be caused to the historic Dartmouth Square residential quarter by the imposition of a particularly large and deep interchange at Charlemont.	TII disagree that major environmental damage will be caused to Dartmouth Square. TII have carried out a comprehensive and detailed environmental impact assessment that has identified and assessed the potential environmental impacts of MetroLink and proposed mitigations for these impacts where necessary. EIAR Chapter 9 and appendices provides a detailed analysis of transport and traffic effects, Chapter 11 presents an analysis of the potential for effect on the local population, EIAR Chapters 13 Airborne Noise & Vibration, and 14 Groundborne Noise & Vibration provide a detailed assessment of potential noise and vibration effects, Chapter 26 presents an assessment of the potential for effects on architectural heritage while Chapter 29 outlines the assessment of interactions between various environmental aspects, and Chapter 30 covers the cumulative impacts with other projects. The EIAR finds that there are predicted to be no significant negative impacts at Charlemont during the operation of the proposed Project. There is however potential for short term effects during the construction phase as outlined in the chapters listed above. However mitigation measures are presented in each chapter (specified above) to mitigate these effects. A Summary of the Route Wide Mitigation and Monitoring for the Proposed Project can be found in Chapter 31 (a section relating to each discipline is included within, noting impacts at Charlemont, such as in section 31.8 Airborne Noise and Vibration.)

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14	OPPORTUNITY LOSSES	2	The opportunity of providing an alternative through running Public Transport light rail facility to the south-west sector of the city, comprised of distinctly residential areas which themselves could be further densified is lost, as well as the possibility of connecting to a new transport hub in Tallaght as proposed by South Dublin County Council in their Tallaght Town Centre LAP (2020-2026). No Metrolink service will be provided for Portobello, Rathmines, Harold's Cross (adjacent via access from Mount Drummond) or to the Cathal Brugha Barracks site. Cathal Brugha Barracks is the largest potential development site in the south city centre, capable of housing a very large future community and commercial population and as such would more than justify a Metrolink station on its own or adjacent to it.	The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." Any future extension of metro services to the locations described do not form part of the Railway Order Application for MetroLink.	
15	OPPORTUNITY LOSSES	3	The loss of some amelioration of the significant anticipated physical and traffic impact damage to the inner city suburbs of Templeogue Terenure Rathgar and Ranelagh by the current Bus Connects design proposals which are yet to be submitted to An Bord Pleanála.	BusConnects is not within the scope of the MetroLink Project or TII's remit, and therefore TII are not in a position to comment on "the significant anticipated physical and traffic impact damage" referred to by the observation. As noted by response (14) above, the proposed station at Charlemont does not preclude future extension of the metro should sufficient demand in the future arise.	
16	OPPORTUNITY LOSSES	3	The loss of an extension of the service life of the Luas Green Line by virtue of a resultant reduced passenger demand or the possibility of creating capacity to service areas beyond the current Bride's Glen terminal within the present investment and usage constraints.	As noted by response (14) above, the proposed station at Charlemont does not preclude future extension of the metro should sufficient demand in the future arise. As part of the Transport Strategy for the GDA 2022-2042, 'the NTA is satisfied that sufficient demand for the extension of the Luas Green Line from Bride's Glen to Bray exists and that a project should be pursued to meet this demand. The alignment and the locations to be served between Bride's Glen and Bray have yet to be determined and will be subject to detailed design and planning work.'	
17	OPPORTUNITY LOSSES	3	The loss of a potential reduction of commuter traffic on sections of the N81 where a light rail service could provide a viable alternative commuter option.	As noted by response (14) above, the proposed station at Charlemont does not preclude future extension of the metro should sufficient demand in the future arise.	
18	CONSEQUENTIAL FINANCIAL IMPACTS	3	Based on distance alone the cost of a direct route from O'Connell Street to St Stephen's Green would be considerably less than the proposed diversionary loop from O'Connell Street to Tara Street and on to St Stephen's Green including the additional station at Tara Street.	Please refer to response (3) above which outlines the strategic need and importance for a MetroLink station at Tara Street. The proposed Tara Station offers the highest forecasted patronage south of Dublin Airport, and therefore increases the benefits of the scheme and significantly contributes to the forecasted BCR. TII consider that it is therefore not appropriate to refer to the connectivity provided to Tara Street Station as a 'diversionary loop'.	
19	CONSEQUENTIAL FINANCIAL IMPACTS	3	Additional costs for stopping at Charlemont with an expensive underground "turn-back" facility will be incurred unless a takeover of the Luas Green Line were to proceed contrary to commitments already given. A very expensive deep basement interchange station at Charlemont will be required due to its proximity to the canal for the avoidance of adjacent underground infrastructural services.	Response (2) above explains why an extension beyond Charlemont is not proposed at this time, and the benefits of extending MetroLink to Charlemont provides, including an improved BCR.	
20	CONSEQUENTIAL FINANCIAL IMPACTS	3	As this route does not run from St Stephen's Green to Portobello, Rathmines and on to the South West of the city, alleviating pressure on the current near capacity Green Line Luas, a potential reduction in future Green Line running costs or savings in future Green Line investment is squandered.	Please refer to response (14) above.	

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21	CONSEQUENTIAL FINANCIAL IMPACTS	3	The Tax payer must bear the cost of this mis-guided planning submission by the National Transport Authority.	TII do not agree that this is a misguided planning submission and would note the following with regards cost. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.
22	Letter - concluding statement	3	An Bord Pleanála is urged to send Transport Infrastructure Ireland back to the drawing board to redesign a sensible economic integrated south city public transport light rail route from O'Connell street to Tallaght serving the maximum population capacity, avoiding buildings demolition at Tara street and leaving the Luas Green Line undisturbed.	For the reasons set out above, TII consider the Railway Order application is an economic proposal, as demonstrated by the approval of the Preliminary Business Case (see response (21) above), noting the strategic need and importance for a MetroLink station at Tara Street that provides the highest forecasted patronage south of Dublin Airport, and therefore increases the benefits of the scheme and significantly contributes to the forecasted BCR, whilst recognising that the proposed station at Charlemont does not preclude future extension of the metro should sufficient demand in the future arise.

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Organisation Name or Name of Submitter			Phibsboro Village Tidy Towns (PVTT) - 37 Munster Street, Phibsborough	
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Letter Re: ABP-314724-22 Railway (MetroLink - Estuary to Charlemont via Dublin Airport) Order [2022] [ALGDMS-MAIN.FID826974]				
1	Note on submission fees	2	Phibsboro Village Tidy Towns believes that it is unfair to require citizens to pay €50 to submit an observation on the Railway Order. It's particularly unfair to penalise those who are financially disadvantaged. Metrolink will be an irrevocable change to the city's fabric and the right to comment should not be limited to better-off individuals and groups.	This is a matter for the Board.
2	Section 2 - What's prooposed - Metrolink construction	3	It looks likely that Phibsboro could be the epi-centre of overlapping major infrastructure works for a period of years through a wide variety of agencies and third-party contractors. Obviously, at a local level it brings with it the physical addition of extra construction plant materials (including placement and transport of heavy cranes, excavation machines and large tipper trucks) and all associated pollutants of light, noise, dust, congestion and access issues.	As detailed in Chapter 5 (MetroLink Construction Phase), the programme for construction of the proposed Project has been optimised to minimise the duration of the Construction Phase, where possible, in order to lessen the duration of potential environmental impacts, while ensuring that the areas surrounding the works sites remain operational and functional. The construction programme also takes cognisance of concurrent major infrastructure projects, such as BusConnects, to minimise disruption to the surrounding communities. MetroLink will coordinate with other projects / plans for the Phibsboro area as required. The haul routes for construction traffic have been determined based on a review of all potential road crossings/access points for traffic to and from the construction sites/compounds and based on the identification of those road crossings/access points with the capacity to accept a large number of vehicle movements. As detailed in Appendix A5.1 Outline CEMP, construction vehicles will be strictly controlled in terms of hours of operation, and by imposing restriction on vehicle size and weight. Traffic management plans have been developed to minimise congestion and disruption to all road users, and to maintain continual access to businesses and other premises. The Dublin City Council urban traffic signal control system will be used to optimise the flow of traffic along the diversion routes to mitigate queuing and delay which would otherwise be expected during peak periods. Further details on the impact to traffic and transport are presented in Chapter 9 and the associated appendices. Light pollution can be a problem on construction sites where new or temporary lighting is installed and large areas flood lit, causing over illumination and nuisance. Lighting will therefore be designed to ensure that any artificial light emitted from a site does not prejudice health or create a nuisance. Lighting will be positioned and directed so as not to intrude unnecessarily on adjacent buildings and land uses and to avoid unnecessary interference with local residents or passing transport users. Chapter 13 (Airborne Noise and Vibration) and Chapter 14 (Groundborne Noise and Vibration) outline the anticipated impacts of noise and vibration during both the construction and operational phases. There are no statutory standards in Ireland relating to noise and vibration limit values for construction works, however the contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) to identify predicted construction noise and vibration levels, and the requirement for mitigation measures specific to each work area, to minimise noise and vibration impacts so far as is reasonably practicable. Similarly, an Air Quality Management Plan and a Dust Management Plan will be prepared by the contractor(s) and submitted for approval to the relevant planning authorities, including measures such as an inventory and timetable of activities which may give rise to emissions or dust, and details of dust monitoring arrangements and monitoring equipment to be used.

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3	Section 3 — Ecological risks	7	According to the Metrolink plan for the Mater Station there will be a replacement of 50 mature trees in Four Masters Park, Phibsboro with a decreased number of younger trees. This will reduce the ecology of the area and is also contrary to the Government Climate Action and Biodiversity Policy.	The EIAR Chapter 27 (The Landscape) details the impact on the landscape and visual amenity of the stations during both the construction and operational phases. The Park and its surroundings will be updated and improved, particularly in respect of the shared space to the front of the original hospital building, the refinement of the Park layout and the tree and plant species selection, and therefore a positive impact is anticipated. A major part of the landscape design for the project has involved the identification and retention of valuable landscape & visual assets where possible and feasible, across the proposed Project which includes existing mature trees. An Aboricultural Impact Assessment was carried out and can be viewed as Appendix 27.3 to the EIAR. This contains information on the existing tree conditions and the arboricultural impact of the proposed Project. This is also assessed in Chapter 27 Landscape & Visual (Section 27.6.1) and a number of mitigation measures to reduce impact are outlined. These measures include: - Identification and retention of existing mature trees of good quality, through adjustment of the alignment, location of structures/buildings and the outline design of the proposed Project; - Specific proposals to ensure the effective retention of existing mature trees can include: - Protection and maintenance of tree root zones during construction; - In sensitive locations, residual landscape and visual effects may be significantly reduced through the inclusion in the proposed planting of relatively mature specimen trees; - Comprehensive proposals for hard and soft landscape works, including tree and hedgerow planting to offset the effects of net loss due to the proposed Project will be developed at detailed design phase. Upon completion of the proposed Project, the visual amenity of the area will be largely restored, much to its existing condition with some minor improvements. Over the initial period after completion of the construction, the maturity and ambience created by the existing trees cannot be matched. However, as the new trees mature, this too will return with views along the adjacent streets and into the Park, much as they were. The restoration of the open green park space within the triangle of buildings along with the proposed amendments to the original Mater Hospital section of Eccles Street, will again impart the tranquil qualities of the existing condition. Overall, the predicted effects on the visual environment and on visual amenity during the Operational Phase will, in the longer term be significant and positive. The station architecture is integrated in the park in a sympathetic fashion with the skylights being framed by planting and providing circulation routes through the park. Existing monuments and protected railings will be relocated within the park. Large mature trees will be placed so as to provide balance and create space within the park. The landscape design itself will be created on top of the station box and sufficient depths and infrastructure are provided for in order to integrate the landscape design.
4	Section 4 — History and Heritage	8	Of note, 50% of the housing in Phibsboro is Victorian and the plans for the stations do not appear to reference any of the area's long history and heritage. For example, below are two images of views of the proposed Mater Station showing the station view in front of the Mater Hospital and the other of the block housing ventilation and metro plant machinery.	TII believe the commissioning of internationally renowned architect Nicholas Grimshaw and Partners, has delivered a contemporary station design which is appropriate for a state of the art metro system such as MetroLink. Appropriately, significant emphasis is placed on the public spaces. Where feasible, the station concourse is a soaring space illuminated from above with natural light. Dublin's rich architectural heritage has been respected, but not copied in a pastiche imitation. In accordance with best conservation principles, as set out in the ICOMOS Venice Charter of 1964, the stations are architecturally distinguishable so as not to falsify the existing historic context. Reference and due respect to that context is made through the choice of high quality and appropriate materials and the scale of the interventions. At Mater station, the canopy entrance evokes the scale of park structures. TII believe the current station and surface level designs greatly enhance the public realm at all locations along the MetroLink route. There is a unifying commonality in the design of all stations, providing a consistent and coherent architectural language, which assists with orientation and wayfinding, and contributes a new architectural lexicon to the cultural iconography of the city.

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Letter Re: ABP-314724-22 Railway (MetroLink - Estuary to Charlemont via Dublin Airport) Order [2022] [ALGDMS-MAIN.FID826974]					
5	Section 4 — History and Heritage	8	The image below is an indicative rendering of Glasnevin Station. It will sit along the historic Crossguns Bridge and the Royal Canal. Despite its location, it has no relationship to the surrounding area. It is generic with a few trees added into a hard landscaped plaza.	Please refer to response item (4) above in relation to the architectural design of stations. The following considerations were addressed in developing the architectural design for Glasnevin Station: * Provide an intermodal concourse at street level, designed as an open space under a light canopy; * Provide a potential café or shops for passengers; * Re-build the Dalcassian Downs car park over the station roof slab; * Provide a car park / large cycle park area and drop-off on the area of the existing Brian Boru car park; * Design landscaping with green integration on slopes; * Integrate station ventilation grilles in green areas; and * Consider the requirements for revenue protection for the different modes, as well as safety in design, specifically regarding adherence to Iarnród Éireann's codes of practice. As outlined in Section 27.4.2.19 of EIAR Chapter 27 (Landscape & Visual) potential change to the local built environment in the vicinity of the proposed Glasnevin station building, would however be perhaps less sensitive, since the built environment making way for the proposed station is generally of relatively poor quality, with the possible exception of the Brian Boru pub and the mature garden just to the north of it (at Dalcassian Downs), which is separated from the main road by the historic iron railings along its boundary. Changes to the existing atmosphere of the area may be of some concern, however the dominance of the road and the very heavy traffic upon it, already do much to degrade this atmosphere. The local urban environment is a rather discordant mix of scales, styles and finishes. The area has capacity for change and improvement.	
6	Section 5 — Planning conditions	9	Given the size and scale of the proposed works across the entirety of Phibsboro Village, there is a real risk of damage to the delicate ecological corridor provided by the Royal Canal in such an urban environment. The potential overlaps between agencies, third-party contractors and private developers could lead to a lack of oversight - continuous communication between all parties is vital.	EIAR Chapter 15 (Biodiversity) assesses the impact of the MetroLink Project on Biodiversity during the Construction Phase and Operational Phase and proposed mitigation measures to ameliorate the predicted impacts. Baseline surveys were carried out along the Royal Canal to inform the biodiversity impact assessment such as a habitat survey, including invasive plant species and detailed aquatic survey of Royal Canal basin undertaken in 2018, 2019, 2020 and 2021; and an aquatic macroinvertebrate survey of Royal Canal basin in June 2021, among others. The Royal Canal was also surveyed for otter activity. The respondent is correct in noting that all parties need to contribute to the preservation of the ecology in the area. TII intends to champion environmental protection and specific mitigation measures are planned. For example, mitigation measures will be implemented to ensure that Royal Canal pNHA is not significantly affected by the proposed Project during construction or operation and will include: •Measures to avoid the introduction or spread of non-native invasive plant species to this pNHA - see the Outline Invasive Species Management Plan (ISMP) (Appendix A15.8); •Measures to control surface water runoff to prevent an accidental pollution event affecting sensitive habitats within this pNHA – see Section 18.6 of Chapter 18 (Hydrology); and, •Measures to manage and treat groundwater discharges to surface water – see Section 19.6 of Chapter 19 (Hydrogeology). The implementation of the mitigation measures will result in a no likely significant residual effect. Therefore, the proposed Project will not affect the integrity of, or result in a likely significant negative residual effect on Royal Canal pNHA. TII will engage with other interfacing projects in the Phibsboro area.	
7	Section 5 — Planning conditions	9	PVTT believes there's a critical need for certain planning conditions: • A Public Oral Hearing should be required as part of the planning process so that the local community, relevant stakeholders and resident representatives can fully participate.	ABP has agreed to hold an Oral Enquiry.	
8	Section 5 — Planning conditions	9	• An Ecological Management Plan put into action throughout construction and a dedicated, qualified ecologist working across the construction sites to oversee mitigations as decisions are being made.	A Construction Environmental Management Plan will be produced, as detailed in Section 15.5 Mitigation Measures of EIAR Chapter 15 (Biodiversity) which presents the mitigation measures to avoid or reduce the potential impacts of the proposed Project on biodiversity and ecological receptors. All of these mitigation measures are included in the Schedule of Environmental Commitments which will be implemented by the contractor under supervision of both the Project Ecologist (employed by the Employer) and the Ecological Clerk of Works (employed by the Contractor). An Outline CEMP is included as EIAR Appendix 5.1.	

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Organisation Name or Name of Submitter			Phibsboro Village Tidy Towns (PVTT) - 37 Munster Street, Phibsborough	
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9	Section 5 — Planning conditions	9	• A Liaison Committee should be in place during the entire construction period to allow business, resident and community group reps to be included in all decision-making issues as and when they arise. This Committee should comprise of these reps along with those from TII, DCC, NTA and other relevant bodies. It is important that this is an effective group which is not just a PR exercise.	A Stakeholder and Community Engagement Plan has been developed which has guided the frequency and means of communication to date. The proposed Project will continue to progress community engagement by: • Regularly reviewing and updating stakeholder and community engagement plans; • Actively maintaining partnerships and design focus groups established with the community; and • Communicating in a timely and open manner. TII and its appointed contractor(s) will ensure that local residents, occupiers, businesses, local authorities and all other stakeholders affected by the proposed construction works, as outlined in the EIAR, will be informed in advance of work taking place. The notifications will detail the estimated duration of the works, the working hours and the nature of the works. In the case of works required in response to an emergency, the local authority, local residents and businesses will be advised as soon as reasonably practicable. All notifications will include a local helpline number. In addition, information on the works will also be available on the proposed Project website. TII will further develop the Community Engagement Plan to encompass the construction and operational phases of MetroLink. As detailed in Appendix A5.1 Outline CEMP, a Project Construction Traffic Forum will be established with key stakeholders to ensure that any concerns regarding traffic management can be addressed and resolved in a timely manner.
10	Section 5 — Planning conditions	9	• A Community Fund set up to support a variety of community-driven biodiversity enhancements in Phibsboro (more trees, native planting, solar panels for community spaces, more green space/walls, bird and bat boxes).	TII will work with established Community Groups through the local community liaison officers along the route to identify projects at local level that would involve the Community in the delivery of MetroLink and its legacy. Such projects could include: - A local school learning programme. - Enhancement of community amenity within agreed funding limits. - Engagement with final landscape and finishing options, including aspects of biodiversity. TII are willing to explore mechanisms for investing in local initiatives to support affected communities during the works, such initiatives will be subject to funding being made available.
11	Section 5 — Planning conditions	9	• Open Public Architectural Competition to design Glasnevin and Mater Stations. The designs shown in the plans do not appear to reference any of the rich heritage and history of this area of the city. For example, Glasnevin Station will sit alongside the cornerstone of the Royal Canal, where its building works began in 1790 and the Brian Boru pub is an important historic site where Brian Boru gathered his army in defence of Ireland prior to the Battle of Clontarf.	Please refer to response item (4) and (5) in relation to the architectural design of both Mater and Glasnevin stations, and all stations within the Project.

Submission No.			259		
Organisation Name or Name of Submitter			Prionsias Mac Fhlannchadha (6 Wilkins Court, Limekiln Lane)		
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Observation on a Stratgepic Infrastructure Development Application					
1	Observation details 5. Grounds	3	I wish to firstly state my full support for the Metro plan with the exception of the intention to extend to Charlemont.	Thank you for taking the time to make a submission and your overall endorsement of the MetroLink Project with the exception of extending MetroLink to Charlemont Station. We have reviewed your submission and responded to the observations made below.	
2	Observation details 5. Grounds	3	As confirmed by the NTA, the Draft Greater Dublin Area Transport Strategy 2022-2040 was presented for Public Consultation in January with the report issued to the Minister in April. Under Section 12 of the Dublin Transport Authority Act, until such time as the Minister approves the Draft Plan for 2022-2040, the plan covering this development is the Greater Dublin Area Transport Strategy (2016-2035) ("the Plan") and any reference to draft plans in this application is premature by the Applicant.	The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions.	
3	Observation details 5. Grounds	3	Under the Plan, section 5.3.1 clearly states that <i>"New Metro North is a modified version of the original Metro North proposal which proposes providing a similar service at significantly reduced costs... This new metro line will provide a high-speed, high-capacity, high-frequency public transport link from the city centre to Dublin Airport and Swords. New Metro North will serve a large number of significant destinations, including Ballymun, Dublin City University and the Mater Hospital, and will interchange with other rail and bus services in the vicinity of Drumcondra, O'Connell Street and St. Stephen's Green."</i> It is clear from this document that there is no requirement nor policy for the Metro North to extend beyond St. Stephens Green. Any extension of the Metro North Scheme to Charlemont is included in the "Metro South (5.3.1)/ Luas Green Line Capacity Enhancements (5.3.2) both of which have been removed in the Draft Dublin Strategy (2022-2040) and therefore one must ask why the extension to Charlemont, a poorly serviced station with poor amenities, especially for those with additional needs, has been included as part of the Metro North Planning Application.	The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant. It is not correct to say "there is no requirement nor policy for the Metro North to extend beyond St. Stephens Green". The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were was prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all any of the above directions (Transport Strategy Section 12.3.2, and Measure LRT2 – Further Metro Development). The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage.	

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			Response (3) continued.	The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).
4	Observation details 5. Grounds	4	As noted in JASPERS external technical assessment of the Metro North Project (Preliminary Business Case) incorporating Independent External Review issued on the 2nd of May, 2022) <i>"It is noted that the revised design for St Stephens Green arose following the objective to provide a connection to Charlemont/Ranelagh, which is no longer considered a priority by the independent review team. "</i> Of pertinence also as opined by the external consultants <i>"several technical aspects of the project appear to make the project expensive; in particular... the inclusion of the connection to Ranelagh/ Charlemont."</i> Given the inordinate costs of the project to date in comparison to other European projects of a similar nature this unmerited extension to Charlemont should be value engineered out of the Metro North Project.	Assessment work prior to the Emerging Preferred Route public consultation in 2018 (as provided on the TII MetroLink web site) considered multiple route options for the MetroLink alignment between Swords and Charlemont, based on maximising potential catchment for the metro and integration with other public transport modes. The best performing option from these assessments was selected as the Emerging Preferred Route (EPR) which included stations at Tara Street (providing integration with the Dart) and at Charlemont (providing integration with the Luas Green Line) and incorporating a station at St Stephen's Green East. Options which incorporated a station at St Stephen's Green West did not provide for a station at Tara and did not perform as well in the option comparison and were thus discounted. The EPR route was subsequently developed as the Preferred Route and following further design development now forms the basis of the Railway Order submission. A station on St Stephen's Green West is not preferred for several reasons: If a station was placed on St Stephen's Green West, the alignment between the proposed Tara Station and a station on St Stephen's Green West would result in an undesirable horizontal reverse curve and an alignment greater than a 1000m long that would necessitate an intermediate intervention shaft located somewhere between these stations to comply with the MetroLink Fire Strategy. Additional construction would be required to provide such a facility, similar in size to the proposed Albert College Park Intervention shaft. This could feasibly be situated in the Trinity College Dublin sports grounds. TII note that it is Government policy to provide a station and interchange with the Luas Green Line at Charlemont, as set out by the GDA Transport Strategy 2022 – 2042. Should a station be placed on St Stephen's Green West, the alignment between a station located here and the proposed Charlemont Station would also result in an undesirable horizontal reverse curve and an alignment that is greater than 1000m long, and would thus again require an intervention shaft similar to the proposed Albert College Park Intervention shaft to be provided. This would be expected to result in significant demolition and redevelopment in an existing built-up area. In both cases, compared to the proposed alignment that runs much more directly between Tara, St Stephen's Green and Charlemont, the additional length of tunnel and the addition of two intervention shafts generated by locating a station on St Stephen's Green West is uneconomic in comparison. As a potential station location, St Stephen's Green West itself is a very constrained location due to the presence of buildings, Luas and St Stephen's Green Park. Maintaining the Luas operational during station construction would be complex and challenging with significant disruption expected, whilst the impacts on St Stephen's Green Park would be greater for a station in this location compared to the proposed location on St Stephen's Green East. This would be the result of; the likely need to place more of the station in the Park compared to the proposed station on St Stephen's Green East; it would impact an area of the Park that has greater amenity value than St Stephen's Green East due to the nearby Park entrance adjacent to the southern end of Grafton Street, and there would be a risk of impacting the existing Park lake.

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			Response (4) continued.	In summary, an alignment that links the proposed Tara, St Stephen's Green East and Charlemont stations is a more direct and economic alignment, does not require additional intervention infrastructure, avoids a complex engineering interface with the Luas Green Line, impacts the Park less and has less potential for disruption during the construction phase. Response (3) above explains the reasons for why TII are proposing a station at Charlemont, noting that there is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). It is therefore not justifiable to propose that this section of the proposed line is "value engineered out" given the benefits it will deliver. Finally, while JASPERS comments are noted, it is also of note that in July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.

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5	Observation details 5. Grounds	4	Also as advised by JASPERS in their "Project Review: Phase 3 (Preliminary Business Case) incorporating Independent External Review issued on the 2nd of May, 2022 <i>"The connection to Ranelagh could feasibly be deferred until there is clarity on the future of the Luas Green Line,"</i> highlighting the external assessors difficulty in obtaining comfort in the rationale for the extension to Charlemont. Given that the Metro South and Luas Capacity Enhancements do not feature in the draft GDA Transport Strategy 2022-2040 there is no merit in continuing this extension to Charlemont and in fact to do so is tantamount to poor project planning and a waste of money by the NTA as it may jeopardise further expansion plans to other areas of Dublin, in particular South West Dublin.	Responses (3) and (4) above explain the rationale and benefits of continuing MetroLink to Charlemont, noting that the connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). TII therefore do not agree, noting responses (3) and (4) above, that; there is no merit in continuing MetroLink to Charlemont, money is being wasted or that possible future extension of the metro south is not taken account of. It is also not correct to say that the GDA Transport Strategy 2022 - 2040 does not feature "Metro South" and " LUAS Capacity Enhancements". Section 12.3.2 states the following " The south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise. "
6	Observation details 5. Grounds	4	I hope that the Bord can consider approving this valuable scheme which will greatly help improve connectivity in the GDA but omit the extension of the Metro North to Charlemont due to the lack of support for an extension to same and the impact it may have on future extensions to the line.	The above responses to the observations made explain why TII do not consider it is correct or appropriate that the MetroLink alignment is not continued to Charlemont, and also explains why the proposed Charlemont Station has been selected by TII as the preferred interchange with the Luas Green Line A scheme that does not extend to Charlemont would not be consistent with the Transport Strategy for Greater Dublin Area (2022-2042), as approved by Cabinet. In addition any decision to terminate the scheme before Charlemont will significantly impact on the overall viability and benefits of scheme.

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Organisation Name or Name of Submitter			Prospect Architectural Conservation Area (ACA) - 6, Prospect Square, Glasnevin	
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1	Introduction	1	Broadly speaking residents are in favour of any measures that improve public transport and reduce fossil fuel and particulate pollution from road vehicles. Nevertheless, the contents of the above major infrastructure development has raised significant concerns related to a number of aspects contained in the Railway Order - these are outlined below. We seek to have those concerns included for consideration by the Board in whatever decision-making procedures, including oral hearings that may arise from the planning process in this regard.	Thank you for your submission and for sharing your observations with regards to the MetroLink project to which we have responded below. Note, An Bord Pleanála have confirmed that they will hold an oral hearing for MetroLink.
2	Communication	1	Firstly, Prospect ACA would like to comment on the poor communication, lack of timely information and failure to engage with local stakeholders by the NTA and TII. As non-technical people with little experience of dealing with large planning issues, the overall approach adopted by the responsible government agencies on Metrolink has caused significant difficulty as we scramble to try and read enormous documents, digest the information and make intelligible observations on this development. Why was the Railway Order sought prior to all documentation being published? And why were inadequate timelines given to even the Independent Engineering Experts, RINA, to issue a complete their review of RO documents and allow time for consultation with their stakeholder groups to clarify the information. This is not time lost, rather it should be viewed as time well spent in that stakeholder feedback will be more fine-tuned and considered.	Chapter 8 (Consultation) presents an overview of all stakeholder and public consultation undertaken to inform the development of the MetroLink project. Consultation was undertaken throughout the project development, including but not limited to the Emerging Preferred Route (EPR) Consultation, Environmental Impact Assessment (EIA) Scoping Consultation, Preferred Route Public Consultation and the Albert College Park Local Area Consultation. As noted, early and continuous public participation has influenced the design and development of the MetroLink project. The MetroLink Project Team has responded to the submissions and feedback received during the above-mentioned non-statutory consultation periods. The MetroLink Project Team has at all times endeavoured to ensure the widest possible access for the public, stakeholders and landowners to information about the project at all stages of its pre-planning development. In this regard, it is intended that the consultation undertaken in respect of the MetroLink project will, when the railway order application process is complete, fully meet the requirements of the Aarhus Convention, Codified EIA Directive and Irish national legislation. As detailed in Appendix A8.19 Meetings Register, numerous meetings have been held with GADRA, Prospect ACA and District 7 Community Alliance, with dates provided for evidence. The EIA process has been undertaken in line with the EIA Directive, based on the guidance presented in the Environmental Protection Agency (EPA) 'Guidelines on the Information to be contained in EIARs' (EPA, 2022) and other relevant guidance. The Non-Technical Summary of the EIAR for the proposed MetroLink Project is provided in Volume 1 of the Railway Order. This document summarises in non-technical language the EIAR, including the likely significant effects identified, the mitigation and monitoring measures proposed, as well as any residual effects arising from MetroLink that have been identified during the Construction and Operational Phases to inform the planning consent process. The consultation period was extended to allow for review of an inadvertently omitted document. The document was part of a larger compilation of documents in appendices, and was not intentionally omitted. TII were not obliged to provide the services of an Independent Engineer, however the services were provided as a means to ensure the concerns of stakeholders were considered by an independent organisation, which would in turn assist stakeholders in formulating their submission on the scheme. TII believe the regular interactions with the Independent Engineer served this purpose successfully. The terms of reference for the appointment of the Independent Engineer were agreed with stakeholder representatives. They included the requirement to deliver a report within 2-3 months following the railway order application being made (22 September 2022) . The report was issued in draft to stakeholders on the 11th November 2022 and in final form in December 2022. As such it was never intended that the report would be issued before conclusion of the public consultation period.

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3	Communication	1 and 2	It has been unhelpful and unfair of professional agencies to take what appears to be a take-it-or-leave-it attitude to a project that is going to occupy our neighbourhoods and indeed our lives for at least 8 years and probably considerably more. Community goodwill is not a given and should be taken seriously and fostered at every opportunity. Building sustainable stakeholder relationships will be key to the public’s cooperation with this prolonged mega project and cannot be developed through the offhand approach that is currently in evidence, whether knowingly or unknowingly, by the NTA and TII/Metrolink. There is a high risk of this project falling between agencies as we have already found lapses in communication between the agencies that leave communities and individuals at a disadvantage.	TII acknowledge the importance of community goodwill, note the concerns that have been raised, and re-iterate their commitment to ensuring that goodwill is maintained and fostered throughout this project. TII have undertaken extensive consultation and communication across the route of MetroLink and have listened carefully to the concerns of stakeholders and the community, as documented within EIAR Chapter 8 (Consultation). Please refer to response item (2) above in relation to engagement that has been undertaken with local stakeholders. A Stakeholder and Community Engagement Plan has been developed which has guided the frequency and means of communication to date. The proposed Project will continue to progress community engagement by: ▪ Regularly reviewing and updating stakeholder and community engagement plans; ▪ Actively maintaining partnerships and design focus groups established with the community; and ▪ Communicating in a timely and open manner. TII will continue to work closely with the National Transport Authority, Dublin City Council, Fingal County Council and other key stakeholders throughout the construction and operational phases. A coordinated agency approach is imperative to its efficient delivery, and the assurance of minimal disruption.
4	Planning Condition Sought	2	Ensure that one agency is responsible and that they engage key staff, internationally as necessary, with experience of mega-projects such as Metrolink. Following on from the Children’s Hospital, we would also seek absolute clarity as to what agency, or individual, will be responsible for overseeing the cost effectiveness of the ongoing spend on Metrolink. The Law Society Gazette cites the spend to date as being in the region of €88m.	TII as Sponsoring Agency are the organisation with sole responsibility for the delivery of the MetroLink Project.
5	Damage to Property	2	The first group [as in Prospect ACA] have expressed significant concerns about the possibility of settlement and noise and vibration caused by the TBM advance directly beneath their potentially poorly founded, mid-Victorian terraced houses, both in the short and longer terms as the clay ground consolidates over time in the years following construction. This part of the alignment is in ‘mixed’ ground (part in rock, part in the overburden) and <i>such concerns are not therefore unreasonable</i> .' (RINA - Metrolink Independent Engineering Expert, Review of ROA Documentation, Draft 1 - p. 58].	As outlined in the EIAR Appendix 5.17, the assessment of the effects of ground movements and potential impacts on existing buildings will be carried out in three phases, with Phase 1 and the initial analysis for Phase 2 (termed as Phase 2a) undertaken as part of the Preliminary Design. The detailed designer of the Design & Build (D&B) Contractor will then review and refine the Phase 2a assessment (as part of their Phase 2b assessment) and also undertake the Phase 3 assessment where applicable. The assessment of the buildings from Prospect ACA is presented in Table 5-2: Result of Phase 2a Building Damage Assessment – Representative Buildings from the EIAR Appendix 5.17 include building numbers B-119, B-120, B-139, B140, B122, B141 and B123. None of these buildings exceed the slight damage category where "slight" is described in Table 4-4 of Appendix 5.17 as "Cracks easily filled. Redecoration probably required. Several slight fractures inside building. Exterior cracks visible some repointing may be required for weather tightness. Doors and windows may stick slightly." As presented in the EIAR Appendix A5.17, ground conditions are a part of the calculation for settlement with different local conditions presented in Table 5-1: Details of Ground Conditions, VL and K Values by Chainage. The mixed face ground conditions as referenced are therefore taken into account. Furthermore, the Phase 2a assessment is moderately conservative and over estimates impacts. The onset of settlement is closely related to the timing of the passage of the TBM and settlement is not anticipated to continue over the following years as noted. TII will monitor the area until settlement is shown to have ceased and hence all impacts will be picked up. Regarding the noise and vibration from TBM Passage, as presented in the EIAR Chapter 14 (Groundborne Noise and Vibration), none of the construction activities proposed for MetroLink will have potential to meet the thresholds levels of vibration for buildings damage, with the exception of blasting. The noise and vibration impact on residents of Prospect ACA will be from TBM Passage, the levels for each building are detailed in the EIAR Appendix 14.5. For some of the buildings located above or in close proximity of the tunnel, the noise level from TBM Passage will be above the 45 dB threshold level, resulting in a significant impact on the residents for the limited duration during TBM passage. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from TBMs at source, but noting that the duration of this impact will be in the order of up to two weeks (24 hours/day) as the TBM passes. TII will liaise with the residents to ensure the timing of these impacts are known.

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			Response (5) continued.	TII's contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project as referred to in EIAR Appendix A5.1, Outline Construction Environmental Management Plan (CEMP). The CNVMP will be a live document and will include a full monitoring and auditing programme which will be agreed with the Local Authorities prior to the commencement of the Construction Phase, including predetermined monitoring trigger levels to ensure noise and vibration limits are not breached, noting that it is not possible to mitigate TBM groundborne noise and vibration at source. Table 6.2: Noise and Vibration Measures of the Outline CEMP outlines the monitoring programme requirements. The Transport Infrastructure Ireland (TII) Airborne Noise and Ground-borne Noise Mitigation Policy (Appendix A14.6 of EIAR Chapter 14) also sets out the construction noise insulation and temporary rehousing measures to be implemented where required. Monitoring instrumentation will also be installed to monitor the performance of the works and potential environmental impacts, including those discussed above to ensure that acceptable limits are not breached. TII would also draw attention to the fact that private properties within 50m of the station excavation, or 30m of the tunnel are eligible to subscribe to the Property Owners Protection Scheme (POPs). The Property Owners’ Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor.
6	Damage to Property	2	The issue of ground water and surface water gets some coverage, and it would appear that the water table in this area can be high as some locations are very slow to drain and dry out. However it should also be noted that there are a number of underground waterways, most notably the Cemetery Drain, running under a section of DeCourcey Square, the lower end of Prospect Avenue into Prospect Square and another related waterway running to the rear of Prospect Square and also under part of DeCourcey Square. We have no idea of the depth of these waterways, nor do we know how the channels of these waterways may be effected by settlement post drilling. No consideration of these waterways appears to have been given in the damage report that we can find. See map attached (Source: The Rivers of Dublin by Clair. L. Sweeney - Published by Dublin Corporation, 1991)	There is no impact on ground water levels or surface water in this area. As presented in Alignment Sheets Drawings ML1-JAI-ARD-ROUT_XX-DR-Y-03075 and ML1-JAI-ARD-ROUT_XX-DR-Y-03076, the tunnel route will not intersect with the above-mentioned underground waterways channels. Also, please be informed that the Damage Assessment Report does not cover the assessed impact of construction generated ground movements on utilities (like the waterways underground channels) and services which are covered by a separate assessment considering over 50,000 utilities to be considered along the Metrolink route. Chapter 18 (Hydrology) details the assessment of impacts on water courses, flooding, drainage and surface water in both the construction and operational phases. It is noted that there is no increased flood risk as a result of the proposed Project, with no overall net change to the discharge pattern or rate of discharge to receiving waters. There is the potential for the discharge of construction water to cause deterioration in surface water quality. However, all construction sites will be installed with water treatment systems and will be monitored weekly to ensure no impact to the surrounding hydrological environment.
7	Damage to Property	2	We note in the Damage (Assessment) Report that representative buildings have been selected along the proposed alignment for assessment of damage from the effects of tunnelling and some mention was made of carrying out such an exercise in the ACA initially, but no work has taken place to date. Indeed Paolo Merlanti of RINA states that Phase 2a simply fixes the zones using a generic building. He then goes on to explain that Phase 2b and Phase 3 will require the contractor to 'design the zones according to the final settlement calculations to be done for each building.’ As the potential for settlement may differ from one location to another the final zone of inclusion may be expand and contract according to that potential for damage and settlement.	There is some confusion in the interpretation stated. The assessment of the buildings from Prospect ACA is presented in Table 5-2: Result of Phase 2a Building Damage Assessment – Representative Buildings from the EIAR Appendix 5.17 include building numbers B-119, B-120, B-139, B140, B122, B141 and B123. None of these buildings exceed the 'slight' damage category. This category indicates that any damage will be limited to non structural impacts potentially requiring cracks to be repaired. EIAR Appendix A5.17 fully explains the assessment methodology which follows international standards in approach and detail. Please also refer to Item (5) for the assessment of impacts in this area. Please note that the settlement varies due to the depth of the tunnel and the prevailing geology. The 1mm contour therefore shows the extent of the settlement trough and is not building specific. How a building reacts to the predicted settlement is dependent on the building type and the quantum of settlement at a specific building. Each building type has been assessed due to the representative buildings referred to above - each building does not therefore have its own "zone".

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8	Planning Condition Sough	2 and 3	Due to the vulnerable nature of the houses in the ACA we are asking that ABP impose a Planning Condition that requires Metrolink to expand that assessment process across the full ACA and the extension of the POPS to cover the unfounded properties of the ACA. Also, to mitigate potential damage from vibration due to drilling and subsequent settlement, the ACA seek enhanced monitoring of the drilling process in the area such that real time adjustments can be made to minimise damage from drilling to the lowest possible level. Furthermore, as the ACA stands on boulder clay the potential for settlement problems even 10 years or more following the original drilling is a genuine concern. We therefore ask that there should be a long term ongoing monitoring programme over a 15 year period to assess ground movement and settlement and carry out whatever works or mitigations are required to protect the ACA properties.	As presented in the EIAR Appendix A5.27 the Damage Assessment Report covers buildings that could be potentially impacted by the project, meaning buildings that are: a) enclosed within the 10mm contour or with a ground settlement slope > 1 in 500; and b) enclosed within the 1mm contour and subject to ‘special’ considerations, e.g., Designated Protected Structures, or prominent or sensitive buildings. Buildings outside the 1mm contour will not be impacted by settlement as such no assessment is required. Also, as stated above at response item (5), ground conditions are part of the calculation for settlement. A programme of ground movement monitoring will be implemented, with the monitoring locations informed by further analysis to be undertaken during the detailed design stage. Settlement due to tunnelling are likely to have ceased within 6 months of the TBM passing and will therefore have ceased prior to the completion of the MetroLink construction phase and prior to the Operational Phase. There is no intent nor need for a prolonged monitoring phase however, monitoring will be undertaken until such time as it can be shown that settlement impacts due to MetroLink have ceased. TII is committed to having a Property Owner Protection Scheme (POPS) in place prior to construction works commencing. The scheme allows residential property owners to register with TII if the property is within thirty metres of the edge of the MetroLink alignment or fifty metres of station structures. The POPS comprises condition surveys of private properties and other selected properties along the route of the proposed Project. The purpose of the condition surveys would be to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether the same may be attributable to the proposed Project and recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in the swift and accurate verification of any property damage claims which may be received from property owners. The POPS would be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Further information on POPS is available in Chapter 11 (Population & Land Use). Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/assets/downloads/MetroLink_FAQ.pdf.

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9	Living with Major Construction	3	We would like to comment on the many construction projects already mooted for the road leading from Doyle's Corner as far as the Botanic Gardens and how they will be coordinated. They include: Phibsboro Shopping Centre; Dalymount; the site beside the Bald Eagle pub; the development site at the old mill on the Royal Canal, development at the old Smurfit site, further construction at Daneswell and the stalled apartment building on the old Addison Hotel site on Botanic Road. This is not even including Bus Connects with all that that entails. The potential for clashing construction projects is enormous and could contribute to chronic traffic jams for residents and commuters.	The interaction between different projects and their cumulative impact was assessed and presented in the EIAR Chapter 30, Cumulative impacts of interaction between other projects and MetroLink, including the traffic impact. According to the assessment, the traffic impact during construction will be: - Potential Negative and Moderate cumulative from the following projects: •Bindford Limited – due to its proximity to the proposed Glasnevin Station, there is the potential for an increase in vehicles and subsequent delays in this area; •Dublin County Board (4156/21) – due to potential cumulative impact on R108 (road of medium sensitivity due to its regional status); - Potential Negative and Slight cumulative for the following projects: •BusConnects due to additional construction vehicles on the network. According to the assessment, the traffic impact during operation will be: - Potential Negative and Moderate cumulative for the following project: •Bindford Limited due to potential pedestrian congestion on Prospect Road due to the proposed Glasnevin Station location and the increased population within the catchment as a result of this residential development. - Potential Positive and Slight cumulative for the following projects: •NTA – BusConnects; •NTA/Iarnród Éireann - DART+ Programme (non-tunnel elements); •NTA/Iarnród Éireann - DART+ Programme (Tunnel Element (Kildare Line to Northern Line). TII will continue to monitor developments throughout the construction period and liaise with DCC and the NTA on impacts and mitigations as required. As well as the above mentioned, MetroLink has taken account of all projects in the area that had planning approval at the time the RO documentation was being prepared.
10	Planning Condition Sought	3	Ensure that a single agency is responsible for construction project coordination, not simply from a planning perspective, but on a day to day basis to ensure that the city continues to move and that money is not wasted digging and redigging roads for enabling works and utilities.	As detailed in Appendix A5.1 Outline CEMP, TII will be the employer responsible for ensuring that competent parties are appointed to undertake construction and that sufficient resources are made available to facilitate the appropriate management of risks to the environment. This document sets out the roles and responsibilities of the Employers Representative, the Contractor(s), the Construction Manager, the Environmental Manager and the Environmental Specialists engaged by the Contractor(s).
11	Planning Condition Sought	3	As the ACA will be effectively sandwiched between the Glasnevin and Griffith Stations, there are concerns about how this work will impact our ability to move about on the roads, the levels of noise, vibration and dust and the hours of work, and how the area will be kept clean. There are some references to these issues in the EIAR, section 10.6. In section 10.6.3 it states that these are mapped, but is not clear as to where those details can be found in what is a very large document. Also, health problems that can arise due to disturbed ground such as Aspergillus, a fungus producing spores that can cause lung infections that can spread to other parts of the body in those with weak immune systems. This area has a high proportion of elderly residents, so we would expect that this problem would also be monitored to prevent unnecessary illness.	EIAR Chapter 10 (Human Health) present a summary of project impacts on human health and mitigation measures to ameliorate the predicted impacts, with details presented in the respective chapters of the EIAR: •Chapter 9 (Traffic & Transport); •Chapter 13 (Airborne Noise & Vibration); •Chapter 14 (Groundborne Noise and Vibration); •Chapter 16 (Air Quality). Traffic management Chapter 5 of the EIAR (MetroLink Construction Phase), explains that traffic management plans for the construction phase of the Project have been developed to minimise the impact on road users, and to maintain access to businesses and other premises. Prior to implementation, all traffic management measures will be agreed with Dublin City Council and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The design of traffic management measures and highways works is based on achieving the key objective of maintaining continual access to all properties during the works. Where necessary, a safe alternative route will be provided for pedestrians and vulnerable road users, such as children, and persons with restricted mobility, to maintain pedestrian access to premises. Where detour routes are required, these will be kept as short as possible and detour signage will be clear and easy to understand. All construction sites will be designed to be as unobtrusive as possible.

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			Response (11) continued.	Noise and vibration Details regarding noise and vibration levels for individual buildings from Prospect ACA, along the Metrolink route can be found in EIAR Chapter 13 (Airborne Noise and Vibration) and its associated appendices. As presented in the EIAR Chapter 13 (Airborne Noise and Vibration), a full monitoring and auditing programme will form part of the CNVMP (Construction Noise and Vibration Management Plan) which will be agreed with the Local Authorities prior to the commencement of the Construction Phase. As a minimum the monitoring programme will include an alert system for threshold exceedances, remote access and a platform for sharing monitoring results between the contractor, TII, DCC and FCC. The greatest impact from groundborne noise will result from the advancement of the TBM. While the impact of groundborne noise and vibration associated with the TBM would be transient in nature, at any particular location it is likely to cause a significant effect in terms of annoyance and sleep deprivation, for at most approximately two weeks. Noise and vibration levels will not be evenly distributed over that period as it would peak for 2 to 3 days when the TBM is closest. Therefore, adverse effects on human health are prevented by mitigation up to and including temporary relocation where thresholds may be exceeded. A vibration monitoring programme adds further confidence that the predicted levels will not be exceeded. Details regarding noise and vibration levels for individual buildings from Prospect ACA, along the Metrolink route can be found in the EIAR Chapter 14 (Groundborne Noise and Vibration) and its associated appendices. Air Quality Strict dust prevention will be in place at all times, to minimise any potential emissions and these procedures will be strictly monitored and assessed. Before commencing relevant works, an Air Quality Management Plan shall be prepared and submitted for approval to the relevant planning authority. The plan will be developed by the contractor and for each worksite shall include: -An inventory and timetable of activities which may give rise to emissions or dust; -Alert levels; -Alert system to be used (including notification process); -Details of control measures; -Details of dust monitoring arrangements, including the location of sensitive receptors, monitoring locations, and monitoring equipment to be used; and -Details of the air quality reporting requirements. Further to the mitigations applied at sites, mitigation measures are required for the control of dust with respect of HGV moments on site and deliveries to/from the site: -HGV traffic leaving site will pass through a wheel wash; -Public roads outside the site will be regularly inspected for cleanliness and cleaned as necessary. If public roads are deemed to require additional cleaning where possible a suction device for road cleaning will be utilised which can access spaces around cars and other street furniture more effectively; and -During movement of materials both on and off-site, trucks will be stringently covered with tarpaulin at all times. Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for dust emissions. Working hours As presented in the EIAR Chapter 5 (MetroLink Construction Phase), Section 5.2.4 Working Hours, the majority of works will be done during standard working hours, from 07:00hrs to 19:00hrs on weekdays (excluding Bank and Public Holidays) and from 07:00hrs to 13:00hrs on Saturdays. There are however some activities that will require 24h per day working program and in the case of Glasnevin station these are: •Sliding new rail bridge into position; •MEP station works; •Blockades or weekend possession work required with Irish railway (GSWR & MGWR); In the case of Griffith Park station these are: •Strip and clean tunnel; •1st stage concrete track bed from Charlemont South to Griffith Park Station; •MEP station works.

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			Response (11) continued.	Regarding Aspergillus , as outlined in Section 10.3 of the EIAR Chapter 10 (Human Health), the National Guidelines for the Prevention of Nosocomial Invasive Aspergillosis during construction/renovation activities were issued in 2002 by the NDSC. For the Construction Phase, mitigation measures described in the guidelines will be applied where appropriate. Chapter 16 (Air Quality) notes that in relation to aspergillus, survey and prevention works will take place before construction commences by a competent contractor in proximity to any sensitive buildings. These works will form part of an Aspergillus Prevention Plan to be complete by a specialist and will ensure the prevention of Aspergillus spores spreading. The National Guidelines for the Prevention of Nosocomial Invasive Aspergillosis During Construction/Renovation Activities (National Disease Surveillance Centre 2002) and National Guidelines for the Prevention of Nosocomial Aspergillosis (HSE 2018) will be taken into consideration by the competent contractor as a source for the Aspergillus Prevention Plan. The mitigation measures put in place to control construction dust will also be considered as mitigation measures with respect to aspergillus as they will minimise the potential for spread of the fungal spores.	
12	Planning Condition Sought	3	There are concerns too about the monitoring of blast waves from the explosive used for excavation - for example up to what distance away from the blasts will be monitored and how will this information inform damage limitation for local properties? We would also expect that blasting takes place only during the day-time and that advance notice is given of blast timings.	As presented in Chapter 14 (Groundborne Noise and Vibration) and Figure 14.4 Blasting Contours of PPV, no blasting activities will take place at Glasnevin Station and as a result no impact on the buildings will arise.	
13	Planning Condition Sought	3	With regard to parking, it is to be expected that a significant amount of workers will be travelling to Glasnevin and Griffith each day and we would like assurances that Prospect ACA will not be returning to the bad old days (prior to paid parking) of having a continuous stream of hundreds of cars cruising through the ACA seeking parking at all hours of the day and night.	TII will control construction worker parking with proposed mitigation measure as outlined in the CEMP. A Construction Sustainable Mobility Plan will be prepared to support and promote sustainable travel for construction staff travelling to and from the proposed Project site. The mobility plan is a management tool designed to encourage construction staff to rethink their travel choices and requirements during construction in order to minimize the adverse impacts on the environment and on the operation of the transport network within the city. The Construction Sustainable Mobility Plan will be an active document that will require to be updated on a regular basis as construction activities take place and will present a series of measures designed to encourage travel to the constructions site(s) in a sustainable way.	
14	Planning Condition Sought	4	Furthermore, we seek clarity on the site depots nearby, other than that planned for Glasnevin Station. We seek information on whether any part of the Botanic Gardens may become a Site Depot?	No site depot will be placed in the Botanic Gardens. The locations of site depots (construction compounds) are as presented in the EIAR Chapter 5 (MetroLink Construction Phase) and Figure 5.1 Construction Compounds Sheets 17, 18 and 19 of 26.	

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15	Planning Condition Sought	4	It is notable that while most people support Metrolink, that they naturally worry about the loss of general amenity in green spaces and their quality of life for a considerable period of time - some public realm improvements are suggested, but there is no provision of real compensatory measures for the communities effected. To this end we seek a number of conditions. Firstly, the retention of the IEE beyond the planning phase, during the full construction stage and the years following, throughout the settlement period.	TII will work with all established Community Groups through the local community liaison offices along the route to identify projects at local level that would involve the Community in the delivery of MetroLink and its legacy. Such projects could include: - A local school learning programme. - Enhancement of community amenity within agreed funding limits. - Engagement with final landscape and finishing options. As detailed in Chapter 4 (Description of the MetroLink Project), the following considerations were addressed in developing the architectural design and landscaping for Glasnevin Station: * Provide an intermodal concourse at street level, designed as an open space under a light canopy; * Provide a potential café or shops for passengers; * Re-build the Dalcassian Downs car park over the station roof slab; * Provide a car park/large cycle park area and drop-off on the area of the existing Brian Boru car park; * Design landscaping with green integration on slopes; * Integrate station ventilation grilles in green areas; and * Consider the requirements for revenue protection for the different modes, as well as safety in design, specifically regarding adherence to Iarnród Éireann's codes of practice. The services of the Independent Engineering Expert (RINA) are due to be concluded on completion of the Railway Order process (expected in 2024). The continuation of provision of independent engineering advice for residential stakeholder groups throughout the enabling works and main construction stages of the MetroLink project is currently being considered as part of an overall comprehensive community engagement plan, which will include amongst other initiatives, the appointment of dedicated MetroLink liaison representatives and local community forums which will provide detailed updates on construction activities in their areas.
16	Planning Condition Sought	4	Secondly, we seek the setting up of a working group, perhaps a Community Development Committee comprised of local community representatives who can, with the assistance of the IEE meet regularly with the NTA/TII and relevant government agencies to address how the development of Metrolink can benefit the communities along the alignment. Gdra have suggested a Project Construction Traffic Forum including key stakeholders as in residents, the IEE and the NTA as the sponsoring body, perhaps with TII representation. We would support this idea to complement the Working Group.	As detailed in Appendix A5.1 Outline CEMP, a Project Construction Traffic Forum will be established with representatives from key stakeholders. Please refer to response item (15) in relation to the retention of the IEE and engagement with community fora.
17	Planning Condition Sought	4	Thirdly, we also seek the establishment of a Community Development Fund as part of this project - such measures are common place in large private sector developments. However, given the size and duration of this project, it is only fair that communities should also benefit from the enormous changes that Metrolink will bring. Without these measures, Metrolink will largely be an engineering exercise and the opportunity for community and commercial benefit will be mostly lost as those most expert in how to maximise the benefit of Metrolink to each community will be excluded from its ongoing planning and development. The working group can also make a significant contribution to the building and maintenance of good relations and communications between all stakeholders and reduce tensions through the opportunity for discussion while fostering mutual understanding.	TII will work with established Community Groups through the local community liaison officers along the route to identify projects at local level that would involve the Community in the delivery of MetroLink and its legacy. Such projects could include: - A local school learning programme. - Enhancement of community amenity within agreed funding limits. - Engagement with final landscape and finishing options, including aspects of biodiversity. TII are willing to explore mechanisms for investing in local initiatives to support affected communities during the works, such initiatives will be subject to funding being made available.

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18	Glasnevin Station	4 and 5	While the Metrolink RO documents make much of the benefit of a train station and metro line to the local community, we feel that this benefit will actually only fall to a relatively small number of businesses in the area and the admittedly useful extension of transport options. But we feel that this misses what should be wider objectives for this space to create far better commercial, social and cultural benefits....The Dublin City Development Plan (Points MT07 and SMT014) state that the station should be mixed use, while DCC cite their objective of having the future Glasnevin station in the Phibsboro Local Environment Improvement Plan or P-LEIP... We are stakeholders in this development and should be included due to our proximity to the Station and use of Phibsboro as our commercial hub. In common with Phibsboro we believe that this space could be an amazing public resource and its future use should be influenced by a working group such as a Community Development Committee that would enable genuine stakeholder participation in this SID.	As presented in Chapter 3 (Background to the MetroLink Project), the proposed Project will by way of modal shift and by taking significant volumes of passengers movement underground, support the transformation of the surface level urban environment, making it more attractive for people to engage with. The stations will also attract a wide range of businesses keen to take advantage of the projected footfall. This will help to boost economic activity and generate an improvement to the urban public realm. This impact is demonstrated by a recent assessment undertaken by Transport for London. This found that improvements in publicly owned and managed areas of London (including the environs around transport hubs and stations) returned substantial benefits to all residents, both the users of the streets and the occupiers of the offices, shops and restaurants. Some of the key benefits identified in the study included: * 4% per annum uplift in office rental values; * 7.5% per annum uplift in retail rental values; * 17% relative decline in vacancy rates; and * 93% boost in walking behaviours. As detailed in Chapter 3 (Background to the MetroLink Project), MetroLink will contribute to addressing challenges of compact growth, sustainable mobility, enhanced regional connectivity, enhanced international connectivity, transition to a low carbon and climate-resilient society, enhanced amenity and heritage, maximising sustainability gains, strong economy supported by enterprise innovation skills, access to quality childcare, education and health services and strengthened rural economies and communities. Please refer to response item (15) in relation to the engagement with community fora.
19	Glasnevin Station	5	Ultimately we see the development of Glasnevin station as more than a large glass structure - it should be a living community hub with facilities for the surrounding communities - not simply commercial enterprises - but a portion of the building should be a resource available to the public to foster community cohesiveness, wellbeing, health and collaboration. One of the best ways to ensure that Glasnevin station does not become a soulless glass box that attracts significant anti-social behaviour is to ensure that it is in use as a community hub - and not simply a transport and commercial centre that only paying members of the community access.	Please refer to response item (18) above in relation to the anticipated improvements to the urban environment. The proposed Project stations will support opportunities to improve the urban environment, as will the associated reduction in vehicle numbers. The attractiveness of the urban environment is also a key determinant in where people choose to live. As the proposed Project improves this in North Dublin it will help to attract both people, amenities and businesses into the area, further encouraging compact growth, job opportunities and sustainable housing developments.

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20	Glasnevin Station	5	Glasnevin station (Planning Document section 4.5.8. 1] outlines the 3 storey high building that is basically a glass box. It carries no reference to the buildings it will replace or the inclusion of the Hedigans structure. Indeed the Preferred Route Design Development Report states that the structure cannot be achieved without the demolition of Hedigans Pub. It gives no detail as to what other designs might have been drafted that could actually include this structure , or elements of the other buildings as a means of creating a more sympathetic building that invites exploration and not simply a cursory glance at yet another glass and steel box demonstrating no architectural imagination or inventiveness. If this station is to be a highly visible landmark sitting, as it will, at the top of Whitworth Road beside the Royal Canal and its Greenway, then why not create a building that is worth a second glance. Hedigan's is a notable building being mentioned in Joyce's Ulysses and even its inclusion as part of a Joyce tourist trail in Dublin would be of benefit to the historic and commercial fabric of this part of the city. Too much of Dublin’s heritage has already been lost due to developments that take little account of what is already present and of importance to the local community and potentially to the wider population and visitor alike. We contend that the present design of Glasnevin station is out of character with the built environment into which it is supposed to fit and far from complementing the locality, is likely to become a rundown eyesore within a relatively short period of its construction and a magnet for anti-social behaviour.	TII disagree that the design of Glasnevin Station is out of character and believe the commissioning of internationally renowned architect Nicholas Grimshaw and Partners, has delivered a contemporary station design which is appropriate for a state of the art metro system such as Metrolink. Appropriately, significant emphasis is placed on the public spaces. Where feasible the station concourse is a soaring space illuminated from above with natural light Dublin's rich architectural heritage has been respected but not copied in a pastiche imitation. In accordance with best conservation principles, as set out in the ICOMOS Venice Charter of 1964, the stations are architecturally distinguishable so as not to falsify the existing historic context. Reference and due respect to that context is made through the choice of high quality and appropriate materials and the scale of the interventions. EIAR Chapter 4 (Description of the MetroLink Project) outlines TII's vision. The Project will deliver a robust and authentic design with a strong metropolitan identity, unique and sympathetic to Dublin. Concepts such as singular station volumes, use of natural light, intuitive wayfinding, robust and long-lasting materials, and contextual placemaking will be followed through all stages of development and construction, combining to form the very best in architectural vision. The overarching principle of universal design aims to make the proposed Project accessible for everyone to use, regardless of their age, gender, physical capabilities or cultural background. TII’s 'Sustainability Implementation Plan – Our Future (TII 2021)' sets out the vision to lead in the delivery and operation of sustainable transport, enabling their networks to drive inclusive growth, create job opportunities and enhance the well-being of all persons, including vulnerable groups, strengthen resilience to climate change, maintain commitment to the environment and continuing to prioritise safety. The 'Materials Palette' that has also been included with the Railway Order application further confirms the 'MetroLink Design Vision Principles', including the principle of achieving a 'Sense of Place' that reflects the local area, that are appropriate to the City, and the local context / character. TII would also like to provide the assurance that the underlying significance of the historic city and suburbs is respected and has been taken account of by the EIAR, in particular in EIAR Chapter 26 (Architectural Heritage). The proposed route is entirely below ground through the historic city and its suburbs, with the exception of necessary above-ground elements at stations such as access points, ventilation shafts and skylights. At Glasnevin, due to the available land, combined with the construction challenges associated with providing this complex multi-modal interchange station that will deliver significant transport benefits by nature of its connectivity, there is no means of retaining the Brian Boru pub. TII acknowledge this is a significant impact. Before proposing the demolition of the Brian Boru pub, TII did carefully examine the alternative of locating a station at Drumcondra rather than Glasnevin as reported by the EIAR Chapter 7 (Consideration of Alternatives) Section 7.6.5. Both options would require demolition of buildings with potential for significant impacts on architectural heritage, however, once the construction is complete, the proposed station location at Glasnevin offers a much better interchange station location for passengers, a key Project objective of MetroLink. The impacts of the Glasnevin works have been assessed and reported in the EIAR. The Brian Boru pub will be recorded by means of photography and written description to English Heritage Level 3 standard prior to demolition.
21	Planning Condition Sought	5	The planned footprint and three storey height is hard to justify if some of that space is not put to use for the benefit of local community groups and activities and to incorporate some elements of the existing buildings on the site. We therefore ask that ABP reject the current design for Glasnevin Station and stipulate an alternative, more sympathetic design that pays due respect to the local historical and built heritage, while also including space for a vibrant community that currently has no such civic space in which they can engage with one another. Create a building that the communities surrounding it will feel proud of and be happy to take ownership of - this would be an achievement worth pursuing.	Please refer to response items (19) and (20) in relation to the proposed improvements to the urban environment and the architectural design of Glasnevin Station.

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22	Other Metrolink Stations and Infrastructure	6	Our observation on the Metrolink stations from the Mater to Ballymun is that they are quite large compared to many local underground stations one might see in European cities, where stations might simply consist of a stairs and an awning at surface level. It seems difficult to see what is driving the large size of the stations. It cannot be the inclusion of facilities for disabled people to make the descent to the station below as the provision of an elevator doesn’t require that much space. For example the Mater station and its Plaza seems to obliterate the lovely little park that it will occupy. One wonders if the local community want a plaza or simply their park reinstated post works - those are the questions that could and should be addressed by a Community Development type group as it would seem unnecessary to inflate the cost of the project by excessively large surface infrastructure. Similarly the footprint of the Griffith Park station seems very large for its location, so it would be helpful to understand the rational behind their large size rather than keeping the stations relatively low profile with a small surface footprint that enables the maximum reinstatement of green space.	Due to the method of construction, the stations will have a larger footprint during construction for the stations boxes, but once operational the stations will be underground with just some elements above ground such as the station entrances, skylights and ventilation grids. Section 4.7 Architectural, Urban Realm and Landscaping Design Principles of EIAR Chapter 4 (Description of the MetroLink Project), describes the over-arching architectural, urban realm and landscaping design principles, building upon the general design principles described in Section 4.5 and the sustainability principles described in Section 4.6. It also summarises the general principles for universal design. Details of each station architectural design can also be found in the the EIAR Chapter 4. Please refer to response item (20) in relation to the architectural design of the stations. As detailed in Chapter 6 (MetroLink Operations and Maintenance), the peak passenger demand profiles have informed the layout and design of the stations, ensuring safe and comfortable movements of all users between the entrances and the station platforms, the service frequency and the rolling stock. The assumptions methods and outputs of the passenger demand modelling are provided in Chapter 9 (Traffic and Transport) and associated appendices.
23	Other Metrolink Stations and Infrastructure	6	The ventilation shaft at Albert College Park appears gratuitously large with a significant loss of space in the park and related amenity for the residents of the area. It does appear strange that the opportunity to create a metro station beside a large university (DCU) is being rejected by TII and we therefore support ACRA and GADRA in their calls for this decision to be changed. The proposal for a large apartment development nearby does nothing to allay concerns about the lost opportunity either. If the argument is that the space is required for the ventilation shaft, then why are other suitable sites within the requisite distance not being considered. Failing to place a station where there is a large population of commuters seems to contradict the very purpose of a metro line in the first place. There is no sense to Metrolink bypassing an adjacent university. Again even if the station were built at Albert College then would it actually need to have such a large surface footprint absorbing as much of the park as currently suggested.	The Albert College Park Intervention Shaft is required to provide appropriate tunnel ventilation and to comply with tunnel fire safety strategy by providing egress between the tunnel and the ground surface so that passengers can escape, and fire fighters can enter the tunnel. The section of tunnel between Collins Avenue and Griffith Park Stations is over 1km in length so there is a requirement for a stand-alone intervention shaft. As presented in the EIAR Chapter 7 (Consideration of the Alternatives) the EPR route identified a location for the Collins Avenue station in the green space in front of Our Lady of Victories Catholic Church. This location was chosen as it was the only significant open space in this immediate area that would avoid the requirement to impact directly on any buildings to generate sufficient space to allow for the construction of the station. This proposed location for the station has a number of other advantages including: - It ensures that significant traffic disruption would be avoided during the Construction Phase when compared to other options. - This station location also allowed the station to serve as an effective interchange with a number of bus services. Within a 600m buffer from Collins Avenue Station there are more than 22 bus stops located along R108, R103 and Saint Pappin Road. - The proposed Collins Avenue Station serves a very significant catchment. It is located close to Dublin City University and residential catchments on Glasnevin Road, Dean Swift Road and Clonmel Road. The university and residential areas are located within a 15minute walking distance of the proposed Station. Consideration was given to locating the station in Albert College Park; however, this location is not desirable or optimum as it is removed from the busy Collins Avenue junction and bus routes that utilise that route. The placement of a station within Albert College Park, would also require the provision of an intervention shaft between that location and Ballymun station in an area where there is very limited space for such a shaft in the absence of demolition.

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24	Planning Condition Sought	6	Reject the use of Albert College as a site for the ventilation shaft and examine the other alternative locations. Reduce the size of the land take at Albert College Park and provide a Metrolink station in a convenient location for the thousands of commuters that travel to DCU every day. Review the overall land take and station size across the Metrolink alignment to ensure that station buildings and Plazas are not unnecessarily large and expensive.	Please refer to response item (23) above related to the location chosen for the Albert College Park Intervention Shaft. Please refer to response item (22) in relation to the sizing of stations.
25	Ecological Issues	6	Concerns are naturally raised about the potential permanent damage to the Royal Canal and its ecosystems, particularly if it is drained, as canal banks have been known to dry out and crack rendering them useless and in some cases they are beyond repair. There are reports of rare species of invertebrates along the canal banks, although these are as yet to be confirmed. We assume that a full audit of wildlife will be undertaken and that all suitable mitigating factors will be undertaken. However, while the Royal Canal is an obvious source of concern, there are other less obvious ones, such as contamination in the water table and particulate pollution in the air and high levels of noise that can be very damaging to wildlife - and humans.	EIAR Chapter 15 (Biodiversity) assesses the impact of the MetroLink Project, on Biodiversity during the Construction Phase and Operational Phase and proposed mitigation measures to ameliorate the predicted impacts. Baseline surveys were carried out along the Royal Canal to inform the biodiversity impact assessment like habitat survey, including invasive plant species and detailed aquatic survey of Royal Canal basin undertaken in 2018, 2019, 2020 and 2021; aquatic macroinvertebrate survey of Royal Canal basin in June 2021, etc. The Royal Canal was also surveyed for otter activity on the 27th of March 2020. There is no plan to drain the the Royal Canal only the section between the two locks temporarily to allow the installation of protection measures. All works will be in accordance with agreements with Waterways Ireland. Mitigation measures will be implemented to ensure that Royal Canal pNHA will not be significantly affected by the proposed Project during construction or operation, including: • Measures to avoid the introduction or spread of non-native invasive plant species to this pNHA - see the Outline Invasive Species Management Plan (ISMP) (Appendix A15.8); • Measures to control surface water runoff to prevent an accidental pollution event affecting sensitive habitats within this pNHA – see Section 18.6 of Chapter 18 (Hydrology); and, • Measures to manage and treat groundwater discharges to surface water – see Section 19.6 of Chapter 19 (Hydrogeology). The implementation of the mitigation measures will result in no likely significant residual effect. Therefore, the proposed Project will not affect the integrity of, or result in a likely significant negative residual effect on Royal Canal pNHA. Please refer to response item (6) in relation to the anticipated impacts on Hydrology.
26	Planning Condition Sought	6 and 7	The appointment of an Ecology Officer who will share information with the EPA, various wildlife bodies, Waterways Ireland and any other relevant body. We also would request that the ecological data be shared with the Community Development Committee or similar group comprising community representatives and all mitigations put in place to protect the ecology of the varied habitats along the alignment.	Protecting the environment is key to TII. Section 15.5 Mitigation Measures of EIAR Chapter 15 (Biodiversity) presents the mitigation measures to avoid or reduce the potential impacts of the proposed Project on biodiversity. Section 15.5.1.1 and Section 15.5.2.1 summarise the mitigation measures that relate to the protection of European sites. All other mitigation measures are described in Sections 15.5.1.2 to 15.5.1.13 and Sections 15.5.2.2 to 15.5.2.11. All of these mitigation measures are included in the Schedule of Environmental Commitments which will be implemented by the contractor under supervision of both the Project Ecologist (employed by the Employer) and the Ecological Clerk of Works (employed by the Contractor). Whilst a commitment to share ecological data with community groups is not noted in the EIAR per se, ultimately all such information will be available to the public.

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1	Summary - Glasnevin interchange	2	We express our support for the MetroLink project, a significant and long overdue contribution to the provision of a world class urban transit for Dublin. We note with thanks that the Metro Link team has incorporated the Glasnevin interchange previously ruled out as technically infeasible by the former Metro North team. This will become a critical modal interchange for Dublin in years to come. We are however obliged to call attention to the fact this proposal is a compromised solution with poor integration. It will not only be inconvenient to passengers but plain embarrassing that for several billion spent, we ended up with a disjoint and poorly integrated solution.	TII wish to thank you for your submission and support for the delivery of MetroLink. EIAR Chapter 04 (Description of the MetroLink Project) details the urban realm and landscaping design of Glasnevin Station, including its integration with the Iarnród Éireann station. As detailed, the Glasnevin station box will be constructed under both the Western Commuter and the South-Western Commuter Lines. The Glasnevin underground station will have five levels comprising the Iarnród Éireann platforms, concourse, mezzanine and platform levels. The arrangements give access from the Cross Guns Bridge on Prospect Road to maximise pedestrian access to the Iarnród Éireann and MetroLink stations. The station will include a pavilion providing a shared entrance to both MetroLink and Iarnród Éireann stations, as well as clear wayfinding to both modes. Access to the station from street level will be from Prospect Avenue where passengers will enter the new station building and go either directly to the Iarnród Éireann services at level 1 or to MetroLink services at level 2. A common paid area is provided for both heavy railway lines, with separate gate lines for each. This provision allows the Iarnród Éireann part of the station to operate independently of MetroLink once passengers have passed through the gate lines. Internally, the South Concourse will operate as an intermodal space below the railway track and platforms, used by passengers from MetroLink who wish to join Iarnród Éireann services. The underpass also has stair and lift access from the Iarnród Éireann platforms. Given the forecast number of passengers and interconnection with Iarnród Éireann, two escalators and one stairway will provide access between the mezzanine and each platform, facilitating an integrated solution. TII believe the proposed design will allow for efficient passenger interchange between Irish Rail and MetroLink.
2	Summary - DART Underground project	2	The failure to progress the DART Underground project has resulted in the awkward diversion of the Metro via Tara Street.	Chapter 07 (Consideration of Alternatives) details the decision-making process that has led to the development of the proposed Project, including the route alignment and station locations. A station at Tara Street provides good interchange opportunities, serves important key trip attractors in the study area with high potential passenger trips. This option also takes a direct and short route through areas of high demand in the centre of the study area. As Dublin’s public transport network grows through the implementation of higher capacity bus routes, more frequent heavy rail services and coverage, and the expansion of the light rail network it is critically important that to achieve the full benefits and capitalise on these investments that they are integrated fully where appropriate to attain “the network effect”. High quality interchanges can significantly broaden the transport offer for their catchment and add to the appeal and attractiveness of sustainable transport by ensuring that people can easily change services to access a wider range of places by these modes, and each scheme should be designed to ensure that these are as seamless as possible.
3	Integration	2	All interchanges except Glasnevin are “out of station” and require passengers to exit, cross public footpath and in the case of Dublin Airport interact with road traffic. This is unacceptable. This has accessibility impacts by complicating the connection. Claims that others will “fix” these issues later are not acceptable.	The EIAR Chapter 6 (Operations & Maintenance) describes how the proposed Project will interface with existing and future transport services. Each of the proposed stations has been designed to provide a high-quality environment at the station approach to ensure easy access from the existing pedestrian footpath network surrounding the station. The Transport for London Pedestrian Comfort Guidance for London (Transport for London 2010) was used as a reference during the design development process to guide the design of access to each station to ensure that pedestrian footpaths and road crossings are appropriate to the volume and type of users accessing the stations. The proposed Project has been designed on the principle of Access for All. The design has been developed to meet all legislative requirements relevant to accessibility including the Disability Act 2005 and in turn the Sectoral Plan for Accessible Transport under the Disability Act 2005 (DTTAS 2012). The approaches to the station entrances are positioned to provide convenient access with minimal changes in level. Design features to facilitate safe access to the station entrance include signalised crossings, ‘raised tables’ within the roadway to reduce traffic speed at pedestrian crossings and dropped kerbs on pavements on both sides of the crossing to remove a trip hazard and aid wheelchair users and people with wheeled luggage. Tactile paving surfaces will warn pedestrians with visual difficulties of the absence of a kerb and guide them in the direction of the crossing. The pedestrian routes to the station will be logical and clear to understand. They will have a generous clear width, which will be sufficiently wide to allow adequate space for wheelchair users and be free of obstacles. Wheelchair ramps will provide an alternative to avoid steps. All passengers will be able to pass easily though the station entrance and via stairs, escalators or lifts and walkways to the platforms. These features have been designed sufficiently wide to be accessible for wheelchair users as well as accommodate other design parameters such as emergency evacuation.

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4	Accessibility	2	A minimum of two lifts should be provided at each station entrance, and for the transition from each platform to mezzanine level. Given the frequency of service and passenger numbers two lifts will be needed and this provides redundancy in event of breakdowns.	The EIAR Chapter 6 (Operations & Maintenance) describes accessible design of stations, including the provision of lifts at all stations. Flow assessments by static analysis and modelling of the busiest station were developed to size the stations and its vertical connections. Dublin Airport Station, due to its particular characteristics and the passenger profile, required 6 elevators. However, this was not the case in other locations once their expected demands were considered over 30 years. The underground stations are served by public lifts, generally with one lift connecting the street to concourse level, and two lifts from concourse to platform level. More lifts are proposed at stations forecast to experience a higher footfall or to serve two entrances, such as at Northwood and Tara Street Stations. The lifts are sized to carry either 13 or 33 passengers depending on lift size. Passenger lifts will provide access to all levels within the station and to both the northbound and southbound platforms from street level. In the event of lift failure, staff at the Operational Control Centre or within the station will be warned by an alarm, and a staff member will be directed to the station. In the event of public lifts undergoing maintenance, the intervention lift will be in operation.
5	Single Bore Tunnels	2	The choice of single bore tunnel is at odds with normal practice globally. Twin bore has significant safety and operational benefits as engineering works on one track do not impede traffic on the other. In a worst case scenario of a fire or derailment the single bore option offers considerably worse outcomes for both passengers and infrastructure. Twin bore provides for a central island platform and thus the station box required is narrower also savings can be made in terms of number of escalators and lifts. This is the most common design used in modern systems e.g. Munich, Stockholm, Prague, Amsterdam, Vienna, Budapest.	The EIAR provides the rationale and benefits of a single bore tunnel. In the development of the EPR, a comprehensive tunnel configuration study was undertaken to determine the most appropriate tunnel type for the proposed Project (This report can be reviewed at www.metrolink.ie). A detailed comparative analysis of twin versus single bore tunnel has been undertaken, including a review of other successfully operated single bore configuration metros such as Barcelona Metro, Cross Rail, High Speed 1, and Lyon Metro, among others. In the development of the EPR, a comprehensive tunnel configuration study was undertaken to determine the most appropriate tunnel type for the proposed Project (This report can be reviewed at www.metrolink.ie).EIAR Chapter 7, section 7.7.2.2.1 Overall Conclusions, notes that this analysis identified that a single bore tunnel option offered significant benefits for the proposed Project when compared to the twin bore solution that was proposed at the Emerging Preferred Route (EPR) stage. These benefits include: <u>Passenger Evacuation and Incident Management (such as fire or derailment):</u> • The single bore configuration enables safer and faster passenger evacuation from the ends of the train directly onto tracks, rather than more challenging lateral evacuation on to an elevated walkway along the sides of the tunnel required for a twin bore configuration. • The single bore provides increased space for emergency services access and working space adjacent to a train in the tunnel. • Conditions can be created within a larger single bore diameter tunnel that facilitates smoke stratification at a high level in the bore for a longer period of time when compared to that in a twin bore configuration. Therefore, the single bore configuration facilitates enhanced evacuation conditions and provides better tunnel visibility during fire events when compared to the twin bore solution. • The single bore configuration offers a more flexible system throughout the life cycle of the asset in that it allows operational adjustments such as additional track crossovers without the need to build new infrastructure / tunnels. <u>Programme and Cost</u> - A single bore tunnel can be constructed at lower cost and quicker than a twin bore configuration due to: • The overall reduced volume of structure to be constructed i.e. twin bore tunnels will require more concrete and steel, and an overall greater volume of excavation. • Not only can the single bore tunnel itself be constructed more quickly, and hence reduce the construction programme as less overall volume of material needs to be excavated (referenced in MetroLink Tunnel Configuration Study, ARUP) but also there is no requirement for cross-passages, which are slow to construct and need to be mined as separate construction activities after the main tunnel has been built, adding time to the programme and a complex activity dependency to be managed. • There is no requirement to construct extra mined/cut & cover sections required to accommodate track crossovers since these can be accommodated in the single bore tunnel, that the twin-bore cannot accommodate. (It is recognised that the single bore configuration unlike the twin bore arrangement means there is a need for intervention shafts where the distance between stations is greater than 1000m. This only occurs at one location on the Project between Griffith Park and Collins Avenue stations and overall is offset by the benefits listed.) • As there is only one TBM to drive or pull through stations under construction, the station programme durations are reduced together with schedule interface risks with other programme critical construction activities.

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			Response (5) continued.	<u>Environment</u> • The reduction in excavation means spoil, quantities, handling and disposal is reduced and hence traffic on the roads and the follow on volume of land fill disposal is reduced. • The reduction in concrete and steel that will be used to manufacturer the tunnel lining precast segments will be reduced for a single bore tunnel and will therefore reduce the traffic on the roads. • There is an overall reduced environmental impact since the construction programme is quicker, less materials are needed for construction (reduced use of natural resources and traffic to transport materials to site), less excavation (spoil disposal volumes are reduced resulting in less traffic on the roads and reduced landfill), and an overall reduction in embedded carbon as a result of the reduced volume of material (steel and concrete) required compared to a twin bore configuration.
6	Train Length	2,3	64m is restrictive and is well below the length of typical metro trains elsewhere which are typically around 100m. This is a one way decision, platform extensions are not a later option which has badly impacted metros elsewhere. As we are building for the next 100+ years starting with the assumption that 90 minute headways are going to be by design is not a good starting point. It is likely in the fullness of time there will be a Metro West branching off the route south of the airport and a possible Green line upgrade and south west metro to Tallaght. We have consistently under specified capacity in Dublin, noting the original Green line was specified for 30 metre trams, later revised to 40m and now 52m. Station platforms of a minimum of 80m should be built to allow for future scope to expand.	The EIAR Chapter 4 (Description of the MetroLink Project) provides a detailed description of the proposed Project, and all of the infrastructure and systems required to deliver the MetroLink Project. All station platforms will be 65m in length (slightly longer than the trains of 64m) and at least 3m wide. The design for the width of the platforms is based on the predicted number of passengers, assumptions about the distribution of passengers along the platform, and the position of other features such as the stairs and escalators. This approach follows Station Planning Standards and Guidelines, Transport for London, 2012 and Station Capacity Planning, Transport for London S1371. With the assessment considered to be appropriate, 100m platforms are not required. The trains for the proposed Project will comprise bi-directional, high floor trains capable of providing the required demand of up to 20,000 passengers per hour per direction (pphpd). Doors on either side of the train will be used according to the direction of travel. The 20,000 pphpd is achieved by providing 40 trains per hour, each with a capacity for 500 passengers. This is equivalent to 100 seconds operational headway. The service pattern developed around this headway is explained further in the Section 6.5.4 of Chapter 6 (Operations & Maintenance).
7	Charlemont Station	3	The reversing section at Charlemont appears to be able to store only a single train while allowing one track for reversing. As the metro will be fully automated it would be operational helpful to be able to store several trains at Charlemont to dynamically manage frequency so the stub section would need to be 140 - 150m long not that current ~70m. Proximate is not integrated. Single flight of stairs to provide connection to Luas at Charlemont is insufficient in capacity terms given we expect a large turnover of passengers at this location given lack of integration at St Stephens Green. Dedicated separate lifts and stairs should be provided for each Luas platform side to Metro station mezzanine level below, avoiding the need to walk on the street.	The turn-back section south of Charlemont is approximately 250m long, and facilitates 4 train positions to allow the turn-back frequency to be achieved. A detailed analysis of the operations and service pattern is provided in Chapter 06 (MetroLink Operations and Maintenance). Appendix A9.2-B presents a Traffic and Transport Assessment of Charlemont Station during the Operational Phase, including pedestrian assessments. A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station, including the Luas stop. Observations show that the existing street layout and Luas access facilities provide a low level of service for pedestrians. In order to accommodate forecast demand from the Project station, a new staircase with 2.4m stair width is proposed at the south-east corner of Charlemont Luas stop. An elevator will also be provided at this location. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade be repositioned to the front of the Hines Building. With this pedestrian infrastructure in place, the model indicates that pedestrian movements around Charlemont Station will have an acceptable level of service.
8	St Stephens Green	3	Single pedestrian entrance is insufficient given significant demand from Lesson Street end, a second entrance should be provided. It’s confusing that Charlemont gets two entrances yet St Stephens Green which clearly will have a greater flow of passengers has only one.	Passenger forecasts together with Access for All design guidelines have been used to design the size and layout of the public areas used by passengers, including the entrances, as detailed in Chapter 06 (MetroLink Operations and Maintenance). At Charlemont Station, high passenger numbers are anticipated, with an anticipated passenger flow of 223 passengers per minute. Good practice should assume one escalator may stop due to maintenance, and in such instances, the northern entrance would be reduced to two escalators only. In such an instance, the single exit would not be sufficient to support an anticipated passenger flow of 223 passengers per minute. The addition of a second entrance/exit allows for a total of five escalators to be facilitated, with is sufficient to support the anticipated passenger flow. Therefore, two entrances are required at this particular location due to the passenger numbers expected. Other stations may have three escalators to mezzanine level as they have lower anticipated passenger numbers, and therefore do not require additional entrances/exits.

Submission No.			261	
Organisation Name or Name of Submitter			Rail Users Ireland	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Railway Order Application - Metro North: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin				
9	Tara Street Station	3	Zero integration with Irish Rail at Tara Street. Given the curved platform at Tara Street it is a poor location for high volume interchange of passengers. No amount of work will address the Irish Rail platform interface issues at Tara Street. Stating it is future work for Irish Rail is not acceptable, everything needs to be included in the works order to avoid issues and to minimise the duration of construction on site. With the long term plan to build DART underground, Glasnevin and St Stephens Green would provide connections to all rail routes and thus Tara Street would not be needed at all as an interchange. There are significant long term benefits to not connecting at Tara Street: 1. Remove one station and a provide a more direct alignment cost and construction time saving 2. Shorter alignment and fewer stops, fewer trains required to maintain frequency 3. Shorter alignment and fewer stops, shorter end to end journey time which drives passenger demand and modal transfer 4. Eliminates significant and disruptive residential and commercial property demolition 5. Reduced construction impact on city 6. Eliminates subsidence risk or other construction risk on Loop line viaduct, see recent incident in Berlin at Alexanderplatz on line U2 where nearby construction has shut the line as an example.	Appendix A9.2-O presents a Traffic and Transport Assessment of Tara Street Station during the Operational Phase. A micro-simulation VisWalk model has been developed for the immediate area surrounding the Tara Street Station, including the full extent of the publicly accessible station area, and the Irish Rail station. The model indicates that the proposed design for the station is expected to perform with an acceptable level of service. The proposed public plaza offers a high level of service regarding pedestrian routing. The north side of Townsend Street experiences relatively high levels of pedestrian demand, however the proposed design to widen Townsend Street at this location (at the Moss Street junction) facilitates improvements to pedestrian congestion and the crossings at this location. Please refer to response item (2) above in relation to the need for the Project to serve Tara Street. As part of the Transport Strategy for the GDA 2022-2042, DART Underground will not be delivered until a period after 2050, and therefore its benefits will not be received during part of the MetroLink's operational years.
10	O'Connell Street	4	Provision for direct access from the Luas platform into the Metro station is desirable. A simple stairwell at the end of the platform would suffice. The south end of the platform would appear logical.	The provision of additional access stairs by the southern side is not feasible as the area will be occupied by a new development to be constructed above the station. In addition, three buildings and the full façades from North to South at O'Connell Street must be preserved because they are considered as part of the architectural heritage of Dublin. Moreover, the inner arrangement of the station would be highly impacted by including an entrance on the southern side. Interchange with the Luas Green Line is facilitated at Charlemont Station through the provision of a stairwell and a lift.
11	Dublin Airport	4	Zero integration at Dublin Airport for arriving or departing passengers, external walk requiring interaction with vehicular traffic is required to reach the station which is unacceptable for integration and accessibility purposes. This is not best practice and represents a substandard solution. Stating it will be the DAA's problem is not a solution. Options for an underground walkway from both T1 and T2 need to be considered to ensure good integration and to avoid pedestrian interaction with road traffic. T1 seems feasible given the existing basement/Area 14. T2 will require an option exercise likely option is to leverage the existing bridge to the short term car park and build access via the T2 short stay car park.	TII's latest version of the VISWALK model is based on the approach agreed with DAA in April 2022. The model has been prepared for future year scenarios of 2035, with forecast pedestrian demand based on ERM and vehicle demand based on daa projections. This model indicates that the airport road network will operate with adequate capacity for vehicles and pedestrians, even with the addition of MetroLink passengers. All the crossings in the immediate vicinity of MetroLink and the GTC operate efficiently for both pedestrians and vehicles, with no excessive vehicle queuing or pedestrian crowding evident. The TII VISWALK model demonstrates that signal timings can be implemented that would accommodate both pedestrians and vehicles, vehicles can be accommodated without excess delay and that an appropriate LoS would be provided for pedestrians. The VISWALK assessment also demonstrates there is sufficient capacity to accommodate vehicles on the Airport network with no queuing back to the motorway occurring. TII confirm that current pedestrian modelling does not justify the need for an additional walkway, either above or underground and as such the design does not include for such a walkway.

Submission No.			262	
Organisation Name or Name of Submitter			Rathgar Residents Association	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: ABP Case Reference: NA29N.314724 Estuary through Swords, Dublin Airport, Ballymn, Glasnevin and City Centre to Charlemont Co Dublin (Metrolink) - Paula Moore (Vice Chairman) on Behalf of Rathgar Residents Association				
1	Letter	1	The Rathgar Residents Association believes the proposed route of MetroLink represents a missed opportunity to improve the transport needs of Dublin City, in particular Dublin South West. The proposed route duplicates an existing rail line towards Ranelagh and terminates just south of the Grand Canal at Charlemont. Conversely, Dublin South West has no existing rail line. Extending the proposed underground metro from the city centre to Rathfarnham/Knocklyon, serving Templeogue, Terenure, Rathgar, Harold’s Cross and Rathmines, would be a much superior option allowing for a greater population catchment.	The overall project objective of MetroLink, as established by TII and as outlined in the National Development Plan 2021-2030 (Government of Ireland, 2021) is 'to provide a sustainable, safe, efficient, integrated and accessible public transport service between Swords, Dublin Airport and Dublin City Centre'. The extension of the alignment to Tallaght, via Rathmines, Rathgar, Terenure and Templeogue does not align with this objective with regards to the areas to be served by the Project. With regards your observation that “The proposed route duplicates an existing rail line towards Ranelagh and terminates just south of the Grand Canal at Charlemont.” TII would note that infrastructure is not being duplicated, the Luas line south from St. Stephen’s Green is constrained in terms of passenger capacity when compared to a MetroLink connection between St. Stephen’s Green and Charlemont. The capacity of the Luas south from St. Stephen’s Green is restricted due to the on-street running, restricting the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour which cannot be met by an on-street systems (Luas / bus).
2	Letter	1	An underground metro to Rathfarnham/Knocklyon would meet the transport demands of a growing population of commuters unlike the Busconnects Project, which proposes to remove trees, increase road widths and cause loss of, or damage, to heritage, village character and communities along its route.	Please refer to response (1) above. BusConnects is not part of the MetroLink scope and does not fall within the remit of TII.
3	Letter	1	Extending MetroLink to Rathfarnham/Knocklyon would take a large volume of motor vehicle traffic out of the road system. It would reduce the pressure on villages and communities inside the M50 limits and allow for safer commuting for cyclists and pedestrians. It is the most sustainable way to ensure the character of villages like Rathgar, Rathmines and Terenure survives and thrives for generations to come.	Please refer to response (1) above.

Submission No.			263	
Organisation Name or Name of Submitter			Recorders Residents Association	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Submitted by Pauline Foster, Chairman on behalf of Recorders Residents Association - Re: Case reference: NA29N.3 14724 -MetroLink. 314724: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin.				
1	Letter Statement:	1	The Recorders Residents’ Association wish to make a submission which relates solely to that portion of the proposed MetroLink beyond the station located at St Stephen's Green East. Please note that we are fully supportive of the project from Estuary to St Stephen's Green, which we consider is long overdue.	Thank you for taking the time to make a submission and your overall support of the MetroLink Project from Estuary to St Stephen's Green. We have reviewed your submission in relation to the proposal for the project beyond the station located at St Stephen's Green and responded to the observations made below.
2	Letter Submission:	1	• We submit that Bord Pleanála should defer the authorisation of the section of MetroLink beyond the St Stephen's Green station, other than to create a turning section.	TII do not agree that the sections of MetroLink beyond St Stephen’s Green should be deferred for the reasons set out below. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).

Submission No.			263	
Organisation Name or Name of Submitter			Recorders Residents Association	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Submitted by Pauline Foster, Chairman on behalf of Recorders Residents Association - Re: Case reference: NA29N.3 14724 -MetroLink. 314724: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin.				
3	Letter Charlemont Station - no benefit to South West Dublin.	1	The decision to locate the terminus at Charlemont is in our opinion, an extremely poor decision and would have no benefit to our sector of the city. Not in the short term or in the long term. It would appear that NTA/TII have ‘boxed’ themselves into a corner by continuing to opt for Charlemont as the terminus. When the decision was reached not to continue the connection to the Green Luas Line this station should also have been deleted from the proposal. An Bord Pleanála have a golden opportunity in their hands to pause this line at St. Stephen’s Green whilst a fully informed, independent Feasibility Study is undertaken to assess an alternative line towards Tallaght, via Rathmines.	TII have concluded that that the optimum location for the interchange with the Luas Green Line is at Charlemont. Response (2) above explains the rationale for extending MetroLink beyond St Stephen’s Green, whilst further noting the below. It is being argued that arising from the decision to postpone the future upgrade of the Green Line to metro services that Charlemont station effectively becomes a terminus station in the short to medium term. In this regard, it is true to say that the Metrolink trains will terminate and turn back at Charlemont station, however the public transport service offering for passengers does not terminate, it transfers from Metrolink to LUAS as part of the integrated transport network. The terminus station for MetroLink is located at Estuary where all of the activities normally associated with a terminus (train sideways, depot, car parking etc) take place. At this location the high capacity public transport offering terminates and the public transport offering transfers to a completely different mode, i.e. Bus and car. The environmental effect of the Metrolink terminus are accordingly assessed in the EIAR. Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a “system turn back location”. Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. The associated environmental impacts for the turnback and station at Charlemont have been fully assessed in the EIAR. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services, as outlined above. The section of the line between St Stephen's Green and Charlemont generates considerable benefits for the scheme in terms of increased patronage, referred to in response (2) above. Operationally, the Station will see people moving quickly in and out of the area, noting that it will act as an interchange, and has been deliberately designed with minimum set down space or room for taxis so that it does not encourage the Station to be used as a terminus. All operational environmental impacts are mitigated so they are not significant, while the impact on amenity will be permanent and positive. The proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) in which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.
4	Letter Highest car usage.	2	We are acutely aware of the poor public transport decisions, down the years, particularly in the area between the Red and Green Luas lines, which have led to greatly increased private car usage. It is time now to lay plans to address this deficit. MetroLink should go no further than St. Stephen’s Green and the construction time from Estuary should be used to do a proper assessment of continuing the lineout south west, through Rathmines as requested by MSWG.	Responses (2) and (3) above explain the rationale for why MetroLink should extend beyond St Stephen's Green to Charlemont, and further TII do consider that a "proper assessment" has been undertaken as evidenced by responses (2) and (3) above.
5	Letter 50 years evidence.	2	The 1970’s saw a massive increase in the expansion of housing in South West Dublin, yet this was accompanied by a reduction in the number of buses servicing the area. The 2001 studies showed that bus alone could not be meet demand into the future. We are in that ‘future’ now and it has been proven. The then mooted rail link from Stephens Green to Tallaght remains imaginary. Equally, BusConnects proposals in 2019 cannot, in our opinion, address the deficit in public transport for our area. The expected negative impact of traffic, moved about like the chairs on the Titanic, into the entire area west of Terenure and over to the Crumlin Road, will have a detrimental effect on life quality for those in the mid area. We would question the price the ‘squeezed middle’ will pay for arguable improvements (no time-constant journeys) in the extreme outskirts of the city.	EIAR Chapter 3, Background to the MetroLink Project, explains how the proposed Project will provide significant benefits not only to those who choose to use it, but also to other transport network users, by generating a modal shift from private car use, thereby reducing the demand for road space and creating the opportunity for the road transport system to achieve optimum levels of efficiency and effectiveness. Also as outlined in Chapter 3, the proposed Project is part of an integrated transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more liveable and sustainable city. Whilst MetroLink is a standalone project that is not dependent on any other projects for its delivery or effective operation, it is nonetheless a critical part of the proposed integrated transport network for the Greater Dublin Area.

Submission No.			263	
Organisation Name or Name of Submitter			Recorders Residents Association	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Submitted by Pauline Foster, Chairman on behalf of Recorders Residents Association - Re: Case reference: NA29N.3 14724 -MetroLink. 314724: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin.				
6	Letter Solution.	2	MetroLink, continued to South West Dublin via Stephens Green, Rathmines etc. has the potential to resolve this scenario, with buses freed-up to do the job of connecting the suburbs - which is the current driver of much of the private car necessity. The recent GDA review failed to consider an alternative routing of MetroLink - simply terminating it at the point where problems could not be surmounted and endeavouring to make the proverbial ‘silk purse out of a sow’s ear’ out of a station at Charlemont. Instead an alternative route should have been investigated. • We would submit therefore, that, in preference to Charlemont, the nearby Rathmines or Portobello area would be a far more suitable location for the MetroLink terminus. • This would not interfere with the established use of the Luas Green Line. Passengers opting to transfer to MetroLink could do so at Stephens Green or O’Connell Street. It would be remiss of us not to add that the ideal scenario would of course be at a station on the West side of the Green.	The GDA strategy 2022 -2040 and the recommendations contained therein in respect to future transport link south of Charlemont fall outside the remit of TII and are a matter for the National Transport Authority. Future metro services to Terenure/Rathmines/Portobello do not form part of the MetroLink scheme. The MetroLink scheme as proposed in this railway order application is consistent with GDA strategy 2022-2040. Responses (2) and (3) explain the rationale for why MetroLink should extend beyond St Stephen's Green to Charlemont, noting that an interchange at St Stephen’s Green or O’Connell Street would not address the fact that the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. At the Emerging Preferred Route (EPR) stage of the Project, route options included potential station locations on St. Stephen's Green West. Route alignments from St. Stephen's Green West that would also provide an interchange with DART at Tara Street Station would require an intervention shaft between these locations and would also need an undesirable horizontal reverse curve and so are not favoured. As outlined by EIAR Chapter 3, Background to the MetroLink Project, one of the key objectives of the Project is the integration of it with the wider transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040.
7	Letter A ‘Metro’ made of buses.	2	The volume of buses needed under BusConnects to service Terenure/Rathmines (Corridor 10/12) is testament to the need for a metro. A huge percentage of the entire bus fleet, 66 per hour, will endeavour to do the job a metro, up and down these roads for the next quarter of a century. Even at this volume, the service is likely to be inadequate. Time constant travel will not be achieved. Public Transport congestion will result.	Future metro services to Terenure/Rathmines or Portobello do not form part of the Metrolink scheme.
8	Letter Rathmines Road v ‘Ranelagh’ Road (Northbrook Ave).	3	A comparison of bus service to Charlemont and the limited space on the canal front suggests to us that further evidence that the choice of Rathmines for the Terminus of MetroLink offers so much more. Connectivity for much of the south west city could be greatly enhanced as these 33 buses operate from a large arc of the suburbs - Dundrum to Tallaght. • We submit that this is a further reason why An Bord Pleanála should defer the authorisation of the section beyond Stephens Green, in order to conduct a proper feasibility study into this possibility.	Please refer to response (7) above, noting that the further south and to the west MetroLink is extended at this time will further constrain the route options available in the future should it be deemed necessary to extend MetroLink. Future metro services to Terenure/Rathmines or Portobello do not form part of the Metrolink scheme.
9	Letter Limitations of Charlemont.	3	1. The range of the radial extensions into the south of the city is far more limited at Charlemont compared to St. Stephens Green, due to its more southerly location. 2. In the context of the preparation of the Greater Dublin Area Transport Plan 2022-2042, the National Transport Authority did a feasibility study entitled Metro to Knocklyon. We don't regard this as having been, in any way, adequate to fully assess the selection of a viable route into South West Dublin in particular. 3. We do not believe that any meaningful progress can be made in assessing an alternative option unless a proper assessment of metro to the south west city is done.	The analysis underpinning the development of the Greater Dublin Area Transport Plan 2022-2042 is not a matter for TII or the Railway Order application process. Responses (2) and (3) explain the rationale for why MetroLink should extend beyond St Stephen's Green to Charlemont, noting that an interchange at St Stephen’s Green or O’Connell Street would not address the fact that the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running.

Submission No.			263	
Organisation Name or Name of Submitter			Recorders Residents Association	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
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10	Letter Financial return consideration.	3	A metro station located at Portobello/Rathmines could reap the benefit of the 33 buses which will converging on the Rathmines Road for the next 20 years fed from a swathe of South West Dublin, i.e. between the Green Luas Line and the Red Luas Line with a population of over 350,000. Motorists normally using the M50 would be enticed to leave the car and use bus and metro to the north side of the city. By comparison, no ‘new’ passengers would add financially to Charlemont Station. We would also add that to progress to Charlemont would be an extremely costly exercise if, subsequently, minds were changed and the south west route was given precedence.	As noted by response (3) above, the proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise. Further as noted by response (8) above, the further south and to the west MetroLink is extended at this time will further constrain the route options available in the future should it be deemed necessary to extend MetroLink. Responses (2) and (3) also explain the considerable increased passenger utilisation, and hence improved Project Benefit Cost Ration (BCR) that locating the a station at Charlemont brings to the Project.
11	Letter Reduced Environmental Benefit.	3	Poor access from Rathmines Road to Charlemont, particularly for those with mobility issues, would have a limiting effect on the numbers of passengers wishing to use MetroLink to the airport. The habitual route via the M50, with long- stay parking would be likely to continue. We believe that a metro extension to Portobello/Rathmines would result in the beginnings of huge environmental benefits for the south west city. Under current plans Climate action will be almost non-existent due to the on- going dependence on the private car until circa 2050.	MetroLink is not a standalone project. As explained by EIAR Chapter 3, Background to the MetroLink Project, the proposed Project is part of an integrated transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more liveable and sustainable city. Whilst MetroLink is a standalone project that is not dependent on any other projects for its delivery or effective operation, it is nonetheless a critical part of the proposed integrated transport network for the Greater Dublin Area. TII would reiterate that an interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042 (now published), section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise."
12	Letter Conclusion	4	Outside reviewers had this to say about continuing to Charlemont/Manders Terrace :- Jaspers: <i>“The connection to Ranelagh could feasibly be deferred until there is clarity on the future of the Green Line (subject to an improved understanding of how this could physically be delivered in a scenario with Metro operational)”</i> As ‘outside reviewing residents’ we would add: We do not believe that any progress can be made in assessing the options unless a proper assessment of metro to the south west city is done. Pause at St. Stephens Green and be sure the next steps are the right ones, with both options being evaluated.	Responses (2) and (3) above explain the rationale for extending MetroLink to Charlemont and why St Stephen's Green is not suitable as an interchange with the Luas Green Line, including the fact that the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running, whilst noting that the location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise."
13	Letter Conclusion		Our Ref: TTAS-MO-06074-2022 Reply from Minister Eamon Ryan. a) <i>” ...Studying a metro proposal in isolation in a standalone feasibility study would undermine this integrated approach and not provide an overall picture of the transport system needed to cater for medium and long-term demand in the south west of Dublin. ”</i> Our comment on this: The proposal before An Bord Pleanála is in effect a standalone project. Utilising the opportunity to pause at St. Stephens Green offers an opportunity to investigate the following now: b) <i>“While a metro to the south west of Dublin is not proposed before 2042 in the current draft GDA Transport Strategy, the NTA reviews and updates the strategy every 6 years. As such, this proposal may be reconsidered in future and progressed if there is sufficient passenger demand on the corridor. ”</i> Our comment on this: If the Feasibility Study done by NTA had included the population of Lr. Rathmines and Portobello AND extended to Tallaght, we have no doubt it would have easily exceeded the demand criteria. We also note that the GDA Transport Strategy is still at draft stage.	MetroLink is not a standalone project. As explained by EIAR Chapter 3, Background to the MetroLink Project, the proposed Project is part of an integrated transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more liveable and sustainable city. Whilst MetroLink is a standalone project that is not dependent on any other projects for its delivery or effective operation, it is nonetheless a critical part of the proposed integrated transport network for the Greater Dublin Area. TII would reiterate that an interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042 (now published), section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise."

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1	Cover page	1	While we are sure that other observations on this case will address the engineering and technology aspects in detail, Rethink Metrolink are especially concerned about the human impact of these plans, including the catastrophic negative impact on both the Charlemont and College Gate communities. More broadly, the perhaps unintended consequences for the south west of the city of the choice of Charlemont as terminus with associated tunnel extension will adversely impact the quality of life of all the suburbs of the south west, possibly for generations.	College Gate: Chapter 07 (Consideration of Alternatives) details the decision-making process that has led to the development of the proposed Project, including the route alignment and station locations. Appendix A7.2 Tara Street Station Report presents in detail the various options that were considered by TII for this location. TII will offer compensation to property owners for land that is deemed to be acquired land in accordance with the general compulsory purchase code. Compensation will be provided through the Compulsory Purchase Order (CPO) process. In recognition of the impact on residential cases where properties are to be acquired and given the unique circumstances surrounding the proposed impacts to College Gate apartment complex, TII will engage the services of a property advisory company to engage directly with property owners. Property owners will be invited to participate in a Discretionary Scheme. The Discretionary Scheme will offer property owners the opportunity to negotiate and reach a 'Pre-Agreement' on both a baseline residential unit price and other matters of compensation that an owner would normally be entitled to under the compensation stage. This will provide the parties with as much certainty as possible at this early stage. Further information of the MetroLink Land Acquisition Strategy can be found at https://www.metrolink.ie/media/gc4f0bpb/metrolink-land-acquisition-strategy_final-draft_sept22_to-issue.pdf TII is committed to having a Property Owner Protection Scheme (POPS) in place prior to construction works commencing. The scheme allows residential property owners to register with TII if the property is within 30m of the edge of the MetroLink alignment, or 50m of station structures. The POPS comprises of condition surveys of private properties and other selected properties along the route of the proposed Project. Further information on POPS is available in Chapter 11 (Population & Land Use). Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/assets/downloads/MetroLink_FAQ.pdf. Charlemont: Chapter 11 (Population and Land Use) notes that the proposed underground station at Charlemont Station will be consistent with planning objectives to provide for 'Employment/Enterprise' and residential land use in the vicinity. The designation of part of Charlemont Place to the north as a 'District Centre' will complement the southern edge of the city centre location proximate to the mixed-use office district. There is potential for interchange with the Luas Green Line and bus routes, improving accessibility in the area. The impact on both population and land use at Charlemont is considered to be positive. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions. The proximity of the Metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage.	

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			Response (1) continued	The section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the Metro. Please also refer to response (11) below. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).	
2	Cover page	1	This is but the latest in a long line of proposals from NTA/TII which have been characterised by inadequate consultation, occasionally shoddy analysis and less than professional management of the process which in this case led to a delay in the closing date for submissions.	Chapter 8 (Consultation), and the associated appendices documents of the EIAR, presents an overview of all stakeholder and public consultation undertaken to inform the development of the proposed Project. Throughout the project, public consultations were conducted to ensure the most meaningful contribution to design phases. In preparing an application for a Railway Order for the proposed Project, the Project Team has consulted with the public and stakeholders in accordance with the following legislative, best practice and planning practice requirements: Aarhus Convention; Consolidated EIA Directive requirements; and, Requirements of National Law. Since January 2018, 1,331 meetings have taken place and more than 107 organisations have been met by Project Team members, including representatives from Dublin City Council (DCC), Fingal County Council (FCC) and local stakeholders and residents. Consultations and meetings are still ongoing in order to ensure that stakeholders are fully appraised and updated on the details of the proposed Project. TII are committed to maintaining engagement with the relevant parties to address any issues or concerns throughout the Project. Chapter 02 (Methodology used in Preparation of the EIAR) describes the legal provision for EIA with respect to the Project, the legislative requirements for EIA with respect to the proposed Project, the EIA process and methodology for identifying, predicting and evaluating the effects (both positive and negative) on the receiving environment caused by the proposed Project and mitigating negative effects, and the methodology and structure by which the EIAR was compiled to allow the Board to undertake the EIA. The EIAR has been prepared by competent experts in accordance with best practice and takes into account information compiled through desk-based assessment, field surveys and consultation with the relevant statutory bodies and the general public. The assessment of the potential effects of MetroLink generally follows the Guidelines on the Information to be Contained in EIARs (EPA, 2022). For some topics, industry sector or professional institute specific guidance is followed. In addition to the applicable EIA legislation and guidance, all EU Directives and national legislation relating to the specialist areas have been considered as part of the process.	

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			Response (2) continued.	As indicated in the Notice of Further Information and Notice of Extension to the Consultation Period, a very small piece of information (EIAR Appendix A9-2, A9-2-M Traffic and Transportation Assessment – St Stephen’s Green Station) was inadvertently omitted from the EIAR which accompanied the application for a railway order, which contains further information in relation to the likely effects on the environment of the proposed railway works. As soon as TII became aware of this error and to ensure that the public was fully informed and no prejudice suffered, the consultation period was extended on the 25th of November 2022 to allow for full review of this information to inform submissions . Newspaper notices were also published on 25 November 2022 providing notification that this information was being submitted and was again accompanied by TII writing to the same circa 2400 property owner/occupiers notifying them of this new information.
3	2. An Bord Pleanála should approve MetroLink only as far as St Stephens Green	3	It is very difficult to understand the project thinking which envisages the line terminating anywhere other than St. Stephens Green. Continuing MetroLink beyond St. Stephens Green to Charlemont is unnecessary, premature and lacks coherence in the absence of any firm plan for a future extension. The selection of Charlemont is not appropriate as the terminus in light of the (sensible) decision to shelve the Luas Green Line upgrade.	Please refer to response item (1) above in relation to the reasons for continuing MetroLink to Charlemont. Arising from the decision to postpone the future upgrade of the Green Line to metro services, it is being argued that Charlemont station effectively becomes a terminus station in the short to medium term. In this regard, it is true to say that the Metrolink trains will terminate and turn back at Charlemont station, however the public transport service offering for passengers does not terminate, it transfers from Metrolink to LUAS as part of the integrated transport network. The terminus station for MetroLink is located at Estuary where all of the activities normally associated with a terminus (train sideways, car parking etc) take place. At this location the high capacity public transport offering terminates and the public transport offering transfers to a completely different mode, i.e. Bus and car. The environmental effect of the Metrolink terminus are accordingly assessed in the EIAR. Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a “system turn back location”. Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. The associated environmental impacts for the turnback and station at Charlemont have been fully assessed in the EIAR. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services, as outlined above. The section of the line between St Stephen's Green and Charlemont generates considerable benefits for the scheme in terms of increased passenger use, as detailed in response (2) above. Operationally, the Station will see people moving quickly in and out of the area, noting that it will act as an interchange, and has been deliberately designed with minimum set down space or room for taxis so that it does not encourage the Station to be used as a terminus. All operational environmental impacts are mitigated so they are not significant, while the impact on amenity will be permanent and positive. The proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) in which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.
4	2. An Bord Pleanála should approve MetroLink only as far as St Stephens Green	3	We believe that if the tunnel is bored as far as Manders Terrace, it seriously compromises the ability for a southern extension to include the highly populated city suburbs of Portobello, Lower Rathmines, and Harold’s Cross. We would submit that proper planning of the project which is the subject of the Railway order requires a full and proper evaluation of the options for extension and that it is not consistent with proper planning to bring Metrolink beyond St. Stephens Green to Charlemont which would compromise the options.	Please refer to response item (1) and (3) above in relation to the reasons for continuing MetroLink to Charlemont.

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5	2.1 Charlemont Station is neither a sensible or viable solution as a southside Metrolink Terminus	3	The selection of Charlemont as the point of tunnel emergence seems to be predicated on the related (but shelved following consultation and additional analysis) NTA plan to convert the Luas Green line into a high speed limited stop system. The effect of this decision Charlemont terminus is to pre-empt future decisions on the configuration of any comprehensive, integrated and inclusive rail-based transport solution for the south city generally. Rethink Metrolink has consistently called for consideration of extending the underground high-speed rail (the Metrolink) to deliver services to under-served parts of the south city either South West (Rathgar, Terenure, Rathfarnham, Tallaght/Sandyford) or East (Stephens Green, Donnybrook, UCD Belfield, Mount Merrion, Sandyford) or both. While the current plan to continue tunnelling to Charlemont/Ranelagh does not render this approach impossible, it would seem that terminating the Northern Metrolink line at St. Stephens Green preserves the possibility of far more elegant and integrated solutions at some stage in the future. (This was specifically envisaged in the current plan for DART underground and the original 2010 plan for Metro North, which suggests that the current Charlemont terminus does not adhere to the principle of integration which should underpin projects of this scale).	Please refer to response item (1) and (3) above in relation to the reasons for continuing MetroLink to Charlemont.	
6	2.1 Charlemont Station is neither a sensible or viable solution as a southside Metrolink Terminus	3	The current NTA plans for Charlemont/Ranelagh suggests a policy fixation by the NTA with upgrading the Luas Green Line to the exclusion of alternative more equitable and inclusive use of taxpayer resources. It is based on a historic policy position which was always suspect and certainly does not reflect key urban social and demographic trends in the interim. It is also a proposal (Luas upgrade) which has been already rejected by key stakeholders. It is in effect driving policy through the rear-view mirror.	Please refer to response item (1) and (3) above in relation to the reasons for continuing MetroLink to Charlemont.	
7	2.2 The selection of Charlemont as a transport hub is fundamentally flawed - 2.2.1 Long-term impact	4	Charlemont has only become "the" major Southern transport connection hub by default. The "emerging preferred route" originally envisioned that southside passengers would access MetroLink at multiple points along the spine of an (upgraded) Green Luas Line. Under that design, Charlemont would not have been "the" focal point for access for the whole of the southside. The original strategy for the "emerging preferred route" was based on a north-south spine and not a "hub and spoke" model. The subsequent withdrawal of the proposal to "tie-in" the Green Luas line has now resulted in Charlemont unintentionally becoming "the" southside hub for the whole Metro project. The fundamental basis of the MetroLink transport strategy for the southside has now totally changed. However, no comprehensive study of a "hub and spoke" model has been carried out. Furthermore, no data has been proffered to demonstrate that Charlemont is the ideal solution for a long term major Southern transport connection hub.	As a result of the non-statutory consultation on the Emerging Preferred Route (EPR), a number of significant changes were made to the proposed Project. The EPR Public Consultation Report was published by TII, indicating that a large number of submissions were received regarding disruption to the Green Line service during upgrade works. A decision was taken to amend the extent of the MetroLink route. The proposed Project now comprises the delivery of a Metro system between Swords and Charlemont and no longer includes for the upgrading of the Luas Green Line between Charlemont and Sandyford to Metro standard. Terminating the proposed Project at Charlemont avoids disruption during construction along the Luas Green Line, which was frequently mentioned in submissions. Please refer also to response item (1) and (3) above in relation to the reasons for continuing to connect MetroLink to Charlemont. The proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) in which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise. As detailed in Chapter 6 (MetroLink Operations and Maintenance), the project has been designed to ensure maximum interchange with other modes of transport, specifically more sustainable modes of transport such as walking, cycling and other forms of public transport. As Dublin’s public transport network grows through the implementation of higher capacity bus routes, more frequent heavy rail services and coverage, and the expansion of the light rail network it is critically important that to achieve the full benefits and capitalise on these investments that they are integrated fully where appropriate to attain “the network effect”. High quality interchanges can significantly broaden the transport offer for their catchment and add to the appeal and attractiveness of sustainable transport by ensuring that people can easily change services to access a wider range of places by these modes, and each scheme should be designed to ensure that these are as seamless as possible. As such, a 'hub and spoke' model aligns with the 'network effect' mentioned, and offers greater benefits than a linear spine model.	

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8	2.2 The selection of Charlemont as a transport hub is fundamentally flawed - 2.2.1 Long-term impact	4	If the Metrolink strategy is to be fundamentally changed to a hub and spoke model, the most important criteria for any "hub" would be that it provides maximum flexibility to accommodate all future southern route possibilities. Under this model, the optimum location will be as close to the city centre as possible. Charlemont is clearly not as central as St. Stephen's Green and therefore already compromises future routes by bypassing densely populated city centre business areas due to the more southern location. The likelihood of future routes satisfying return on investment criteria is further compromised by the likely cost of re-aligning any future tunnel routes (away from Green Luas tie-in).	Please refer to response item (1) and (3) above in relation to the reasons for continuing MetroLink to Charlemont.	
9	2.2 The selection of Charlemont as a transport hub is fundamentally flawed - 2.2.2 Interim Impact	4 and 5	Even as an interim solution, the logical criteria for selecting the location of a station to service the whole of the southside would be: • It should be in an area that is already a transport hub, i.e. is well served by multiple current modes of transport - pedestrian, rail, bus, coach, taxi and car. • It should be in an area that already caters for major transport activity and is a destination for both regular commuters and tourists. St. Stephen's Green satisfies both criteria; Charlemont satisfies neither: • Charlemont is not an existing transport hub - while there is a Luas stop, it is not a destination for buses, coaches, taxis or cars. It is also severely compromised by the Canal in terms of connectivity and traffic congestion. This is in stark contrast with the 360 degree access to St Stephens Green. • Immediately south of the proposed Charlemont station is a residential area (beginning from Dartmouth Square and Dartmouth Road). This long-standing residential and architectural conservation area has never been envisaged or proposed as a suitable location for a major transport hub. The congestion problems caused by the Canal boundary will worsen on the Canal (Grand Parade) and result in the main station access for buses, coaches, taxis, cars and pedestrians, being forced to come through this residential area. Once this is established it will become a de facto access route to MetroLink and with severe long-term implications for the local community. Even as an interim solution, why bring all southside MetroLink passengers to a Charlemont location that is less accessible than St. Stephen's Green, will cause increased traffic congestion and will destroy a residential area?	Please refer to response item (1) and (3) above in relation to the reasons for continuing MetroLink to Charlemont. A VISWALK local model has been developed for this station, assessing the impact of the new pedestrian crossing on Grand Canal on the road network. The model demonstrates that it will have a minimal impact on driver delay on this road. In overall terms, the Charlemont station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, as evident in the forecasted modal shift, and as such further local traffic or junction modelling was not undertaken. during the operational phase, the model zones around Charlemont Station forecast a reduction in Car mode share , with a reduction of between 400 and 800 car trips over the 12hr period. With the reduced demand for car trips, it is anticipated that the demand for drop-off and parking will also reduce. Transport modelling presented in Chapter 09 (Traffic and Transport) also indicates that the majority of passengers boarding and alighting at Charlemont will transfer from/to other forms of public transport, and therefore will not induce traffic.	
10	3. Options for any future Metro South phase should not be prejudiced by the current proposal	5	The Metrolink Railway Order, case reference NA29N.31474 makes repeated references to a 'second phase project' in several decades time aimed at upgrading the Luas Green Line to Metro (high-speed, limited stops). This 'second phase project' is then used to support the adoption of Charlemont as the terminus as well as tunnel boring as far as Manders Terrace. However, in November 2021, as part of the Greater Dublin Transport Strategy 2016-2035, the NTA announced that it planned to develop new Luas lines serving UCD Belfield and Knocklyon/Rathfarnham to take pressure off the existing Green Line - but only after 2042 - with the aim of removing the need for it to be upgraded to metro standard south of Charlemont. There is a contradiction between the 'second phase project' and the stated strategy of NTA and this lack of internal consistency in their thinking is worrying.	Please refer to response item (1) and (3) in relation to the reasons for continuing MetroLink to Charlemont in line with the GDA Transport Strategy.	
11	3. Options for any future Metro South phase should not be prejudiced by the current proposal	5	There is an overwhelming case as a future phase to extend MetroLink to serve Rathmines, Cathal Brugha Barracks and onwards via Harold's Cross, Terenure and Templeogue to Tallaght. There is an inadequate plan for the supply of public transport to South West Dublin and the critical need, at this juncture, for correct decisions to be made in relation to the MetroLink trajectory into South Dublin in the future.	Future plans to extend Metro services south of Charlemont, do not form part of the Metrolink scheme. TII's role is to deliver Metrolink as supported by the Transport Strategy for Greater Dublin Area (2022-2042) and Dublin City Development Plan 2022-2028. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy. The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport, and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future Metro extensions to serve the southwest, south or southeast of the city region should sufficient demand arise."	

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Letter Re: Observation to ABP on MetroLink Railway Order Case No. NA29N 314724 Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin					
12	3. Options for any future Metro South phase should not be prejudiced by the current proposal	5 and 6	A proper feasibility study for continuing MetroLink to South West Dublin needs to be carried out urgently and should inform the current proposal especially in respect of the Charlemont terminus choice. In respect of the Terms of Reference for the previous study, the option of continuing MetroLink from St Stephens Green (rather than Charlemont) to South West Dublin needs to be within scope. When MetroLink comes south to St Stephens Green, it could be directed either to South West Dublin. If MetroLink were to go as far as Charlemont / Manders Terrace, under the current NTA proposal, the opportunity of serving Harolds Cross and Rathmines and other important inner suburbs would be lost. This is a serious and worrying flaw in the Terms of reference of the previous study. By including the Charlemont terminus in this phase, the NTA is attempting to prejudice and limit the opportunity for future phases of MetroLink to support under-served areas to the southwest of the city centre. The MetroLink "Project Review: Phase 3 (Preliminary Business Case) incorporating Independent External Review" by JASPERS, May 2022 also concluded that this is not a priority: - Reference A.1.4 <i>"It is noted that the revised design for St Stephens Green arose following the objective to provide a connection to Charlemont/Ranelagh, which is no longer considered a priority by the independent review team."</i> - Reference A.4.8 <i>"The connection to Ranelagh could feasibly be deferred until there is clarity on the future of the Luas Green Line"</i> The selection of Charlemont as the end-point, estimated to cost in the region of €650m, is not justified in the light of the decision to omit the Luas Green Line upgrade.	Please refer to response item (1) and (3) above in relation to the reasons for continuing MetroLink to Charlemont, including the future proofing for possible extensions to South West Dublin.	
13	4. Rethink Metrolink proposes a set of investment principles which we believe should continue to underpin transport strategy	6	Rethink Metrolink strongly urges that the development of strategic solutions to Dublin public transport requirements should be guided by the following: • Transport solutions should be based on a strategic approach encompassing all options in an integrated plan. • High-speed urban rail solutions should run underground when servicing the city centre and inner-suburban neighbourhoods. • Incremental development of urban rail transport should prioritise areas of high demand where there is no existing rail link. • Investment of incremental taxpayers' monies should not be predicated on decommissioning existing essential and well-proven transport assets, specifically light-rail services such as Luas. • Investment proposals should include analysis and quantification of the social, economic and environmental effects of the proposed route on all the affected communities. • The energy crisis and the fallout from the pandemic have been unwelcome reminders of the perils of forecasting and the challenges of devising a regional transport strategy. Government policy in relation to remote working demonstrates the profound changes that this global pandemic will have on future transport patterns in Ireland. It is widely expected that the volume and pattern of future commuting in the Dublin region will change markedly due to the dramatic increase in remote and hybrid working. It is very possible that commuter numbers may actually decline. As a consequence it is likely that the current carrying capacity of the Luas system will be able to cope with demand until 2050 and not 2040 as currently assumed. In light of this, it cannot be good transport strategy to even explore options involving the destruction of existing fit-for-purpose light rail infrastructure: therefore the only rationale for including any consideration of the Luas Green Line (City-Centre to Sandyford) in the strategic review is to confirm that it should be retained in its current tram format, in our opinion.	Please refer to response item (1) and (3) above in relation to the reasons for continuing MetroLink to Charlemont. As Dublin’s public transport network grows through the implementation of higher capacity bus routes, more frequent heavy rail services and coverage, and the expansion of the light rail network it is critically important that to achieve the full benefits and capitalise on these investments that they are integrated fully where appropriate to attain “the network effect”. High quality interchanges can significantly broaden the transport offering for their catchment and add to the appeal and attractiveness of sustainable transport by ensuring that people can easily change services to access a wider range of places by these modes, and each scheme should be designed to ensure that these are as seamless as possible. Chapter 07 (Consideration of Alternatives) presents the decision making process that has led to the development of the proposed Project, including the Multi-Criteria Analysis that has been undertaken for the route alignment, considering the social, economic and environmental effects of the proposed route on all the affected communities. Chapter 09 (Traffic and Transportation) and the associated chapter appendices, details how the passenger modelling has been informed by a range of growth scenarios and transport infrastructure scenarios. Similarly, passenger modelling for the Project's business case included sensitivity tests such as Alternative Demand (such as the impacts of COVID-19), and Slow Growth patterns to determine the possible economic impacts in all possible scenarios. The range of BCR still indicates that the Project will be of benefit to Dublin.	
14	5. Rethink Metrolink continues to have concerns about the consultation process	6 and 7	Rethink Metrolink has already expressed concerns that NTA needs to be more transparent in its strategising and decision making. For example, an earlier consultation on the preferred Metrolink route did not provide full relevant information on engineering challenges that have a direct bearing on the exact location for the Luas-Metrolink tie-in and had the effect of ensuring disproportionate focus - with adverse public commentary - on the community’s concern about the closure of Dunville Avenue. This information was only released in a subsequent detailed design report. In addition we should remember that NTA insisted that the Luas green line could not cope with likely demand growth to 2040 until activist groups actually presented solutions involving tram length and frequency, scenarios which must have been developed by a well-resourced entity such as NTA. In addition, we are concerned by the reluctance of NTA to engage directly with community groups including Rethink Metrolink. As Rethink Metrolink (representing a broad cohort of residents who are situated adjacent to the Luas Green line as well as commuters who have been daily users of that facility for the last 18 years) we made extensive submissions to all prior consultations; we requested that a meeting of manageable numbers and duration with NTA but that was not forthcoming. At that time, the Joint Oireachtas Committee on Transport did deem it appropriate to meet with us, in fact on the same day that the NTA met with them. The Metrolink Railway Order, case reference NA29N. 31474 will have an immediate adverse impact on two communities, namely the residents of the College Gate development and the Charlemont/Dartmouth Square community. In the longer term, the south west quadrant of the city will be disadvantaged by the choice of Charlemont as terminus as it precludes the development of the needed southwest alignment. The impact on these citizens has been poorly reflected in the current proposal and the wider planning process provides surprisingly limited opportunity for advocacy on behalf of these impacted groups.	Chapter 07 (Consideration of Alternatives) presents the decision making process that has led to the development of the proposed Project. Taken together with other proposed route alignment and design improvements, design responses to consultation submissions resulted in a number of changes to the Emerging Preferred Route leading to a Preferred Route. While based on the EPR alignment, the Preferred Route developed on and improved on earlier preliminary design considerations. As such, detailed engineering analysis was not undertaken for the identification of a Preferred Route, but once identified was then progressed to further analysis and design. Please refer to response item (2) in relation to consultation and stakeholder engagement undertaken as part of the Project. As noted, TII are committed to maintaining engagement with all relevant parties throughout the Project. Consultation between Rethink and NTA on plans for a southern Metro extension are not a matter for this Railway Order. Please refer to response item (1) and (3) above in relation to the reasons for continuing MetroLink to Charlemont. Response item (1) also details the predicted impacts on the residents of College Gate.	

Submission No.			265	
Organisation Name or Name of Submitter			RGRE Burlington Limited and RGRE Harcourt Terrace Limited (represented by John Spain Associates)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: Submission on the Metrolink on Behalf of RGRE Burlington Limited (Freehold) and RGRE Harcourt Terrace Limited (Leasehold) regarding a site at 6 & 7 Harcourt Terrace, Dublin2 (D02 P0210 & D02 FH73)				
1	Introduction	3	The Metrolink line is proposed to run down Harcourt Terrace and encroaches under the front of the site at 6 & 7 Harcourt Terrace. It is acknowledged that the construction of the proposed Metrolink will have a certain amount of impact on the subject site. However, our client has serious concerns in relation to the identified noise and associated disruption contained with the Railway Order documentation. A “Significant 1” residual impact is identified to a neighbouring building (9 Harcourt Terrace). Whilst this impact is noted as being temporary, there is no clarity or estimate provided beyond this in relation to the duration of these works.	The temporary disturbance referred to is due to the passing of the Tunnel Boring Machine (TBM). Unfortunately it is not possible to mitigate noise generated through the ground by the passage of the TBM at source. This noise will occur for a very limited period of up to 2 weeks. TII will communicate well in advance the forecasted time the TBM will pass to assist impacted individuals in managing the temporary impact of the disturbance.
2	Engineering Considerations	3	<i>"The owners of 6-7 Harcourt Terrace confirm that they are proposing to redevelop this site in the future which will include the provision of a lower ground floor and basement below existing ground level.</i> <i>We note the proposed crown of the proposed tunnel works for the Metrolink transit is at a datum of -17.3m which is at a considerable depth below the site and located in bedrock. The buildings currently on site are commercial and it would be hoped to redevelop to a height of 6+ floors.</i> <i>Therefore, the proposal to redevelop, which will include a reinforced concrete raft slab foundation supported on the underlying rock, will ensure load spread over the rock strata to minimise local future loading on the underground tunnel.</i> <i>We would request that this proposal is acceptable and can be catered for in the future. Please confirm that no vent shafts or the like to service the underground tunnels are to be located on our site as this would be problematic both now and for future development."</i>	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will require future developers to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following the granting of the Railway Order and development of detailed design, TII will produce “Guidance Note for Developers” that will be the subject of bye-laws following the granting of the Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. It is inappropriate and unworkable to produce this policy at this stage because it would have to be in broad terms that deal not only with the current RO proposal and any contingencies that might arise from the Board seeking revised designs or new conditionality as part of the RO application process. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future.
3	Development Potential	4	The subject site is located along Harcourt Terrace, c. 150m from the Luas Stop at Charlemont which is served by the Luas Green Line. The site is located in a prominent location within Dublin City, adjacent to the Grand Canal, close to all necessary services and facilities, including the Green Luas Line Stop at Charlemont and numerous bus stops. The site is therefore considered to be suitable for redevelopment which would see the further densification of the site, in line with national, regional and local policy guidance which encourages the redevelopment of brownfield sites in close proximity to public transport hubs. The redevelopment of the subject site for a building of greater height would be compliant with planning policy guidance which encourages compact growth and would promote the concept of a 15-minute city. The site currently provides for a 4 no. storey commercial building, however, it is our client’s intentions to provide for a building of increased height in line with recent surrounding developments such as Zendesk located less than 100m to the east and Two Grand Parade which is located a similar distance to the south. The surrounding area has seen significant redevelopment in recent years to provide for both commercial and residential developments. It is considered appropriate for the subject site to provide for a similar redevelopment in line with the emerging context surrounding the Charlemont Luas Stop. It is therefore the development potential of the subject site is not hindered by the proposed Metrolink.	Please refer to response (2) above.

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4	Concluding Comments	4	Our client welcomes the opportunity to make a submission on the Metrolink Railway Order and the sustainable transport benefits which would be delivered. Our client acknowledges that a scheme of this scale will result in impacts, however, these should be carefully managed to minimise the effects on the surrounding landholdings.	TII have reviewed the submission and responded to the observations raised. The EIAR submitted as part of the Railway Order application provides a detailed and comprehensive assessment of the potential construction and operational environmental impacts of MetroLink, and the mitigation measures that will be implemented to reduce construction phase environmental impacts to acceptable residual levels wherever practicable, and all operational impacts to acceptable residual levels.
5	Concluding Comments	4	Our client also reserves the right to ensure that the development potential above and below ground of the lands in question are not compromised by the Metrolink proposal.	Please refer to response (2) above.
6	Concluding Comments	4	The assessment of compensation would not be limited to the content of this submission.	Where substratum land is to be acquired, Rule 17, section 48 of the Planning and Development (Strategic Infrastructure) Act 2006 will apply. The substratum value for deep tunnel projects is that it has no value in the market due to its depth below the surface and property values should therefore not be impacted. For further information on compensation please see https://www.metrolink.cpoguideline_final_september 2022.pdf
7	Appended letter from CS CONSULTING GROUP to Ronan Group Real Estate	5	The owners of 6-7 Harcourt Terrace confirm that they are proposing to redevelop this site in the future which will include the provision of a lower ground floor and basement below existing ground level. We note that the proposed crown of the proposed tunnel works for the Metrolink transit is at a datum of -17.3m which is at a considerable depth below the site and located in bedrock. The buildings currently on site are commercial and it would be hoped to redevelop to a height of 6 + floors. Therefore, the proposal to redevelop, which will include a reinforced concrete raft slab foundation supported on the underlying rock, will ensure load spread over the rock strata to minimise local future loading on the underground tunnel. We would request that this proposal is acceptable and can be catered for in the future. Please confirm that no vent shafts or the like to service the underground tunnels are to be located on our site as this would be problematic both now and for future development.	Please refer to response (2) above.
8	Appended letter from CS CONSULTING GROUP to Ronan Group Real Estate	5	The Railway order section 6. Deviations, (d) ii. states, “deviate vertically by any distance not exceeding 5 metres upwards from the levels show on the plans ” as we proposed to construct a double level basement which will be supported on the underlying rock, due to the level of the crown of the tunnel and the formation level of our concrete raft foundation, the above section 6.(d) ii. would not be acceptable, in which we would request that writing confirmation is needs to be provided by our client before on any deviations from the current -17.4 metre level below existing ground as indicated on the current sections.	The design includes for a limit of deviation which is required to allow for unforeseen obstructions and construction tolerances which may necessitate a change to the alignment. In the highly unlikely event that this were to occur, any resulting environmental impacts will comply with the limits set by the enforceable Railway Order. TII has carried out a comprehensive set of ground investigations in accordance with relevant guidelines and best practice. It has a high confidence that MetroLink can be constructed along the proposed alignment without requiring vertical or horizontal adjustment. However, in order to guard against rare and undetectable subterranean conditions that might interfere with construction, the Railway Order provides for limits of deviation (as have other railway authorisation since at least the 1840s). The impacts of potential changes within the Limits of Deviation are considered in the Wider Effects Report (Appendix A5.19).
9	Appended letter from CS CONSULTING GROUP to Ronan Group Real Estate	6	Also we seek writing confirmation from the NTA and TII that the MetroLink will not impede our ability to construct or maintain/operate our building/basement in the future.	Please refer to response (2) regards over site development above or adjacent to MetroLink infrastructure.

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Organisation Name or Name of Submitter			Richard Guiney 43-45 Middle Abbey Street	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022				
1	Introduction	1	Dublin Town supports the application made by Transport Infrastructure Ireland in respect of the MetroLink project. This is a vital piece of transport infrastructure which must be completed without further delay.	TII wish to thank you for your submission and support for the delivery of MetroLink. TII as the Government Agency responsible for delivering MetroLink, are committed to expediting the delivery of this transformative project on receipt of an Enforceable Railway Order
2	Transport Emissions	1	Ireland is obliged to reduce its transport related carbon emissions by 51% by 2030. Given the indicative timetable provided, it is unlikely that the scheme will be delivered by that time, however, Dublin Town would strongly advocate that the scheme be completed as quickly as possible in order to assist Ireland in reaching its ambitious but necessary carbon reduction targets. Without, investment in key infrastructure projects, it will be simply impossible for Ireland to meet its obligations. Indeed, given the extent of our carbon reduction commitments, it is highly likely that Dublin will experience reductions in non-public vehicle movements within the city core. In order to maintain economic vibrancy and viability, alternative public transport and active travel arrangements will need to be available.	As noted in response item (1), TII are committed to expediting the delivery of this transformative project on receipt of an Enforceable Railway Order. However, due to construction timescales, MetroLink will not be operational by 2030. EIAR Chapter 03 (Background to the MetroLink Project) details the need for the Project, and how MetroLink will address challenges such as climate change and the production of CO2 emissions. As noted, private vehicles are a significant contributor to Ireland’s GHG emissions, and providing an alternative to private vehicle-based journeys is a key benefit of the proposed Project. The proposed Project will aim to be a fully sustainable and carbon neutral public transport alternative (by the Design Year of 2050), and therefore the way in which people access Dublin Airport, and other parts of the city, will be in a much more sustainable way than at present. The proposed Project, as a sustainable mobility option, will have a direct and long-lasting impact on Ireland’s transition to a low carbon economy. The proposed Project will be fully electrified, and will be able to reduce its emissions footprint as Ireland moves increasingly to green energy production. Based on modelling undertaken for Chapter 17 (Climate) it is estimated that the modal shift resulting from the provision of MetroLink will result in a reduction in GHG emissions of between 9kt and 11kt in the opening year, with the reduction expected to increase to 45kt by 2050 (Design Year). Chapter 04 (Description of the MetroLink Project) details the implementation of sustainability policy areas in the project's design to deliver an efficient, low carbon and climate-resilient metro system.
3	Capacity	1	As noted above we will have to increase capacity on our public transport systems. The fact that Metrolink will be able to carry 20,000 passengers per direction per hour, will assist considerably in this regard. Prior to the pandemic Dublin city centre had an average footfall of 450,000 per day (equating to 300,000 people). Footfall has averaged 85% of 2019 levels over the past number of months, a pattern that we anticipate will become the norm. This level of footfall requires the capacity offered by Metrolink. The lack of such options is an underlying reason for traffic congestion in the city. Indeed, Dublin Town believes that the additional lines should be added to the initial infrastructure to facilitate access to the city centre from various suburban points.	EIAR Chapter 03 (Background to the MetroLink Project) details the overall need for the Project and how MetroLink will address challenges such as the current capacity constraints on the public transport network. As noted, MetroLink is the only public transport option to meet the future predicted passenger number requirements for the Swords to Dublin City Centre corridor. It will provide capacity far in excess of any other public transport option and will enhance international and regional connectivity through Dublin City and Dublin Airport. The enhanced public transport options will allow enhanced access for passengers in the surrounding communities and in rural areas further afield to access childcare, educational and medical facilities. The overall need for the Project is therefore detailed in section 3.4.11 of Chapter 3 (Background to the MetroLink Project). As detailed in EIAR Chapter 04 (Description of the MetroLink Project), the proposed Project has been designed to interchange with existing and future elements of the transport network, increasing connectivity and accessibility in the region. The key interchanges are as follows: * Dublin Airport; * The Western Commuter Line also known as the Maynooth Line (formerly the Midland Great Western Railway) and the South-Western Commuter Line as known as the Kildare Line (formerly the Great Southern and Western Railway) at Glasnevin; * The DART at Tara Station; * Luas Lines (at O’Connell Street, St. Stephen’s Green and Charlemont Stations); and, * The Dublin Bus network and the future BusConnects network.
4	Capacity	1	As was the case with the expansion of the London Underground, we believe that enhanced transport infrastructure will facilitate residential development along the route, with easy access to the city centre. It is not possible for Dublin to achieve sustainable development and appropriate levels of residential accommodation without an appropriate investment in sufficient public transport capacity.	As noted, Chapter 03 (Background to the MetroLink Project) details the overall need for the Project, including how MetroLink will address challenges such as compact sustainable growth along the alignment. MetroLink provides capacity far in excess of any other public transport option and will facilitate compact sustainable growth along the alignment to a level not possible with other transport options. The increased public transport capacity would support the development of much needed housing provision at a higher density, allowing the benefits of compact growth to be realised. The proposed Project directly supports the strategic plans of the local authorities along the route. FCC have developed its future housing and employment plans for Swords to encourage high density development in close proximity to MetroLink, largely on lands that are undeveloped or underutilised. By creating a focal point at each station for compact growth planning and transport orientated developments, the proposed Project can support the development of vibrant, inclusive and resilient communities along its corridor. This is detailed in section 3.4.1 of Chapter 3 (Background to the MetroLink Project).

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Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022				
5	Capacity	1	We note the interaction between MetroLink and other forms of public transport and active travel. We would strongly advocate that metro stops house significant bicycle parking to further facilitate greater use of sustainable transport options.	As set out by EIAR Chapter 6, (MetroLink Operations and Maintenance), due to space constraints in the vicinity of stations in the DCC area, it has not been possible to provide 100% of bicycle parking required to meet demand at every station. However, the maximum number of bicycle parking has been provided at each station taking cognisance of available space. EIAR Chapter 31, Summaries of the route wide mitigation and monitoring proposed, goes on to further note (Mitigation Reference TT19) that cycle parking provisions per station will be monitored to ensure that the level of provision is meeting the demand. Similarly, the volume and type of cycle parking provisions required may change over the course of the Operational Phase due to the ongoing shift to shared and micro mobility solutions. Notwithstanding the above. TII does agree that there is a need for high density cycle parking into the future to accommodate demand from the general increase in cycling forecasted within the City. Additional provisions are outside the remit of MetroLink. In recognising the shortfall, meeting this demand will require a coordinated multi-agency approach to ensure efficient delivery of cycle parking spaces and facilities. There is a clear mix of uses in the areas surrounding MetroLink stations, which may see cycle demand in varying peak times. As a result, it requires a combined approach and delivery from multiple agencies, e.g. Dublin City Council, Fingal County Council, NTA, TII and Irish Rail, to identify how future demand can be accommodated sustainably and the maximum benefits of the parking achieved. This will include the consideration of available land, but noting such land is often already allocated as part of future development plans. TII anticipate cycle parking provisions are likely to involve a combination of fixed and shared bicycles and other facilities to support the delivery of mobility hubs across the region.
6	Timescale for Delivery	1	A metro plan for Dublin was first raised in the mid 1970's but will not be delivered until the mid 2030's. This is an unacceptable delay. The lack of an integrated metro system has been a played a key role in the low density highly dispersed nature of development in Dublin. We would urge the Bord to give speedy positive response to the project. We would further urge all relevant parties to work closely together to consolidate the timescale for delivery of the project. Dublin cannot wait any longer for such vital piece of infrastructure.	TII wish to thank you for your submission and support for the delivery of MetroLink. TII as the Government Agency responsible for delivering MetroLink, are committed to expediting the delivery of this transformative project on receipt of an Enforceable Railway Order. Please refer to response item (4) in relation to how MetroLink will facilitate compact growth along the alignment.
7	Timescale for Delivery	2	Based on our experience, we believe that this project can be delivered on time and within budget with minimum disruption to the commerce and use of Dublin city centre. Footfall rose in Dublin city centre, during the construction phase of the Luas Cross City Project. We believe that Luas Cross City had a greater potential for disruption than the underground metro system. We believe that co-operation between TII, contractors, Dublin City Council and the business community will provide a framework which will enable the city to continue to function during the construction phase of the project. In this context, the opportunity to align the O' Connell St. stop with the Hammerson Dublin Central development is very fortunate. This will minimise any potential disruption on O' Connell St. and is very much welcomed by Dublin Town.	Please refer to response item (1). TII recognise that there will be significant localised impacts associated with the construction phase, however these are considered to be temporary in nature in the context of the long-term benefits of the operation of MetroLink. TII recognise the importance of cooperation with contractors, Dublin City Council and the business community throughout the construction phase. As such, EIAR Appendix A5.1 presents an Outline Construction Environmental Management Plan (CEMP) which provides a framework that outlines how contractor(s) working for TII and the NTA will manage and, where practicable, minimise potential negative impacts during the construction phase. The outline CEMP also identifies the minimum requirements with regards to appropriate mitigation, monitoring, inspection and reporting mechanisms that need to be implemented throughout construction. For example, a Project Construction Traffic Forum will be established comprising of relevant stakeholders who can voice concerns throughout the construction phase in relation to the temporary traffic management measures in place. This forum will assist in minimising disruption to the function of the city throughout the construction phase. As noted in Appendix A5.1 Outline CEMP, a detailed CEMP will be developed by the contractor(s) and provided to FCC and DCC prior to the implementation of any works. TII will continue their engagement with local stakeholders and the business community throughout the construction works to minimise the impacts of construction and any disruption caused. As stated in Appendix A5.1 Outline CEMP section 3.3.1, TII and the contractor(s) will take all reasonable steps to engage with stakeholders in the local community, through the development of a Stakeholder Communications Plan.

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Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022				
8	Need to go underground	2	The fact that our entire transport system is situated above ground has been detrimental for the city. In addition to the obvious traffic congestion, the allocation of so much space for buses, trams and other forms of transport has limited the potential to develop plazas and meeting points within the city. Research in Ireland and abroad demonstrates the growing need for such recreational spaces and also the desire for outdoor dining and the development of parklets. Our ability to meet 21st century requirements has been hindered by poor transport choices which continues to limit our choices for active use of space within the city. The heavier rainfall associated with climate change will necessitate greater greening of the city. This cannot be done where an excessive amount of space is required for hard landscaping to accommodate transport uses. Anyone still advocating for road based solutions in Dublin simply does not understand the evolving city dynamic.	Chapter 07 (Consideration of Alternatives) presents the decision-making that has led to the development of the proposed Project, including the consideration of alternative transport options. The options assessed included for heavy rail, light rail, and Bus Rapid Transport (BRT) options in addition to combination options. Shortlisted options that met the fundamental project objectives were then subject to further analysis by way of a Multi-Criteria Analysis having regard to Environment, Economy, Safety, accessibility and Social Inclusion and Integration. The assessment identified an Optimised Metro North (LR7) as the best medium- and long-term transport project for the Greater Dublin Area for many reasons. In particular, due to the high level of segregation, it was considered to significantly increase capacity to allow for potential future growth along the corridor, when compared to other options. As detailed in Chapter 03 (Background to the MetroLink Project), the proposed Project will support opportunities to improve the urban environment, as will the associated reduction in vehicle numbers. The attractiveness of the urban environment is also a key determinant in where people choose to live. As the proposed Project improves this in North Dublin it will help to attract both people, amenities and businesses into the area, further encouraging compact growth, job opportunities and sustainable housing developments. The proposed Project will by way of modal shift and by taking volumes of passenger movement underground, support the transformation of the surface level urban environment, making it more attractive for people to engage with. This is detailed in section 3.4.6 of Chapter 3 (Background to the MetroLink Project). The Project design has been developed to ensure that the proposed Project can be constructed and operated to reduce climate change effects and to be resilient to climate change. This is detailed in section 4.6.3.1 of Chapter 4 (Description of the MetroLink Project).
9	Route	2	Dublin Town was extremely disappointed by the decision not to extend Metrolink to the employment and residential hub of Sandyford. Like so many transport decisions taken in Ireland, post-independence, we believe that this decision will come to be seen as short sighted and counterproductive. However, the city needs a metro system and we do not advocate for further delays to the commencement of the project to address this deficiency. However, we would strongly advocate that the extension to Sandyford be planned for now and delivered in the tightest possible timescale. We further believe that Metro south west is required and would yield additional passengers if delivered. We would like to see the Finglas Luas Line meeting the Metro in Ballymun to link 2 large population centres and provide access to the airport to a greater number of northside residents with only 1 interchange.	As explained by EIAR Chapter 7, Consideration of Alternatives, section 7.5 Assessment of Alternative Route Options, the assessment of alternatives to identify a preferred route for the proposed Project has been undertaken based on the assessment of a number of route options and station locations. The proposed MetroLink alignment has not been extended south of Charlemont for the reasons set out by the Transport Strategy for the GDA 2022-2042, section 12.3.10, "The challenges associated with the upgrading of the Luas Green Line to a metro standard of service have led to the emergence of an alternative proposal which seeks to meet travel demand from south of Sandyford along a new light rail corridor which serves Sandyford post-2042. As such, the upgrading of the Green Line to metro standard is not being pursued as part of this strategy. Instead, for this strategy period, the capacity and frequency on the current Green Line from Sandyford northwards to the city centre will be incrementally increased through the provision of additional tram fleet and services and associated turnback arrangements to meet forecast passenger demand." This incremental increase in capacity on the Luas Green Line is incorporated into the forecasted passenger modelling, as detailed in Chapter 9 (Traffic and Transport) section 9.4.4.2. Further information on the challenges associated with connecting to the existing Luas Green Line can be found in the TII published report: "Constructability Report - Green Line Closure, April 2019, ref https://www.metrolink.ie/media/ox0p3cjb/constructabilityreportgreenlineclosure.pdf". For this reason it has been necessary to determine the most appropriate interchange and termination location for MetroLink. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.' This is also reflected by EIAR Chapter 7, section 7.7.8 MetroLink Southern Terminus Location that explains the rationale for selecting Charlemont as the optimum location for interchange with the Green Line. As noted by the Transport Strategy of the GDA 2022-2042 the selection of Charlemont does not preclude any future connections to the west or south of the city. The Preferred Route for Luas Finglas has been identified through its own planning and appraisal process as a separate project of the NTA, and therefore has not been considered within this project. Interchange between MetroLink and the Luas Green Line is facilitated at O'Connell Street, St. Stephen's Green and Charlemont, with the Ballymun Station offering interchange with future BusConnects services that will serve the wider populations.

Submission No.			266	
Organisation Name or Name of Submitter			Richard Guiney 43-45 Middle Abbey Street	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022				
10	Route	2	Dublin Town welcomes the moves to integrate the city's public transport provision. We are pleased to see moves to accommodate active travel access to the public transport system. We need greater innovation and interchange so that cross city and radial journeys are better accommodated through sustainable transport.	Chapter 03 (Background to the MetroLink Project) indicates that demand modelling suggests a diversion of 6.8million private vehicle journeys per annum in the early years of operation and approximately 360 million car trips diverted by 2055. Accordingly, the Project will support the reduction of GHG emissions which are critical to improving sustainability and transitioning to a low carbon society. The Project has been designed to ensure maximum interchange with other modes of transport, particularly more sustainable modes such as public transport, walking and cycling, to facilitate a reduction in reliance on private vehicles. Chapter 09 (Traffic and Transportation) presents details of modal shift along the alignment. Across the full alignment, there is a reduction in Car mode share, with a corresponding increase in Public Transport mode share, as well as increases in the use of active modes, demonstrating the Project's contribution to a shift towards sustainable modes.
11	Conclusion	2	The proposals for a Dublin metro have been discussed planned, designed consulted on, replanned, redesigned and consulted on again and again over decades. It is now time to stop discussing and start delivering. We cannot wait for decades to come for the most basic transport provision. This simply has to be agreed and commenced without further delay.	TII wish to thank you for your submission and support for the delivery of MetroLink. TII as the Government Agency responsible for delivering MetroLink, are committed to expediting the delivery of this transformative project on receipt of an Enforceable Railway Order.

Submission No.			268	
Organisation Name or Name of Submitter			Rohan Holdings Limited (represented by John Spain Associates)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
PROPOSAL: METROLINK RAILWAY ORDER - ESTUARY THROUGH SWORDS, DUBLIN AIRPORT, BALLYMUN, GLASNEVIN AND CITY CENTRE TO CHARLEMONT, CO.DUBLIN), ABP REFERENCE: NA29N.314724				
1	Grounds of Submission (paragraph 1 and 2)	2	Due to the delays in bringing forward the route and plan for delivery of the previous Metro North proposals and the current MetroLink proposals, our client's lands have been sterilised for the past 15 years. Despite our client's previous submissions highlighting the impact of the project on the strip of land fronting onto the R132, our client is concerned that the balance of the lands have now been identified for temporary land take for the provision of construction compounds (See Figure 3) thus further sterilising the lands from development until MetroLink is delivered as opposed to identifying less valuable lands for such purpose	TII are only occupying lands necessary for the delivery of MetroLink.
2	Grounds of Submission (paragraph 3)	2	The construction compound figures as per the extract below (and included in Chapter 5 of the EIAR) illustrate it is proposed the lands will form part of the proposed main and satellite construction compounds for the Seatown Station. Chapter 21 of the EIAR states that the temporary land will be utilised for a period of time to facilitate the construction of the proposed project, but is then returned to its former use. However there are no timescales provided on when the additional lands required for the temporary compounds will be returned.	The overall programme of works is shown in EIAR Appendix A5.2. The detail underpinning this will be confirmed once the main works contractor's programmes have been received. TII will work with the appointed contractors to optimise any land take requirements and reduce the duration of use, currently estimated to be 6 years. The final extent of land take and duration of use will be confirmed by the appointed contractor.
3	Grounds of Submission (paragraph 4)	3	It is respectfully submitted that any sterilisation of lands adjacent to the MetroLink would be contrary to the zoning objective for the Metro Economic Corridor within the Fingal Development Plan 2017-2023 (and indeed the draft 2023 - 2029 plan) which seeks to facilitate opportunities for high-density, mixed-use employment generating activity and commercial development, and also the appropriate quantum of residential development.	TII requires certain lands adjacent to the proposed alignment for constructability of the metro and would assert that MetroLink is actually a catalyst for future development and is fully in line with the zoning objectives of this area.
4	Grounds of Submission (paragraph 6)	4	In this regard and given the prominent frontage to the R132, proximity to Swords town centre and the lands being within walking distance of St Colmcille's Boys and Girls school, the subject lands have potential for a number of development options in the short term. In particular, the subject lands have the potential to deliver urgently needed housing, including potentially significant social housing. A feasibility assessment for the subject lands has been undertaken by O'Mahony Pike Architects on behalf our client (See Appendix 1 for the feasibility assessment Site Layout Plan) and identified the potential to deliver 2 no. residential blocks (c. 120 no. units each block), supporting uses and all associated infrastructure.	The construction of the MetroLink necessitates the use of the designated lands. This will unfortunately hinder development efforts during the construction period. TII will collaborate with the developer to minimise the construction duration and return the lands for development as soon as it is reasonably practical.
5	Conclusions	4	While our client is supportive of the MetroLink project in general, given the uncertainty in timescales of delivery of the MetroLink, it would be unreasonable to safeguard the subject lands for temporary construction compounds, particularly given the development potential of the lands to deliver urgently needed housing in the short term to assist the current housing crisis. Therefore, it is respectfully submitted that our client's lands outside the MetroLink corridor should be omitted from the temporary land take, and the construction compounds relocated to another site.	Refer to Item (4).

Submission No.			269		
Organisation Name or Name of Submitter			Roisin Shortall		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Letter Re 314724: MetroLink Railway Order Submission 16th January 2023					
1	Intro	1	From the outset, I must state that I am in favour of the MetroLink project. The North-West of Dublin has, for many years, been overlooked in the allocation of public transport resources. There have been a number of very disappointing false dawns relating to the Metro in the past and it is understandable that people in the area are sceptical that the project will be delivered. It is therefore essential the Government honours its commitment to the project. It is also essential that TII and the NTA work closely with the community to build a level of trust to provide clear and transparent responses to queries raised, respond speedily to problems when they arise and thereby seek to ensure local 'buy in'. While I welcome the publishing of the Railway Order of the Metrolink, there are a number of issues and concerns over some aspects of the project in the Dublin North-West Constituency. I will outline these concerns and questions below.	MetroLink acknowledges your positive support for the scheme and would like to reiterate that our aim is to ensure that this project goes ahead in order to improve public transport for Dublin. TII note the necessity for community relations and will commit to ensuring good communication between the project and the communities impacted.	
2	Consultation & Advice	1	Concerns have been raised by Residents' Associations in the Dublin North-West constituency regarding poor consultation and engagement with TII directly, regarding the MetroLink. The Independent Experts, RINA, made themselves available to residents' groups and stakeholders but there was limited engagement with TII directly. Several Residents Associations have noted the benefit of having access to the Independent Engineering Experts, RINA. RINA have met regularly with several Residents Associations and have discussed the plans for MetroLink Stations and works in their local areas. RINA were able to provide answers to many questions from Residents and they were also able to seek further information from TII regarding certain queries and then respond to residents. It should be a condition of the Railway Order to have the Independent Engineering Experts, RINA, retained and be made available throughout all the future phases of the MetroLink, including the enabling works construction phase.	The services of the Independent Engineering Expert (RINA) are due to be concluded on completion of the Railway Order process (expected in 2024). The continuation of provision of independent engineering advice for residential stakeholder groups throughout the enabling works and main construction stages of the MetroLink project is currently being considered as part of an overall comprehensive community engagement plan, which will include amongst other initiatives, the appointment of dedicated MetroLink liaison representatives and local community forums which will provide detailed updates on construction activities in their areas.	
3	Consultation & Advice	1	Furthermore, it should be a condition of the Railway Order to create a Resident-Contact Position within TII to address concerns and provide updates throughout the construction of the MetroLink. There was such a position during the construction of the Dublin Port Tunnel, and this position provided information and reassurance to residents of any issues or concerns they had. A project of this scale will inevitably run into delays, problems and disturbance for the local community over the course of its lengthy construction. It is essential that residents have a "point of contact" person so that such issues can be addressed speedily and effectively. The contact details for this position should be available to local residents' groups and the person holding the position should be able to provide regular updates as well as trouble-shooting issues as they arise.	TII agree that the communication of all things MetroLink will be critical to maintaining community support. There will be a 24 hour phone line that will be made available as an immediate point of contact to ensure good relations between the community and TII. TII will also provide a community liaison officer and the MetroLink website will host up to date progress, news and stakeholder engagement activities.	

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Organisation Name or Name of Submitter			Roisin Shortall		
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4	Monitoring	2	It is important that environmental impacts during the MetroLink construction works are monitored and that residents are kept aware of these. Most notably, noise levels and vibrations, as well as air quality, must be recorded and monitored in residential areas during the construction of the MetroLink Railway. Other impacts must also be monitored such as traffic congestion and construction hours. This monitoring should be conducted by TII and reports made accessible for residents.	As outlined in the CEMP (Construction Environmental Management Plan - A5.1 of the EIAR) a Stakeholder Communications Plan will be developed and implemented by the contractor which will include community engagement prior to works commencing. This will outline a point of contact for issues such as air quality & dust on site. Regular monitoring and inspections of the site will be carried out. The contractor will also prepare a Dust Management Plan which will include mitigation measures that are outlined in Appendix 16.4 of the EIAR. A Noise and Vibration Management Plan (CNVMP) will be formulated for the construction phase and used by all contractors based on the mitigation measures outlined in Chapter 13, Chapter 14 and the outline CEMP (Appendix A5.1). The CNVMP will be a live document. This will involve a detailed investigation of potential noise and vibration impacts associated with each construction compound. The assessment will identify through modelling and calculation, predicted construction noise levels, identification of potential exceedance of Construction Noise Thresholds (CNTs), identification of required noise mitigation measures specific to each work area to minimise noise and vibration impacts so far as is reasonably practicable. The contractor will provide community relations by the following: - Notify the public and vibration sensitive premises before the commencement of any works forecast to generate appreciable levels of noise or vibration, explaining the nature and duration of the works; - The Contractor will distribute information circulars informing people of the progress of works and any likely periods of significant noise and vibration; and - A designated noise liaison officer will be appointed to site during construction works. All noise complaints will be logged and followed up in a prompt fashion by the liaison officer.	
5	Monitoring	2	A particular concern raised by Hampstead Residents CLG is the baseline monitoring of noise and vibration in relation to Hampstead Avenue. They have queried the accuracy of the data presented as they state that the data is collected by sensors which are not on Hampstead Avenue but are further away and may not reflect the actual noise levels that Hampstead Avenue receives. This matter needs to be addressed to ensure accurate reporting in the future	TII note that noise & vibration is of concern to the residents of Hampstead Residents CLG. This has been assessed in the EIAR and it is noted in Ch13, there was a baseline monitoring point (AT64) which is on the corner of Hampstead Ave providing reliable data for this location. Furthermore, the Contractor undertaking the construction of the works will be required to take specific noise abatement measures to the extent required and comply with the recommendations of BS 5228–1 (BSI 2014a). Additionally, a Construction Noise and Vibration Management Plan (CNVMP) which will be formulated for the construction phase and used by all contractors based on the mitigation measures outlined in Chapter 13 (Airborne Noise & Vibration), Chapter 14 (Groundborne Noise & Vibration) and the outline CEMP (Appendix A5.1). As part of the CNVMP a baseline noise study will be undertaken prior to the commencement of construction works to characterise the prevailing noise environment at impacted noise sensitive locations.	
6	Monitoring	2	Not addressed in the EIAR, is how rodent populations in Albert College Park will be managed in relation to construction works. Over the last number of years, Dublin City Council have requested the HSE pest control team to install and manage numerous pest 'baiting points' in Albert College Park. The MetroLink construction works in Albert College Park will likely disturb rodents and cause them to migrate to other locations. This is a concern especially for residents living on Hampstead Avenue and close to Albert College Park and TII must address the issue and explain how they will monitor any movement or disturbance of rodents.	TII will implement rodent control procedures on the sites. As outlined in the CEMP (Appendix 5.1 of the EIAR) prior to start of construction, any disease protocols and biosecurity measures will be identified and the contractor will be required to comply with these to: (1) protect and prevent the spread of pests and diseases (Table 6.12) and to (2) direct arrangements for regular disposal of food and material attractive to pests (Section 5.4)	

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7	Monitoring	2	There should be a similar responsibility on TII to monitor and detail how run-off water, or disturbed underground water will be managed in Albert College Park, and also to detail how toxic fumes will be managed. This of key importance for those living on Hampstead Avenue as it is within 20 metres of the proposed Intervention Shaft	During the Construction Phase, temporary pumping of groundwater will be undertaken to permit construction of underground scheme elements such as the intervention shaft. The discharge of any groundwater to surface water receptors will be subject to consent and controlled to ensure no adverse impact on flood risk. The elevation of the proposed overground infrastructure across the scheme and nature of surface strata as impermeable clay, means the above ground emergence of groundwater is unlikely. There are also no reports of groundwater flooding across the Proposed Scheme (Section 5.7 Appendix A18.5). The risk of groundwater flooding to the scheme is therefore considered to be low and was not considered further in the assessment. During Construction, the contractor will be required to operate in compliance with the CEMP (Appendix 5.1 of the EIAR) and will be required to produce a Water Management Plan which will detail the following: - The activities requiring water and the anticipated peak water demand for each site; - Where the water for each site will be sourced; - Strategies for minimising water use; - Strategies for conserving water; - Treatment of wastewater; and - Means of disposal of wastewater. As per Section 18.6.1.1 of Ch18 of the EIAR, Construction staff will be suitably trained to respond to accidental discharge/leaks and appropriate spill management kits will be in place to allow rapid response on site. An Emergency Incident Response Plan will be in place detailing the procedures to be undertaken in the event of spillage of chemical, fuel or other hazardous substances or wastes, logging of non-compliance incidents and any such risks that could lead to a pollution incident at any point along the proposed alignment. During Construction there is not anticipated to be a particular issue with toxic fumes being emitted from the site, all exhausts will be screened / scrubbed as necessary and TII will ensure that air quality surrounding the site is monitored. In Operation, the materials used in rolling stock and other systems will be designed to comply with strict regulation to avoid emissions of irritating or toxic products. Assessments of the impacts surrounding ventilation shafts have concluded overall Neutral and Not Significant.
8	Rationale for Selection of Station Locations	2	The proposed location of the Collins' Ave station and the associated Intervention Shaft in Albert College Park has caused concern among some residents in the Dublin North-West Constituency. In the original Metro North project, there were plans for a Metro station to be placed in Albert College Park. In the current MetroLink Railway Order, the closest station to Albert College Park is the Collins Avenue station, necessitating an Intervention Shaft located in the southwest corner of the park. Some residents have been querying why the original location of the Metro station in Albert College Park was abandoned. What was the rationale for selecting Collins Avenue as the location for the Metro Station?	As outlined in section 7.7.10.7 of Chapter 7 of the EIAR, the assessment undertaken for the Emerging Preferred Route (EPR) identified a preferred route option including the proposed station location in front of Our Lady of Victories Church. This location for the station provides a number of advantages when compared to other location options: (1) It allows the project to achieve a core project objective of providing public transport that is integrated in the existing and future proposed transport network, providing for interchange between bus routes both on Collins Avenue and on Glasnevin Road. A station location further south at the northern section of Albert College Park would not provide a good level of interchange as there would be over 500m separating potential bus stop locations on Collins Ave and the MetroLink station. (2) The proposed Collins Avenue Station will have a significant catchment area, noting the analysis undertaken at the Emerging Preferred Route (EPR) stage identified this route option had the highest potential passenger numbers when compared with other route options. (3) During the construction phase, the location of a station within the frontage to Our Lady of Victories means that traffic disruption to Dublin would be reduced when compared to the location of a station within the road corridor (partially or fully). The predicted temporary environmental impacts during construction on the surrounding area can be mitigated effectively as detailed in the relevant chapters of the EIAR. Once the station is operational, the location of a MetroLink station here will provide significant positive benefits to the local community in terms of enhanced public transport provision, reduced traffic and the resultant improvements in the environment as a result of reduced noise and air quality pollution.

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Organisation Name or Name of Submitter			Roisin Shortall	
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Letter Re 314724: MetroLink Railway Order Submission 16th January 2023				
9	Rationale for Selection of Station Locations	2	-There is local concern that placement of the Metro Station on Collins Avenue, beside Our Ladies of Victory Church, is likely to pose a number of challenges. There are two primary schools located opposite the proposed location of the Collins Avenue Station: Our Lady of Victories Girls School and Our Lady of Victories Boys School. It is feared that the location of the station could pose safety concerns for children accessing the schools as well as difficulty for parents dropping their children off at school as parking spaces will be reduced due to construction works.	Providing MetroLink in a safe manner is critical to the success of the Project. TII will focus on both construction worker safety but also critically on vulnerable road users and the communities within which we will work including the staff and pupils of Our Lady of Victories Girls and Boys Schools and churchgoers. Prior to the enabling works and the main construction phase a Traffic Management Plan will be developed by the contractor (Refer to Appendix A9.5 of the EIAR). The contractor will be legally required to adhere to the requirements of the plan on a day by day basis and so any such measures will be implemented with a focus on managing traffic movements to ensure that there are no accidents. It should also be noted that as outlined in Table 9.64 in Chapter 9 of the EIAR, enabling works in this area will be undertaken such that 1 lane of general traffic and 1 bus lane in each direction will remain open. Dedicated cycle lanes will also be provided during the construction phase. Furthermore, as outlined in EIAR Appendix A9.5 section 2.5.2.2, construction vehicles will be controlled in terms of the hours of operation (i.e. construction traffic will be prohibited during periods of very heavy traffic and during school drop off and pick up periods). Also outlined in EIAR Appendix A9.5 Section 7.4.6.3.6, during both the Advanced Enabling Works and Main Works, the signalised pedestrian/toucan crossing outside of the front of the school will be retained during all works and will continue to allow safe access for pedestrians and vulnerable users. Additionally, there will be controls at the entrance and exits of sites for construction vehicles in order to ensure the safety of other road users.

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10	Rationale for Selection of Station Locations	3	There is a high proportion of older residents in the constituency, most notably in the two senior citizen complexes in the Albert College estate. This accommodation is located right beside the proposed Collins Avenue Metro Station and these residents are concerned about noise and vibrations from the construction work and loss of parking spaces. The issues affecting these residents must be addressed and their concerns addressed.	TII note that noise & vibration are of concern to the residents of Albert College Estate and in particular the senior citizens complexes therein. This has been assessed in the EIAR and it is noted in Ch13. The assessment showed that impacts, with the proposed mitigation measures outlined in Section 13.6 of Ch13 of the EIAR, the noise levels will be below the Construction Noise Threshold and/or below the upper construction limit of 75dB LAeq,T. The main principals and standards required for noise mitigation are outlined as follows: - The Contractor undertaking the construction of the works will be required to take specific noise abatement measures to the extent required and comply with the recommendations of BS 5228–1 (BSI 2014a); - The selection of plant items will be required to comply with the European Communities Noise Emissions by Equipment for Use Outdoors (Amendment) Regulations 2006 (S.I. No 241/2006); - The outline CEMP will encompass a Noise and Vibration Management Plan (CNVMP) which will be formulated for the construction phase and used by all contractors based on the mitigation measures outlined in Chapter 13 (Airborne Noise & Vibration), Chapter 14 (Groundborne Noise & Vibration) and the outline CEMP (Appendix A5.1). The CNVMP will be a live document. This will involve a detailed investigation of potential noise and vibration impacts associated with each construction compound. The assessment will identify through modelling and calculation, predicted construction noise levels, identification of potential exceedance of CNTs, identification of required noise mitigation measures specific to each work area to minimise noise and vibration impacts so far as is reasonably practicable; and - As part of the CNVMP a baseline noise study will be undertaken prior to the commencement of construction works to characterise the prevailing noise environment at impacted NSLs. This information will be used to inform the relevant CNTs. The key principles relating to noise mitigation will be applied across all construction areas for the proposed Project: - Noise control at Source: Selection of quiet plant, site layout, attenuation at source, operational control (hours and periods); - Noise Control along Pathway: Localised screening to plant items on site, enclosures, site buildings, site hoarding and noise barriers. The measures discussed above will effectively reduce noise levels from construction to below the CNT. As outlined in EIAR Chapter 10 (Human Health) Table 10.14, following mitigation, construction may cause annoyance to users but no residual health effects are predicted. It should also be noted that the contractor will: - Notify the public and vibration sensitive premises before the commencement of any works forecast to generate appreciable levels of noise or vibration, explaining the nature and duration of the works; - Distribute information circulars informing people of the progress of works and any likely periods of significant noise and vibration; and - Employ a designated noise liaison officer who will be appointed to site during construction works. All noise complaints will be logged and followed up in a prompt fashion by the liaison officer. With regard to the loss of parking it should be noted that the parking at this location is not residential permit parking and removal of the parking will not directly impact on residential parking in this area. The closure of these spaces will be monitored throughout the construction phase to identify if spaces can be reinstated temporarily throughout the works.

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Organisation Name or Name of Submitter			Roisin Shortall		
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Letter Re 314724: MetroLink Railway Order Submission 16th January 2023					
11	Rationale for Selection of Station Locations	3	There have been suggestions from residents to move the Collins Avenue Station to Albert College Park, as originally planned in the Metro North project. Given the requirement for an intervention shaft in Albert College Park, it is argued that it would be less disruptive overall to locate a station there rather than at the proposed Collins' Avenue location. TII should provide their reasoning for locating the station at Collins Avenue and if this is to go ahead, they must work closely with residents to address their concerns and minimise the negative impacts.	Please see above response to Query no. 8	
12	Albert College Park Intervention Shaft	3	In the event that the Collins' Avenue station remains as part of the scheme, we are told that the Intervention Shaft is a necessary part of the project. Its function is to allow emergency services to access the underground system in an emergency situation and to provide a safe route for passengers to escape from the tunnel in the event of an emergency. However, regarding the current plans for the intervention shaft in Albert College Park, it appears that the scale of the structure need not be as large as required. The shaft footprint includes an emergency service parking area, but this could be accommodated outside of the park on the Ballymun Road.	A maintenance access road from the R108 Ballymun Road and associated hardstanding area are provided at the intervention shaft in Albert College Park. An additional emergency exit to the R018 Ballymun Road is also provided to allow for a one-way system as requested by DFB. TII will continue to work with DFB to minimise footprints where possible but currently it is not possible to agree to road side parking. The structure itself is sized to suit operational requirements.	
13	Albert College Park Intervention Shaft	3	Furthermore, the sections of the park that are being temporarily acquired under the Railway Order for the relining of the football pitches should only be for the duration of the relining works and not for period of the construction of the Intervention Shaft nor for the placement of spoil. It is imperative that both the community and local sports groups not lose access to these sports pitches for any longer than absolutely necessary.	TII will minimise disruption so far as is reasonably practical and will optimise the occupation timescales during the detailed design phase with the contractor. However, TII acknowledges the impact of the proposed Projects construction phase on the sports pitches at Albert College Park. As noted in Ch11, Table 11.64 Land take required for the Albert College Intervention shaft will result in the loss of both of the existing 5 a-side pitches and a small portion of one of the full-sized pitches which is noted as a negative, significant, short-term effect. However, to maintain the existing facilities, it is proposed to rotate the existing full-sized pitches 90 degrees and locate them side-by-side to the east of the park, resulting in slightly reduced dimensions. Sufficient area will be available to increase the dimensions of both 5 a-side pitches. Sufficient area will also be available for circulation around the pitches while they are occupied. The impacts will be reduced to negative, slight, short-term.	

Submission No.			270	
Organisation Name or Name of Submitter			Royal Canal Clean-Up Group	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022 ABP Rf. NA29N.314724 Formal Submission				
1	Key Submission Points	2	The primary reason of this observation is to make Metro North and other relevant bodies, aware of our presence and the geographical position of our (20ft) storage container, which appears to be within the intended work space of the Metro North build. We have a 20ft storage container positioned directly alongside (and to the west of) Cabra for Youth's 40ft storage container. It seems likely in order for the Metro North works to commence at Glasnevin, that our 20ft container will have to be moved. We have no major objections to a move on a temporary basis, however we would need the container to be relocated close to Cross Guns Bridge and within a few meters of the canal, in order to continue our good work.	As indicated by Figure 5.1. of EIAR Chapter 5, MetroLink Construction Phase, the storage container is indeed located within the identified construction compound associated with Glasnevin Station. The container will have to be temporarily moved during the works and will be relocated back as close as possible to its original location in consultation with the Royal Clean Up Group.
2	Key Submission Points	3	We would also require the cost of such a move to be borne by Metrolink (as we do not have the funds to cover such a move ourselves).	The cost of the temporary relocation and reinstatement will be borne by TII.
3	Key Submission Points	3	Here is a link to what we consider to be acceptable relocations, areas acceptable are highlighted in blue: https://www.google.com/maps/d/u/0/viewer?mid=1yAQcQDnZpRp6_WHMMW5TZgpIDizLnrK8	TII will consult with the Royal Canal Clean Up Group with a view to relocating the container within the general areas detailed on the map provided.
4	Impact on Local Ecology	3	We are also very concerned about the impact this development will have on the rich and unique ecology of the area. Therefore we would draw your attention to the very detailed observations (on local ecology), made by the Shandon Residents Association (Submission 279)	TII notes the concern and confirm they have responded to the observations made by the Shandon Residents Association (Submission 279).

Submission No.			271	
Organisation Name or Name of Submitter			Ruadhan MacEoin	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Railway Order Application - Metro North: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin: MetroLink planning application, SID no. 314724				
1	Observation	1	In support of this observation, please find attached four documents: 1. A dissertation undertaken as part of a masters degree in University College Dublin in 2017, that reviewed current Dublin rail plans, previous plans, and delivery to date of proposed services found that current rail plans for Dublin are based on assessment maps in which the five kilometre line between Broombridge and Docklands was omitted (Figure from page 111 of the submission PDF), which could provide a pathway for airport trains, negating the need for the metro project to tunnel south of Cross Guns Bridge.	The Project's overarching objective, as established by the National Transport Authority (NTA) and Transport Infrastructure Ireland (TII) and as informed by planning policy context, is to 'provide a sustainable, safe, efficient, integrated and accessible public transport service between Swords, Dublin Airport and Dublin City Centre' (National Development Plan 2021-2030, Box 9.1). Chapter 07 (Consideration of Alternatives) presents the decision-making that has led to the development of the proposed Project, including the consideration of alternative transport options, including rail alternatives. The options assessed included for heavy rail, light rail, and Bus Rapid Transport (BRT) options in addition to combination options. Shortlisted options that met the fundamental project objectives were then subject to further analysis by way of a Multi-Criteria Analysis having regard to Environment, Economy, Safety, accessibility and Social Inclusion and Integration. The assessment identified an Optimised Metro North (LR7) as the best medium- and long-term transport project for the Greater Dublin Area for the following reasons: * It was the most economically advantageous scheme when compared to other options, delivering the highest benefit to cost ratio; * It generated the highest level of transport benefits when compared to other options, with the highest number of additional public transport trips generated in the morning peak travel period; * It provided a new strategic public transport corridor, avoiding reliance on either the existing heavy rail lines or the Luas Cross City line; * It delivered a connection right into the centre of the city; * It retained the opportunity to extend Luas Cross City to Finglas, which would not be feasible if the tunnelled Luas options were selected, and it avoided reducing the service level on Luas Cross City to Cabra and Broombridge; * Due to the high level of segregation, it was considered to significantly increase capacity to allow for potential future growth along the corridor, when compared to other options; * It could potentially be extended southwards in the longer term to alleviate higher travel demand on the Luas Green Line, and ultimately form a complete north south metro corridor traversing both the north and south city; and, * This option delivered the highest safety benefits when compared to the other options. As part of the assessment of the baseline traffic network in section 4.2.2.4 of EIAR Appendix A9.2 Overall Project Traffic and Transportation Assessment, the Dublin Dunboyne/M3 Parkway rail line ('Maynooth Line' operating from Connolly Station) has been included. TII cannot comment on its omission from other rail plans, however confirm it has been included within the MetroLink assessment.

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2	Observation	1	2. A design response to the dissertation findings - when the omitted line is included, it could be useful for providing a pathway from the city centre as far as Glasnevin for the purpose of a rail link to Dublin Airport and Swords, and separately, to bring about the objectives of DART Expansion / DART Underground. Both of these objectives are national policy. A second design alternative is then set out, which would see Dublin Airport and Swords instead connected by two Luas light rail lines into the city centre and beyond. This option emerges as the option of linking Luas to the airport etc. was discounted largely because one Luas line would not have the capacity needed to serve the airport. However, if an additional Luas line were to be provided, the issue of passenger capacity would be resolved. Hence, instead of the current application, for a stand-alone metro service, both of the design alternatives would result in much less construction - with no need to tunnel south of Glasnevin / Cross Guns Bridge, and so result in much less cost, disruption, and negative environmental impact as would be caused by CO2 intensive engineering required by tunnelling under the city centre.	Please refer to response item (1) above in relation to the Project objective. In addition, the delivery of DART Underground has been identified in the Transport Strategy for the Greater Dublin Area for a period post-2050, and therefore its potential benefits and impacts will not be seen during all of the MetroLink's operational years. Whilst MetroLink has been developed as an independent standalone project, it has been designed as a fully integrated transport network alongside BusConnects and DART+ under the Transport Strategy for the GDA. Chapter 07 (Consideration of Alternatives) presents the decision-making that has led to the development of the proposed Project, including the consideration of alternative transport options. The options assessed included for heavy rail, light rail, and Bus Rapid Transport (BRT) options in addition to combination options. Shortlisted options that met the fundamental project objectives were then subject to further analysis by way of a Multi-Criteria Analysis having regard to Environment, Economy, Safety, accessibility and Social Inclusion and Integration. The assessment identified an Optimised Metro North (LR7) as the best medium- and long-term transport project for the Greater Dublin Area for the following reasons: * It was the most economically advantageous scheme when compared to other options, delivering the highest benefit to cost ratio; * It generated the highest level of transport benefits when compared to other options, with the highest number of additional public transport trips generated in the morning peak travel period; * It provided a new strategic public transport corridor, avoiding reliance on either the existing heavy rail lines or the Luas Cross City line; * It delivered a connection right into the centre of the city; * It retained the opportunity to extend Luas Cross City to Finglas, which would not be feasible if the tunnelled Luas options were selected, and it avoided reducing the service level on Luas Cross City to Cabra and Broombridge; * Due to the high level of segregation, it was considered to significantly increase capacity to allow for potential future growth along the corridor, when compared to other options; * It could potentially be extended southwards in the longer term to alleviate higher travel demand on the Luas Green Line, and ultimately form a complete north south metro corridor traversing both the north and south city; and, * This option delivered the highest safety benefits when compared to the other options. EIAR Chapter 17 (Climate) presents the proposed Project's carbon emissions during both the construction and operational phase. As calculated using the TII Carbon Tool (v2.1) the proposed Project will result in total Construction Phase GHG emissions of 1,017KT CO2eq over the 9.25 year period, equivalent to an annualised total of 0.32% of Ireland's non-ETS 2030 target. Over the predicted 60-year lifespan the annualised emissions due to the initial Construction Phase and ongoing maintenance of the Proposed Project will reach at most 0.044% of Ireland's non-ETS 2020 emissions target, or 0.27% of the 2030 transport sector carbon budget. The significance criteria for greenhouse gas (GHG) impacts (Institute of Environmental Management & Assessment (IEMA) Assessing GHG Emissions and Evaluating their Significance, 2022) states that the impact significance must be taken from the project as a whole over its lifecycle rather than individual phases. The proposed Project sets out mitigation measures with respect to the Construction and Operational Phases in order to reduce its impact on climate related GHG emissions by implementing low-carbon energy options (see Section 17.6 of EIAR Chapter 17). Mitigation that goes above and beyond the legal requirements on the proposed Project include the Operational Phase use of at least 90% renewable power from the Opening Year. IEMA Guidance states a project that has a negligible impact achieves emissions mitigation that goes substantially beyond the reduction trajectory and has minimal residual emissions. The proposed Project provides an attractive sustainable form of public transport that prevents the use of the private car and therefore reduces Operational Phase vehicle emissions sufficiently enough to offset Construction Phase emissions. Residual impacts for Scenario A (the core business case scenario) are less than 0.071% of the 2030 Transport Sector Carbon Budget which is considered a minimal residual impact. The predicted potential effect to climate over the lifetime of the project for Scenario A due to the combined construction and Operational Phases, is long-term, negligible, and not significant.

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3	Observation	1	3. An additional study that assesses the prospect of linking Dublin Airport with Charlemont Luas Station via the Port Tunnel by Bus Rapid Transit. A number of route options are addressed, with a prospective travel time of circa 22 minutes identified, which compares favourably to the 20 minute journey time proposed by MetroLink between these two points.	Please refer to response item (2) above in relation to the consideration of transport alternatives as part of the development of the proposed Project, including BRT options. The Project has also been designed to ensure maximum interchange with other modes, increasing its area of influence to regions such as the east side of the city near the Port Tunnel.	
4	Observation	1	4. A review of recent decisions, reports, and policies that relate to the current proposal. Essentially this review surmises the implications of the cancellation of the Galway ring road (2022), the OECD report; 'Redesigning Ireland's Transport for Net Zero' (2022), Department of Transport; 'National Sustainable Mobility Policy Action Plan (2022), International Transport Forum of the OECD; 'Benchmarking Accessibility in Cities: Measuring the Impact of Proximity and Transport Performance' (2019), Department of Environment; 'National Climate Action Plan' (2021).	EIAR Chapter 03 (Background to the MetroLink Project) details the need for the Project, and how MetroLink will address challenges such as climate change and the production of CO2 emissions. As noted, private vehicles are a significant contributor to Ireland's GHG emissions, and providing an alternative to private vehicle-based journeys is a key benefit of the proposed Project. The proposed Project will aim to be a fully sustainable and carbon neutral public transport alternative (by the Design Year of 2050), and therefore the way in which people access Dublin Airport, and other parts of the city, will be in a much more sustainable way than at present. The proposed Project, as a sustainable mobility option, will have a direct and long-lasting impact on Ireland's transition to a low carbon economy. The proposed Project will be fully electrified, and will be able to reduce its emissions footprint as Ireland moves increasingly to green energy production. Based on modelling undertaken for Chapter 17 of the EIAR (Climate), it is estimated that the modal shift resulting from the provision of MetroLink will result in a reduction in GHG emissions of between 9kt and 11kt in the opening year, with the reduction expected to increase to 45kt by 2050 (Design Year). Relevant international and national guidelines and policy relating to modal shift are detailed in Section 17.3.2.1 of Chapter 17.	
5	Observation	2	Ultimately, it appears to me that the current proposition is based on a flawed assessment, and it seems any of the three options of linking Dublin Airport with the city centre by DART, Luas, and or BRT are likely to be more effective, require less work and capital, and be delivered sooner.	Please refer to response (1) above in relation to the consideration of transport alternatives as part of the development of the proposed Project. TII disagree that the assessment is flawed, as stated in response item (1) that the Dublin -M3 Parkway 'Maynooth Line' has been included within the MetroLink assessments.	
6	Observation	2	As a result, the Bord is put in a difficulty by the current proposal. Although the MetroLink is National Policy, it has been conceived without proper inclusion of existing railways, which results in the need for tunnelling south of Cross Guns Bridge. However, as it is apparent that there is no need for such a pathway, the granting of consent does not appear justifiable. Given this scenario, and in view of the prospect of a BRT service delivering comparable journey times between Dublin Airport and Charlemont, it appears that the inexpensive BRT option should be prioritised - with Dublin Airport linked by either DART or Luas at a later date.	Please refer to response item (1) above in relation to the consideration of transport alternatives as part of the development of the proposed Project. Response item (1) also confirms that the MetroLink assessment includes the Dublin -M3 Parkway 'Maynooth Line' as part of the existing rail network. As noted, due to the high level of segregation, the proposed Project is considered to significantly increase capacity to allow for potential future growth along the corridor, when compared to other options. MetroLink is the only public transport option to meet the future predicted passenger number requirements for the Swords to Dublin City Centre corridor. MetroLink provides capacity far in excess of any other public transport option and will facilitate compact sustainable growth along the alignment to a level not possible with other transport options, providing quality international connectivity to and from Dublin Airport. (Refer to Chapter EIAR Chapter 03, Background to the MetroLink Project).	
7	Observation	2	Finally, it is recommended that new stations are opened on the existing Irish Rail lines and emerging DART network in the city, at Croke Park, Cross Guns Bridge, Cabra, Zoo, Inchicore, and Ballyfermot, as this would serve over 100,000 residents within 1 kilometre walking range according to ArcGIS.	As part of the proposed Project, a direct interchange with the Irish Rail network will be provided at Glasnevin Station, at Cross Guns Bridge. The potential for additional stations on the existing Irish Rail Lines and emerging DART network are not considered within this project, and would be subject to planning, appraisal and detailed design by NTA.	

Submission No.			272	
Organisation Name or Name of Submitter			Sadhbh O Neill - 18 Convent Hill Terrace	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: Observation re Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022				
1	Letter	1	I write simply to emphasize the vital importance of this project going ahead as quickly as possible. Ireland now has a legal obligation to reduce greenhouse gas emission to net-zero by 2050 at the latest. This will require an economy-wide effort to transform current infrastructure and behaviour so that the production and consumption of services, along with related supply chains, is done with much higher levels of energy efficiency and with renewables in the first instance with a view to eliminating our reliance on fossil fuels for most sectors well before mid-century.	TII wish to thank you for taking the time to make this submission and your support for the MetroLink project, noting as per your observation, that one of the key objectives and benefits of the project is a reduction in greenhouse gas (GHG) emissions. TII as the Government Agency responsible for delivering MetroLink are committed to expediting the delivery of this transformative project on receipt of an Enforceable Railway Order and in accordance with Government direction. EIAR Chapter 3, Background to the MetroLink Project details the need for the Project, and how MetroLink will address challenges including climate change and the production of CO2 emissions. As noted, private vehicles are a significant contributor to Ireland's GHG emissions, and providing an alternative to private vehicle-based journeys is a key benefit of the proposed Project. The proposed Project will aim to be a fully sustainable and carbon neutral public transport alternative (by the Design Year of 2050), and therefore the way in which people access Dublin Airport, and other parts of the city, will be in a much more sustainable way than at present. The proposed Project, as a sustainable mobility option, will have a direct and long-lasting impact on Ireland's transition to a low carbon economy. The proposed Project will be fully electrified, and will be able to reduce its emissions footprint as Ireland moves increasingly to green energy production. Further, EIAR Chapter 17 Climate, shows that based on modelling undertaken it is estimated that the modal shift resulting from the provision of MetroLink will result in a reduction in GHG emissions of between 9kt and 11kt in the opening year, with the reduction expected to increase to 45kt by 2050 (Design Year). EIAT Chapter 4, Description of the MetroLink Project outlines the implementation of sustainability policy areas in the Project's design to deliver an efficient, low carbon and climate-resilient metro system.
2	Letter	1	For the transport sector, which contributes 15% of total annual GHGs, major improvements will be required in infrastructure planning and spending to reduce car dependency and offer sustainable mobility solutions. The recently published Climate Action Plan 2023 notes: "Travel preferences are deeply embedded through settlement patterns, policies, and mindsets, which favour private car usage over more sustainable transport modes." The Plan promotes a new approach based on a recent OECD report commissioned by the Climate Change Advisory Council, which prioritises transport policymaking along an Avoid-Shift-Improve framework. The "Shift" part of the framework necessitates dramatic improvements to Ireland's public transport network so it can offer seamless, integrated mobility services and offer a realistic alternative to private motorised vehicles	As noted by response (1) above, the MetroLink project will make a significant contribution to the Climate Action Plan 2023 and the achievement of climate change goals for Ireland, not only as a standalone project, but as part of a wider and integrated transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, and help Ireland meet its climate change targets in line with the Climate Action Plan. EIAR Chapter 3, Background to the MetroLink Project shows that demand modelling suggests a diversion of 6.8million private vehicle journeys per annum in the early years of MetroLink operation, and approximately 360 million car trips diverted by 2055. Accordingly, the Project will support the reduction of GHG emissions which are critical to improving sustainability and transitioning to a low carbon society. The Project has been designed to ensure maximum interchange with other modes of transport, particularly more sustainable modes such as public transport, walking and cycling, to facilitate a reduction in reliance on private vehicles. EIAR Chapter 9, Traffic and Transportation presents details of the predicted modal shift along the alignment. Across the full alignment, there is a reduction in Car mode share, with a corresponding increase in Public Transport mode share, as well as increases in the use of active modes, demonstrating the Project's contribution to a shift towards sustainable modes.
3	Letter	1	The case for fast, frequent and high-capacity public transport between Dublin Airport and the city centre has been well made and it is nothing short of scandalous that it has taken this long to develop proposals for a rail/ light rail/ metro service. For this reason I am fully supportive of the Metrolink project and would urge you to approve it as quickly as possible.	As noted above, TII as the Government Agency responsible for delivering MetroLink, are committed to expediting the delivery of this transformative project on receipt of an Enforceable Railway Order in accordance with Government direction.

Submission No.			272	
Organisation Name or Name of Submitter			Sadhbh O Neill - 18 Convent Hill Terrace	
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RE: Observation re Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022				
4	Letter	1	Linking the Metrolink line to the Luas network makes sense however I would argue that extending the proposed line to Charlemont out to UCD should be considered. The campus generates over 7 million annual commuting trips but is poorly catered for by public transport and bus services that mostly service the Stillorgan dual carriageway. At peak times, bus capacity is not sufficient to meet demand and many staff and students drive because it is so much more quick and less complicated. I would urge the board to reconsider the possibility of extending the Metrolink past Charlemont out towards Stillorgan through the UCD campus.	As explained by EIAR Chapter 7, Consideration of Alternatives, section 7.5 Assessment of Alternative Route Options, the assessment of alternatives to identify a preferred route for the proposed Project has been undertaken based on the assessment of a number of route options and station locations, including consideration of whether it is appropriate at this time to extend MetroLink beyond Charlemont. The proposed MetroLink alignment has not been extended south of Charlemont for the reasons set out by the GDA strategy, section 12.3.10, "The challenges associated with the upgrading of the Luas Green Line to a metro standard of service have led to the emergence of an alternative proposal which seeks to meet travel demand from south of Sandyford along a new light rail corridor which serves UCD post-2042. As such, the upgrading of the Green Line to metro standard is not being pursued as part of this strategy. Instead, for this strategy period, the capacity and frequency on the current Green Line from Sandyford northwards to the city centre will be incrementally increased through the provision of additional tram fleet and services and associated turnback arrangements to meet forecast passenger demand." Further information on the challenges associated with connecting to the existing Luas Green Line can be found in the TII published report: "Constructability Report - Green Line Closure, April 2019, ref https://www.metrolink.ie/media/ox0p3cjb/constructabilityreportgreenlineclosure.pdf". This showed that construction works to connect the metro from Charlemont to the Green Line would incur line closures over a period of up to 3-4 years, depending on construction methodology. For this reason it has been necessary to determine the most appropriate interchange and termination location for MetroLink. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.' This is also reflected by EIAR Chapter 7, section 7.7.8 MetroLink Southern Terminus Location that explains the rationale for selecting Charlemont as the optimum location for interchange with the Green Line. As noted by the GDA Strategy the selection of Charlemont does not preclude any future connections to the west or south of the city. The GDA Transport Strategy 2022-2042 (published in January 2023), section 12.3.8 Additional Luas Lines Post-2042, further states that the analysis undertaken for the Transport Strategy indicates that a number of corridors in the GDA will, in the longer term, generate travel demand above that which can be catered for by higher capacity bus systems and are likely to require upgrading to light rail in the period after 2042. The planning and design work associated with this longer term framework can commence during the strategy period. The Green Line Reconfiguration is proposed to provide a city centre line to Bray via UCD and Sandyford, however this is subject to the detailed appraisal, planning and design by the NTA.

Submission No.			273		
Organisation Name or Name of Submitter			Sainfoin Property Company Limited		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Re: SUBMISSION ON THE METROLINK ON BEHLAF OF SAINFOIN PROPERTY COMPANY LIMITED REGARDING LANDS AT DARDISTOWN, CO. DUBLIN.					
1	Basis for Selection of Dardistown Metro North -ABP Ref: NA.0003	9	The Board's reasoning for the location of the depot at Dardistown was primarily based on providing a combined facility for the Metro North and Metro West lines. However, as the Metro West scheme is no longer proposed by Government and is not included in the National Development Plan or the Draft Greater Dublin Area Transport Strategy 2022-2042, there is no longer a need for a depot at this location to serve both Metro lines. The rationale for a depot at Dardistown is therefore no longer applicable given the abandonment of the Metro West scheme and requires reconsideration. Additionally, in the eventuality of a future Metro West scheme being progressed, the benefits of co-location of a depot for both lines in a single location is questioned.	Options for the location of the depot and the associated access lines into the depot have been extensively and rigorously assessed as part of the development of the proposed Project. The proposals incorporated in the Railway Order application are considered to provide the best balance between operational requirements; compliance with planning designations (with the majority of the proposed site within 'General Employment' rather than 'High Technology' zoned land area); environmental impact; and retention of the ability for future adjacent land development as envisaged in local plans. Further details are provided in EIAR Chapter 7 (Consideration of Alternatives (Section 7.7.4.2 to 7.7.4.5) and EIAR Appendix A7.6 (Depot Location Options Report)). The assessment between the two locations of Lissenhall and Dardistown for the MetroLink depot location was not influenced by any potential Metro West type project and did not incorporate any benefits at Dardistown that potentially could arise from a Metro West type project.	
2	Basis for Selection of Dardistown Metro North – ABP Ref.: NA.0007	9	A second application was submitted to An Bord Pleanála by The Railway Procurement Agency to provide for a depot to support the operation of the permitted Metro North railway. The application was in response to Condition No. 1 of Ref.: NA.0003 which required the depot for the Metro North project to be located at Dardistown in order for it to tie-in with the Metro West project. The Inspector's report states: <i>“Locating two separate depots on adjoining sites could produce modest synergies by reducing land take and, if access facilities can be shared, costs. Little or no operational benefits would arise from co-locating depots.”</i> The Inspector states that synergies could be produced from co-locating the depot for the Metro North and Metro West, however, as stated previously, these “modest” synergies are not likely to be realised as the Metro West project is not being pursued by Government. Therefore, there would be no significant benefits from persisting with providing the depot for MetroLink at this location.	Please refer to response (1) above.	
3	Basis for Selection of Dardistown Impacts of the Current Proposal	10	The current proposal as identified in Figure 3 below involves a very extensive land take from our client's property at Dardistown. It makes the potential development of the opportunity site to the southwest and the gateway site to the west significantly less viable. Indeed, the viability of the entire development of this prime land bank is severely compromised by the location of the proposed depot. It will create a high level of fragmentation of our client's landholding, significantly diminishing the development potential of these lands. The two primary areas directly affected are intended to act as a gateway to develop to entirety of our client's lands at Dardistown, however, given the reduced size and restricted nature of these sites, any significant development of these areas is less viable. The lines connecting the Dardistown station to the depot are not proposed to be covered and therefore development cannot take place. It is sought that these lines are cut and covered to allow for landscaping to be incorporated above these lines which would enable ground level connectivity between buildings across appropriately landscaped areas in future development of this key opportunity site and allow for placemaking as opposed to fragmentation.	Options for the location of the depot and the associated access lines into the depot have been extensively and rigorously assessed as part of the development of the proposed Project. The proposals incorporated in the Railway Order application are considered to provide the best balance between operational requirements; compliance with planning designations (with the majority of the proposed site within 'General Employment' rather than 'High Technology' zoned land area); environmental impact; and retention of the ability for future adjacent land development as envisaged in local plans. Further details are provided in EIAR Chapter 7 (Consideration of Alternatives (Section 7.7.4.2 to 7.7.4.5) and EIAR Appendix A7.6 (Depot Location Options Report)). The lines connecting Dardistown Station to the depot entrance are cut and cover (see MetroLink Drawing ML-RO-303 E-F) and this will facilitate the provision of access across the depot access tracks and thus limit severance. The proposed replacement Sillogue Green road and junction with the R108 is included within the Railway Order application, and are on a cut and cover section of the depot access tracks, and has space adjacent which could subsequently be utilised to provide upgraded access to the wider development area if required, subject to any FCC highway requirements.	
4	Basis for Selection of Dardistown Impacts of the Current Proposal	11	Figure 6 above identifies the impact the depot and connecting lines will have on the site. The gateway site to the west is now significantly reduced and fragmented as a result of the railway lines connecting the depot with Dardistown station. As these lines are not proposed to be covered, it will result in significant barriers to movement, adverse impacts on future development, adverse noise impacts at operational stage resulting in significantly reduced potential for creating a coherent urban form and placemaking appropriate to an urban context and integration between blocks on the gateway site. The fragmentation has also resulted in significantly reduced plot sizes which will reduce their developable potential. This area of the LAP lands is intended to provide a gateway into the entire area, however, as a result of the MetroLink depot at this location, the site's developability is significantly less viable and is less likely to act as a gateway to the entire lands, as provided for in the statutory Local Area Plan for Dardistown. The delivery of the gateway site would be a key consideration in the viability of a station at Dardistown.	Please see response (3) above.	

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Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: SUBMISSION ON THE METROLINK ON BEHLAF OF SAINFOIN PROPERTY COMPANY LIMITED REGARDING LANDS AT DARDISTOWN, CO. DUBLIN.				
5	Basis for Selection of Dardistown Impacts of the Current Proposal	12	Figure 7: Potential Land Take (Source: TII) - Potential severance of the main access to the remaining development land – no allowance made in the application to facilitate development of the retained lands – potentially rendering them undevelopable. The proposal allows for permanent and temporary acquisition of lands at the interface of the lands with the Naul Road. This is the current access point for the lands and the location has been identified as the most appropriate for an appropriate access to facilitate the proposed large-scale development. The proposal is silent on this hugely important issue. There is no design or co-ordination allowed for between the route selection and access to the remaining lands. The proposal cannot proceed unless an appropriate access road is facilitated as part of the development.	Please see response (3) above for access/severance issues.
6	Temporary Land Take	13	• The proposed scheme provides for a very substantial temporary land take at this location including an approx. 8-hectare site identified as “Opportunity site” within the LAP. • There is no defined timeframe for completion of the scheme - it could be up to 2034. • The temporary / permanent acquisitions effectively sterilize the entire lands for any development until such time as the Metro is completed. This uncertainty is at a huge cost both to the landowner and the taxpayer. • The sterilization of lands identified as “Opportunity site” is of particular concern. According to the Master Plan prepared by Foster and Partners these lands are capable of delivering 5m sq. ft and are identified in the initial phases of the masterplan.	The temporary land take has been assessed as the desirable minimum area to provide for efficient and safe construction activities; reducing these construction areas would introduce constraints on progress, materials delivery/storage or increase site risks. Construction areas will be vacated as soon as practicable once no longer required and returned to the land owner to minimise impact. There is a defined timeframe for completion of the Project and TII will work closely with landowners to keep them appraised of timescales. Temporary land take for construction works for the Dardistown station, depot and adjacent M50 crossing is described in EIAR Chapter 5 MetroLink Construction Phase, Section 5.9. Lands required for construction purposes are also shown in EIAR Appendix A5.3 Construction Sequence Report, with lands required at Dardistown shown in Figures 6.1 and 7.1. Figure 7.1 indicates that part of the southern construction area shown as 'M50 crossing and compound No. 2', lies in the respondent's 'Opportunity Site', and is to be used for construction of the M50 viaduct and its northern approach. Appendix A5.2 Construction Programme indicates anticipated construction periods for different elements of the works. This indicates that whilst the main station and depot area works are expected to take 9 years, for the M50 viaduct and northern approach works, the forecast construction period and hence use of this part of the construction area is less at 4.5 years. EIAR Chapter 9 Traffic and Transport, Appendix A9.5 Scheme Traffic Management Plan provide details of Phase 1 and 2 of the proposed Temporary Traffic Management plans at Dardistown, see Section 6.5.6.2, Figures 6-13 and 6-14. Response (3) explains the sections of the depot track that will be contained in cut and cover to reduce the impact of severance. TII would also note that the LAP recognises the depot (although the LAP has now expired), but MetroLink’s presence at Dardistown will be pivotal and act as a catalyst for growth opportunities in line with Fingal County Councils Development Plan.
7	Temporary Land Take	13	• Should the scheme proceed at this location as per the submission: 1) The temporary land take needs to be substantially reduced. 2) The opportunity site needs to be excluded and if temporary lands are required other lands are identified. 3) There is a longstop date on when these lands will be ceded back to the landowner.	Please to response (1) that explains the background to why the proposed Dardistown depot option is preferred and response (6) that explains why the temporary land take cannot be reduced. TII will work closely with Sainfoin Property Company Limited to agree dates for the return of land.

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8	Relocation of the Depot Off Site	14	The Metrolink Promoters claim that the proposed scheme is modelled on similar schemes in similar cities and cites the example of Barcelona and Copenhagen as successful schemes. However, one glaring difference is the location of the depot. It is best international practice, for a variety of reasons, to located depots at the end of the Metros – in lands less viable and not capable of delivering development the scale of which could be accommodated at Dardistown. However, in this instance and bizarrely it is proposed to locate the depot in the middle of the route selection on Prime development lands.	It is correct to state that MetroLink has considered other schemes such as Barcelona and Copenhagen, however it does not follow that because the depot is not located at the end of the line whereas for these schemes it is, that this means by default that MetroLink is proposing the wrong solution or that this is in contravention of best international practice. As explained by EIAR Chapter 7, Consideration of Alternatives, section 7.7.4.1, during the development of the Preferred Route the possibility of locating the depot mid-route was considered and a multi-criteria assessment (MCA) was carried out to determine the viability of locating the depot at Dardistown as an alternative to Estuary. It is this MCA, for which further details can be found in Chapter 7, section 7.7.4 that has been used to determine the proposed location of the depot. In summary, as noted by section 7.7.4.1.1, the main reasons that determined the proposed depot location at Dardistown is: • The operations of the system would be better served by a more centrally located depot site at Dardistown, which would mean that vehicles could come into service more quickly and efficiently with less empty running trains. • The section of the alignment from Dublin Airport to Charlemont will have the highest passenger demand with the requirement for more vehicles to operate on that section of the alignment. A depot location at Dardistown would ensure vehicles could enter services quickly and immediately service on the busiest section of the alignment. • If there are mechanical failure of vehicles, the location of a depot at Dardistown means that vehicles can be moved more easily to the depot site for maintenance when compared with a depot at the northern extent of the alignment. • Maintenance activity along the alignment can be more effectively managed as vehicles can commence maintenance activity more quickly from Dardistown compared to Estuary and • The location of a depot at Dardistown has potential for less significant environmental effects when compared to the proposed site at Estuary. It is also possible to mitigate the majority of the potential impacts identified utilising the proposed mitigation measures outlined in the relevant chapters of the EIAR. Appendix A7.6 Dardistown Depot Options Report and the Preferred Route Design Development, Appendix C (https://www.metrolink.ie/en/consultations/preferred-route-2019/)provides further detail.
9	Relocation of the Depot Off Site	14	As stated previously, the location of the depot at Dardistown was originally intended to serve both the Metro North and Metro West lines. However, as the Metro West project is no longer progressing, the depot will only serve to MetroLink (formerly Metro North) and should therefore be situated at an alternative location.	Please refer to responses (1) and (8) above.
10	Relocation of the Depot Off Site	14	The accompanying letter prepared by Tobin Consulting Engineers (Appendix 2) provides assessments of alternative locations for the depot and responds to the Railway order documentation with respect to the justification for the location of the depot on our clients' lands, and the selected option within the lands. The letter appends a previous report undertaken with respect to the location of the depot on these lands, submitted to TII. Much of the points raised are still of particular relevance and briefly summarised in the following.	A response is provided against the related specific comments below.
11	Relocation of the Depot Off Site Lissenhall / Estuary	14	The site at Lissenhall / Estuary was the original location proposed for the depot as part of the Metro North scheme. The Estuary stop is the most northerly on the MetroLink line and is located to the north of Swords town centre. The site is located adjacent to the M1 motorway and it is proposed to provide a park and ride facility at this location under the Proposed Material Alterations to the Draft Fingal County Development Plan 2023-2029 (PA SH 8.4). The previous depot with park and ride facility proposed for this site had the capacity to cater for 3,000 no. cars. It is considered that a park and ride facility at this location would remove significant traffic from the M1 and R132 through Swords as well as a reduction in traffic along the M50.	It is not clear the point that is being made noting that the proposed Estuary Station and adjacent Park and Ride site has been assessed and shows it will remove road traffic from the R132 and subsequent roads into the city centre. Modelled changes in Annual Average Daily Traffic (AADT) are provided in EIAR Appendix A9.2 Overall Project Traffic & Transportation Assessment, Section 6.2.2. As presented, with the increased use of public transport in the Operational Phase of the proposed Project, the strategic road network will experience an overall reduction in AADT and delays. The M50 Motorway, R132 Swords Bypass and M50 Port Tunnel see reductions in total traffic flow from the Do Minimum to the Do Something scenario.

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12	Relocation of the Depot Off Site Lissenhall / Estuary	14	As set out in the accompanying engineering observations: “Document Appendix A7.6, Dardistown Depot location Options Report by Jacobs Idom, from the Environment Impact Assessment report volume 5; has been provided to Tobin for review. The executive study in Appendix A7.6 references a letter received from Comer Group Ireland which expressed an opinion that the Lissenhall area would have been a better location for the depot. The Jacobs Idom response to that was ‘this is not supported by earlier JI studies because it does not deliver efficient train operations and for this reason it is not considered further in this review’. Appendix A7.6 does not expand on the why it does not deliver efficient train operations, nor does it reference or provide a location where those earlier studies can be found for review and consideration as part of a robust and comparable multi criteria analysis.	The primary purpose of Dardistown Depot location Options Report contained in Appendix A7.6 was to consider and evaluate the alternative Dardistown depot location proposed by Comer Group Ireland. Response (8) explains where the information can be found that explains why a depot at Dardistown is preferred to Estuary.
13	Relocation of the Depot Off Site Lissenhall / Estuary	14	In addition to considering the operational aspects of the depot location at Lissenhall, the other criteria of the Multi Criteria Analysis carried out for Dardistown, does not seem to have been considered for Lissenhall. The Dardistown location was previously selected assuming that there would be a link to Metro West which is no longer planned to progress.	Please refer to response (1) regards Metro West and response (8) that explains where the information can be found that explains why a depot at Dardistown is preferred to Estuary.
14	Relocation of the Depot Off Site Lissenhall / Estuary	14	To provide a fair and informed review of the TII documentation relating to the location of the depot, Tobin will require the following be provided for review: • A copy of the ‘earlier JI studies’ referenced above. • A multi-criteria analysis (MCA) for the option at Lissenhall for the other aspects of the MCA applied to the Dardistown option.”	Please refer to response (8) above that explains where the information can be found that explains why a depot at Dardistown is preferred to Estuary. The initial comparison of the Lissenhall and Dardistown sites was to identify the preferred general location for the depot, which was assessed as Dardistown. The subsequent assessment of potential depot sites within the Dardistown area itself was subsequently undertaken to ensure the most appropriate location was identified through a Multi Criteria Appraisal.
15	Relocation of the Depot Off Site Lissenhall / Estuary	15	A supporting document prepared by CPMS is included in Appendix 2 of this submission. In relation to the location of a depot at Dardistown, the report states that “With the removal of the link to Metro West and the fact this is no longer planned to be progressed in the foreseeable future, the argument for an end of line depot is strengthened. The previous Estuary site has no obvious characteristics from a rail perspective that make a depot location there unfeasible.”	Please refer to response (1) regards Metro West and response (8) that explains where the information can be found that explains why a depot at Dardistown is preferred to Estuary.
16	Relocation of the Depot Off Site Lissenhall / Estuary	15	The report also analyses the difficulties in providing the depot at Dardistown as opposed to Estuary, and the cost and resource implications: “The Dardistown location, proposed flyover of the M50 and proximity of Dublin Airport all present technical compliance and construction challenges that will result in additional costs. The operational disadvantages further support the case to avoid such a location for the main train depot for the route. The proposed service pattern and frequency also mean a loop/turnback facility will be required at each end of the line and this could potentially be incorporated into the depot footprint at Estuary in a more efficient manner than a separate depot at Dardistown. Major disruption to the M50 would also be avoided due to the removal of the requirement for a flyover structure south of Dardistown. A depot at Estuary would reduce the number of tunnel portals (estimated to cost €25-70m each) from four to two. Economies of scale would also be facilitated due to the single tunnel approach as opposed to the two-tunnel approach which is unavoidable if the depot is at Dardistown. There is a strong case that Estuary also provides a more accessible, more demographical suitable location for a base of operations, particularly when considering the planned development of the Dardistown site.” The overwhelming reason for relocating the depot site to Lissenhall is the lost opportunity on the Dardistown LAP area. These lands are potentially one of the most strategic sites in Europe with then potential to deliver €bn’s of euro per annum to the taxpayer through a best-in-class development commensurate with the some of the most successful developments on a global scale. Finally, there does not appear to be a transparent or clear rationale included within the application as to the selection of Dardistown over Lissenhall/Estuary; and on this basis it is respectfully submitted that the location of the depot at Dardistown should be reconsidered.	TII are not aware of the technical compliance issues to which this observation refers. The rationale for the selection of Dardistown is provided by the EIAR as explained by responses (1) and (8) above, that includes noting TII consider a Dardistown depot option performs better operationally than a depot located at Estuary. TII would also note that the Project includes for a turn-back facility at Estuary, a loop is not required. The proposed bridge form and construction proposals for the M50 viaduct are not assessed to have a significant impact on the operation of the M50; these are described in EIAR Chapter 5 MetroLink Construction, Section 5.9.2 with further details in EIAR Appendix 5.3 Construction Sequence, Section 7. The proposed Project has 3 tunnel portals - Dublin Airport North and South; and Northwood. Alteration of the project to a long single tunnel would thus remove one portal but would introduce a more costly deep underground station at Dardistown and would still require two Tunnel Boring Machines to maintain the construction programme. It is also noted that the quoted construction cost of tunnel portals is made in reference to HS2 in Appendix 1. This is not correct, portals for high-speed trains are not comparable to portals required for a metro project. Response (8) above explains where the information can be found that explains why a depot at Dardistown is preferred to Estuary. TII recognise that the site at Dardistown will impact on more valuable land due to its proximity to the M50 and the designation under the Fingal Development Plan as “High Technology”, but this needs to be considered balancing operational requirements; compliance with planning designations (with the majority of the proposed site within ‘General Employment’ rather than ‘High Technology’ zoned land area); environmental impact; and retention of the ability for future adjacent land development as envisaged in local plans. Reference by the observation to the Dardistown LAP is noted, and TII would note that the LAP recognises the depot and also that the LAP has now expired. MetroLink’s presence at Dardistown will be pivotal and act as a catalyst for growth opportunities in line with Fingal County Councils Development Plan, whilst also noting that the lands in their current state have insufficient infrastructure or utility provision and therefore MetroLink will potentially generate development rather than constrain it.

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17	Alternative Location within the Site	16	As part of the extensive engagement set out with TII, the following alternative location (referenced by TII as Option 10) has previously been put forward to TII prior to the submission of the Railway Order. Such is the destruction of the proposed Depot location our client is proposed this alternative location for the MetroLink depot at Dardistown in order to reduce the impact on the gateway site and opportunity site to the west and southwest of the area. The depot can be accommodated in the 'GE – General Employment' zoned area and in the 'HT – High Technology' zoned area of the site in the southeast corner of the site. This area of our client's lands also has good access to the M50 and is also located in close proximity to the M1 to the east. Our client has offered the land for our clients preferred option if the depot is to be located on their landholding without cost to the Metrolink proposal; however, this offer was rejected. This letter of offer is dated 17th January 2021 and is included in Appendix 3. This site is considered more appropriate for the depot as it will have a reduced impact on the economic viability of the site as a whole and will result in less fragmentation of the site. The gateway and opportunity sites can be developed to their full potential which will have positive impacts for the rest of the lands. These lands are currently occupied by a go-kart track and a car dealership. Whilst it is noted in the Railway Order documentation that the alternative option put forward by our client shown on the drawing was not of the scale now required for the depot, the option would easily be extended to ensure it is of the scale now required. The rationale in the submitted documentation for not progressing our clients preferred option within the lands also include reference to the Dublin Airport outer Public Safety Zone. We would note the draft Fingal Development Plan 2023-2029 includes for a review of the public safety zones, as per Objective DA020: “Support the review of Public Safety Zones associated with Dublin Airport and implement the policies to be determined by the Government in relation to these Public Safety Zones.” Therefore, the consideration of the development of low intensity uses within a public safety zone may change.	There is no “destruction” as stated by the observation, this is currently an area of undeveloped land. It is also noted that the observer accepts that their proposal put forward would need to be developed further to provide an equivalent level of service to that provided by the MetroLink proposal, increasing it's size and land take. The option proposed has been subject to the same rigorous assessment as all other depot options and does not outperform the proposed location on any of the environmental, planning, operational or economic criteria examined by TII. Appendix A7.6 Depot Location Options Report provides the full details of this assessment, noting that it was necessary for the assessment to modify the Sainfoin proposal to accommodate the necessary depot functional requirements resulting in an increased site area. While the observation notes that the Sainfoin proposal can be accommodated in the ‘GE – General Employment’ zoned area and in the ‘HT – High Technology’ zoned area of the site in the southeast corner of the site, TII's assessment shows that the Sainfoin proposal lies c.50% in the ‘High Technology’ zone compared to the MetroLink proposal that has c.70% of the depot in the ‘General Employment’ zone and thus is less impactful on the potential development of the lands. The Sainfoin proposal compromises TII's aim of facilitating the best possible passenger experience at a future passenger station integrated into the surrounding area. A depot in the CGI Proposed Location will be so far from the MetroLink main line that it will require the large looping structures shown by Figure 9, drawing 10806-1003 D which will restrict the efficient operation of the depot. Those structures will separate passengers from the future urban realm and passengers will have to traverse them by way of long bridge or underpass structures. In contrast, the Preferred Location has the potential for passengers to exit the station directly into future urban realm. It is also noted that this Sainfoin proposal encroached into the Inner Public Safety Zone of Dublin Airport, meaning that a depot cannot be built there without materially contravening the Fingal County Development Plan and Government guidance in relation to safety in proximity to the Airport. The proposed depot location included in the Railway Order application avoids the Inner Public Safety Zone entirely. TII would further note that in respect of Public Safety Zones, it is not appropriate to anticipate possible undefined future changes in policy. The current guidance on appropriate uses within Public Safety Zones continues to apply. It is further noted that the Sainfoin proposal is also on the route of the proposed orbital sewer forming part of the Greater Dublin Drainage (GDD) project, while the Railway Order proposal avoids the sewer route entirely and will necessitate the demolition of an existing wastewater treatment plan based on the arrangement presented by Figure 9. TII do not consider there is any material difference in terms of access to the M50 and M1 between the options. Response (3) above explains how the concerns about fragmentation of the land will be managed so that development of the gateway and opportunity sites remains possible. As previously noted, MetroLink's presence at Dardistown will be pivotal and act as a catalyst for growth opportunities in line with Fingal County Councils Development Plan, whilst also noting that the lands in their current state have insufficient infrastructure or utility provision and therefore MetroLink will potentially generate development rather than constrain it. While the offer of land for free is noted, the offer is contingent on TII building a fully operational passenger station, and operating and maintaining it from the outset, entailing additional works and cost that is not justified by TII's passenger demand modelling.
18	Alternative Location within the Site	17	Additionally, please refer to Appendix 2 for commentary from Tobin Consulting Engineers with respect to the comparison between Option 8A (which forms the Railway Order proposal) and Option 10 (put forward by our client) undertaken by TII. In summary it is set out that Option 10 is a feasible option.	TII note the comments in the Tobin Consulting Engineers report. However, we consider that the assessments undertaken on the selection of the depot location as set out in EIAR Chapter 7 (Consideration of Alternatives) and EIAR Appendix A7.6 (Depot Location Options Report) provide justification for the depot site selected at Dardistown. Please also refer to response (1) above.

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19	Dardistown Depot Location Options	17	In the submission document TII referenced 9 other potential locations in Dardistown using a multi criteria analysis, however, and most significant no regard was had to 1. Destruction in value of this prime development site 2. The residual site developability In development and planning terms, the depot is cited in the 2nd worst possible location in the site identified as a “gateway” site in the LAP. This site is capable of facilitating the development of a large-scale campus – akin to the Apple Campus in the US with potential for over 10,000 high value jobs. For reference attached please find an in depth multi criteria analysis of each site – incorporating their development capacity, value and the true lost opportunity to the taxpayer.	It is not correct to say no regard has been taken of the potential development of the site. The report contained in Appendix 7.6 Depot Location Options Report makes considerable effort to explore the development objectives of the receiving environment and does not as suggested ignore this as part of the assessment. TII would further note that the EIAR section 7.7.4 takes account of this consideration both when considering a depot at Dardistown or Estuary, and individual depot options located at Dardistown. Responses (1) and (8) above have explained where the information can be found that explains the rationale for locating the proposed depot at Dardistown. MetroLink’s presence at Dardistown will be pivotal and act as a catalyst for growth opportunities in line with Fingal County Council’s Development Plan rather than as a destruction in value. The MetroLink project is an essential part of enabling the development of those lands. With a presently limited planning context, and no or insufficient existing infrastructure and utility provision, bringing forward development in this location will likely be costly and protracted over a long-term horizon. TII is of the view that as referenced in the Fingal Development Plan, the assumed development of large-scale commercial opportunities in this area would follow the construction of the MetroLink depot and tracks. Thereafter, the commercial potential of the lands may be realised on a phased basis. TII note that the observer’s comparative analysis of the potential alternative depot sites at Dardistown focuses on development issues and potential economic benefits foregone and would therefore not be considered an in depth multi criteria analysis of each site as stated. As explained by response (1) above TII have undertaken a rigorous analysis of possible depot options on the Dardistown lands that has considered operational requirements; compliance with planning designations (with the majority of the proposed site within 'General Employment' rather than 'High Technology' zoned land area); environmental impact; and retention of the ability for future adjacent land development as envisaged in local plans to achieve the optimal balance across these assessment criteria. Further details are provided in EIAR Chapter 7 (Consideration of Alternatives (Section 7.7.4.2 to 7.7.4.5) and EIAR Appendix A7.6 (Depot Location Options Report). It is further noted, as explained by response (16) above that TII recognise that the site at Dardistown will impact on more valuable land due to its proximity to the M50 and the designation under the Fingal Development Plan as “High Technology”, but this needs to be considered balancing the assessment criteria noted above. MetroLink’s presence at Dardistown, as noted above, will be pivotal and act as a catalyst for growth opportunities in line with Fingal County Councils Development Plan, whilst also noting that the lands in their current state have insufficient infrastructure or utility provision and therefore it could be argued that MetroLink will generate development rather than constrain it. As the analysis is not considered to be multi-criteria, TII relies on the EIAR analysis. Any losses to the landowner will either be compensated as part of early legal agreement or may be claimed by way of the CPO compensation code. The onus of providing all loss lies with the developer and TII reserves its rights to dispute all and any heads of loss.
20	Amendments to Current Proposal	17	Whilst it is submitted that the depot should be located in an alternative location outside our client’s landholding, or in an alternative location to the south east area of our clients land for the reasons outlined above; should the Board nonetheless consider that Dardistown is the most suitable location for the depot, our client would like to propose the following amendments to the scheme to reduce the impact on the viability of the subject lands delivering on their planning objectives, without prejudice to our client’s preferred location. 1. A proposal on a development access is designed and built as part of the scheme so as not to landlock this important development opportunity 2. That there is a change to the temporary land take acquisition as per Figure 7 above i.e. that lesser lands are included in the temporary land take and that the lands zoned “opportunity” are removed. 3. It is requested that the portion of the tracks which connects the depot to Dardistown station are cut and covered sufficiently to allow for landscaping to take place above. This will allow development between the lines to feel more connected and ensure the economic viability of the gateway and opportunity sites. Alternatively, it I requested that the track layout is amended in order to reduce the level of fragmentation to the gateway site. The current proposal breaks the gateway site into significantly smaller land holdings which will have a significant adverse impact on their developability. This will lead to a disconnect between the various buildings in this location and will have a negative impact on the functionality of a gateway site.	1 and 3. Please refer to response (3) access to the potential future development. 2. Please refer to responses (6) above regarding lands proposed for construction purposes and the potential for earlier hand-back of construction areas.

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21	Concluding Comments	19	It is primarily considered that the MetroLink depot should be relocated from the proposed location at Dardistown given that this location was chosen to serve both the Metro North and Metro West lines. This is one of the most strategic sites left in Ireland and locating a low value use such as a depot is bad in planning particularly As the Metro West line is no longer being progressed. It is therefore obvious that the depot would better serve the MetroLink at Lissenhall/Estuary where the depot and park and ride facilities can be consolidated together and would be a more efficient use of land.	Please refer to responses (1) and (8) above that explains; the rationale for why a depot at Dardistown is preferred to Estuary, the rationale for selecting the proposed depot location at Dardistown, and confirmation that a Metro West type project has not influenced the assessment of options.
22		19	Should the depot be provided for at the proposed location, it is requested It is relocated elsewhere within the lands – away from the two prime areas zoned Gateway and Opportunity sites to lesser value locations and salvage some of the better locations for long term sustainable development. However, if either of the suggestions above are needlessly resisted - then at a minimum the current proposal should be amended to cut and cover the tracks connecting the depot with Dardistown station. This will allow for landscaping to be incorporated in the gateway site above the tracks which would reduce the proposed disjointed nature of the site. Alternatively, a realignment of the tracks is requested in order to reduce the fragmentation of land at this location. The current proposal may prohibit the development of our client's land.	TII do not agree that an option to relocate the Dardistown depot has been needlessly resisted. TII have undertaken a rigorous assessment of Sainfoin's proposed alternative, as documented by EIAR Appendix A7.6 and response (17) above. Response (3) explains how proposed cut and cover structures will limit the impact of land severance.
The appendices of the submission have been reviewed and observations responded to that either expand on observations made by the core submission or highlight additional observations.				
23	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT RE: Metrolink Depot Location Dardistown - Submission, Sainfoin Property Company Limited <u>Environmental comments</u>	Page 2 of memo	Appendix A7.6 table 6-3 : MCA assessment of options 8A and Option 10, does not include note 5 of section 6.2.1 – A burnt mound has been found within the area for option 8A. This will require careful excavation in this area and has the potential to cause delay.	TII are aware of the burnt mound and the observation is noted. TII do not expect this to have a material impact on the programme but agree that there is a risk of a small delay.

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24	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT RE: Metrolink Depot Location Dardistown - Submission, Sainfoin Property Company Limited <u>Environmental comments</u>	Page 2 of memo	☐ The colour coded table shows both options being amber concluding that both options are equal from an environmental perspective however, the TII Metrolink environmental impact assessment report volume 2 chapter 7, pg 55; says that ‘option 10 is marginally better than option 8A when considering it from an environmental perspective’. Option 10 should therefore be shown in green indicating it has advantages over Option 8A.	The reasons for both options being assessed as amber is explained by section 6.2.3 of Appendix A7.6: <i>“Overall, Option 10 would have a slight advantage over option 8A due to the fact that it is more removed from sensitive receptors, with less potential for impacts during both the construction and operational phases. Also, Option 10 does not have any direct impact on known archaeology, although it is acknowledged that this area in general does have a high potential for archaeology. It should be noted however that Option 10 would require the acquisition of two commercial properties, and demolition and replacement of the wastewater treatment plant, which would have a potentially negative impact on local business. Option 10 would also require the excavation of a significant volume of material to level the site, which would require disposal and significant transport impact.</i> <i>While Option 10 is marginally better than Option 8A when considering it from an environmental perspective, the impacts identified for both options could be mitigated during both the construction and operational phases.”</i>
25	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT RE: Metrolink Depot Location Dardistown - Submission, Sainfoin Property Company Limited <u>Roads & Utilities</u>	Page 2 of memo	☐ The Greater Dublin Drainage Scheme is currently still in the planning process and a slight diversion on the site could still be agreed at this point, which would avoid any conflict with the depot as proposed in option 10. Alternatively, an engineered solution is feasible to work around the GDD.	Option 8A has no interface with the GDD and therefore no impact on the current GDD planning application or introduces unnecessary risks to the application, as well as no subsequent design or construction interface risks that could result in additional cost and delay.
26	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT RE: Metrolink Depot Location Dardistown - Submission, Sainfoin Property Company Limited <u>Roads & Utilities</u>	Page 2 of memo	☐ Keeping the depot further away from the station may be safer for pedestrians and vulnerable road users (VRU).	There will be no conflict between depot operations and the public and therefore TII do not consider there is an increased safety risk.

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27	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT RE: Metrolink Depot Location Dardistown - Submission, Sainfoin Property Company Limited <u>Roads & Utilities</u>	Page 2 of memo	☐ Since depot staff and drivers will start / stop working at unsociable hours, parking facilities should be provided for them. Plant and deliveries would be required to and from the depot. This would be better provided away from the station to avoid congestion.	Parking facilities are provided for depot staff. Plant and deliveries are not predicted to be of a level to cause congestion. Dardistown Station itself is designed not to encourage private car use when it is operational, with minimum private car pick-up / drop-off provided and therefore congestion is not anticipated.
28	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT RE: Metrolink Depot Location Dardistown - Submission, Sainfoin Property Company Limited <u>Functionality</u>	Page 2 of memo	☐ Appendix A7.6 highlights that option 8A has already progressed to preliminary stage. This is used in the MCA as an advantage over option 10 in terms of functionality. The functional layout of the depot should be assessed on the potential for the proposed site and not the design progress for one option over another.	As set out by Appendix A7.6, TII have increased the size of the Sainfoin proposal to ensure it achieves like-for-like operational requirements provided by the option proposed by the Railway Order application. TII could have rejected the Sainfoin proposal on the basis it did not provide the required operational requirements, however TII considered it was not fair to do so and instead made allowances for the Sainfoin submitted proposal so that it could be fairly evaluated against TII's option proposed by the Railway Order application. However, it is a fact that the TII depot proposal has the advantage of being developed to Preliminary Design level which delivers all the necessary facilities for efficient MetroLink operations, compared to the Sainfoin proposal and its low design maturity that presents an increased risk of subsequent schedule and cost increases as its design is developed.
29	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT RE: Metrolink Depot Location Dardistown - Submission, Sainfoin Property Company Limited <u>Functionality</u>	Page 3 of memo	• Mainline Connections - Option 10 offers enhanced connectivity to the mainline vs Option 8A that serves Up service only. • Planned Movements – Option 10 provides comparable Up entry distances to Option 8A but offers potential advantages for Down mainline connections as this is not offered by Option 8A. • Emergency Movements – Option 10 Up and Down movements to the depot offer a potential advantage over Option 8A.	Option 8A does serve both Up and Down services with crossings provided to facilitate this.

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30	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT RE: Metrolink Depot Location Dardistown - Submission, Sainfoin Property Company Limited Concluding statements	Page 3 of memo	In respect of the various options on the Dardistown site, the current preferred option of Option 8A requires a comprehensive assessment review and to that end, we will require a full suite of drawings, calculations and provisions of operational modelling information. To provide a comprehensive locational analysis, Tobin would recommend that Lissenhall be compared to Dardistown assessing all the criteria used in the Multi Criteria Analysis for the different options on the Dardistown site. If after the Multi Criteria Analysis, Dardistown is deemed the preferred site; it is Tobin Consulting Engineer’s opinion that option 10 is a feasible location for the depot.	TII have already carried out a comprehensive and rigorous assessment as explained by responses (1) and (8) above for both a depot located at Estuary compared to Dardistown, and the consideration of 9 Dardistown options plus Sainfoin’s proposed option. These responses also explain where the information can be found that explains why it was concluded that the depot proposed by the Railway Order application is preferred.
31	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT Appendix 1 - MetroLink Depot Site High Level Assessment Report 4.3.3 Movement & Infrastructure	Page 15 of Appendix 1	Conversely and as indicated below, the provision of a maintenance depot on the Metroparks site would in our view go against or conflict with the core objectives of the plan.	As previously noted, TII is of the view that as referenced in the Fingal Development Plan, the assumed development of large-scale commercial opportunities in this area would follow the construction of the MetroLink depot and tracks. Thereafter, the commercial potential of the lands may be realised on a phased basis.

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32	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT Appendix 1 - MetroLink Depot Site High Level Assessment Report 5.2 Preferred Route Report - March 2019	Page 17 of Appendix 1	Whether or not the Dardistown site is a more efficient location for the siting of the Depot is questionable based on comparable metro schemes, upon which Metrolink is based. Indeed, it is considered that the location of the depot along the route rather than at the end point is far less efficient and results in the running of empty trains between terminus points and the depot location.	Please refer to response (8) above.
33	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT Appendix 1 - MetroLink Depot Site High Level Assessment Report 5.3 Preferred Route Design Development Report - March 2019	Page 18 of Appendix 1	Overall, it is considered that the benefits identified for choosing Dardistown over Estuary as the proposed site for the Metrolink depot are at best marginal given the relative proximity of both sites to each other. Furthermore, when considered within the context of the potential for development at Dardistown as detailed throughout this report, and the wider implications of the impact on the developability of a highly strategic site, then it is questionable as to the extent of the benefits of choosing Dardistown. Indeed, this is notwithstanding the fact that in order to facilitate the depot at Dardistown, two sections of tunnel need to be constructed as opposed to the possibility of one tunnel section from north of the airport, south to Charlemont, in the event that the depot was located at Lissenhall.	Please refer to responses (1) and (8) above that explains the rationale for why a depot at Dardistown is preferred to Estuary, and the rationale for selecting the proposed depot location at Dardistown, while response (16) explains why one running tunnel section is not feasible.

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34	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT Appendix 1 - MetroLink Depot Site High Level Assessment Report 5.4 Metrolink - The Proposal	Page 24 of Appendix 1	In summary, the study (attached as Appendix B) found that the following: • The site, adjacent to Dublin Airport can accommodate large building plots and has the capacity to provide a number of distinct interlinked zones, including a tech campus, cultural quarter, wellness quarter, a business park and an innovation hub.; • The development, if granted planning, would be the first view of Dublin/Ireland for arriving visitors and would make a strong impression; • Constraints on the site require further investigation, but; The site has the potential to provide 15,000,000 sq. ft of development, accommodate 4,400 people and provide employment space for 40,000. A high-level indication of the potential breakdown of development on the site is included below and in summary at Appendix C.	As noted above TII recognise that the site at Dardistown will impact on more valuable land due to its proximity to the M50 and the designation under the Fingal Development Plan as “High Technology”, but this needs to be considered balancing operational requirements; compliance with planning designations (with the majority of the proposed site within 'General Employment' rather than 'High Technology' zoned land area); environmental impact; and retention of the ability for future adjacent land development as envisaged in local plans. MetroLink’s presence at Dardistown will be pivotal and act as a catalyst for growth opportunities in line with Fingal County Councils Development Plan, whilst also noting that the lands in their current state have insufficient infrastructure or utility provision and therefore MetroLink will potentially generate development rather than constrain it.	
35	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT Appendix 1 - MetroLink Depot Site High Level Assessment Report 7.1.4 Flooding	Page 28 of Appendix 1	There have been two flood events adjacent to the Dardistown site, as indicated in Figure 13 below. The incident at the Mayne M50 flyover, adjacent to the old Airport Road (R312), was low level flooding incident. Further North along the R312 a flooding incident occurred in November 2002, with localised flooding of the road. There is a residual risk of low-level flooding on the northern side of the M50 bordering the Dardistown site. There have been no recent recorded flood incidents at the alternative site locations, Site’s 1 –5.	Your reference to Figure 13 (which upon inspection appears to be Figure 16) referred to shows the two flood events referred to as adjacent to the Dardistown site at a considerable distance from the depot proposed by the Railway Order application. EIAR Appendix A18.5 documents the flood risk assessment undertaken for the proposed Project. Section 4.6.2 notes the proposed Dardistown Depot and Station will impact on the Turnapin Stream and a number of minor ditches and drains that form part of the Mayne River catchment. These watercourses will be diverted as part of the proposed Project. There is no published flood risk information for any of these ditches, and no historic records of flooding were identified for any of the ditches. TII would also note that the flood events shown by Figure 16 are of greater relevance the Sainfoin proposed alternative.	
36	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT Appendix 1 - MetroLink Depot Site High Level Assessment Report 7.1.5 Rail	Page 30 of Appendix 1	The route layout into the Dardistown also appears to narrow to a single track at one point which further constrains movements in and out of the depot (see Image 5). This also presents significant performance risk as there is no operational contingency measure/alternative should there be any issues with the infrastructure at this pinch point.	While this observation referred to 'Image 5', we note there is no 'Image 5' and believe this is in relation to Figure 21 which appears to be a "snip" from another depot option rather than the one proposed by the Railway Order application. The depot configuration proposed by the Railway Order application, Option 8A, does not have a single point of entry and is also provided with crossovers to ensure access is maintained to / from the depot at all times.	

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37	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT Appendix 1 - MetroLink Depot Site High Level Assessment Report 7.1.5 Rail	Page 30 of Appendix 1	significant increase in track meterage may be required, which appears to be circa 500m according to the Emerging Preferred Route layout. Not only will there be the cost of the additional infrastructure, but also the cost of additional land acquisition to facilitate construction. The operational implications of the proposed depot location at Dardistown is likely to result in a net higher operational expenditure than an end of the line depot location. Lessons learned from elsewhere demonstrate the cost of the required ECS movements can contribute significantly to the average cost per journey and would be unavoidable with a centrally located depot. Considerations should also be made to both the local demographic of the area in Dardistown and transport links to ensure ease of access for future staff. Although difficult to quantify the additional costs without a full set of information to base estimates on, a number of key design principles aligned to minimising costs are contradicted or ignored with the proposal to construct a depot at Dardistown.	TII did not understand why the depot layout being referenced was in relation to the Emerging Preferred Route (EPR). In terms of track meterage, comparing the option proposed by the Railway Order application verses the option proposed by Sainfoin, by inspection given the increased distance from the mainline to the depot, and the provision of the 'loop track layout' to enable access to and from the depot, the Sainfoin proposal requires a greater length of track than the layout proposed by the Railway Order application. Response (8) above explains the operational rationale for the proposed depot location.	
38	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT Appendix 1 - MetroLink Depot Site High Level Assessment Report 7.6.5 Rail	Page 41 of Appendix 1	As detailed in historical documentation and prior to the publication of the Emerging Preferred Route, the location of the depot was detailed as Estuary – at the northern end of the Metrolink route. Using a simple comparison mechanism to summarise, it is clear that from a rail perspective, Estuary is a much more favourable location than Dardistown.	Please refer to response (8) above.	
39	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT MetroLink Depot Site High Level Assessment Report 8.0 CONCLUSION Depot Location – Lissenhall/Estuary	Page 43 of appended report	- Lissenhall was initially considered as the preferred location for the depot and ancillary services associated with Metro North. The ABP Inspector in his consideration of the application for Metro North (NA.0003) suggested as much and was of the view that the location finally proposed under that application (Belinstown) was done so for economic purposes and without a plan led approach. In his conclusions, the Inspector recommended that a revised Railway Order be submitted for a new depot location at Lissenhall and potentially Dardistown if the Board considered it appropriate. - The Board in their Order on NA.0003, Condition 1 requested that a new Railway Order application be made for a revised depot and spoil scheme at Dardistown. However, this decision paid significant regard to the development of Metro West and the fact that it was proposed to tie in with Metro North at Dardistown. - Metro West is no longer a live consideration, does not appear in the National Planning Framework: Ireland 2040, nor does it appear in the National Development Plan. As Metro West is no longer considered viable, the rationale that was applied to locating the Depot at Dardistown, which in effect was the overriding rationale, is consequently no longer viable.	Please refer to responses (1) and (8) above that explains; the rationale for why a depot at Dardistown is preferred to Estuary, the rationale for selecting the proposed depot location at Dardistown, and confirmation that a Metro West type project has not influenced the assessment of options.	

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40	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT MetroLink Depot Site High Level Assessment Report 8.0 CONCLUSION Depot Location – Lissenhall/Estuary	Page 43 of appended report	As late as June 2018, the Alignment Options Study Report considered that the best and most appropriate location for the depot on the new Metro North, now Metrolink, was Estuary/Lissenhall as the track was at grade at this location and there was adequate space to accommodate the facilities.	Noted, but since then further work, as one would normally expect as a scheme is developed, has been undertaken as explained by responses (1) and (8) that explains the rationale for why a depot at Dardistown is preferred to Estuary and the rationale for selecting the proposed depot location at Dardistown. Please see Appendix A7.6 Depot Locations Options Report and the Preferred Route Report as outlined in previous responses.
41	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT MetroLink Depot Site High Level Assessment Report 8.0 CONCLUSION Depot Location – Lissenhall/Estuary	Page 43 of appended report	The benefits outlined in the Preferred Route Design Development Report of March 2019 for choosing Dardistown as a location for the depot over Estuary are marginal and take no account of issues such as land value and development potential. In this light, it is considered that the benefits outlined should be reviewed further.	Response (19) explains why TII do not consider it is correct to say no regard has been taken of the potential development of the site. It is further noted that while both the Dardistown and Lissenhall areas are intended for future development, Lissenhall has a more central role in the strategic development of Fingal and is identified as a strategic long-term reserve in the core strategy. By identifying Lissenhall as a key future development area, the Council is seeking to maximise <i>the opportunities created by the delivery of this key piece of strategic infrastructure in accordance with best planning practice and the principles of sustainable development. The development of the area following the sequential development of the existing Swords envelope, is also consistent with the Council's long term strategic vision for Swords to develop as a sustainable city. It is envisaged that this area could accommodate the development of a significant mixed use urban district providing for a significant level of employment in addition to approximately 6,000–7,000 residential units. A statutory land use plan will be prepared for these lands to provide a framework for development. Fingal Development Plan 2023-2029, p44)</i>

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42	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT MetroLink Depot Site High Level Assessment Report 8.0 CONCLUSION Metro park – A Highly Strategic Location	Page 43 of appended report	• Metro park is considered to be one of the most strategic development sites within the greater Dublin region. It comprises 83ha (206 acres) of land in one ownership (the Comer Group) located in close proximity to Dublin City and immediately adjoins Dublin Airport. • The development of such a flagship project, akin to Cherrywood in south Dublin, but arguably in a more strategic location, provides an unrivalled opportunity to develop a high-quality mixed-use development incorporating residential, commercial, employment and recreational uses. Indeed, similar to other major airports around the world, the development has the potential to further enhance Dublin Airport as not just a commuter hub but to turn it into a major 'Airport City Region'. • The location of a depot on the Metro park site will essentially sterilise what is a prime development site and as shown in Drawing 10806-008 or Figure 13 above. Of the total 83ha available, 34ha will become lost to development potential due to the location of the depot and ancillary services, access roads and the metro line itself.	Responses (1) and (8) explain where the information can be found that explains the rationale for the depot proposed by the Railway Order application, and response (3) explains the sections of track leading in to the depot that will be cut and cover to assist with limiting the impact of land severance.	
43	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT MetroLink Depot Site High Level Assessment Report 8.0 CONCLUSION Metro park – A Highly Strategic Location	Page 44 of appended report	• An initial Concept Masterplan prepared on behalf of Comer Group by Foster & Partners outlines the significant potential of Metro park. In total the site has the capability to provide circa 15,000,000 sq. ft of development including employment space for up to 40,000 people and residential accommodation for c.4,000 people, all on a highly accessible site and in close proximity to Dublin airport and the wider Dublin region. Locating the depot at the current location on the preferred route with the open above ground lines will result in the loss of approx. 6,000,000 sq. ft of this space which will be a significant loss to strategic land bank.	Please refer to response (34) above.	

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44	APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT MetroLink Depot Site High Level Assessment Report 8.0 CONCLUSION Rail Conclusions:	Page 44 of appended report	• Without Metro West, the justification for the depot at Dardistown is significantly weakened and results in a disproportionate impact on the Metrolink scheme as a whole. • Based on the length of route, number of stations, linear nature and frequency of service, it is difficult to see why the depot is to be located at Dardistown, other than the potential link to the Metro West scheme (which is no longer a consideration). Various examples of comparable schemes have been provided that show an end of the line depot location. • Relocation elsewhere, namely Lissenhall/Estuary, brings numerous constructability and operational benefits which in turn enable significant potential financial efficiencies. • The Dardistown location, proposed flyover of the M50 and proximity of Dublin Airport all present technical compliance and construction challenges that will result in additional costs, social and environmental effects. • The operational disadvantages further support the case to avoid such a location for the main metro depot for the route. The proposed service pattern and frequency also mean a loop/turnback facility will be required at each end of the line and this could potentially be incorporated into the depot footprint at Estuary/Lissenhall in a more efficient manner than a separate depot at Dardistown. • Major disruption to the M50 would also be avoided due to the removal of the requirement for a flyover structure south of Dardistown.	These summary points have been responded to as follows: • Metro West - Please refer to response (1) • Rationale for locating depot at Dardistown - Please refer to responses (1) and (8) • Construction and operational benefits and challenges are addressed by responses (8) and (16).
45	APPENDIX 4: DARDISTOWN DEPOT RAIL ANALYSIS	Appendix 4	The content of Appendix 4 is included within 'APPENDIX 2: TOBIN CONSULTING ENGINEERS LETTER INCLUDING METROLINK DEPOT SITE HIGH LEVEL ASSESSMENT REPORT' which has been responded to above.	
46	APPENDIX 5: COMPARATIVE ANALYSIS PREPARED BY MCGREEVY PROPERTY CONSULTANTS	Appendix 5	APPENDIX 5: COMPARATIVE ANALYSIS PREPARED BY MCGREEVY PROPERTY CONSULTANTS	Please refer to response (19) above.

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1	N/A	1	There should be a bike hub at each station & at various points in the neighbours that the Metro will service to enable passengers to continue their journey to their final destination.	As detailed in Chapter 06 (MetroLink Operations and Maintenance), one of the key design requirements for the proposed Project is the provision of cycle parking facilities at and near each station to facilitate passengers who wish to cycle to/from the station. The bicycle parking provision determined for each station within the DCC and FCC areas is outlined in Chapter 04 (Description of the MetroLink Project). Due to space constraints in the vicinity of stations it is not possible for the MetroLink Project alone to provide all the bicycle parking required to meet demand at every station. In recognition of this, TII are coordinating the strategy and approach across multiple agencies e.g., Dublin City Council, Fingal County Council, and NTA to identify how future demand can be accommodated sustainably.
2	N/A	1	More Connection to DART stations to include both Tara and Pearse St stations.	A station at Tara Street provides good interchange opportunities, serves important key trip attractors in the study area with high potential passenger trips. This option also takes a direct and short route through areas of high demand in the centre of the study area. The heavy rail lines that serve Pearse Station also serve Tara Street, and therefore an interchange is not required at both locations as this would create a duplication of infrastructure. As Dublin’s public transport network grows through the implementation of higher capacity bus routes, more frequent heavy rail services and coverage, and the expansion of the light rail network it is critically important that to achieve the full benefits and capitalise on these investments that they are integrated fully where appropriate to attain “the network effect”. High quality interchanges can significantly broaden the transport offer for their catchment and add to the appeal and attractiveness of sustainable transport by ensuring that people can easily change services to access a wider range of places by these modes, and each scheme should be designed to ensure that these are as seamless as possible. The direct interchange provided at Glasnevin will facilitate this seamless integration with the rail network.
3	N/A	1	The station named as Glasnevin is misleading and should be changed to Harts Corner or Phibsboro.	In previous iterations of the Project, the station at this location was referred to as 'Whitworth', however due to the presence of the heavy rail lines through the Phoenix Park Tunnel, which runs around the north side of Glasnevin cemetery to Glasnevin Junction, where it joins the Maynooth Line, the proposed MetroLink station will be situated, the station name evolved to be known as 'Glasnevin'.
4	N/A	1	We feel that the planners should re look at some of the buildings they purpose to demolish i.e. Brian Boru Public house as these have a long history with the area.	These licensed premises are to be demolished to facilitate the construction of Glasnevin Station. The siting of the Glasnevin Station facilitates Irish Rail connectivity. The magnitude of the impact will be high, and the architectural heritage value of the building is medium. The impact will be very significant. Given the station location, from a construction perspective the retention of the Brian Boru would be problematic. Physically the station structures cut right through the building with deep diaphragm walling and secant piling through this location. Once demolished, this area is the proposed entrance and exit to and from the site. This arrangement precludes retention of the Brian Boru or even just the facade. The proposed construction site is already very constrained and in order to carry out the works, multiple phasing of activities will be required. This entrance may have to be relocated a number of times to facilitate phased working on the site. Further constraints could make this site unworkable and any further reduction in available space would impact on the constructability of this station at this location. The regrettable loss of this public house is acknowledged, but it is deemed essential to ensuring delivery of this project. The significant impact of the demolition is acknowledged and has been considered in the EIAR Chapter 26.

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5	N/A	1	Also it should be relooked at not taking land away from Na Fianna and residents of Mobhi Rd.	Chapter 21(Land Take) presents an assessment of the land take associated with the Project, including both Na Fianna and Mobhi Road. Adjacent to the location of the Griffiths Park Station, with the exception of substratum land acquisition for the tunnel, land and property for residents and land occupied by CLG Na Fianna are unaffected. Section 21.5.2. Construction Phase provides further details on Substratum Land Take. As referred to in section 21.6.1.5 Protection of Sports and Leisure Facilities, temporary and permanent land take at the proposed Albert College Park Intervention Shaft will result in the loss of two 5 a-side soccer pitches and a small portion of one full sized pitch situated in Albert College Park and currently used by a local football club. The Na Fianna Pitches at this location are not impacted. In mitigation, it is proposed to rotate the existing full-sized pitches 90 degrees and locate them side-by-side to the east of the park, resulting in slightly reduced dimensions. Sufficient area will be available to increase the dimensions of both 5 a-side pitches. Sufficient area will also be available for circulation around the pitches while they are occupied. Elsewhere at Dardistown and as identified in Chapter 11 (Population and Land Use), the pitches currently being used by CLG Na Fianna would be modified to accommodate the requirement to divert the existing open drain/river to the south of the Grounds, which will result in the loss of land and impact one existing pitch. To mitigate this impact, this pitch will be rotated by 90°. The existing juvenile pitch will be relocated to the south west of the site and made larger. TII will continue to engage with DAA and CLG Na Fianna throughout the works so as to ensure that disruption to playing and training activities are minimised. It should be noted that the playing facilities will be enhanced through provision of additional pitch draining and flood lighting.
6	N/A	1	So that Metro North can be accessible to the residents of Santry we feel there should be shuttle buses running between the various stations from Dardistown - Ballymun -Collins Ave Stations. We have purposed some ideas for routes below. In Santry we don't have access to the Luas or Dart and now the Metro North hence why we feel the need for the Shuttle Buses. Dardistown-Swords Rd(entrance to Northwood-turning right into Northwood(various stops in Northwood) -Ballymun Metro North Stop Dardistown-Swords Rd (various stops down to Whitehall church then turning right onto Collins Ave Ext stopping at St Aidan's Secondary School and then onto DCU- continuing up Collins Ave Ext to the Collins Ave Metro Stop. Dardistown-Swords Rd (entrance to Northwood) -turning out of Northwood at the roundabout and back onto Santry Ave- then going through Shanliss/Shanard (route to be decided depending on access)going out onto Collins Ave Ext either at DCU or at Ballymun Rd (near Ballymun Library) - Collins Ave Metro Stop.	As detailed in Chapter 06 (MetroLink Operations and Maintenance), the proposed Project has been designed to ensure maximum interchange with other modes of transport, particularly more sustainable modes such as walking, cycling and public transport rather than private vehicles. The locations of stations have been considered in relation to public transport, in particular connectivity with Dublin Airport, Irish Rail, Luas and DART lines, existing bus stops, and future bus stops to be provided as part of BusConnects. Appendix A9.2 presents the Traffic and Transportation Assessments for all stations during the operational phase, presenting all bus stops and public transport locations that are within a 15 minute walking catchment of the station, as well as noting their frequencies. These details have been presented for both the existing bus stops and future BusConnects services which will be in place. For this reason, shuttle buses to and from the stations will not be provided as part of the proposed Project.
7	N/A	1	We understand that a final budget cannot be decided at this stage as some problems may arise once work commences but we feel there really should not be such a gap (€9-23m) as explorations have already been carried out.	The delivery cost for Metrolink is included in Preliminary Business Case for the scheme which was approved by Government in June 2021. It considered a range of cost forecasts from €7.1bn to €12.25bn.
8	N/A	1	Ideally if the Metro North could go partially or fully underground this would solve a lot of issues.	EIAR Chapter 07 (Consideration of Alternatives) presents the decision-making process that has led to the development of the proposed Project, including the Old Metro North proposal (LR6). This option scores well in terms of potential benefits, however it scores poorly on cost. As a result, option LR7 (now the proposed Project) was developed to provide a lower cost alternative to Metro North. As such, LR6 was eliminated from further consideration. The Optimised Metro North (LR7) has the same alignment as Old Metro North but includes a significant number of variations such as shorter platforms, smaller stations, reduced rolling stock, fewer stations and vertical alignment changes. As such, LR7 provides a similar service to Metro North but at reduced costs.

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Letter Re: Railway Order Application - Metro North: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin- Observation on a Strategic Infrastructure Development Application				
1	Objection to MetroLink	3	The initial plans published by TII for Metrolink in 2018 was for the compulsory purchase and demolition of the apartment block I live in so to make space for a metro station and tunnel. This notification caused enormous shock to me and has had a huge and lasting effect on my mental health as it still feels like I am losing my home where I thought I was safe, secure and solid in the future I had there. Following significant objections to these plans, TII made changes to the design plan and the new proposal put forward was to build a metro station underneath my block which supposedly is a reprieve from demolition of the block. But I want to be clear on my opinion of this - it is in some ways worse than demolition - because it brings a new set of issues and together these issues form the basis of my objection.	Thank you for your submission and for sharing your observations with regards to the MetroLink project to which we have responded below. TII wish to reaffirm that the proposal for the station does not involve the demolition of The Court Apartments, nor will the Glasnevin Station be built underneath the block, however the MetroLink tunnels are to be constructed beneath this block. TII acknowledge the concerns you may have around your property, and have responded to these below.
2	Objection to MetroLink	3	In the event of a train station being built underneath my apartment block it would mean I would potentially remain living here on a building site watching as the beautiful, peaceful and secure locality and surrounds and apartment I love are ripped up and swapped for radical noise issues, air pollution, massive increases in footfall, and permanent - but as yet unknown - impacts to the foundations of my building. I could also face the heartbreak of having to move out of the block during works - a scenario that has been mentioned by TII. Ultimately, I believe that the area would never be restored to what it once was. It all just makes me feel like my rights as a human being, an Irish citizen and a homeowner are being trampled on and while still incomprehensible to me that strangers seem to have a right to tell me that I no longer have any rights at all. At the moment I feel a bit trapped and feel like the option to sell up and move out to get away from all of this is not open to me, although ultimately selling up is absolutely not something I want to do.	As stated in response item (1) above, none of the Glasnevin station elements will be built underneath any of The Court buildings, the tunnel will however be constructed beneath your block. TII are aware of the impact construction will have on you and have undertaken the assessments as outlined below. These are summaries of the EIAR and included for reference, but for clarity TII confirms that it does not intend to demolish this block. TII acknowledge the concerns you may have around your property, and recognise that residents of The Court face some disruption. However, the design of the Project has been developed to minimise the impacts on residents and other members of the public as much as possible. Chapter 31 of the EIAR presents a summary of the route wide mitigation and monitoring proposed in order to reduce the severity of impacts. Please refer to response item (5) below in relation to the reinstatement of and improvement to the public realm following the completion of construction. Noise and vibration The construction noise impact is assessed and presented in EIAR Chapters 13 (Airborne Noise and Vibration) and 14 (Groundborne Noise and Vibration). Airborne noise impact on 35 The Court apartment is assessed as being Significant to Very Significant as the noise levels are above the threshold level of 65 dB, as shown in EIAR Chapter 13 (Airborne Noise & Vibration) Table 13.62 and Table 13.63. As a result, general noise control mitigation measures will be implemented and specific measures such as including 4m high hoarding to the north, south, east and west construction boundaries for the Glasnevin compound as described in Chapter 13, section 13.6.1. Residual construction noise levels, that take into account these mitigation measures, for 35 The Court apartment are shown in EIAR Chapter 13, Table 13.87. For some activities the construction noise level remains above the NI (Noise isolation) or TRH (Temporary Rehousing) trigger values, and the TII Airborne and Groundborne Noise Mitigation Policy will be implemented where eligibility has been established. This will reduce the impact to moderate. Groundborne noise and vibration impact during construction on 35 The Court apartment could arise from Tunnel Boring Machine (TBM) Passage and Mechanical excavation and are set out in the EIAR Appendix 14.5. The predicted noise value for TBM Passage at 35 The Court Apartment is 49 dB, above the threshold of 45 dB, resulting a very significant impact on residents for the limited duration during TBM passage. Vibration during TBM passage is predicted to be 0.263 ms^{-1.75} VDV, which is below the threshold of 1 ms-1.75 VDV for human response, resulting in no significant impact. Unfortunately, there are no effective methods available to reduce groundborne noise from TBM passage at source, but noting the relatively short duration of this noise impact of up to two weeks as the TBM passes. TII will liaise with the residents to ensure the timing of these impacts are known. The noise value for Mechanical excavation of the station at 35 The Court apartment is 40 dB equal with the threshold of 40 dB, resulting a significant impact on residents. As a result, mitigation measures will be used to further minimise the impact as described in EIAR Chapter 14, section 14.5.1.3.

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			Response (2) continued.	Air Quality As presented in EIAR Chapter 10 (Human Health) when the dust minimisation measures detailed EIAR Chapter 16 (Air Quality), section 16.6.1.1 Construction Phase Dust Mitigation Measures are implemented, fugitive emissions of dust from the site are not predicted to be significant and to pose no nuisance to human health, and there will be no residual Construction Phase dust impacts (Chapter 16, section 16.7.1). The Construction Phase of the Air Quality assessment, as detailed in EIAR Chapter 16 (Air Quality), identifies a generally negligible or slight negative impact on air quality in the vicinity of the proposed project during the Construction Phase post mitigation. No exceedances of air quality standards are predicted, therefore, no significant adverse human health impacts are predicted. Footfall As presented in Chapter 3 (Background to the MetroLink Project), the proposed Project will by way of modal shift and by taking significant volumes of passengers movement underground, support the transformation of the surface level urban environment, making it more attractive for people to engage with. In recognition of the potentially complex routing and road crossing behaviour at this site, a VisWalk model was produced for the area surrounding the station, as presented in Appendix A9.2-G Traffic and Transport Assessment Glasnevin Station. The modelled layout includes the main roads and streets around the station. In summary, the microsimulation model for Glasnevin for the AM peak hour illustrates the high demand for the interchange from DART to the Project, as well as from Phibsborough and the surrounding roads. Analysis of the model indicates that the network operates with an acceptable Level of Service in both the AM and PM peak periods. Damage and Settlement As state above, the calculated vibration levels are below the threshold for structural damage for any building type. In EIAR Appendix A5.17 Building Damage Report, Table 5.2, The Court apartment building assessments to date indicate that the building falls into the Negligible damage category and hence further assessment is not required. That said, due to the building being a "Case A: it is on shallow foundation and is within a distance from a retained cutting, shaft, or box equal to the excavated depth of superficial deposits or 50% of the total excavation depth" it has been designated "special" and hence a further assessment will be undertaken by the main works contractor. This further assessment will pick up on the building's condition close to the time when the building will be impacted. As assessments to date are considered moderately conservative and therefore it is likely that future assessment will reduce still further the predicted impacts. Where residual construction noise levels remain above the NI or TRH trigger values, TII Airborne and Groundborne Noise Mitigation Policy will be implemented with further control measures as Noise Insulation (NI) or Temporary Rehousing (TRH). The details of this policy are given in EIAR Appendix A14.6 Airborne Noise & Groundborne Noise Mitigation Policy. The CNVMP (Construction Noise and Vibration Management Plan) will set out a detailed analysis of each construction compound relating to noise levels, durations and number of properties impacted and the planned approach for managing same. It is reiterated again that prior to any construction work commencing on any of the main work sites a detailed acoustic impact assessment will be undertaken which will involve a baseline noise study, model of the contractors final site layout, plant and equipment models, numbers and on-site location and the inclusion of all available on-site noise control measures.
3	Practical issues that would arise if I decided to sell up	4	1. Property prices have risen since I bought in 2013 and a property fully comparable to mine (same size, features, amenities, location etc) would now be out of my reach financially 2. I am 48 years old now and a mortgage over a shorter term would not be affordable (e.g. if I worked until age 60 that would mean I have 12 years left in my working life) 3. As I would no longer be a first-time buyer, schemes to assist first time buyers would no longer be available to me 4. I no longer have enough savings for a deposit and don't know how I would come up with that amount of money again 5. How would I bear the costs associated with moving such as legal, estate agents, relocation, travel/commuting, etc.?	There is currently no evidence to indicate that property values will be negatively impacted during the construction of MetroLink . Compensation will be available to properties where a property interest is required either permanently or temporarily and in such cases affected parties will be compensation in accordance with the compensation code. The MetroLink Airborne and Groundborne Noise Mitigation Policy addresses special circumstances which will require further mitigation measures to be undertaken by TII in the delivery of the Project.

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4	Other issues and alternatives	4	1. The monies for Metrolink and the monies supposedly available as compensation could be spent on better things. An example would be to divert monies that form compensation packages into a reroute away from residential homes instead of taking peoples homes and then paying compensation.	Please note that 35 The Court is not planned to be acquired or demolished. Chapter 7 (Consideration of Alternatives) details the decision making process that has led to the development of the Project, including route alignment options and station location options. The choice of a station location at either Drumcondra or Glasnevin has been considered in the context of the achievement of the Transport Strategy for the GDA having particular regard to maximising the interchange opportunities between different services and to provide fast and convenient access to major destinations such as Dublin City Centre and Dublin Airport. it is considered that the provision of a station at Glasnevin will better meet the requirements of the Transport Strategy for the GDA for the following reasons: * It will facilitate a seamless transfer/interchange with both the Maynooth (Western Commuter line) and Kildare railway line (South-Western Commuter line) because the PPT and Maynooth lines are at their closest point horizontally and vertically at Glasnevin, thereby providing the opportunity for a MetroLink station to capture transfer to and from these lines more effectively than at Drumcondra; * The Glasnevin location also facilitates the construction of an integrated metro station as the two heavy rail lines are beneath the existing ground level, making it possible to connect via an underground concourse to all three rails in a short plan distance. At Drumcondra, the connection to both lines would require a connection of approximately 110m with more significant vertical connections between the two lines also required. * The further advantage of Glasnevin is that it is located approximately 1km to the west of Drumcondra. This saves over 2 minutes in journey time by offering the opportunity for passengers to transfer sooner from heavy rail to MetroLink at Glasnevin to access city centre locations to the south or to the Airport/Swords to the north. * Route options serving the Glasnevin station are forecast to have approximately 6000 additional passengers per day when compared to an interchange station at Drumcondra. This is largely due to the increased interchange opportunity at Glasnevin. * Passengers transferring from the Maynooth or Kildare lines to MetroLink and travelling on to Dublin city centre will experience shorter journey times (approximately 3 minutes).

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5	Other issues and alternatives	4	2. One hundred percent reassurance should be given to affected home owners that loss of property, parking, green areas, amenities, local access will be accounted for with a like-for-like trade-off or better... and under no circumstances traded off leaving affected homeowners with a worse outcome or financial detriment. If this absolute reassurance had been given at the time the metrolink project was made public in 2018 it would have saved an enormous amount of stress, doubt and worry that the current limbo situation creates.	As detailed in Chapter 4 (Description of the MetroLink Project), Glasnevin Station will include enhanced pedestrian and cyclist facilities along Prospect Road. A two-way cycle lane along the east side of the road and widened footpaths on the west side will be provided as well as an additional pedestrian crossing to the north of the station. Enhanced bus stop facilities are proposed outside the station. A drop off facility has also been provided to the north of the station in lands currently occupied by the Brian Boru car park. A new access road from Prospect Road to these facilities will also provide access to 120 cycle parking spaces. As such, by incorporating significant improvements in respect of the pedestrian and cyclist experience, the potential effect on the landscape post-construction will be significant and positive. The significant improvements to the built environment, as detailed above, will lead to a broad improvement in the visual amenity of the area. The existing car park in Dalcassian Downs, which will be impacted during the Construction Phase, will be reinstated on completion of the construction works (Chapter 4, section 4.17.7.1). Temporary parking will be provided during construction. TII are in discussion with the local authority and other parties to identify a suitable location in the immediate vicinity. As described in EIAR Chapter 27 (Landscape & Visual) section 27.5.4.19 the removal of trees and shrubbery at this location will also be replaced, however these will take time to mature. The railings and plinth wall finging the eastern edge of this space and along the rear of the Prospect Road footpath are protected and will be taken down in advance of the works and will be placed in storage and reinstated. As presented in Appendix A9.5 Scheme Traffic Management Plan, traffic management plans for the construction of the MetroLink have been developed to minimise the impact of the scheme on road users, and to maintain access to businesses and residential properties. Where temporary closures impact on local access, appropriate diversions will be indicated. Please refer to response item (10) below in relation to the financial compensation offered to affected residents.	
6	Other issues and alternatives	4	3. The notification I received on 22 March 2018 was an enormous shock to me and continues to have a mental health impact. As such I believe that mental health impacts should be mitigated to the highest possible level, through major improvements in commitment to like-for-like outcomes in the event of the loss by home-owners of all the items mentioned above. Communications with affected home owners could also be adjusted to take much greater account of the emotional and lifestyle loss that is resulting from the horrible limbo situation, the loss of personal security in the future, possible loss of equity of their home and the safety and peace that homeowners are supposed to be entitled to according to the Irish constitution.	Please refer to response item (1) in relation to the construction works surrounding your property. To confirm, TII do not intend to demolish The Court buildings. Chapter 10 details the assessment of impacts on Human Health. There are potential psychological impacts from the Construction Phase. These may have started already as individuals, once possible details of a scheme such as this are made public, can become anxious and worried about potential effects on their property or themselves. Human psychological impacts are very complex and not easily predicted. There is no simple methodology to predict effects in groups of people, often the most efficient way of predicting future psychological impacts is by looking at what has happened in similar projects. One relevant example is the recent construction of the Elizabeth Line (Crossrail) in London. A Pubmed search was conducted to determine if this project was associated with adverse psychological impacts and there is no publication suggesting that this is the case. Potential psychological effects are not equally distributed. Some people, due to the location of their residence or work may have very significant effects. The demolition required at College Gate Apartments is seen as essential in order to provide an appropriate station to service the area. While these negative psychological impacts are recognised and accepted, it is also recognised that the individuals affected will have to be compensated and rehoused appropriately. While this may give rise to some disruption and annoyance it is not considered likely that there will be long-term deleterious effects, as there is no evidence of a higher incidence of psychological illness where people were rehoused in similar circumstances. It also must be balanced against the positive psychological impacts of the Operational Phase and the benefits and convenience to residents of the area given the proximity to the proposed MetroLink stations. On balance there is no reason to predict significant adverse effects on human health from a psychological perspective. (EIAR Chapter 10 (Human Health), section 10.5.1.4)	

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7	Other issues and alternatives	4	4. Constitutional rights should be enhanced so that such enormous loss faced by someone like myself does not create such limbo, fear and trauma but instead that affected homeowners are guaranteed like-for-like if they have to give up their home, leave their home, or end up with a home that is not the home they bought.	Please note that 35 The Court is not planned to be acquired or demolished and as such property owners do not have a right to compensation. TII will offer compensation to property owners for land that is deemed to be acquired land in accordance with the general compulsory purchase code. Compensation will also be payable to owners of properties where the temporary acquisition of land and property is required. Compensation will be provided through the Compulsory Purchase Order (CPO) process. Details are set out in the LAS (Land Acquisition Strategy) regarding the arrangements proposed for the provision of information and assistance to owners and occupiers of land required for the construction and/or operation of the MetroLink project whether or not the occupier has any interest in the land which may be subject to a compulsorily acquisition. Further details can be found at https://www.metrolink.ie/media/gc4f0bpb/metrolink-land-acquisition-strategy_final-draft_sept22_to-issue.pdf However, TII is committed to having a Property Owner Protection Scheme (POPS) in place prior to construction works commencing. The scheme allows residential property owners to register with TII if the property is within thirty metres of the edge of the MetroLink alignment or fifty metres of station structures. The POPS comprises condition surveys of private properties and other selected properties along the route of the proposed Project. The purpose of the condition surveys would be to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether the same may be attributable to the proposed Project and recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in the swift and accurate verification of any property damage claims which may be received from property owners. The POPS would be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department.
8	Other issues and alternatives	4	5. TII/ An Bord Pleanala/ NTA should go back to the originally selected route through Drumcondra, where properties have already been acquired. I have read that more than €200 million has already been spent on the acquisitions and plans for that route.	Please refer to response item (4) in relation to the selection of Glasnevin over Drumcondra for the proposed station location.
9	If metrolink happens	4	1 . The home I chose, secured and am paying the mortgage on will be gone for ever.	Please refer to response item (1) in relation to the construction works surrounding your property. To confirm, TII do not intend to demolish The Court buildings.

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10	If metrolink happens	5	2. I believe there will be a financial loss to me because no project runs without hiccups and I feel that the likelihood of potential damage to my building being mitigated fully is very slim (i.e. potential damage to the property foundations, the outside surrounds (currently a lovely well-maintained green area, mature trees, parking spaces for each apartment) and safe walking and driving access to and from the apartments to the main road.	Please refer to response item (2) above related to anticipated damage and construction generated ground movements. Please refer to response item (5) in relation to the reinstatement of the car park in Dalcassian Downs, and the planting of trees and shrubs. TII is committed to having a POPS in place prior to construction works commencing. The scheme allows residential property owners to register with TII if the property is within thirty metres of the edge of the MetroLink alignment or fifty metres of station structures. The POPS comprises condition surveys of private properties and other selected properties along the route of the proposed Project. The purpose of the condition surveys would be to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether the same may be attributable to the proposed Project and recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in the swift and accurate verification of any property damage claims which may be received from property owners. The POPS would be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Further information on POPS is available in Chapter 11 (Population & Land Use). Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/assets/downloads/MetroLink_FAQ.pdf	
11	If metrolink happens	5	3. Compensation is unlikely to restore all of those losses and I feel that money is being taken directly out of my pocket to fund this project.	Please refer to response item (10) above in relation to the compensation offered to residential properties. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.	
12	If metrolink happens	5	4. The savings, time, energies and research I put into selecting the right location and securing the mortgage and chosen apartment will all have gone to waste.	Please refer to response item (1) in relation to the construction works surrounding your property. To confirm, TII do not intend to demolish The Court buildings.	
13	Other relevant matters	5	A route was previously selected through Drumcondra and €23 million was spent on acquisitions of properties there, plus a further €200 million on plans for that route. A railway order was in place and I must question how can this horrendous waste be justified? Or what is to show for it? What happened to those people whose homes were acquired? Were they treated fairly? Why were those plans not picked up again after halting due to the 2008 recession - given that Ireland has long since come out on the other side of the recession. There is now a very real possibility that another recession is on the cards and indeed there is a never-ending housing crisis that also needs attention. The decision by people in power to abandon that route and identify this new one is hard to stomach and defies logic and I feel it should be remedied or answered to.	Please refer to response item (4) in relation to the assessment of a station location at Glasnevin or Drumcondra. The cost expended on the previous MetroNorth scheme are not a matter for this Railway Order Application.	

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14	Apartments at royal canal	5	I have seen in the news in May 2021 that planning permission has been given for a development of over 200 apartments on the banks of the Royal Canal in Phibsboro - which was identified back in 2015 as a key development site. This site which has been vacant at least since 2015 and is only a stone's throw from my apartment block could surely have been used in some way for metrolink instead of looking to uproot myself and other people from their homes. I'm just mentioning it because of the irony that while I and other people face the loss of their homes to make way for Metrolink, new homes are planned for that vacant site and am wondering if this site might be any better as a possible location for the station that is proposed as the 'Glasnevin' station - instead of building apartments there.	As presented in response item (4), the Glasnevin Station location was chosen over a location at Drumcondra as it will facilitate a seamless transfer/interchange with both the Maynooth (Western Commuter line) and Kildare railway line (South-Western Commuter line) as the PPT and Maynooth lines are at their closest point horizontally and vertically at Glasnevin. The vacant development site you refer to would not meet this objective. As stated in response item (1), no residential buildings will be demolished for the construction of Glasnevin Station.	
15	Unique features	6	I want my home and the surrounds: - the building and it's foundations, the space and trees outside, the lovely locality, nearby shops and amenities not to be touched or impacted by Metrolink and to remain living here peacefully and undisturbed. I do not want to be left in a precarious living situation; on a building site, in a hostel, a hotel, a dorm or a renting situation again; for god knows where and how long. There is trauma in having no knowledge of what type of living situation and future I could be facing and I simply want peace of mind and a home in all ways equal to what I have now. I only want to be treated fairly and I want it to be recognized that people who have invested themselves, their working lives and their money into securing and paying for their own home cannot be left at the loss of their homes as they know them because of Metrolink.	TII acknowledge the concerns you may have around your property, and recognise that residents of The Court face some disruption. However, as indicated in response item (2), the design of the Project has been developed to minimise the impacts on residents and other members of the public as much as possible. Chapter 31 of the EIAR presents a summary of the route wide mitigation and monitoring proposed in order to reduce the severity of impacts, such as dust minimisation measures, traffic management, noise and vibration mitigation measures, among others. As outlined in Appendix A5.1 Outline CEMP, TII and its appointed contractor(s) will ensure that local residents, occupiers, businesses, local authorities and all other stakeholders affected by the proposed construction works, as outlined in the EIAR, will be informed in advance of work taking place. The notifications will detail the estimated duration of the works, the working hours and the nature of the works, to provide as much certainty as possible to those affected.	
16	Unique features	6	The thought of being pushed backwards on the property ladder to a point where the opportunity to buy the apartment of my dreams will never come up again is infuriating and frightening beyond words. Therefore I want to make it abundantly clear to you that I am vehemently opposed to the construction of Metrolink/a Metrolink station underneath or so near my home that it will create all of the issues that I've mentioned. Neither TII, the NTA, An Bord Pleanala or any other public bodies helped me to buy my home and I struggle to fathom that these or any other group could have the right to destroy or erase it.	Please refer to response item (1) in relation to the construction works surrounding your property. To confirm, TII do not intend to demolish The Court buildings. TII acknowledge the concerns you may have around your property, and recognise that residents of The Court face some disruption. However, as indicated in response item (2), the design of the Project has been developed to minimise the impacts on residents and other members of the public as much as possible. Chapter 31 of the EIAR presents a summary of the route wide mitigation and monitoring proposed in order to reduce the severity of impacts. Please refer to response item (10) in relation to the compensation offered to residential property owners.	
17	Unique features	6	One last comment I wish to include relates to the fee of €50 for submitting this observation. I cannot understand how it is even legal for there to be a fee for the right of an Irish citizen to have give their opinion and voice to a construction project that directly affects their home, their mental health, their finances and every aspect of their daily life. I was in disbelief when I phoned An Bord Pleanala and was told that the €50 goes towards the project because the cost of the project is huge. What sort of a screwed-up system is this that I an objector am being asked to give €50 for the privilege of having an opinion on the enormous monster that Metrolink represents to me? I was advised that if I am listed on a schedule I'll be refunded the money, however I would naturally expect that I am on it. I expect to be refunded this money and furthermore my view is that this fee should be abolished.	Application of the €50 fee is a mater for An Bord Pleanála.	

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1	Introduction	1	Whilst we very much welcome the overall MetroLink project for the improvements it will bring to the public transport network in and around Dublin, we feel that aspects of the Draft Railway Order contravene Government housing policy; the proper social and economic planning and sustainable development of the area affected by the Tara Station; and are economically reckless.	TII wish to thank you for your submission and stated support for the delivery of MetroLink. The delivery of MetroLink has been assessed against all relevant planning policy at a European, national, regional and local level, as presented in the Planning Report which accompanies the EIAR. The consideration of alternatives to the project date back to the North Fingal Transport Study in 2015, and since then have iterated through the NTA's GDA Transport Strategy 2016-20235, the Emerging Preferred Route Report (2018), the Preferred Route Report (2019), the Albert College Park Intervention Shaft Report (2020) and the GDA Transport Strategy 2022-2042. Over that period there have been three statutory consultations (two on the transport strategies and the current consultation) and three non-statutory consultations. That is in addition to ongoing and extensive one-to-one engagement with landowners and key stakeholders. Chapter 07 (Consideration of Alternatives) details the decision-making process that has led to the development of the proposed Project, including the route alignment and station locations. A station at Tara Street provides good interchange opportunities, serves important key trip attractors in the study area with high potential passenger trips. This option also takes a direct and short route through areas of high demand in the centre of the study area. As Dublin's public transport network grows through the implementation of higher capacity bus routes, more frequent heavy rail services and coverage, and the expansion of the light rail network it is critically important that to achieve the full benefits and capitalise on these investments that they are integrated fully where appropriate to attain “the network effect”. High quality interchanges can significantly broaden the transport offer for their catchment and add to the appeal and attractiveness of sustainable transport by ensuring that people can easily change services to access a wider range of places by these modes, and each scheme should be designed to ensure that these are as seamless as possible. Please refer to response (5) which details the alternative options that were considered for this location, and outlines the reasons why this location (involving demolition) was ultimately identified as the preferred option.	
2	Impact on community	1	Tara Station as it is proposed will have the most negative impact of any of the stations on affected communities along the metro line, with 78 relatively recently constructed, good quality homes to be destroyed. College Gate, comprising 70 apartments and 8 duplexes on Townsend Street owned by Dublin City Council and housing mostly elderly tenants, many of whom have lived in the area all their lives, as well as the Markievicz Leisure Centre, which has the only large public swimming pool in the city centre, and a gym.	As a result of the selection of the preferred option for reasons noted in response (5) below, mitigation for the loss of the College Gate apartments is being addressed as part of the Project with the support of DCC. TII will continue to work with DCC in relation to the development of an alternative sports and recreational facility to replace the Markievicz leisure centre and intends to fund the alternative. However, TII does not have control over that development, which is part of DCC's function to provide public sport and recreational facilities in its function area. DCC may or may not be in a position to deliver it in parallel with the MetroLink project. Accordingly, the Board should assess the MetroLink project on the basis that the alternative may not be available. The impact would then be significant, but nonetheless one that would not outweigh the strategic scale long term benefits that MetroLink will deliver.	
3	Impact on community	1	While the NTA claims that they will fund and build a new leisure centre in advance of MetroLink's construction, they make no commitment to do this in advance of the demolition of this leisure centre. This means that if the MetroLink project does not proceed after demolition of the leisure centre and homes, they are not obliged to meet their commitment. This discrepancy is important, because of the high land value of this site. See the section on funding, below, for more on this point. And importantly, the commitment they do give is contingent upon Dublin City Council finding a suitable site, which to date it has not and, in the light of the current economic situation, appears very unlikely to happen in the foreseeable future. Also the value of development land in the city centre would mean the replacement facility would almost certainly be sited far away from its current location, and equally lost to the community.	Please refer to response (3).	

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4	Impact on community	1	Further, they make no commitment to replace the 78 homes, which means there would be a significant loss of housing stock in the area. Contrary to the objectives of the National Planning Framework, although the residents of the DCC duplexes will be re-housed by the Council, they will almost certainly be uprooted from their community and dispersed. And the residents of College Gate apartments face having to move far from jobs and community, if they can find new homes, which is not very likely given the current housing crisis.	While it does not address the needs of owners and tenants specifically affected by the demolition of College Gate, MetroLink is a critical enabler of new and sustainable housing and will enable the development of compact, dense urban developments along the alignment that is not dependent on private transport to for commuting and leisure. The needs of the owners and tenants affected by College Gate will be addressed by way of compensation for CPO and the measures outlined in the MetroLink Land Acquisition Strategy.
5	Lack of due consideration given to alternative proposals	2	Three alternative proposals for the Tara Station were submitted by residents of College Gate during the first public consultation period. Following this, a report entitled 'Preferred Route Design Development Report' was drawn up by Jacobs Idom, who are providing the engineering design services for Metrolink. In Appendix M of the Report it stated that the MetroLink project team assessed 8 alternative options for Tara Station... However all these were dismissed in the Report but without providing any background technical reports or much detailed information by which their analysis and opinion could be assessed. We submitted an FOI request to TII for the relevant records. They refused on the basis that releasing the records before the final decisions are made on the route and design of the project would be contrary to the public interest, and referred us to publicly available information, e.g., Appendix M (above).	Chapter 07 (Consideration of Alternatives) details the decision-making process that has led to the development of the proposed Project, including the route alignment and station locations. Appendix A7.2 Tara Street Station Report presents in detail the various options that were considered by TII for this location. Concerns had been raised during the public consultation on the Emerging Preferred Route (EPR) regarding the demolition required for the station in the location proposed, and concerns were again raised during the consultation on the Preferred Route. A number of alternative station locations were considered to try and address these concerns. Option 0 is the proposed station location, with a further 11 options assessed. Three options as submitted by College Gate residents, with the station relocated either to the north or south of the EPR proposed location, have been reviewed in detail. In addition, other options developed through the Preferred Route design process including a mined option and realignment of the route to the east of Tara Street Station have also been reviewed. All were assessed against the EPR proposed station location (Option 0) as a base case, adjusted to suit the single bore and reduced station box length. The various options were taken through a Mutli Criteria Analysis to compare aspects of each different option. Assessment of options considered the viability of the rail alignment, the quality/ease of interchange with Tara DART Station (a key requirement given that this will be one of the busiest stations on MetroLink with high passenger interchange with the DART), demolition/construction impacts (including minimising impacts on the existing DART infrastructure/operations), other environmental and planning issues, including traffic and utility impacts, and urban integration, health and safety issues, and potential construction costs. This has identified that for a number of reasons including constructability, cost, and retention of a good interchange facility, that Option 0, including demolition of College Gate and Markiewicz Centre, remains the preferred station location. Following assessment of the 11 alternative options, Option 0 has been retained as the preliminary design. The main reasons are: * This location retains a good interchange facility with Tara DART Station; * It reduces risk to the overall construction programme; * It offers cheaper overall construction cost; * It retains opportunity for future adjacent development by others; * Mitigation for the loss of the College Gate apartments is being addressed as part of the Project with the support of DCC. In particular, TII, in consultation with DCC, will support rehousing and provide compensation for the loss of the residential units; The FOI request referred has been dealt with separately by TII in accordance with the Freedom of Information Action 2014.

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6	Lack of due consideration given to alternative proposals	2	We then made a request to the Office of the Information Commissioner. At the outset of the OIC review, TII confirmed to its Investigator that it had identified three records covered by our request. They were: (i) a document called “Tara Street Station Mined and Other Designed Options” (ii) Jacobs IDOM report regarding Tara Street Station and (iii) an update to the Board of TII and the National Transport Authority (NTA). After examining them the Investigator noted that the Jacobs IDOM report is largely similar to and, in some aspects less detailed than, the information published as Appendix M. The Investigator noted that Appendix M also reflects the other two records. She asked TII to identify the differences between Appendix M and the records at issue and to describe the impact of the disclosure of those differences on the deliberative processes that remain, in relation to the Metrolink and/or Tara Street Station. TII's submissions did not address these matters.	The FOI request referred has been dealt with separately by TII in accordance with the Freedom of Information Action 2014.
7	Lack of due consideration given to alternative proposals	3	TII's refusal to grant access to the three records was annulled and they were directed to release them. But these did not contain any additional information and it is difficult to accept that very many more records were not created as part of such a deliberative process, and indeed Section 8 of the Freedom of Information Act 2014 requires FOI bodies "to prepare and publish as much information as possible in an open and accessible manner ... having regard to the principles of openness, transparency and accountability...". In Appendix M the 8 alternative proposals listed above are described as having been assessed on a multidisciplinary basis and the results described and summarised. But without the background to the assessments it is difficult to understand them or explain anomalies.	Please refer to response (5) above in relation to the several options assessed as part of the decision-making process at Tara Street. Further details on the assessment can be found in Appendix A7.2 Tara Street Report (appendix to Chapter 07 Consideration of Alternatives) of the EIAR.
8	Lack of due consideration given to alternative proposals	3	A) Option 1 (under Hawkins House/Apollo House site) was proposed because, in addition to avoiding the demolition of the College Gate/Markievicz Pool building and the 8 homes on Townsend Street, it would reduce the journey time as a station there would create a gentler curve along the Metrolink line compared to the original proposal on Luke Street. Also, this more straightforward route would require 125m less tunnelling. In the Jacobs Idom Report/Appendix M (above) this is dismissed as not viable because it would require "a complete re-alignment of the tunnel approaches ... incompatible with TBM tunnel construction". However, each tunnel boring machine (TBM) is custom built for the job. Tunnelling under existing structures — big or small — is how subways are built in cities all over the world. Modern tunnel boring machines adapt to all kinds of underground conditions, like densely packed soil, rock or areas with high water pressure. And when the Metrolink project was launched in September 2015, reducing the amount of tunnelling involved from that planned under the previous Metro North project, was described by then Minister for Transport, Paschal Donohoe, as the main contributory factor in vital savings of approximately €1bn.	Please refer to response (5) above in relation to the several options assessed as part of the decision-making process at Tara Street. Further details on the assessment can be found in Appendix A7.2 Tara Street Report (appendix to Chapter 07 Consideration of Alternatives) of the EIAR. Option 1 (under the Hawkins Development) would require realignments of the tunnel section between O'Connell Street Station and Tara, with curve radii reduced significantly below desirable design standards required for MetroLink operation (see Appendix A7.2 section 3.4.1). As such, this option was not considered viable.

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9	Lack of due consideration given to alternative proposals	3	B) Option 2 (Station under Tara Street and a proposed new CIE development) was dismissed because it would have a major impact on city traffic during construction as Tara Street and Poolbeg Street would need to be closed for long periods and there would be major utility diversions, particularly a large sewer, needed for its construction. However in the Jacobs Idom report the analysis of the original proposal includes: "Affected utilities include as a minimum a large diameter sewer, an underground (38kV) ESB Power Line and a trunk watermain of 400mm diameter." Further evidence of a lack of due consideration of alternative proposals is shown by the fact that, in October 2018 after Dublin City Councillors wrote to the NTA on foot of motions calling for the authority to reverse its plans to demolish the Markiewicz Leisure Centre and the College Gate apartments, etc, in response NTA Deputy CEO Hugh Creegan wrote that while it was still in the process of reviewing submissions the route "does require the acquisition of the swimming pool and the block of apartments ... with all of the implications that arise from that" and that "it is worth noting that following construction ...the above ground space is still available for development". This created huge concern among those affected and prompted Jim O'Callaghan TD to write: "The letter from the NTA suggests that ... it seems to have already made up its mind that the demolition of College Gate is necessary ... and that there will be no alterations. This raises a question as to whether there is in fact any real public consultation process and what effect, if any, public submissions can have on the NTA's proposals."	Please refer to response (5) above in relation to the several options assessed as part of the decision-making process at Tara Street. Further details on the assessment can be found in Appendix A7.2 Tara Street Report (appendix to Chapter 07 Consideration of Alternatives) of the EIAR. Option 2 would have significant property impacts to the entire city block between Tara Street and Corn Exchange Place, as well as construction impacts on Tara Street. It would also impact on the current 2-16 Tara Street and the Hawkins developments. For these reasons this option is not recommended. It should also be noted that potential future development above the finished station does not form part of this Railway Order Application.	
10	Lack of due consideration given to alternative proposals	4	In addition to Mr Creegan's comment about above ground space being available for development, NTA and TII officials have told us directly that if they demolish the Leisure Centre and the homes, they would then be able to sell the land to help fund the project.	Potential future development above the finished station does not form part of this Railway Order Application. Potential funds arising from the development of lands above the station box did not form part of the Preliminary Business Case approved by Government in July 2022.	
11	Lack of due consideration given to alternative proposals	4	The land is extremely valuable. MetroLink is allowed to sell the land in order to raise funds for the project if the buildings currently on site are demolished during construction of the station. Before the public consultation process and assessment of alternative options for Tara Station had been completed, Hugh Creegan (Deputy CEO of the NTA) wrote to Dublin City Councillors that it would be necessary to acquire and demolish the buildings on site for construction of the Tara Station.	Please refer to response item (11).	
12	Lack of due consideration given to alternative proposals	4	Another anomaly is how the dismissal of all the alternatives proposed to a development which will demolish 78 homes and a vitally important public health and leisure facility, in the inner city, compares with the response of TII to concerns expressed about the Glasnevin and Ranelagh areas: On the southside, the original plans included a proposal to upgrade the Luas Green line to Metro standard. Objections to the disruption to the Luas during the construction and the permanent closure of level crossings, were raised by Fianna Fail justice spokesman Jim O'Callaghan and Labour Senator Kevin Humphreys. Eamon Ryan had sent an open letter to Transport Minister Shane Ross complaining that "closing all the roads and pedestrian crossings along the Luas line, will divide every local community between Beechwood and Sandyford" and Minister Ross later said "I won't countenance any project which ... inconveniences commuters to ... any extent". Instead a new section of metro line will be built, terminating at Charlemont, with the Green Line conversion to Metro to occur at a later date.	Please refer to response item (5) in relation to the alternative options that were considered as part of the decision-making process at Tara Street. Further information on the assessment can be found in Appendix A7.2 Tara Street Report (appendix to Chapter 07 Consideration of Alternatives) of the EIAR. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions. Further information on the deferral of the Luas Green Line upgrade can be found in section 7.7.7 of Chapter 07 (Consideration of Alternatives).	

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13	Lack of due consideration given to alternative proposals	4	In the light of all the above we believe it is clear that TII has not given sufficient consideration to finding a solution for Tara Station which would avoid the demolition of 78 homes and an important leisure centre. And therefore we believe their conclusion that their original proposal for Tara Station is the best option, should be set aside.	Please refer to response (5) above in relation to the several options assessed as part of the decision-making process at Tara Street. Further details on the assessment can be found in Appendix A7.2 Tara Street Report (appendix to Chapter 07 Consideration of Alternatives) of the EIAR.	
14	Funding	5	NTA and TII officials have told us directly that if they demolish the Leisure Centre and the homes, they can sell off the land to help fund the project. And, indeed, in addition to this and Mr Creegan's comment above, Appendix M of the Jacob Idom Report cites the fact that the above-ground space would be available for development following construction as one of the perceived advantages of the project's proposal for Tara Station.	Please refer to response item (11).	
15	Funding	5	A) Just before the Government approved the Metrolink business plan in July 2022, the Major Projects Advisory Group (MPAG) reviewed it and expressed concerns about how the projected costs were estimated. They felt that 'unknown unknowns' risks hadn't been best allowed for and that the upper range of the costs estimate could be €23.39bn. The MPAG also had concerns about costs of the southern end of the route: "The rationale for extending the preferred scheme to Charlemont is noted by JASPERS as “strategically weak” given the additional costs involved and the duplication of the LUAS Green Line which also provides a public transport service to the areas of the city centre in question." (JASPERS is part of the European Investment Bank).	The project budget and financial approvals are a matter for TII, NTA, Government and the Oireachtas and are outside the scope of the Railway Order application. The Government approved the Preliminary Business Case and were aware of the analysis referred to. The Government will have to consider a Final Business Case under the Public Spending Code after the RO is granted.	
16	Funding	5	B) Even though the MPAG has estimated the upper range of the costs for MetroLink at €23.39bn, only €3bn is allocated to Metrolink in the Revised National Development Plan 2021-30.	Please refer to response (15).	
17	Funding	5	For these reasons it appears that TII will not achieve the funding required as the Metrolink project proceeds after the homes and Leisure Centre have been demolished, and therefore will not be completed. In addition huge amounts of public funds will have been spent on the incomplete project in the interim, as with Metro North which was shelved for budgetary reasons in 2011 after an outlay of €1 70m.	Please refer to response (15).	
18	Conclusion	5	Given all of the above, it is simply not credible that all possible alternative solutions for the Tara Station were fully and properly explored before the decision was made that demolition of the leisure centre and the 78 homes was necessary. Further, there is clearly a financial incentive for MetroLink to pursue a plan for the Tara Station which involves this demolition. For all of the grounds we have described, we respectfully request that An Bord Pleanála refuses approval for the Draft Railway Order.	Please refer to response (5) above in relation to the several options assessed as part of the decision-making process at Tara Street. Further details on the assessment can be found in Appendix A7.2 Tara Street Report (appendix to Chapter 07 Consideration of Alternatives) of the EIAR. Please refer to response (15) in relation to financials and funding.	

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1	2. Linear Park	4	We have requested in the form of RFIs through our technical representative (RINA the Independent Engineer) for the "Technical Support" to support the concept of the Linear Park. To date we have received no documentation as to the advantages for this aspect of the Metro. Seatown Residents along with Ashley Estate and Estuary Court have serious concerns with the design and the need for penetrations into our estates through the existing substantial walls that presently separate our green from the very busy R132 road.	The independent Engineer (RINA) report which was issued to the stakeholders contains reponses to RFI's.	
2	2. Linear Park	5	Seatown Villas already has 4 pedestrian entry points into the estate at present and we believe the proposed extra pathways for the linear park will 1 Have the potential to endanger our children playing on our greens as there is access from the motorway so they could easily get on the R132 2 Easy access/ egress from the R132 to our estate which will not have any obvious positive impact on our lives 3 Anti- social behaviour - due to the opening up of the estate with these new pedestrian routes. TII have even proposed CCTV in this area which would form the opinion that they have already come to the same conclusion 4 Loss of identity as a community as our green area will become an open area and the estate will be just another "rat run" 5 The paths we believe will encourage the parking of cars in the estate for people using the Metro when we as residents are already struggling for parking spaces in our estate	TII note your concerns in relation to the proposals for the linear park. TII would like to note that the proposals here have been designed to take into account the R132 Connectivity Project promoted by Fingal County Council and which received approval by An Bord Pleanála on 20 January 2022 (planning application reference number JP06F.310145). The R132 Connectivity Project aims to improve the connectivity and safety of pedestrians and cyclists moving along, and across, the R132 and enhance facilities for all road users with particular benefits for those choosing sustainable modes of transportation such as bus users, cyclists and pedestrians. Throughout the Swords area, the landscaping proposals outlined in the EIAR and Railway Order have been developed in consultation with Fingal County Council. While improving community connectivity through the development of the linear park linking all of the stations with the community in an open setting. The planned outcome of the Metrolink architectural and urban realm design for this linear park is to discourage anti-social behaviour, through the attractive setting, use of public lighting, open sightlines, and avoidance of areas where individuals and groups of people can hide. Further acknowledging your concerns, TII is committed to working with local resident's groups to address concerns that have been expressed in relation to the loss of green space and the impact on the current boundary wall and will continue engagement with these groups in advance of oral hearing. More broadly across the proposed MetroLink, Safety and Security is addressed by EIAR Chapter 6, MetroLink Operations and Maintenance. Section 6.6.5.8 specifically addresses managing the risk of "Vandalism or Anti-Social Behaviour on the Trains or within the Stations", and the wider chapter also addresses the broader design proposals for managing security challenges, including: •The architectural and urban realm design is designed to discourage anti-social behaviour, for example through the attractive setting, use of public lighting, open sight-lines, and avoidance of areas where individuals and groups of people can hide. •The Operational Control Centre (OCC) will be the central communications and operational hub, located in the administrative building at the Dardistown Depot. The role of the OCC will include monitoring and managing passenger safety and security and antisocial behaviour. The OCC will direct and deploy staff to manage incidents when required. •The access control and intrusion detection (ACID) system will identify intruders trying to enter locations where unauthorised access is prohibited. •There will be a MetroLink staff presence along the route for assisting passengers, security and deterring anti-social behaviour.	

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3	3. Construction Compound	6	...assuming the construction is completed on time is 6.25 years... we can conservatively estimate 7.25 years. For children this will be an extremely long time to be without the use of our amenities.	TII recognise that there will be impacts related to the construction activity on certain communities and will ensure that these impacts are minimised as much as possible. It is expected that there will be no additional significant impacts on the Population during construction other than those detailed in Chapters 9 through to 27 of the EIAR. Section 11.6.1.2 of Chapter 11 (Population and Land Use) outlines the measures to mitigate and monitor impacts as a result of construction activity. The MetroLink Summary Programme is set out in appendix A5.2 to Chapter 5: MetroLink Construction Phase. The construction phase adjacent to Seatown Villas is scheduled to be completed in 33 months, after which the area will be reinstated across the new structures and landscaped in accordance with the details set out within the Railway Order Plans\Drawings, or subject to further development and agreement with Residents and FCC (see response number (2) above, thus reinstating the amenity temporarily lost. The Project Works will continue elsewhere along the alignment but within the confines of the completed open cut/cut & cover structure with the main construction works between Estuary and Seatown Station completed after 66 months followed by Track and MEP progressing to the completion of the Project (108 months).	

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4	3. Construction Compound	6, 7	The standard construction hours will be... 72 hours per week as a standard, without overtime this is nearly double the normal 39 hr working week that we as residents will be subjected to noise , dust etc There will be substantial noise and air pollution and danger to children the elderly or infirm due to heavy machinery moving in and around our estate during these hours	The working hours quoted in the response are incorrect. The proposed Working Hours for the Construction Works at Seatown are outlined in Section 5.2.4 of Chapter 5 of the EIAR. Standard working hours will generally be the norm for all above ground works i.e. Monday to Friday 07:00 to 19:00 and Saturday 07:00 to 13:00 (Total: 66 hours), with the active working hours being 07.30 to 18.30 and 07.30 to 12.30 (Total: 60 hours) respectively as a half hour is allowed for site preparations and shutdown (see Table 13.6: Standard Working Hours). Only tunnelling and other works underground will be undertaken 24 hours a day. The only exceptions will be for large concrete porous that cannot be completed within standard working hours , abnormal deliveries required to be transported outside heavy traffic periods etc. These abnormal occurances will require authrisation from the local authority. The EIAR presents a comprehensive and detailed assessment of both ground borne and airborne noise and vibration in Chapter 13 and 14 of the EIAR. The assessments include for predictive modelling in order to identify the potential impacts on all sensitive receptors during both the construction phase and the operational phase. Where necessary, mitigation measures are proposed to reduce any identified effects. Section 13.2.5.1.3 identifies that further assessment will be required as the project develops to ensure that the proposed construction and operation of the proposed Project is in line with that presented in the EIAR and any requirements of a Railway Order, if granted. Mitigation measures proposed include 4m high noise barriers and further proposed mitigation in line with the Airborne and Ground borne Noise Mitigation Policy. EIAR Chapter 16, Air Quality, assesses the likely effects of the Project on Air Quality during the construction phase with mitigation measures proposed where required. Air Quality during the construction phase will be impacted by traffic and dust emissions resulting from construction activities between Estuary and Seatown station sites from Demolition, Earthworks, Construction and Trackout (Maximum Daily HGV Movements). Section 16.5.2.6, Regional Air Quality Assessment – Construction Phase Southern Peak Scenario, has assessed traffic emissions pre-mitigation as being overall Neutral, Not Significant and short-term. Table 16.44 presents a summary of predicted dust emission magnitudes from the main construction sites, the results for Estuary to Seatown site being: - Demolition - Medium. - Earthworks - Large; - Construction - Large; - Trackout – Large; This has resulted in defining the site-specific mitigation level as High and thus mitigation will be required. A detailed list of Dust Mitigation Best Practice Measures for each construction activity is presented in Appendix 16.4 Dust Management Plan. Before commencing relevant works, an Air Quality Management Plan will be prepared, considering the air quality assessment undertaken and any conditions imposed by An Bord Pleanála, and submitted for approval to Fingal County Council. The plan will include all appropriate dust and emissions mitigation measures applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. A plan will be developed by the contractor for each worksite between Estuary and Seatown. Strict dust prevention will be in place at all times to minimise any potential emissions and these procedures will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations.

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5	3. Construction Compound	7	Parking would also be of concern to us at construction stage as the compound is proposed to be situated in our estate the workers will undoubtedly be parking as close to (or in) our estate as possible. We have not seen a traffic management plan for this as TII stated that it is up to FCC to enforce.	Section 9.6.1.1.3 of Chapter 9 (Traffic and Transport) states: A Construction Sustainable Mobility Plan will be prepared to support and promote sustainable travel for construction staff travelling to and from the proposed Project site. The mobility plan is a management tool designed to encourage construction staff to rethink their travel choices and requirements during construction in order to minimize the adverse impacts on the environment and on the operation of the transport network within the city. It will be an active document that will require to be updated on a regular basis as construction activities take place and will present a series of measures designed to encourage travel to the constructions site(s) in a sustainable way. Additionally, as noted in Appendix A5.1 Outline Construction Environmental Management Plan, all staff and workforce will be encouraged to make their way to site and home from site by public transport, by project specific transport (e.g. minibuses), by bicycle or on foot. Limited parking spaces will be provided for vehicles required for the construction activity and for employees. The nominated contractor(s) may provide transfer pick-up and drop-off service from suitable public transport hubs.
6	3. Construction Compound	7	...highlighted areas (Fig 3.2) for consideration as alternatives to compounds in residential estates, there seems to be any number of potential areas right beside the proposed Seatown station, Why is it the preference of TII to encroach on Residential land for this purpose as opposed to commercial / industrial designated land ?	Details of the requirements and provision of Construction Compounds are given within section 5.3 of the EIAR Chapter 5: MetroLink Construction Phase. Volume 4 Figures, Chapter 5, Metrolink Construction Figure 5.1 Construction Compounds provides details of all the proposed sites along the alignment, noting that the vast majority, with two exceptions, are positioned in "commercial/industrial" designated land. The Satellite compound designated at Seatown West, opposite the residents from Seatown Villas will be required for 33 months (see response number (3) above) to undertake the main MetroLink works within the boundary of the site at this location, including: - The cut & cover and retained cut structures. - The Drainage Pumping Station in land on the corner of the R125 and Seatown. - The reinstatement of the agreed landscape on the completion of the alignment structures.
7	4. Preferred Route Alignment	8	Impact on surrounding properties during construction due to vibration and ground movements - yet they (TII) have now moved construction nearer to all homes on both sides of the R132	Section 14.4.1.1 of Chapter 14: Ground-borne Noise and Vibration states the following: The construction of this element of the proposed Project will be by way of mechanical excavation, that includes secant piling, where one of the closest buildings to this activity would be the Woodies homeware store just north of Seatown roundabout on the R132. Calculations of vibration from secant piling are included in Section 14.4 of Chapter 14 (Groundborne Noise & Vibration). The closest building is the Woodies commercial building located at a horizontal distance of 2.7m from where secant piling will take place. Calculated vibration levels at this building during this activity are approximately 1.2mm/s, reducing by about half into the building. Chapter 14 presents the calculated vibration dose value over a 16hr day within the building and concludes the values are well below the threshold level for significant effects on "occupants of residential buildings". Given that residential buildings within this zone are at greater distances than this building, vibration impacts are below the threshold level for significant impact for all such receptors in this zone. The calculated level of vibration is well below the threshold level for building damage (Table 13.15). During breaking of made ground using breakers mounted on excavators, magnitudes of vibration are no higher than those discussed above and hence vibration impacts are below the threshold of significance for building occupants and building damage.

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8	4. Preferred Route Alignment	8	Health and safety concerns due to construction generated dust and noise - <i>again they (TII) have moved construction machinery nearer to homes</i>	See response number (4).
9	4. Preferred Route Alignment	8	Disruption due to increased traffic movements from construction traffic accessing site - <i>they (TII) have moved construction machinery nearer to our homes than with previous routes</i>	Appendix A9.5 Scheme Traffic Management Plan presents an assessment of the impact of the construction works on road users. The impacts on traffic at Seatown Villas is presented in section 5.2 Estuary to Seatown Station. In this section, vehicle movements range between 100 to 400 per day, however for approximately 30% of the total construction period, daily movements will be below 50 movements per day. Seatown Villas is located in proximity to the R132 Crossing North Site, which will see single lane closures for up to 4 weeks. This will cause moderate delays in the area and moderate increases in traffic flow for up to 4 weeks. To mitigate these impacts, there will be public information campaigns in advance of the works, to ensure the public are aware of upcoming works. A Project Construction Traffic Forum will also be set up with relevant stakeholders, including FCC, who will address any concerns around construction traffic. Lane closures will be monitored throughout the works to determine if they can be reinstated, partially or wholly, at any stage of the works.
10	4. Preferred Route Alignment	8	In addition to the above we also have serious concerns that the "preferred route" alignment will have a negative effect on the environment as it will be necessary to cut down a lot of mature trees to facilitate the "cut & cover "option, this in turn will increase both airborne pollutants as well as noise pollution as the trees along both sides of the R132 have been positively impacting the effects of these for over 30 years	Further to response number (1) and (4) above. As currently detailed within the EIAR, the proposed Project will provide an integrated series of small local parks complete with play facilities, seating and planting, adjacent to the residential areas and which interconnect to form part of the longer green ribbon proposed alongside the Fingal County Council's consented R132 Connectivity proposals. The extensive landscaping is proposed for over the cut and cover sections and linking around open cut sections, following the alignment but also extending into existing open spaces as appropriate in order to provide a comprehensive recreational facility for the adjacent residential communities. The nature of the proposed planting is biodiverse and will mature to provide a much more valuable, connected landscape than is currently the case. The proposed tree planting will be much more appropriately scaled to the adjacent residential open spaces than the existing predominant tall roadside trees. This proposed section of the R132 extensive landscaping, which is being included as an integral part of the proposed Project within this Local Landscape Character Area (LLCA), will beneficially transform the interconnectedness of this area, across and along the road and with the range of local communities and facilities around the eastern side of Swords. This is particularly so for pedestrians and cyclists. It will represent a significant positive effect of the proposed Project in respect of its broader landscape context and in terms of social and cultural amenity for the town of Swords and its environs. It also represents a major enhancement of the existing landscape condition.
11	5. Open Cut Proposal	8, 9	We would have concerns that the "Open cut" portion of the Metrolink Track (Fig 5.1) being so near to houses in Seatown Villas it will have a negative impact in terms of noise and light pollution. As the frequency of the "MetroLink Service Pattern" will operate between 05.30 to 00.30 every day and will run at peak times as often as every 3 minutes in each direction we believe this will have an effect on homes that are only 20-30 metres away.	As outlined in Section 13.5.3.4.2 of the EIAR noise levels have been predicted from the operation of MetroLink during both daytime and night-time. Table 13.78 within Chapter 13 shows the significance rating of noise impacts at Seatown Villas as 'not significant'.

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12	6. Cut and Cover Proposal (ground water barrier effect)	9, 10	We have a concern regarding the "Barrier Effect" drainage proposal and having got technical guidance on same that this will not be adequate as in the Cut and cover design <i>"the 200mm proposed drainage system looks inadequate being too small and critical from a maintenance point of view also because of the silty nature of the superficial soils "</i> The preliminary Hydrogeological studies are in line with the international standards method of analysis. Considering the conclusions reported at page. 64 of the A19.9 document here reported for the Seatown area. For Seatown We believe it is necessary to improve the design with more adequate solutions to avoid the barrier effect and likely local flooding.	The proposed Project will result in an increase in the area of impermeable surfaces due to the construction of the track bed, new stations, P&R, depot and other associated infrastructure. To ensure no associated increase in flood risk, the proposed Project developed an overarching Drainage Strategy to ensure the implementation of Sustainable Drainage Measures (SuDS). These measures, which will be further developed through detailed design, are in line with CIRIA SuDS manual C753 (2015), Great Dublin Regional Code of Practice and associated GDSDS Technical Documents and Fingal CC Blue/Green infrastructure for Development Guidance Note. The proposed measures are designed to ensure no increase in existing runoff rates throughout the proposed new development as a consequence of the works. In addition where a potential "barrier effect" is assessed as an issue,e.g. in the region between Seatown and Fosterstown stations, the design includes a number of "drainage wells" located on either side of the alignment to facilitate water cross flow of the below ground level track structures. The detailed design will verify the adequacy of the current preliminary design.	
13	7. Construction Phase	10	Our concerns in relation to this are as follows : Traffic management - we would like to see a detailed traffic management plan that will facilitate our residents for the duration of the project, we are in close proximity to a Primary School (St. Colmcille's) , Secondary School (Fingal Community College) and a large Supermarket (Aldi) and at the best of times there is severe traffic approaching gridlock in our estate and surrounding area , this will only get worse during the construction stage. Due to the upheaval of lands in our estate and the construction compound we would ask for a specific planning condition to be implemented in relation to Vermin Control which we have also heard is a significant concern to many other residents groups on the Metrolink route. 10.3.5 Mitigation Measures "During the Operational Phase, a programme of community engagement will be undertaken. This programme will provide the population with information on measures to manage anti-social behaviour" why should the residents of Seatown Villas be placed in a position that we are required to manage anti-social behaviour ?, surely this should be the responsibility of TII and its Contractors ? Or better still to avoid the problem at all ?	Appendix A9.5 Scheme Traffic Management Plan which details the impacts on all road users throughout the construction phase. Please refer to response item (9) above in relation to the impact on general traffic at this location. Prior to the commencement of any construction works, all temporary traffic management measures will be finalised and provided to FCC (and other relevant stakeholders) to ensure significant impacts have been mitigated as much as is practicable. Section 10.5.1.10 of Chapter 10 (Human Health) states that there will likely be a reduction in rodents during the construction phase due to rodent control, good sanitation, disinfecting contaminated work areas, worker education via tool box talks and using personal protective equipment (PPE). While rodents will be temporarily displaced as a result of initial construction activities, there is nothing in the Construction Phase which would lead to an increase in the number of rodents. As outlined in Chapter 6 of the EIAR, CCTV will be installed at all stations with monitoring of each station being managed from the Operational Control Centre. This means that in the unlikely event of antisocial behaviour, MetroLink security staff and /or An Garda Siochana will be notified immediately to manage the situation.	
14	8. Removal of Footbridges along the A132	11	Of particular concern with regard to the bridges is that as mentioned previously there are 2 schools in the locality that would use these every day and 1 in particular being a primary school , in addition there is also a special needs school beside Fingal Community College. These children and in particular the special needs residents have been using these bridges in most cases by themselves and it gives them a great sense of independence being able to attend classes by themselves in a safe manner - they will be severely disrupted due to the removal of bridges that have been ingrained into their daily routine for years and would possibly need to be chaperoned to school again across what will still be a very busy road. Has TII considered this ? People crossing at pedestrian crossings are at risk of being knocked down and severely injured /killed be it by driver error or crossing when not supposed to . When crossing on the existing pedestrian bridges there is no chance whatsoever of getting knocked down and we feel that the removal of these footbridges is the wrong decision.	TII recognise that there will be disruption/severance to the road network locally as a result of construction activity. However, an alternative safe pedestrian crossing will be provided prior to demolition of the bridge. To ensure all road users are aware of the change in infrastructure, appropriate warning signs and visibility splays will be provided. Traffic management plans will be put in place during the construction phase and the health and safety of pedestrians is of the highest priority in line with the road user hierarchy in the GDA Transport Strategy.	

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15	9. Alternative Options	11, 12	We would ask that due consideration be given to our suggestions below as it seems to us that the option of the preferred route is the easiest and least expensive option available , albeit the most intrusive in terms of Environment , Invasive effects and life altering changes to our estate and residents , particularly the youngest and oldest. <u>Tunnel -</u> We would like the bored Tunnel option to be considered form Fosterstown to the main terminal at Emmaus , as this has been the preferred method along the rest of the route (save a few small areas) , and would have the following advantages: 1. This would negate the need for any additional works / remedial works to the R132 Connectivity Project 2. It would take away the need for most construction compounds and plant parking along the R132 3. There would be no loss of amenities to any housing estates along the R132 4. There would be minimal disruption to traffic for the duration of works 5. No loss of mature trees / foliage / animal habitat along the R132 (save for stations) 6. No loss of football pitches along the R132 7. No disturbing of boundaries to housing estates along the R132 8. Much reduced groundwater barrier effect 9. Footbridges would not need to be removed	TII have not arrived at the proposed solution for MetroLink through Swords without careful considerations of all of the options available. The final route selection now proposed has evolved from a Route Alignment Options Study, that commenced in 2016 that considered four potential route alignments through the Swords area. One of those route options in this study was along Swords Main Street in tunnel and this was included in the New Metro North Alignment Options Report as part of the preparation for the Emerging Preferred Route (EPR) Consultation process. However, it was not considered to have the same potential to support regional and local growth objectives for Swords and its environs when compared with an alignment along the R132 and therefore was not selected for the Emerging Preferred Route and consultation in 2018. It should also be noted that tunnelling for a rail system is generally only considered when the alternatives at grade, elevated or in open cutting cannot be realised as for example would be the case through the city centre where significant demolition of structures (including residential dwellings) would be required to make way for the system. In suburban areas where there is more space, tunnelling is generally not required.

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16	9. Alternative Options	12	We would ask that due consideration be given to our suggestions below as it seems to us that the option of the preferred route is the easiest and least expensive option available, albeit the most intrusive in terms of Environment , Invasive effects and life altering changes to our estate and residents , particularly the youngest and oldest. <u>Cut and Cover / Re alignment of proposed routing (under median strip R132) -</u> 1 There would be no loss of amenities to any housing estates along the R132 2 No loss of mature trees /foliage / animal habitat along the R132 (save for stations) 3 No loss of football pitches along the R132 4 No disturbing of boundaries to housing estates along the R132	Following feedback received from stakeholders along the R132 during the Emerging Preferred Route consultation in 2018, objecting to an elevated structure in the median, TII considered a number of alternative options for the Preferred Route, including a cut section proposal in the median of the R132. However, following an options appraisal, the cut option in the median was not brought forward into the Preferred Route Consultation in 2019 and for the following reasons: Permanent Impact: - Increase in permanent landtake along the R132 corridor to facilitate the final road alignment past MetroLink structures and stations. - An increase in amenity loss on completion. - Permanent property landtake requirements to deliver this option would impact on a greater number of residents. - Stations provided in the median at roundabouts would require additional landtake to provide similar at grade access. - Stations in roundabouts would provide less opportunity for landscape upgrade. - Stations positioned in roundabouts would have less opportunity to achieve an open plaza design concept while ensuring that the station platforms are straight for passenger access operation and control. - Utility diversions to achieve a median delivered solution would increase. Temporary (Construction Phase) Impact: - Increase in traffic disruption during construction. - Increase in temporary landtake required to facilitate access for construction. - Similar loss of amenity and green landscape during construction. - Temporary Property landtake requirements to deliver this option would impact on a greater number of residents. - The duration of construction for a median option scheme was considered to be longer, impacting further on all receptors along the R132. A similar solution in the Median to the one considered in 2019 but aligned to Fingal County Councils R132 Connectivity Project, consented in 2022 would result in the relocation of the proposed stations away from the new junctions at Seatown and Malahide Roundabouts. For an alignment option in the Median, this change would result in similar impacts as described above together with the following: - An increase in landtake to divert the R132 around these stations. - Less favourable pedestrian at grade access into the stations positioned in the Median. It should also be noted that tunnelling for a rail system is generally only considered when the alternatives at grade, elevated or in open cutting cannot be realised as for example would be the case through the city centre where significant demolition of structures (including residential dwellings) would be required to make way for the system. In suburban areas where there is more space, tunnelling is generally not required.

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17	10. Conclusion	12, 13	We do not believe that tearing down hundreds of mature trees is beneficial to anyone. Surely if there is a way to build something it should be done in the most environmentally friendly way possible? TII intend to take our green spaces away over for 7+ years and then hand it back with paths through it and easy access to what is effectively a motorway. How do Seatown residents benefit from this ? there has been no thought for the wellbeing and mental health of our community. TII have taken none of our comments on board and have had a blasé attitude with us from the beginning, they have made almost no changes whatsoever to the proposal they initially showed us. We would ask you to please consider this submittal (along with Estuary Courts and Ashley Avenues) and request that at a very minimum get TII to: 1. Carry out a complete re-assessment of the alignment of the proposed routing considering the median R132 option properly along with the R132 upgrade programme 2. Restore the walls and vegetation to an 'as was ' condition after the project 3. Not place any pathways in our green spaces or any penetrations whatsoever in our boundary walls 4. Completely cover over the open cut section of track 5. Look at other alternatives for site compounds instead of our green area 6. Do complete assessment of a bored tunnel option 7. Reinstate the footbridges after the construction works are complete We would ask you to please assess our submittal along with our neighbours Estuary Court and Ashley Avenue and instruct the TII to make the necessary changes for the good of our community and our environment.	We have responded above to a number of matters of concern summarised again in this conclusion. It is acknowledged that all residents along the route, including those at Seatown Villas will be impacted during the construction phase of the project. Various mitigation strategies to overcome potential construction impacts on the residents along the route have been provided in detail within each of the relevant Chapters of the EIAR, for example: Traffic and Transport (CH09), Noise and Vibration (CH's13 & 14), Biodiversity (CH15), Air Quality (CH16), and Landscape (CH27). The benefits of MetroLink to the broader community of Swords include but are not limited to: Traffic, reducing congestion and improving air quality; Landscape, through enhancing the existing urban landscape, improving community connectivity and residential amenity; Economic and employment, by attracting commercial enterprise into the area; and Transport, with a quicker and more reliable mode of transport to and from Dublin Airport and the City Centre. As set out above in response number (2), TII is committed to working with local resident's groups to address concerns that have been expressed in relation to the loss of green space and the impact on the current boundary wall and will continue engagement with these groups in advance of oral hearing.] The current EIAR details are in keeping within the Local Landscape Character Area (LLCA). The proposed MetroLink landscape reinstatement along the R132 between the Estuary and Pinnock Hill Roundabouts provides an integrated series of small local parks complete with play facilities, seating, and planting, adjacent to the residential areas and which interconnects, encouraging pedestrian and cycle use, to form part of the longer green ribbon connecting the broader Swords community with MetroLink and across the R132. The nature of the proposed planting is biodiverse and will mature to provide a much more valuable, connected landscape than is currently the case. The proposed tree planting will be much more appropriately scaled to the adjacent residential open spaces than the existing predominant tall roadside trees. Further acknowledging your concerns, TII is committed to working with local resident's groups to address concerns that have been expressed in relation to the loss of green space and the impact on the current boundary wall and will continue engagement with these groups in advance of oral hearing. This proposal aligns with the Fingal County Council's R132 Connectivity plans under the Fingal Development Plan 2017 – 2023 (Draft Fingal Development Plan 2023-2029), recently consented in 2022.	

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Organization Name or Name of Subm			Shandon Mill Owners Management Company CLG (represented by O'Malley Associates)	
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Re: proposed "'Temporary possession" of parts of Shandon Mill Development, Phibsborough, Dublin 7				
1	9. Observations:	3	a. Shandon Mill is only expressly referenced in the Fourth Schedule (for acquisition) and on the relevant maps, plans and drawings. It is not referenced by name in the Order, remainder of the schedules or in the other supporting documents. It is totally disregarded in the ENVIRONMENTAL impact assessment REPORT. Notwithstanding this it is implicit that Shandon Mill is intended to be a temporary alternative access /detour route for the four Coke Oven Cottages and adjacent Royal Canal Way.	TII acknowledge receipt of the report from O'Malley Associates on behalf of Shandon Mills Owners Management Co, and respond to the relevant observations raised in section 9 through to the conclusion of that report as follows. The property is not disregarded in the assessment presented in the EIAR. The MetroLink alignment passes close to thousands of properties along its alignment and as a result it is not possible to mention every property or development individually in each chapter. However please note that where specific properties or developments are potentially significantly impacted, they are mentioned in the relevant chapter. Chapter 13 has identified potential for significant effects on Shandon Mills in terms of Airborne Noise and Vibration arising during the construction phase during certain work phases. (Refer to Table 13.63 and Table 13.88). Furthermore, Appendix A13.7 and A13.8 also identify predicted noise levels at properties along the alignment including at Shandon Mills.
2	9. Observations:	3	b. The Fourth Schedule identifies three parcels of land at Shandon Mill in the ownership of the OMC as being required for part of the "Temporary Site" associated with the construction of the Glasnevin Station, i.e. i. ML45-T6, being /comprising: 1 . part of the Private External Common Area at Shandon Mill, and is not "public open space". 2. 3nr private car parking spaces (no's 1, 2 and Visitor). 3. waste bin store. 4. high masonry boundary walls. 5. circulation area to provide access to /from unit no 1 , the bin store and the parking spaces. ii. ML45-T7 and ML45-T8, being /comprising the sole entrance gateway and brick piers adjacent to the forecourt /circulation area referred to above. iii. These parcels of land are (135 +3+3 = 141 sq. metres). iv. The applicant cannot expect to be given exclusive temporary possession of the above parcels of land at any time as they are the sole means of access /egress for the residents and users of Shandon Mill.	It is not TII's intent to have exclusive use of this area once the bridge is commissioned crossing the Canal. It will facilitate access to Coke Oven Cottages. Access to Shandon Mills Cottages will be maintained.
3	9. Observations:	3	c. The above are part of External Common Area at Shandon Mill owned by the OMC. They are in constant use by the Shandon Mill residents as follows: i. entrance gateway is the sole entrance /exit from the development ii. 3nr private car parking spaces and waste bin store and iii. circulation area to provide access to /from unit no's 1 to 4 and the Bin Store. iv. access and circulation area required for access /egress to /from the 51 dwellings and car parking spaces.	The bin store and parking spaces will be relocated within land parcels ML45-T4 and ML45-T5 to facilitate the access to Coke Oven Cottages and reinstated upon completion.
4	9. Observations:	4	d. The Property map (Appendix G) also identifies parcels ML45-T4 and ML45-T5 on the adjacent SHD site that the applicant implies could facilitate three car spaces and a bin store if necessary on a temporary basis.	Please refer to response Item number (3) above.
5	12. Reasons why the temporary detour route through Shandon Mill is unsuitable	4	c. Existing pavements and underground services probably not capable of supporting construction traffic associated with the construction and later removal of the temporary works, nor the temporary traffic to the cottages.	TII will ensure that the temporary works design or pavement alterations are to the correct standards to protect services through this location.

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6	12. Reasons why the temporary detour route through Shandon Mill is unsuitable	4	d. Inadequate turning space and inadequate line of sight for proposed new traffic route. There is a significant difference between three cars occasionally manoeuvring in and out of 3 nr car spaces versus traffic coming in from the Canal Path at a higher speed.	TII recognise the constrained nature of this area and the design will be progressed by the Contractor to ensure the safety of this route. The detailed design of the bridge (and routing to and from) will be subject to swept path analysis to confirm that all requisite vehicles can transit through safely. The detailed design will consider visibility, speed restrictions and need for signalisation. Please note that this route will not be heavily trafficked.
7	12. Reasons why the temporary detour route through Shandon Mill is unsuitable	4	e. Removal of a secure boundary wall.	The wall and gate post will be carefully removed, stored for protection and reinstated on completion.
8	12. Reasons why the temporary detour route through Shandon Mill is unsuitable	5	f. Shandon Mill is a private residential development where the proposal would unduly interfere with the residents established quiet use and enjoyment of their homes, whereas most of the alternative routes would not interfere with any existing residential use and amenities.	As referenced in EIAR Appendix A9.5 Scheme Traffic Management Plan, Figure 7-26: Glasnevin Station Diversions - Royal Canal Way closure. The proposed detour only purpose is to maintain access along the Royal Canal for pedestrians and cyclists and access for residents at the Coke Over Cottages without impacting on local residents including those residents at Shandon Mills. This will only involve a limited traffic level increase and impact locally. Please also refer to response item number (19) below. The proposed diversion will remain in place while the northern canal path along the Royal Canal is closed to allow the completion of the main civil works along the Royal Canal for the MetroLink Station at Glasnevin. We respond to alternatives proposed on response items numbers (18) to (22) below.
9	12. Reasons why the temporary detour route through Shandon Mill is unsuitable	5	g. The parcels of land sought are the sole means of access /egress for the residents and users of Shandon Mill. If the order is granted then it will not be possible for the applicant to have sole possession, access /control; it would be a joint possession, access /control. Such an arrangement could be totally unmanageable and inherently hazardous /dangerous.	Please refer to response items number (2) and (6) above. The route will be designed to the relevant standards to ensure the safety of the route, cyclists and the residents of Shandon Mill.
10	12. Reasons why the temporary detour route through Shandon Mill is unsuitable	5	i. Refuse lorries, oil /other delivery trucks ready-mix concrete lorries emergency service vehicles would be unable to safely drive manoeuvre along the intended route.	The route will be designed to the relevant standards for access for all vehicles necessary.
11	12. Reasons why the temporary detour route through Shandon Mill is unsuitable	5	j. Frequent pedestrian access by residents across this area is necessary to gain access to the entrance gateway, forecourt, Bin Store, apartment no 1 and to the 3nr car spaces.	Access will be maintained. Please note there are 4 Coke Oven Cottages and hence the use of this route is very limited compared to the 51 cottages in Shandon Mill. Pedestrian access across the route is less onerous than across exiting accesses in Shandon Mill. That said, the detailed design will consider the safety of all users.

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Organization Name or Name of Subm			Shandon Mill Owners Management Company CLG (represented by O'Malley Associates)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: proposed "'Temporary possession" of parts of Shandon Mill Development, Phibsborough, Dublin 7				
12	12. Reasons why the temporary detour route through Shandon Mill is unsuitable	5	k. Road safety, pedestrian safety, resident safety. Increasing the risk of personal injuries that would be otherwise avoidable.	Please refer to response item number (9) above.
13	12. Reasons why the temporary detour route through Shandon Mill is unsuitable	5	l. All pedestrians (including cyclists) would have to exit /enter crossing the temporary vehicular traffic route	Please refer to response item number (9) above.
14	12. Reasons why the temporary detour route through Shandon Mill is unsuitable	5	m. Insufficient space to provide segregation of vehicles from cyclists and pedestrians.	Please refer to response item number (9) above.
15	12. Reasons why the temporary detour route through Shandon Mill is unsuitable	5	n. All pedestrians accessing the entrance gateway /bin store require a safe means of access however it would not be possible to provide it. Too much congestion. Inadequate turning space/ turning area. Inadequate observation /line of sight distances.	Please refer to response item number (9) above.
16	12. Reasons why the temporary detour route through Shandon Mill is unsuitable	5	o. Adverse security /crime issues /problems if existing pedestrian, scooter and cycling users of Canal tow paths are given access into this private development.	The private development is not currently gated at the entrance / exit and hence is currently accessible via the public road network. TII will consider the security aspects noted in the detailed design.
17	13. Reasons to refuse the temporary acquisition of the parcel for the intended purpose of providing temporary access to /from Coke Oven Cottages	6	d. The proposed indirect route through Shandon Mill is not suitable. A more direct route would be better for emergency services, deliveries etc.	The proposed route is the most feasible available access route as maintenance of a 24 hr direct route through the construction site is not reasonably practicable.

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18	13. Reasons to refuse the temporary acquisition of the parcel for the intended purpose of providing temporary access to /from Coke Oven Cottages	6	e. Safer routes can be constructed along the south bank of the canal if necessary partly cantilevered over the canal to provide direct access for motor vehicles, cyclists and pedestrians.	This is not feasible / preferred because:- 1. extensive foundations would be required alongside the canal to facilitate a cantilevered access road for all proposed traffic. This would be unacceptable to Waterways Ireland and the installation would impact on both the heritage items and the community. 2. the canal basin between locks 5 and 6 is to be narrowed on the north side to allow the construction of the railway retaining walls and the southern part of the new MetroLink Station. Narrowing on both sides of the canal is unlikely to be consented by Waterways Ireland. The EIAR proposed route is safe and has a reduced environmental impact.	
19	13. Reasons to refuse the temporary acquisition of the parcel for the intended purpose of providing temporary access to /from Coke Oven Cottages	6	f. There is no provision in the ENVIRONMENTAL IMPACT ASSESSMENT REPORT for such works and accordingly they should be refused and the Applicant restricted to using the southern canal tow path as per the ENVIRONMENTAL IMPACT ASSESSMENT REPORT page 100.	Please note that the re-routing of the small number of vehicle movements required to facilitate access and egress to Coke Oven Cottages is addressed in Chapter 9 of the EIAR (Refer to page 152-153 and Diagram 9.44). However due to the limited number of vehicle movements predicted, this is not considered as a significant impact in terms of traffic, impact on the local population, noise, or air quality in the relevant chapters.	
20	13. Reasons to refuse the temporary acquisition of the parcel for the intended purpose of providing temporary access to /from Coke Oven Cottages	6	g. As the alternative routes largely appear to be over public land then no private residential land should be required or affected by this.	Please see specific response to item number (21) below	
21	14. More suitable alternative routes to provide temporary access to /from Coke Oven Cottages	6	a. AR 1: Cross the Royal Canal (nearer to the Cottages) with a temporary bridge and temporary road exiting directly on to Shandon Gardens /Shandon Park (public roads).	This route is not preferred as it would require foundations and piers to be constructed on both sides of the canal. This would impact adversely on the canal structure, biodiversity in the area and to residents along this stretch due to the noise and vibration associated with these works. Please note that the proposed option utilizes existing piers and foundations eliminating these disruptive works. Furthermore, this route effectively puts the vehicles on to a similar network of streets but using Shandon Park increasing the diversion route and impacting more residents in the area.	
22	14. More suitable alternative routes to provide temporary access to /from Coke Oven Cottages	6	b. AR 2: Construct a temporary route from the existing Royal Canal Way comprising temporary bridges over the existing Irish Rail track lines (GSWR and MGWR) and temporary roadways around the northern periphery of the Station Site passing through the car parks and exiting on to Prospect Road and or Dalcassian Downs to the Finglas Road.	This route is not available as it is through the proposed MetroLink construction site, which is already highly constrained with operational rail lines and local residents. Any routing through this area would be extremely complex to provide and invariably would extend the construction period assessed. This route would impact more residents.	
23	14. More suitable alternative routes to provide temporary access to /from Coke Oven Cottages	6	c. AR 3: Cross the Royal Canal with a temporary bridge as proposed but to then turn East and proceed along the existing Southern bank of the Royal Canal exiting on to the Phibsborough Road. Where the existing tow path width may be insufficient it can be widened on the canal side by constructing a temporary cantilevered platform and/or widened on the Cross Guns SHD Site (1 13 Phibsborough Road) side by the temporary removal of the existing boundary wall /fencing and extending into the adjacent apron /former railway siding that is parallel to the Canal.	Please see specific response to item number (18) above.	

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24	14. More suitable alternative routes to provide temporary access to /from Coke Oven Cottages	7	d. AR 4: Cross Royal Canal with a temporary bridge as proposed in to the SHD Site but exit south of the Shandon Mill Bin Store through the adjacent very large side garden of 43 Shandon Road' on to the laneway south of the Entrance to Shandon Mill leading to Shandon Park	TII are satisfied that the current design and route is appropriate.
25	Concluding remarks	7	17. We would respectfully request An Bord Pleanála to refuse /modify the order sought for this part of the application, i.e. The Applicant shall not take temporary possession of, or the use of any part of Shandon Mill..... Reason: The temporary use of parts of the Shandon Mill residential development would not be appropriate and should not be necessary as there are other more appropriate routes that will not interfere with the existing residential use. There are more appropriate alternative routes available that do not pass through Shandon Mill and will not require the acquisition of any part of the Shandon Mill development.	TII would not recommend such modifications are made.
26	Concluding remarks	8	18. Alternatively, in the event that An Bord Pleanála when granting the Railway Order, decide to grant the Order permitting the proposed temporary acquisition /use of Shandon Mill, then as a contingency without prejudice to the foregoing submission, we request that restrictions/conditions are imposed on the applicant so as to minimize /mitigate the effect /impact of the important issues identified in this submission. And importantly to reflect the fact that such temporary acquisition /use must be non-exclusive as the OMC must continue to use those lands for access egress and the day-to-day operation of the development. Suggested restrictions /conditions are listed in Appendix B to this report.	TII do not agree to any of the proposed conditions at this point in time.
27	Concluding remarks	8	In the event that the applicant, any other party, make submissions in response to this submission then I would request that same be furnished to us and that we /our client is given an opportunity to consider and respond to same prior to a final decision by An Bord Pleanála.	This is a matter for ABP.

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Organisation Name or Name of Submitter			Shandon Residents Association (48 Shandon Park, Phibsboro)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: ABP-314724-22 Railway (MetroLink - Estuary to Charlemont via Dublin Airport) Order [2022] - case number 314724				
1	Note on submission fees and community participation	3	Shandon Residents Association (SRA) objects to the requirement to pay ABP €50 to submit an observation on Metrolink. It's unfair to penalise those who are financially disadvantaged. The right to comment should not be limited to better-off individuals and groups. It's important that an open oral hearing forms part of this planning process to provide the opportunity to engage fully with such a seismic change to the area.	Thank you for your submission and for sharing your observations with regards to the MetroLink project to which we have responded below. An overview of the Oral Hearing process is provided in the EIAR Chapter 8.9.2. An Board Pleanála have confirmed an Oral Hearing will be held. The purpose of the oral hearing will be to allow issues relevant to an application for approval be examined. The oral hearing can be attended by anyone, but only those that have made a written application may make an oral submission at the oral hearing. The oral hearing is managed by An Bord Pleanála. With regard to the €50 fee, this is a matter for An Board Pleanála. The Board is entitled to set the fees under section 144 of the PDA2000 and this is approved by the Minister.

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2	Section 3 — Planning conditions	8	Given the size and scale of the proposed works across the entirety of Phibsboro Village, there is a real risk of damage to the delicate and ecologically important corridor provided by the Royal Canal in such an urban environment and the huge disruption to residents' lives.	TII have considered the potential impacts and proposed mitigations which are included within the EIAR and will be bound into subsequent construction contracts. EIAR Chapter 15 (Biodiversity) assesses the impact of the MetroLink Project, on biodiversity during the Construction Phase and Operational Phase, and proposed mitigation measures to ameliorate the predicted impacts. Baseline surveys were carried out along the Royal Canal to inform the biodiversity impact assessment, such as a habitat survey, including invasive plant species and detailed aquatic survey of Royal Canal basin undertaken in 2018, 2019, 2020 and 2021; aquatic macroinvertebrate survey of Royal Canal basin in June 2021, etc. The Royal Canal was also surveyed for otter activity on the 27th of March 2020. Potential impacts arising from the proposed Project during construction on this pNHA site may occur as a result of: • Habitat degradation as a result of surface water runoff related hydrological impacts (see Section 15.4.3.2); • Impacts on rare and protected plant species arising from habitat degradation as a result of hydrological impacts (see Section 15.4.3.3); • Habitat degradation as a result of air quality impacts (see below in this Section); • Habitat degradation as a result of introducing/spreading non-native invasive species (see Section 15.4.3.2); • Impacts on otter arising from disturbance/displacement (see Section 15.4.3.4.1); • Impacts on bats arising from disturbance of flight patterns due to operational lighting (See Section 15.4.3.4.2); and, • Impacts on freshwater molluscs arising from habitat degradation as a result of hydrological impacts (See Section 15.4.3.5.2). Mitigation measures will be implemented to ensure that Royal Canal pNHA will not be significantly affected by the proposed Project during construction or operation such as, inter alia: • Measures to avoid the introduction or spread of non-native invasive plant species to this pNHA - see the Outline Invasive Species Management Plan (ISMP) (Appendix A15.8); • Measures to control surface water runoff to prevent an accidental pollution event affecting sensitive habitats within this pNHA – see Section 18.6 of Chapter 18 (Hydrology); and, • Measures to manage and treat groundwater discharges to surface water – see Section 19.6 of Chapter 19 (Hydrogeology). The Construction Environment Management Plan (CEMP) included as EIAR Appendix 5.1 further details the proposals to manage environmental impacts and the responsibilities to do so. The implementation of the mitigation measures will result in a no likely significant residual effect. Therefore, the proposed Project will not affect the integrity of, or result in a likely significant negative residual effect on Royal Canal pNHA. As detailed in EIAR Chapter 5 (MetroLink Construction Phase) the programme for the construction of the proposed Project has been optimised to minimise the duration of the Construction Phase in order to lessen the duration of potential environment impacts, while ensuring that the areas surrounding the work sites remain operational and functional. Work will run concurrently at all MetroLink site locations to ensure the Project is delivered in an effective and timely manner. Once a contractor has been appointed, TII will seek to further optimise the programme with a view to reducing the overall duration of works at the proposed Glasnevin Station. TII will consult with stakeholders on any such proposals received from the contractor. Potential impacts associated with the construction phase activities of the proposed Project on the residences and businesses are addressed in Chapter 11 (Population & Land Use) of the EIAR, with mitigation measures proposed where required. The construction site for Glasnevin Station will give rise to inconveniences and disturbances affecting activities and services at a localised level and Prospect Road in particular. This includes potential noise and vibration impacts from construction activities as detailed in Chapter 13 (Airborne Noise & Vibration) and Chapter 14 (Groundborne Noise & Vibration), disturbances to the local road network as detailed in Chapter 9 (Traffic & Transport), and dust risk as detailed in Chapter 16 (Air Quality).

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3	Section 3 — Planning conditions	8	The potential overlaps between agencies, third-party contractors and private developers could also lead to a significant lack of oversight - continuous communication between all parties is vital.	TII agree that roles and responsibilities need to be clear across all parties and have undertaken extensive consultation and communication across the route of MetroLink and have listened carefully to the concerns of stakeholders and the community, as documented within EIAR Chapter 8 (Consultation). A Stakeholder and Community Engagement Plan has been developed which has guided the frequency and means of communication to date. The proposed Project will continue to progress community engagement by: • Regularly reviewing and updating stakeholder and community engagement plans; • Actively maintaining partnerships and design focus groups established with the community; and • Communicating in a timely and open manner. TII and its appointed contractor(s) will ensure that local residents, occupiers, businesses, local authorities and all other stakeholders affected by the proposed construction works, as outlined in the EIAR, will be informed in advance of work taking place. The notifications will detail the estimated duration of the works, the working hours and the nature of the works. In the case of works required in response to an emergency, the local authority, local residents and businesses will be advised as soon as reasonably practicable. All notifications will include a local helpline number. In addition, information on the works will also be available on the proposed Project website. TII will further develop the Community Engagement Plan to encompass the construction and operational phases of MetroLink.
4	Section 3 — Planning conditions	8	A Public Oral Hearing should be required as part of the planning process. The local community, relevant stakeholders and resident representatives need to participate.	Please refer to Response (1) above related to the Oral Hearing process.
5	Section 3 — Planning conditions	8	The possibility of rerouting traffic via the temporary bridge over the Royal Canal via the Old Bakery site to exit directly to Phibsboro Road/Crossguns should be explored.	The Railway Order is based on the proposed routing via Shandon Mills as presented in the property drawings.
6	Section 3 — Planning conditions	8	A robust Ecological Management Plan put into action throughout construction with a dedicated, qualified and independent ecologist working across the construction sites to oversee works as decisions are being made. There will be a huge disturbance to the rat population during construction. Management of rodents needs to avoid negatively impacting wildlife.	TII confirm that an Ecological Management plan will be produced. Section 15.5 Mitigation Measures of the EIAR Chapter 15 (Biodiversity) presents the mitigation measures to avoid or reduce the potential impacts of the proposed Project on biodiversity. Section 15.5.1.1 and Section 15.5.2.1 summarise the mitigation measures that relate to the protection of European sites. All other mitigation measures are described in Sections 15.5.1.2 to 15.5.1.13 and Sections 15.5.2.2 to 15.5.2.11. All of these mitigation measures are included in the Schedule of Environmental Commitments which will be implemented by the contractor under supervision of both the Project Ecologist (employed by the Employer) and the Ecological Clerk of Works (employed by the Contractor). The management of vermin will be undertaken such that it does not negatively impact other wildlife. While rodents will be temporarily displaced as a result of initial construction activities, there is nothing in the Construction Phase which would lead to an increase in the number of rodents. It could be argued that with the rodent control policies in place, there will be a reduction in the level of rodents and the subsequent risk associated disease. The EIAR Appendix A5.1, Construction Environmental Management Plan (CEMP) includes a requirement for the Contractor to ensure effective prevention of infestation from pests and vermin (ref section 5.4). Please refer to Response (2) in relation to anticipated impacts on ecology in this area.

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7	Section 3 — Planning conditions	8	A Liaison Committee should be in place during the entire construction period that allows business, resident and community group reps to be included in all decision-making issues as and when they arise. This Committee should comprise of these reps along with those from TII, DCC, NTA and other relevant bodies. It is important that this is an effective group and not a PR exercise.	As outlined in Appendix A5.1 Outline CEMP, a Stakeholder and Community Engagement Plan has been developed which has guided the frequency and means of communication to date. The proposed Project will continue to progress community engagement by: ▪ Regularly reviewing and updating stakeholder and community engagement plans; ▪ Actively maintaining partnerships and design focus groups established with the community; and ▪ Communicating in a timely and open manner. TII and its appointed contractor(s) will ensure that local residents, occupiers, businesses, local authorities and all other stakeholders affected by the proposed construction works, as outlined in the EIAR, will be informed in advance of work taking place. The notifications will detail the estimated duration of the works, the working hours and the nature of the works. In the case of works required in response to an emergency, the local authority, local residents and businesses will be advised as soon as reasonably practicable. All notifications will include a local helpline number. In addition, information on the works will also be available on the proposed Project website. TII will further develop the Community Engagement Plan to encompass the construction and operational phases of MetroLink.
8	Section 3 — Planning conditions	8	A Community Fund set up to support a variety of community-driven biodiversity enhancements along the Royal Canal (more trees, native planting, solar panels for community spaces, more green space/walls, bird and bat boxes).	Reinstatement and landscaping of working areas along the canal and adjacent areas will form part of the proposed Project works. In addition, TII will work with established Community Groups through the local community liaison officers along the route to identify projects at local level that would involve the Community in the delivery of MetroLink and its legacy. Such projects could include: - A local school learning programme. - Enhancement of community amenity within agreed funding limits. - Engagement with final landscape and finishing options, including aspects of biodiversity. TII are willing to explore mechanisms for investing in local initiatives to support affected communities during the works, such initiatives will be subject to funding being made available.
9	Section 3 — Planning conditions	8 and 9	Open Public Architectural Competition to design Glasnevin Station. This station is arguably the most important as it exists as an Irish Rail/Metrolink interchange. The designs shown in the plans do not appear to reference any of the rich heritage and history of this area of the city. Glasnevin Station will sit alongside the cornerstone of the Royal Canal, where its building works began in 1790 and the Brian Boru pub is an important historic site where Brian Boru gathered his army in defence of Ireland prior to the Battle of Clontarf.	TII believe the commissioning of internationally renowned architect Nicholas Grimshaw and Partners, has delivered a contemporary station design which is appropriate for a state of the art metro system such as MetroLink. Appropriately, significant emphasis is placed on the public spaces. Where feasible, the station concourse is a soaring space illuminated from above with natural light. Dublin's rich architectural heritage has been respected, but not copied in a pastiche imitation. In accordance with best conservation principles, as set out in the ICOMOS Venice Charter of 1964, the stations are architecturally distinguishable so as not to falsify the existing historic context. Reference and due respect to that context is made through the choice of high quality and appropriate materials and the scale of the interventions. The aesthetic values of all eras, including our own, have cultural validity, and therefore the brick is used in a contemporary way reflecting contemporary aesthetic idioms derived from 21st century technology. TII believe the current station and surface level designs greatly enhance the public realm at all locations along the MetroLink route. There is a unifying commonality in the design of all stations, providing a consistent and coherent architectural language, which assists with orientation and wayfinding, and contributes a new architectural lexicon to the cultural iconography of the city.

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10	Section 3 — Planning conditions	9	Green building principals. This will be an important and permanent addition to Dublin's cityscape and should be a future-proof building. Looking to Europe and other parts of the world where green buildings are seen as a desired addition to the built environment.	TII's Environmental Strategy (TII 2019, Section 2.1) '<i>commits to incorporate sustainability principles into the development and operation of the national road, light rail and metro networks; therefore, contributing to social wellbeing, supporting economic efficiency, and protecting, restoring and enhancing environmental systems for future generations.</i>' The Project design includes sustainability initiatives in order to meet the project sustainability aims outlined in TII's Sustainability Implementation Plan, as outlined in Section 4.6.3 of the EIAR Chapter 4 (Description of the MetroLink Project). For example, one of the sustainability initiative is <i>EN2: Materials and Resources</i>. As outlined in Section 4.8 of the EIAR Chapter 4, sustainable drainage systems (SuDS) have been incorporated into the design to reduce mains water usage, to reuse water and to manage potential pollution of waterbodies. SuDS measures include the implementation of rainwater harvesting, green roofs, swales and retention basins. In addition, Section 17.3.2 Relevant Guidelines, Policy, and Legislation of EIAR Chapter 17, Climate, sets out how the proposed Project assessment has been undertaken with reference to the most appropriate guidance documents relating to climate.
11	Section 3 — Planning conditions	9	Green roofs and living walls should be seen as a valuable component of building works and incorporated into public realm infrastructure wherever possible.	As mentioned in Response (10) above, a number of SuDS elements have been included in the proposed Project design which will contribute to meeting sustainable initiatives such as: Rainwater Harvesting, Green Roofs, Rain Gardens, Filter Drains, Filter Strips, Swales, Infiltration Basins, Pervious/Permeable Pavements, Geocellular Drainage, Retention Ponds and Wetlands, as described in the Section 4.8.3 of the EIAR Chapter 4 (Description of the MetroLink Project). These elements will get progressed at detailed design within the guidelines contained within the EIAR.

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Organisation Name or Name of Submitter			Shira Mehlman (100 Botanic Road)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Intended application by the NRA (Operating as TII Ireland) for the Railway (MetroLink - Estuary to Charlemont via Dublin Airport) Order (2022)				
1	Letter	1	As per the documentation received, my property will be directly impacted by this proposed project.	Thank you for your submission and for sharing your concerns/observations related to the MetroLink project. We have reviewed the submission and provided response for the observations/concerns raised in detail below.
2	Letter	1	I have been in receipt of documentation in relation to the above, via register post, without any reference to any form of consultation process other than this written submission. Considering the length, technicalities and depth of the documentation, I would state that the above as a form of consultation is unacceptable and at least, should have warranted invites to public meetings to allow for responses to specific questions in order to make a considered and in-depth response. Considering the documentation provided, its focus is on what will be done by TII with little specifics as to HOW this will be done. The information that is of interest to myself, as a property owner, is at best “scant”.	EIAR Chapter 08 (Consultation) presents an overview of the extensive stakeholder and public consultation that has been undertaken to date to inform the development of the proposed Project. EIAR Appendix A8.7: EPR Public Consultation Report details the process and records from the public consultation that has been carried out to date. Consultation has taken place throughout the project development including but not limited to the Emerging Preferred Route, Environmental Impact Assessment Scoping and Preferred Route Public Consultation. The chapter details the ongoing consultation and stakeholder engagement that has taken place since 2018 with schools, landowners and businesses along the proposed route. Early and continuous public participation has influenced the design and development of the Project. The MetroLink Project Team has responded to the submissions and feedback received during the above-mentioned non-statutory consultation periods. The MetroLink Project Team has at all times endeavoured to ensure the widest possible access for the public, stakeholders and landowners to information about the Project at all stages of its pre-planning development. In this regard, it is intended that the consultation undertaken in respect of the MetroLink project will, when the railway order application process is complete, fully meet the requirements of the Aarhus Convention, Codified EIA Directive and Irish national legislation. TII are committed to engaging with and listening to the views and concerns of the local community, and working with the local community to manage any impacts resulting from MetroLink construction. As noted in the Outline Construction Environmental Management Plan (Appendix A5.1 of the EIAR), TII and the contractor(s) will take all reasonable steps to engage with stakeholders in the local community, especially those who may be affected by the construction works including residents, businesses, community resources and specific vulnerable groups. The contractor(s) will be responsible for putting in place a Stakeholder Communications Plan which will be developed under the consent of a designated Public Liaison officer appointed by TII. This will provide a two-way mechanism for members of the public to relay any concerns, allowing them to be resolved in a coordinated and consensual manner.

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3	Letter	1	For example, the Section on the Environmental Impact Assessment notes that most concerns for residents will be around ground vibrations, drilling and blasting. While noting these concerns, e.g., "ground vibrations, air over pressure (air blast) and dust generation", it does not outline details as to how it will by addressing these very real and potentially litigant concerns. It also fails to outline in any details, what recourse a home owner would have should such circumstances occur. As a resident home owner, this does not provide any assurance that my home and investment will be secure and free from harm.	TII understand the reasons for your concerns and would like to provide the assurance that the potential disturbance impact on your property as a result of the proximity of the proposed tunnel and station has been carefully assessed. This includes the impact of noise and vibrations from: the tunnel boring machine (TBM), mechanical excavation and blasting; construction generated ground movements leading to settlement and possible building and property movement; and the operation of MetroLink. All of which have been assessed and reported in the EIAR and are summarised below. With exception of a temporary disturbance when the TBM passes your property, TII are predicting a 'not significant' impact to the building occupants and your building, or risk to the integrity of your house. Groundborne Noise and Vibration EIAR Chapter 14 Groundborne Noise and Vibration, Appendix 14.5 presents the predicted groundborne noise and vibration levels during the construction phase of the project for 100 Botanic Road: • The predicted level of groundborne noise during TBM passage is 50 dB LASmax, which is above the 45 dB LASmax threshold resulting in a significant impact on the occupants of the building for the relatively short duration of TBM passage. • The predicted level of groundborne vibration during TBM passage is 0.28 ms-1.75 day and 0.236 ms-1.75 night, below the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) Threshold Level of 1.0 ms-1.75 day and 0.5 ms-1.75 night, resulting in a not significant impact on the building. * Mechanical Excavation and drilling or blasting do not occur at this location and therefore there will be no impact on your property from these activities. As such, air overpressure will not occur at this location. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from the TBM at source but noting that the duration of this impact will be temporary and of the order of up to two-weeks as the TBM passes. TII will undertake advanced consultation and stakeholder engagement to prepare people for the passing of the TBM and ensure the timing of these impacts are known. TII's contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project as referred to in EIAR Appendix A5.1 (Table 6.2), Outline Construction Environmental Management Plan (CEMP). The CNVMP will be a live document and will include a full monitoring and auditing programme which will be agreed with the Local Authorities prior to the commencement of the Construction Phase. Table 6.2: Noise and Vibration Measures of the Outline CEMP outlines the monitoring programme requirements. The Transport Infrastructure Ireland (TII) Airborne Noise and Ground-borne Noise Mitigation Policy (Appendix A14.6 of EIAR Chapter 14) also sets out the construction noise insulation and temporary rehousing measures to be implemented where required. This document also details the thresholds/limits for such measures.

Submission No.			280	
Organisation Name or Name of Submitter			Shira Mehlman (100 Botanic Road)	
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			Response (3) continued.	Construction Generated Ground Movements EIAR Appendix A 5.17 Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on your property and has been predicted to not exceed the 'Slight' category, an explanation for which can be found in Table 4-4 of the aforementioned report. These properties are therefore categorised such that they were not required to progress to the next stage of assessment. Monitoring instrumentation will also be installed to monitor the performance of the works and potential environmental impacts, including those discussed above, to ensure the thresholds identified in the EIAR are not breached. TII would also draw attention to the fact that private properties within 50m of the station excavation, or 30m of the tunnel are eligible to subscribe to the Property Owners Protection Scheme (POPs) which includes for pre and post-construction condition surveys and repair of damage. The Property Owners' Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor. Additionally, the appointed contractor will prepare detailed design and construction methodologies in the form of a detailed Construction Environmental Management Plan (CEMP) to ensure all environmental impacts are managed and mitigated in accordance with the EIAR and Railway Order, assuming an Enforceable Railway Order is granted. The detailed CEMP(s) will be based on the specific environmental measures identified in the EIAR, and listed in EIAR Appendix 5.1: Outline Construction Environmental Management Plan, Section 6. These will be provided to DCC for consultation and approval in advance of any construction works on site. An Outline CEMP is included in Appendix A5.1 of the EIAR that will be developed further by the appointed contractors. Monitoring instrumentation will also be used throughout the works to monitor potential environmental impacts, including those discussed above. Air Quality: Chapter 16 (Air Quality) details the likely direct and indirect effects of the proposed project on Air Quality, including the risk of dust emission during construction. At Glasnevin, it is expected that there will be high risk of dust related health impacts from the associated demolition with all other construction activities having medium risk. However, before commencing relevant works, an Air Quality Management Plan shall be prepared and submitted for approval to the relevant planning authority, as stated in section 6.3 of EIAR Appendix 5.1. The plan must include all appropriate dust and emissions mitigation measures including for asbestos and aspergillus, applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. The plan will be developed by the contractor and for each worksite will include an inventory and timetable of activities which may give rise to emissions or dust; alert levels; alert system to be used; details of control measures; details of dust monitoring arrangements, including the location of sensitive receptors, monitoring locations, and monitoring equipment to be used; and, details of the air quality reporting requirements. In order to ensure that no dust nuisance occurs, a series of measures will be implemented, these have been detailed in Table 6.3 of Appendix A5.1 of the EIAR. In summary, the measures which will be implemented will include: * Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; * Any blasting will be completed by specialised contractors with a specific blasting dust management plan; * Liaison with local authorities and community groups; * Hoarding will be provided around the construction compounds. Strict dust prevention will be in place at all times, to minimise any potential emissions and these procedures will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations. This is detailed in section 16.6.1.1 of Chapter 16 (Air Quality).

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4	Letter	1	Furthermore, should such damage occur, it is unclear what should happen in such instances. For example, what if the property needs to be vacated for a period time for remedial work. As there is currently a significant housing shortage, it is unclear how alternative housing in the short, medium and permanent terms will be facilitated and assured that it is of character and size in keeping the current structure. Personal property within the house will also need to be insured against these proposed impacts. This is not addressed at all. There needs to be insurance to cover such eventualities; not at the cost to the resident.	TII is committed to having a Property Owner Protection Scheme (POPS) in place prior to construction works commencing. The scheme allows residential property owners to register with TII if their property is within thirty metres of the edge of the MetroLink alignment or fifty metres of station structures. The POPS comprises condition surveys of private properties and other selected properties along the route of the proposed Project. The purpose of the condition surveys would be to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether the same may be attributable to the proposed Project and recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in the swift and accurate verification of any property damage claims which may be received from property owners. The POPS scheme is now active and with over 3,000 eligible households notified and requested to register their interest in participation. Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/ In cases where parts of properties are occupied, access to the remaining unoccupied parts will be maintained, where it is possible and safe to do so. Protection such as hoarding will be used to ensure that the boundary of any construction site will be maintained, and damage would not occur outside of this boundary. Where damage could not be avoided, it would be repaired. Information regarding any situations requiring relocation and the process for financial compensation for property impacts directly related to the proposed Project is provided in Chapter 11 (Population & Land Use) and Chapter 21 (Land Take) of the EIAR. The Property Owners' Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor. As detailed in response item (3), your property will see 'Slight' damage, which includes for cracks which can be easily filled, and redecoration. Exterior cracks may be visible which may require repainting for weather tightness, and doors and windows may stick. It is anticipated that rehousing will not be required during this time as no structural damage will occur. Further details on the categorisations can be found in Table 4-4 of EIAR Appendix A5.17 Building Damage Report.
5	Letter	1	My other major concern is that I am unable to find specific information relating to the depth that the tunnels will be underground and the dimensions of the tunnels themselves. At a minimum, I would expect a guarantee from TII that best practice in relation to European Standards relating to such projects will be adhered to. This guarantee is sadly lacking.	Information about the tunnelling works are provided in EIAR Chapter 05 (MetroLink Construction Phase) and Chapter 04 (Description of the MetroLink Project). The tunnel sections are provided to ensure that there is maximum operational efficiency of the proposed Project while also reducing potential impacts on the developed urban areas above the alignment. The substratum land take has been generated by creating a limit of deviation (LOD) ranging from 5 metres vertically upwards and 10 metres downwards to 15 metres laterally for the tunnel alignment. The statutory powers contained within the Railway Order allow for changes within the LOD to occur where it is found that the spatial position of the MetroLink may need to be adjusted, mainly for reasons of engineering practicability. Substratum land take is shown on the Property Drawings submitted with the RO application and on Figure 21.1. of the EIAR Chapter 21 (Land Take). For the MetroLink project, the depth of tunnel will vary along the route but it is expected that the average depth will be approximately 24m from ground level to track level. In the vast majority of cases the subsoil can be acquired without affecting the above ground property. For 100 Botanic Road property the following data are shown on the individualised property details plan (please refer to Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-03101, ML4M-U19): •Ground level to crown of tunnel (m) - 14.5 •Ground level to track (m) - 21.2

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6	Letter	2	Full accountability and transparency have not taken place, and while I have outlined major concerns above, I would expect that a more public and detailed consultation process will take place. The lack of communication from TII, and its refusal to date to engage with residents would impress as more autocratic than democratic in process. I would hope that this is not how consultation around this project will continue.	Please refer to response item (2) above related to the consultation process. The material provided as part of the Railway Order application (including the EIAR and associated documents) together with any feedback or submissions received during the statutory public consultation period, such as this submission, will be reviewed and considered by An Bord Pleanála. An Bord Pleanála has confirmed there will be an Oral Hearing prior to making a decision on the application. The Oral Hearing is a process whereby TII and its specialists are given an opportunity to present evidence on the proposed Project and on submissions received. There is also an opportunity for The Board and parties who made submissions during the statutory consultation process to question TII and its specialists. Following this process and based on the information available to The Board, they will make a decision on the application.	

Submission No.			281	
Organisation Name or Name of Submitter			Sinead Quilty (39 Estuary Court, Seatown Road, Swords, Co Dublin)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Case 314724: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin (MetroLink)				
1	Observation Comments	1	<i>Re. construction of new pathways with associated landscaping and a signalised pedestrian crossing of the R132 and on land adjacent to R132 connecting Estuary Court & Seatown Villas -</i> The existing vehicle and pedestrian access to Estuary Court meets the access requirements of the residents of Estuary Court. Removing the existing boundary wall to creating new pathways into Estuary Court from the R132 does not fulfil any access gaps or requirements. It also creates a unsafe zone for children of the Estuary Court estate (and) creates an unsafe area along the R132 for cyclists, pedestrians and vehicles as young children and children's toys (e.g. footballs) may travel at speed out onto the R132 without any warning.	<u>Landscape Reinstatement</u> Acknowledging your concerns, TII is committed to working with local resident's groups to address concerns that have been expressed in relation to the loss of green space and the impact on the current boundary wall and will continue engagement with these groups in advance of oral hearing.
2	Observation Comments	2	<i>Re. construction of new pathways with associated landscaping and a signalised pedestrian crossing of the R132 and on land adjacent to R132 connecting Estuary Court & Seatown Villas -</i> Reinstating the existing wall without adding unnecessary additional entrances to the Estuary Court would remove this liability and greatly enhance the life of the residents of Estuary Court.	Please see Response (1) above.

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Organisation Name or Name of Submitter			Smokin Bones LTD		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Ref: Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022					
1	Letter	1	Car parking is vital to the survival of our business. It is very difficult to park anywhere in Swords, especially when looking for a restaurant. A big attraction for us is that we have free parking which is easily accessible for our customers. It makes our restaurant much more appealing than alternatives on Swords main street. Loss of car parking spaces will have a huge knock-on effect on us.	As noted by EIAR Chapter 9 Traffic and Transport, during the Main Works at Pinnock Hill Junction, the construction site extent and new active travel link during Phase 2 will result in the temporary parking space loss of approximately 20% in the Travelodge car park. The level of loss will be slightly less during Phase 1 and will represent an approximate 10% loss of spaces.	
2	Letter	1	The proposed roundabout and road closure will cut off direct access for customers wishing to access our business. I understand you will have diversions in place, but this leads to extra stress for the customer and, ultimately, a loss of business for us.	As noted by your observation access to and from the business premises will be maintained. As outlined by the EIAR, the R125 South arm will be impacted for six to nine months for unavoidable works - with pedestrian and cyclist access to be maintained to limit adverse impacts to the area. While diversions from the north and west are considerable, there is also alternative routing via Mountgorry Way. Further, traffic coming from Dublin City Centre and Dublin Airport will experience a much reduced level of diversion compared to northwest originating traffic, with only a 200m difference in route distance compared to 1.7km for traffic from the north and west.	
3	Letter	1	Our restaurants give customers time to relax with friends and enjoy the atmosphere we create through interior design, appropriate background music and a nice buzzy feel created by our staff. We are concerned that this will all disappear due to the impact of noise and construction dust outside. Who would want to sit in our restaurant when there is a Kongo hammer working outside?	TII note your concerns related to the impact of construction noise and dust and have assessed these impacts as summarised below. No significant noise impacts are predicted and construction generated dust will be managed so that it does not cause a nuisance. <u>Construction Noise</u> The impact from construction noise on the Travelodge Hotel building is assessed in EIAR Chapter 13 Airborne Noise and Vibration. The assessment, presented in Appendix 13.7, shows the noise levels during construction will be between 45 - 55 dB depending on the construction activity, well below the threshold limit of 70dB, resulting in a not significant impact on this buildings operation as a result of the MetroLink construction phase. <u>Construction Dust</u> A summary of dust emission magnitudes from the main construction sites is shown in Table 16.44 of EIAR Chapter 16, Air Quality. The results for Malahide Roundabout to Pinnock Hill – Including Swords Central Station predict an overall dust risk to define the site-specific mitigation level of Medium. A detailed list of Dust Mitigation Best Practice Measures for each construction activity is presented in the EIAR Appendix 16.4 Dust Management Plan to prevent dust nuisance. Before commencing relevant works, an Air Quality Management Plan will be prepared for each worksite and submitted for approval to the relevant planning authority. The plan will include all appropriate dust and emissions mitigation measures applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. Dust prevention will be in place at all times to minimise any potential emissions and these procedures will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to cause dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations.	

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4	Letter	1	Our signage and brand name are essential in attracting customers into our site. We have concerns about the negative impact on the visibility of our signage when construction starts.	TII and their contractors will not obstruct your signage unnecessarily. Where this is not possible, temporary signage will be introduced during construction works and will be the subject of further engagement.	

Submission No.			283	
Organisation Name or Name of Submitter			Smyths Toys Superstores (represented by RW Nowlan & Associates)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Submission on Proposed Railway (Metrolink - Estuary to Charlemont Via Dublin Airport) Order (2022)				
1	Executive summary	1	Under the proposed Railway Order the existing store would need to be demolished. The implications of the loss of this store to the area would be significant given the expected population growth in the area.	Where Smyths Toys Superstores occupational interest at Airside Retail Park is to be acquired by the use of compulsory purchase powers then they would be entitled make a claim for compensation in accordance with the compensation code. The Code provides that qualifying occupiers can recover the reasonable costs of relocation which have been properly and necessarily incurred as a direct consequence of the acquisition.
2	Executive summary	1	An alternative site for the existing store has not been identified in the planning report.	The Planning Report sets out the planning policy compliance of the Railway Order application and does not, nor is required to include the identification of alternative sites for relocation of people/businesses/organisations etc impacted by MetroLink land take.
3	Executive summary	1	While the proposed station also appears to materially contravene the zoning objective of the development plan, the report concludes that in the absence of identification of a suitable replacement site, the Railway Order should not be confirmed.	TII do not agree that "the proposed station also appears to materially contravene the zoning objective of the development plan". The proposed Project will deliver high-quality public transport infrastructure that will increase accessibility to Airside Retail Park and further strengthen its connections in the county. This will maintain the vitality and viability of Airside Retail Park in line with objective ED51 of the FDP: 'Maintain and strengthen the vitality, viability and regeneration of the County's Major Town, Town, Local and Village Centres by providing for civic, leisure, cultural and tourism attractions while ensuring that retailing remains a core function of these centres' and as such support the zoning objective in making the location more accessible, provide a more sustainable offering and contribute to improving the aesthetic quality of the setting. As noted in the Planning Report that accompanies the Railway Order, the Vision for the underlying Retail Warehousing zoning objective is to "Facilitate the sale of bulky goods/goods in bulk within high quality settings and highly accessible locations, with an emphasis on exemplar sustainable design and aesthetic quality". The Planning Report sets out the planning policy compliance of the Railway Order application and does not, nor is required to include for the identification of alternative sites for relocation of people/businesses/organisations etc impacted by MetroLink land take. The proposed Project will deliver high-quality public transport infrastructure that will increase accessibility to Airside Retail Park and further strengthen its connections in the county. This will maintain the vitality and viability of Airside Retail Park. The proposed metro station will help to support retail warehousing and ancillary services through improved connectivity and accessibility in line with the current land use zoning. <i>Note The 'report' that refers to a need for identification of an alternative site is in fact the observation itself not the Planning Report (which does not say that an alternative site needs to be identified).</i>
4	3.0 Fingal County Population	4	3.4 It is therefore submitted that the population projections provided by the Fingal Development Plan specifically shows that the consumer growth within the region over the next approximate 10 years will be significant. It is therefore considered that the potential loss to Smyths Toys of the subject store would have major implications for servicing this strategic area. In addition, the loss and impact of the closing of the store today must also be mitigated into the future to take into account of the increasing youth population over the next 8 years. 3.5 The potential loss of this store to the town would have particular impact given the significant population growth that is foreseen for the area especially of the young population.	Please refer to response item (3) above.

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5	4.0 Development Plan Policy	4	4.3 Under the Fingal County Retail Hierarchy, Swords is the highest level settlement in the county, i.e. level 2 directly below Dublin City Centre which is level 1. It is an objective of the (draft) Fingal County Development Plan that ..." <i>new significant retail development be primarily directed to the higher Levels in the Fingal Retail Hierarchy and specifically to the core retail areas identified for these centres. Only in exceptional circumstances (where the Planning Authority is satisfied that there are no sites or potential sites available either within the core retail area or on-the-edge of the core, and that the proposed retail development is necessary to serve the needs of the area) will proposed retail developments that are located outside of these centres and/or the core retail areas of these centres be positively considered</i> ."4 This means that any alternative site for the store to be demolished, must be located on the edge of the core retail area within the town of Swords as the core retail areas is not suitable for a store like Smyths Toys Superstores.	The comments made in relation to the Fingal County Retail Hierarchy are noted. It is matter for Smyths Toys Superstore, to consider potential relocation options, should they so wish to pursue, at the relevant time, in other locations including options outside of the immediate area.
6	6.0 Fosterstown Station Materially Contravenes the Development Plan	5	6.2 The zoning objective in the draft development plan (which will soon become the operative plan) is Retail Warehousing and the objective is: ... " <i>To Provide for Retail Warehousing.</i> " The zoning objective for Retail Warehousing does not facilitate the proposed use of a metro railway station. The planning report states the following in this regard: ... " <i>Fosterstown Station lies within lands zoned as HT and RW in the Fingal FDP. Under these zoning objectives, 'public transport station' does not come within either 'Permitted in Principle' or 'Not Permitted' uses. The FDP notes that 'Uses which are neither 'Permitted in Principle' nor 'Not Permitted' will be assessed in terms of their contribution towards the achievement of the Zoning Objective and Vision and their compliance and consistency with the policies and objectives of the Development Plan.</i> "	As per the Planning Report, Fosterstown Station lies within lands zoned as HT and RW in the Fingal - CDP. Under these zoning objectives, 'public transport station' does not come within either 'Permitted in Principle' or 'Not Permitted' uses. However, the FDP notes that 'Uses which are neither 'Permitted in Principle' nor 'Not Permitted' will be assessed in terms of their contribution towards the achievement of the Zoning Objective and Vision and their compliance and consistency with the policies and objectives of the Development Plan.
			6.3 It is difficult to see how the proposed metro station would contribute towards the objective to provide for retail warehousing. In fact, it does exactly the opposite: it would remove a large retail warehouse building from the retail warehouse park without suggesting an alternative location for this building.	Therefore, in consideration of the fact that the proposed project is of strategic importance to the long-term development of the Dublin region for land-use and transport and has been specifically identified as being of national importance in the National Planning Framework, National Development Plan, Fingal Development Plan and other key statutory documents, it is considered that the proposed station is consistent with the strategic policies and objectives of the development plan, and therefore TII do not agree with the observation statement that "The proposed development therefore materially contravenes the development plan zoning objective".
			6.4 The proposed development therefore materially contravenes the development plan zoning objective.	

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7	7.0 Location of the Fosterstown Station Inconsistent with Development Plan	6	7.1 Under the draft Development Plan 2023-2029 and the Fostertown (draft) Master Plan, the proposed Fosterstown Station is located immediately north of the subject site and outside the retail warehousing zoned area. While the development objectives in both plans are indicative in terms of the precise location, the need to locate the station slightly further south from the locations shown in both plans, is not explained in the planning report. 7.2 The proposed development is in a different location to that shown in the development plan objective. The proposed change from the location as shown in the Development Plan, is not explained.	Within the Fingal Development Plan 2023-2029 an alignment for a Metro serving Swords and Dublin Airport is referenced in the written statement and in the zoning maps. This is identified as an indicative alignment in the written statement and as 'Indicative Metro Route' on the development plan maps. For details of the proposed Fosterstown Station please refer to EIAR Chapter 7, Description of the Alternatives, section 7.7.10.4 and Appendix A7.1 Fosterstown Station Options Report. This outlines the evolution of the proposed Project and how alternatives to the alignment, station locations/layout and construction methods have been considered and assessed. This process of assessment and refinement of the route and station layouts has determined the proposed requirements for permanent land take. Fosterstown Station was identified in the Emerging Preferred Route as being located just north of Airside Retail Park on the R132 Swords Bypass. However, following a multi-disciplinary analysis as described in the EIAR Chapter 7, Section 7.7.9.2, a decision was made to relocate the Station for the Preferred Route to the east of the R132 Swords Bypass in the vicinity of Airside Retail Park. The design developed for the Preferred Route had footbridges proposed across the R132 to allow access to the Station. However, the requirement for these footbridges was removed due to the Fingal County Council proposals to develop the R132 upgrade project which aims to turn the road into an urban road with direct pedestrian and cycling access across the roadway to Fosterstown Station. As part of the preliminary design development, other station location and alignment options at this location were considered to determine whether other feasible options (station location and alignment) could be adopted that would mitigate the impact on the Airside Retail Park and in particular identify design solutions that would avoid demolition of the end of terrace retail warehouse unit. In each case, the station location has been moved either north or south of the present proposed location that coincides with the end of terrace retail unit, with the associated track alignment moved west. The current proposed station location was compared to a number of alternative options. A two stage multi-criteria analysis (MCA) was undertaken to identify the preferred location for the Fosterstown Station taking into consideration the potential for direct impacts on commercial properties in the Airside Retail Park, and on traffic movements on the R132. All options were subjected to an initial MCA to provide an Initial appraisal of these options. From this assessment the two best performing options – the Preliminary Design option (current proposed RO application) and Option 2A (<i>The station is moved to the north. MetroLink alignment moved west to avoid Airside buildings and runs under the R132 over a length of approx. 140m</i>) were subject to more detailed comparison. This more detailed MCA comparison indicated that Option 2A – avoiding the Airside building – although considered cost neutral compared to the current proposed station location, had significant disadvantages compared to the proposed Preliminary Design option (current proposed RO application). It would have more extensive construction impacts, including additional utility diversion requirements; significant impact on the R132 traffic and other road users over an extended length of the R132 with an approximate 5-year construction period; a poor urban integration of the station adjacent to the R132; and the introduction of a poor horizontal track alignment which would constrain the operational speed of trains in this area. On this basis it was concluded that the best available option for the MetroLink alignment and the Fosterstown Station location past Airside is that proposed by the submitted Railway Order application.

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Submission on Proposed Railway (Metrolink - Estuary to Charlemont Via Dublin Airport) Order (2022)				
8	8.0 Lack of Alternative Location for the Retail Store	8	8.2 The planning report further suggests that ..." there is capacity to construct a new unit, either on its own or as part of a more significant development to replace the demolished unit. "9 However, no suggestion is made for such an alternative location. Our clients are very concerned that it will not be feasible to find an alternative location for the existing store which is as convenient to the customer based in terms of accessibility. In addition to providing retail floorspace, the current premises also provide office accommodation for approx., eight head office staff.	Please refer to our comments made in response (1) above. TII introduced the MetroLink Land Acquisition Strategy (the 'Strategy') with a view to setting out the arrangements proposed for the provision of information and assistance to the commercial occupiers of land and property subject to compulsory purchase for the delivery of MetroLink. TII will use reasonable endeavours to make arrangements to provide businesses with a longer period in which to relocate than the statutory process allows for. In such cases, the overall aim will be to provide as long a period as possible, commensurate with the co-ordinated progress of the Project works. TII has committed to providing as a minimum the best estimate available of the date upon which the Smyths Toys Superstore occupied unit is likely to be required for the Project. With a view to assisting Smyths Toys Superstore it may be beneficial for an estate agency service to be instructed to provide impartial advice in support of any business relocation. TII will continue to engage with Smyths Toys Superstores to understand their property requirements and consider possible future options for relocation where suitable alternatives may be available.
9	8.0 Lack of Alternative Location for the Retail Store	8	8.6 It is considered that the proposed Railway Order and the accompanying planning report are deficient in failing to provide for customer demand of the Fingal population in that no suitable alternative locations is put forward to replace the store which is intended to be demolished under the proposed plans. The identification of a suitable alternative location should form part of the planning analysis of the proposed Railway Order and in the absence of such analysis the Order should not be granted, or further information should be sought from the applicant re this matter.	TII do not consider that the submitted Railway Order application or accompanying Planning report is deficient. Response (7) above explains the documented decision making process that has led to the selection of the proposed Fosterstown Station, and response (2) explains why TII do not consider the Planning Report to be deficient. The identification of a suitable alternative location is not within the scope of the Railway Order application, howsoever, please refer to response (8) above.
			8.7 No provision is made in the proposed Railway Order for a replacement or relocation of the existing retail store.	
10	9.0 Conclusions bullet 1	8	The proposed demolition of the existing retail store to facilitate the development of a railway station would materially contravene a zoning objective in the current and draft county development plans.	Please refer to response (3) above.
11	9.0 Conclusions bullet 2	9	The proposed railway station is in a different location to that shown in the development plan for the area. The justification for this change in location is not provided in the application for the Railway Order.	Please refer to response (7) above.
12	9.0 Conclusions bullet 3	9	No provision is made in the proposed Railway Order for a replacement or relocation of the existing retail store even though the demolition of the existing store is stated to be necessary	Please refer to response (8) above.
13	9.0 Conclusions bullet 4	9	While the planning report refers to 'capacity" to construct a new unit to replace the demolished unit nothing has been proposed and it is unclear where the capacity exists.	Please refer to response (8) above.
14	9.0 Conclusions bullet 5	9	Under the Retail Hierarchy of the Fingal County Development Plan, a replacement store needs to be located in Swords. Given the anticipated population growth in the area and the lack of other Smyths Toys Superstores within the Fingal East area, where our current site be closed it is essential for Smyths Toys Superstores business that a replacement site be found in the vicinity of the current site. This is not adequately considered in the Railway Order.	Please refer to response (5) above.
15	9.0 Conclusions bullet 6	9	In the absence of the identification of an alternative site for the proposed demolition of the Smyths Toys Superstores, the proposed Railway Order is deficient and should not be confirmed.	TII do not consider that the submitted Railway Order is deficient. Response (7) above explains the documented decision making process that has led to the selection of the proposed Fosterstown Station, and regrettably the proposed demolition and therefore significant impact on the Smyths retail unit to deliver the benefits of MetroLink. Please refer to response (8) above.

Submission No.			284		
Organisation Name or Name of Submitter			Saint Anne's Resident's Association (110 Saint Annes Kimmage) - submitted by Aidan Hodson, Chairperson the Association		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Re: Case reference: NA29N.3 14724 -314724: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin					
1	Statement	2	This submission wholly relates to that portion of the proposed Metro Link beyond the station located at St Stephen's Green East. For the avoidance of any doubt we are fully supportive of the project from Estuary to St Stephen's Green, which we consider is long overdue.	TII wish to thank you for your submission and statement of support for the delivery of MetroLink. Please refer to the responses below to address your concerns.	
2	Submission	2	We submit that Bord Pleanála should defer the authorisation of the section of MetroLink beyond the St Stephen's Green station, other than to create a turning section similar in length to that which is currently proposed for Manders Terrace.	TII do not agree that the Project should not continue past St. Stephen's Green for the reasons set out below. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to Metro with a Metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the Metro in all the above directions. The proximity of the Metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south to areas such as Rathmines. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).	

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Re: Case reference: NA29N.3 14724 -314724: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin				
3	Submission	2 and 3	Reasons are as follows: 1 . Failure to consider an alternative routing of the terminus notably towards Rathmines We would submit that the Rathmines or Portobello area would be a far more suitable location for a terminus but TII has wholly failed to consider this. This became relevant once the destination for a southern terminus was to be in or in the vicinity of the south inner city, rather than Sandyford.	Further to response item (2) above. It is also important to note that arising from the decision to postpone the future upgrade of the Green Line to Metro services,-Charlemont station effectively becomes a terminus station in the short to medium term. While it is true to say that the MetroLink trains will terminate and turn back at Charlemont station, the public transport service offering for passengers does not terminate, as it transfers from MetroLink to LUAS as part of the integrated transport network. Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. The-public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. A location of a station at Rathmines/Portobello would not offer this high quality interchange opportunity. Please note that future Metro services south of Charlemont do not form part of the Metrolink scheme as presented under the Railway Order. TII's role is to deliver MetroLink as supported by the Transport Strategy for Greater Dublin Area (2022-2042) and Dublin City Development Plan 2022-2028. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy. The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport, and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the southwest, south or southeast of the city region should sufficient demand arise."
4	1. Failure to consider an alternative routing of the terminus notably towards Rathmines	3	Rathmines Road under BusConnects will have four 'A' services and a number 80, 81 and 82 with an aggregate frequency of 33 per hour peak time in each direction. A terminus for MetroLink in Rathmines or Portobello would offer superb bus connectivity and would connect much of the south west city including our own area of St. Anne's Estate off Kimmage Road West close to KCR Junction via the 15a bus route to Rathmines and, if located in Portobello, via the no. 9 bus.	Please refer to response item (2) and (3) above in relation to continuation of the Project south of Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any future extensions to MetroLink will be subject to full optioneering, planning, design and appraisal and will require approval from An Bord Pleanála.
5	1. Failure to consider an alternative routing of the terminus notably towards Rathmines	3	We note that in the context of the preparation of the Greater Dublin Area Transport Plan 2022- 2042, the National Transport Authority did a feasibility study entitled Metro to Knocklyon. We don't regard this as having been, in any way, adequate to fully assess the matter. Among its limitations this feasibility study did not include the continuance of the Metro beyond Knocklyon to link up with Tallaght and the Red Line Luas. This addition would have made the Benefit Cost Ratio exceed the 1.0 necessary for approval. We would request that a proper/comprehensive feasibility study be done to assess the options for the south west city. We do not believe that any progress can be made in assessing the alternative option unless a proper assessment of metro to the south west city is done.	Please refer to response items (2) and (3) above in relation to continuation of the Project south of Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any future extensions to MetroLink will be subject to full optioneering, planning, design and appraisal and will require approval from An Bord Pleanála. The Metro to Knocklyon Feasibility Study is not part of the submitted Railway Order.

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6	Submission	3	2. Limitations of Charlemont terminus for radial extensions onwards to south city. It would seem, that the longer term intent is, that the MetroLink line be extended into the south city area. There are statements on this by various persons including NT A senior executives and the Minister. There are three alternatives posed: a. south west city towards Tallaght, b. continuing on the existing Luas line or c. heading south east towards UCD and Sandyford. We believe that if the tunnel is bored as far as Manders Terrace, this seriously compromises the ability for an extension to serve important communities. In particular we find it difficult to see how MetroLink could be extended to include relatively inner city suburbs such as Portobello, Lr. Rathmines, and Harold's Cross with potential onward extension in Phase 2 of Metro Link to South West Dublin towards Tallaght. We would submit that proper planning requires a proper evaluation of the options for extension and that it is not consistent with proper planning to permit a station at Charlemont which would compromise the options.	Please refer to response item (2) above in relation to continuation of the Project south of Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any future extensions to MetroLink will be subject to full optioneering, planning, design and appraisal and will require approval from An Bord Pleanála.	
7	Submission	4	3. Potential Environmental benefits for south city consequential from pause for exploration of alternative extension route. Deferring the section of MetroLink beyond St. Stephen's Green would remove potential congestion in the south city arising from the works towards Charlemont. In the longer term it would also enhance the feasibility of the future continuance of Metrolink Phase 2 to South West Dublin and on to Tallaght. This in turn would facilitate an efficient public transport system to accommodate the sprawling suburbs to the South West of the City with consequent reduction in carbon emissions.	Please refer to response item (2) above in relation to continuation of the Project south of Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any future extensions to MetroLink will be subject to full optioneering, planning, design and appraisal and will require approval from An Bord Pleanála.	
8	3. Potential Environmental benefits for south city consequential from pause for exploration of alternative extension route	4	• There is a large population (350,000+ in Census 2022) between the Red and Green Luas lines. • With only narrow roads, buses cannot be sufficient to service this population and the narrow streets have led to the rejection of Luas (twice) by the NTA. • There is a compelling case to continue MetroLink as a Phase Two project from the city to Tallaght in South West Dublin. • Pending the decision on Phase Two, MetroLink should have its final station in St Stephens Green and the interchange of passengers with the Green Luas should take place here. • This would facilitate the option of including Rathmines, Harolds Cross and Portobello in the catchment of Phase Two of MetroLink.	Please refer to response item (2) above in relation to continuation of the Project south of Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any future extensions to MetroLink will be subject to full optioneering, planning, design and appraisal and will require approval from An Bord Pleanála.	
9	3. Potential Environmental benefits for south city consequential from pause for exploration of alternative extension route	4	In view of Climate Change, the future continuance of MetroLink Phase 2 to South West Dublin (which would be more feasible with the deferral in the immediate/medium term of the section beyond St. Stephen's Green), would remove many car journeys from the outer suburbs and off the often congested M50 thereby reducing our carbon emissions.	Please refer to response item (2) above in relation to continuation of the Project south of Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any future extensions to MetroLink will be subject to full optioneering, planning, design and appraisal and will require approval from An Bord Pleanála. Information on the impact of the MetroLink Project on Climate during the Construction Phase and Operational Phase to further the achievement of the national climate objective, is set out in full within Chapter 17: Climate.	

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10	Submission	4	4. Poor access to Charlemont from Rathmines Road. As we note above there will be numerous buses (33 per hour peak in each direction) on Rathmines Road once BusConnects is implemented. Therefore, we think it is very likely that a lot of passengers will alight at Portobello Bridge and walk across to the MetroLink, particularly if they want to access parts of the North city or the airport, quite likely with luggage.	The proposed MetroLink project is part of a proposed future integrated public transport network for Dublin, so interchange with other modes of public transport is to be encouraged. However it should be noted that detailed modelling has been undertaken for the project to understand the level of interchange and passenger demand at each proposed station. As presented in Table 5.8, Table 5.9 and Figure 5.2 of Appendix A9.2B to the EIAR a pedestrian assessment has been undertaken having regard to predicted future pedestrian movements including those generated by Bus Connects. There are predicted to be passengers coming from the Portobello area as suggested. However the assessment of impact presented in Section 6.1.3 of the above mentioned report indicates that levels of pedestrian comfort overall will be acceptable around Charlemont station in 2050, once the proposed pedestrian crossing and access staircase to the LUAS stop is in place.	
11	4. Poor access to Charlemont from Rathmines Road.	4	• There is no thought given in the TH plans to the route such people will walk/take, but we suspect it would be on both sides of Canal Road and Grand Parade. • The Railway Order plan contains no proposals for a proper infrastructure to facilitate this. • However, the most obvious solution to this problem is to have a terminus closer to Rathmines Road.	As outlined in Chapter 09 (Traffic and Transport), a microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance.	
12	4. Poor access to Charlemont from Rathmines Road.	4	We submit that Bord Pleanála should defer the authorisation of the section of MetroLink beyond the St Stephen's Green station, other than to create a turning section similar in length to that which is currently proposed for Manders Terrace.	Please refer to response item (2) above in relation to the continuation of the Project to Charlemont. If a decision was taken to terminate MetroLink at St Stephen's Green, significant changes would be required to the scheme. These would include design changes at St Stephen's Green station and provision of alternative turnback facilities immediately south of the station.	
13	4. Poor access to Charlemont from Rathmines Road.	5	It would be premature to constrain the available options by allowing MetroLink to proceed beyond St Stephens Green to Charlemont / Manders Terrace. Having the Tunnel Boring Machine left buried under Ranelagh will add a further seven hundred million euros (approximately) without any transport benefits. Based on the results of the feasibility study mentioned above, a decision could be made on the southern alignment of Metrolink well before the Tunnel Boring Machine comes near St. Stephen's Green.	Please refer to response item (2) above in relation to the continuation of the Project to Charlemont over St Stephen's Green.	
14	Submission	5	5. Unsatisfactory linkage of MetroLink and Luas at Charlemont Charlemont is most unsuitable as the interchange with Luas as it would require incoming Luas passengers to cross the Luas tracks; descend three flights of stairs; walk in the open; and descend three escalators to finally reach the MetroLink train. By contrast, locating the interchange in St Stephens Green could require a short walk and one escalator. While the Charlemont interchange might be considered inconvenient for many, for others such as mothers with buggies, people with disabilities and older people it could border on social exclusion.	TII do not agree that Charlemont provides an unsuitable interchange with the Luas Green Line. The proximity of the Metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and Metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. Please refer to response items (10) (11) in relation to the pedestrian impact assessment undertaken at this location.	

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Re: Case reference: NA29N.3 14724 -314724: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin				
15	Submission	5	6. Current Traffic Congestion in St. Anne's Residents' local area requiring a major upgrade of public transport Living at the KCR end of Kimmage Road West, we currently access the city through some public transport corridors with significant pinch points e.g.. Terenure Cross, Rathmines Road, Kimmage Cross Roads, Lower Kimmage Road (particularly around Mount Argus), Harold's Cross Bridge. The consequent long journey times lead to considerable stress for our residents particularly during morning gridlock. This has led to a situation where one of the main objections do our residents and other neighbouring residents' groups to recent proposed new housing developments in the area, being that they would worsen traffic congestion. It seems to us and to many engineers to whom our umbrella MSWG group has spoken that the solution to this would be a MetroLink to the South West City and Tallaght.	Please refer to response item (2) above in relation to continuation of the Project to Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any feasibility studies undertaken as part of future phases of the study will be subject to the planning, design and appraisal of the NTA.
16	Conclusion	5	The above are the key reasons why as a residents' association, in the immediate term, we are seeking the deferral of the section of MetroLink beyond St. Stephen's Green in order to provide time for the feasibility study referred to earlier and to enhance the feasibility of a future Phase 2 to the South West Dublin and on to Tallaght.	Please refer to response item (2) above in relation to continuation of the Project to Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any future extensions to MetroLink will be subject to full optioneering, planning, design and appraisal and will require approval from An Bord Pleanála.

Submission No.			286	
Organisation Name or Name of Submitter			Suzi Taylor and G.I Taylor	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Objection/Observation: Rail Order 2022 (MetroLink-Estuary to Charlemont via Dublin Airport) Case Reference Number NA29N.314724				
1	Letter - introduction	1	In general we appreciate that a Metro connection from the city centre to the Airport is a worthwhile project to bring Dublin up to speed with other modern European cities. The proposed siting of a Metro terminus on Charlemont/Dartmouth Road though is misplaced planning in a domestic housing community. Our family home is directly opposite the proposed development of the Metro Terminus, the proposed Dartmouth Road Metro entrance/exit and the plans indicate tunnelling directly under our property. The proposed development would have huge implications for the local community and amenities in the area, as well as the listed Victorian houses on Dartmouth Road and their residents.	Thank you for taking the time to make a submission and your overall endorsement of the MetroLink Project. We have reviewed your submission and responded to the observations made below. TII have carefully assessed both construction and operational impacts and do understand your particular concerns regards the proximity of 32 Dartmouth Road to the construction of the proposed Charlemont Station. While TII are of the view that the construction environmental impacts can be mitigated (please see further detail below), relocation is an available option during peak construction. Temporary re-housing is covered in the Airborne and Groundborne Noise Mitigation Policy and TII are available to discuss this option if that is something the property owner would like to explore. TII would further note that there are no profound impacts predicted during the operational phase. TII have responded below to the individual detailed observations raised by this submission, including the proposed; Charlemont southern entrance, tunnel south of Charlemont Station, construction generated ground movement impacts, and impacts on the community and amenity. <u>The Rationale for a Proposed Station and Turnback at Charlemont</u> TII do not agree that Charlemont is the incorrect location for an interchange with the Luas Green Line or that it prejudices future options for integration with the wider transport network for the reasons set out below. In the Emerging Preferred Route Report, Charlemont was identified as the last station prior to the tie-in to the Green Luas Line which was intended to be upgraded to Metro standard. As outlined in EIAR Chapter 7, the decision to terminate at Charlemont instead was driven by three factors: (a) the additional impacts that would be involved in upgrading the Luas south of Charlemont as a result of the proposed adoption of a high degree of automated operations (GoA4); (b) the development of alternatives to accommodate increased capacity on the Luas line south of Charlemont without that upgrade; and (c) Feedback received during the EPR non-statutory consultation. St. Stephen's Green West was ruled out as the alignment between the proposed Tara Station and a station on St Stephen's Green West would result in an undesirable horizontal reverse curve and an alignment greater than a 1000m long that would necessitate an intermediate intervention shaft located somewhere between these stations to comply with the MetroLink Fire Strategy. Further, as a potential station location, St Stephen's Green West itself is a very constrained location due to the presence of buildings, Luas and St Stephen's Green Park. Maintaining the Luas operational during station construction would be complex and challenging with significant disruption expected, whilst the impacts on St Stephen's Green Park would be greater for a station in this location compared to the proposed location on St Stephen's Green East. This would be the result of; the likely need to place more of the station in the Park compared to the proposed station on St Stephen's Green East; it would impact an area of the Park that has greater amenity value than St Stephen's Green East due to the nearby Park entrance adjacent to the southern end of Grafton Street, and there would be a risk of impacting the existing Park lake. In summary, an alignment that links the proposed Tara, St Stephen's Green East and Charlemont stations is a more direct and economic alignment, does not require additional intervention infrastructure, avoids a complex engineering interface with the Luas Green Line, impacts the Park less and has less potential for disruption during the construction phase.

Submission No.			286	
Organisation Name or Name of Submitter			Suzi Taylor and G.I Taylor	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Objection/Observation: Rail Order 2022 (MetroLink-Estuary to Charlemont via Dublin Airport) Case Reference Number NA29N.314724				
			Response (1) continued.	The proximity of the Metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and Metro at the St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future Metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." MetroLink to Charlemont provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the Metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategy was prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future Metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." Under the Planning and Development Act 2000, the Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station is endorsed by detailed project-level analysis (ref EIAR Chapter 7 Consideration of Alternatives, section 7.7.8, and EIAR Appendix A7.9 Terminus Station at Charlemont compared to St. Stephens Green) and the strength of that location is reflected at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to Metro with a Metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the Metro in all any of the above directions.

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2	Misplaced Terminus	1	The Terminus should be sited in the city centre, Tara Street, serving city centre area, where there are already plans for a Metro station which could be developed further. A much more suitable environment to link passengers connecting with the Dart and Luas lines, many bus lines, and has the infrastructure of services for a travelling public, having nearby shops, cafes etc. No Study has been completed by NTA/TII as part of the Metrolink project on the most suitable location for a Dublin city centre Terminus.	Response (1) above explains the rationale for a proposed station at Charlemont. TII do agree that Tara Street Station is an appropriate location for a key interchange and this has been provided, along with other key points of interchange including the Park & Ride at Estuary, Dublin Airport, Glasnevin and the Luas Green Line at Charlemont. As outlined in EIAR Chapter 3, the proposed Project is part of a wider integrated transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more liveable and sustainable city. Whilst MetroLink is a standalone project that is not dependent on any other projects for its delivery or effective operation, it is nonetheless a critical part of the proposed integrated transport network for the Greater Dublin Area. TII would further note that a number of route options were considered in the process of identifying the Emerging Preferred Route (EPR). However, none of these considered the option of terminating at Tara Street as the route options were designed to facilitate a connection with the Luas Green Line south of Charlemont and the commercial, business and residential areas to the south of Tara and up to Charlemont station support significant catchment for the proposed Project. It is being argued that Charlemont station effectively becomes a terminus station in the short to medium term. In this regard, it is true to say that the Metrolink trains will terminate and turn back at Charlemont station, however the public transport service offering for passengers does not terminate, it transfers from Metrolink to Luas as part of the integrated transport network. The terminus station for MetroLink is located at Estuary where all of the activities normally associated with a terminus (train sideways, car parking etc) take place. At this location the high capacity public transport offering terminates and the public transport offering transfers to a completely different mode, i.e. Bus or car . The environmental effect of the MetroLink terminus are accordingly assessed in the EIAR. Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a “system turn back location”. Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. The associated environmental impacts for the turnback and station at Charlemont have been fully assessed in the EIAR. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services, as outlined above. The section of the line between St Stephen’s Green and Charlemont generates considerable benefits for the scheme in terms of increased patronage. Operationally, the Station will see people moving quickly in and out of the area, noting that it will act as an interchange, and has been deliberately designed with minimum set down space or room for taxis so that it does not encourage the Station to be used as a terminus. All operational environmental impacts are mitigated so they are not significant, while the impact on amenity will be permanent and positive. The proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) in which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future Metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.

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3	Duplication of route and excessive project expenditure	1	There is no need to duplicate Luas and Metro lines from the city centre to Charlemont, an extremely costly and disruptive extension, locking in a south direction for a future Metro development. The implications of this new alignment is very significant to the wider community, it would involve top-down construction threatening other homes in Ranelagh area in the future. The Metrolink project would be better served by providing an axis possibilities towards UCD or Terenure to serve those areas where the Luas or Dart lines do not serve at present.	There is no duplication of infrastructure between St Stephen's Green and Charlemont noting the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). TII also do not agree that Charlemont locks in the possible future extension of the Metro south. As previously noted, Charlemont does not preclude future extension of the Metro to the south, south-east or south-west should sufficient demand arise, and that this is in accordance with the government approved 2022-2042 GDA Strategy. There is also no basis to suggest there will be an increased demolition of houses, if in the future, the Metro is extended south, this does not mean that inevitably open cut construction will be required or demolition of property will be necessary. It is possible that in the event of a tunnel being constructed to connect to Charlemont Station that this would be undertaken from a site further south.

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4	Unsuitable linking of Luas/Metro connection	2	There is a difficult link between the Charlemont Luas (high embankment and bridge), with ground level proposed access to the Metro system, not suitable for those with disabilities/mobility issues, luggage etc. in all weathers. For many years the Grand Canal road route has been notoriously congested. The addition of construction traffic, followed by public access to the proposed Metro Terminus, will put excessive pressure on the area. As the Luas, Dart and many bus lines already connect passengers from south Dublin to the city centre these passengers could easily connect with a future MetroLink there.	Transport modelling has been carried out for both the construction and operational phases of the Project, the results of which are summarised. This shows there will be no significant impacts and that Charlemont Station will provide for improvements to the public transport network once operational. Traffic and Pedestrians - Construction Phase EIAR Appendix A9.5 Scheme Traffic Management Plan presents the analysis undertaken to assess the impact of the traffic management measures on the local road network surrounding the proposed Charlemont Station during the construction phase. At the local level the following parameters have been used to assess impacts on general traffic and on pedestrians: • Increase in walking distance/quality of service for pedestrians (through removal of footpath, reduction of quality of service, removal of a pedestrian crossing or relocation of crossing by more than 100m); • Increase in driver delays at junctions; • Changes in traffic flows on surrounding streets; and, • Additional distance travelled due to diversions. The analysis undertaken at this location indicates that the increased volume of traffic on Grand Parade and Northbrook Road does not translate into any significant increase in driver delay. The largest increase in driver delay of 12 seconds is registered on the westbound approach on Grand Parade to the Ranelagh Road signalised junction. During the construction phase, pedestrians will experience a reduction in quality of pedestrian infrastructure and space. The construction site boundary will encroach upon footways in the local area, including the northern side of Dartmouth Road, and the southern side of Grand Parade. However, a temporary signalised crossing will be provided west of the Luas to maintain pedestrian access to and from the Stop. Whilst there are partial closures on Dartmouth Road and Grand Parade, pedestrian movements will be maintained on appropriately sized footways through the area. Traffic and Pedestrians - Operational Phase A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location for persons of restricted mobility and for travellers with luggage. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers. Please refer to Chapter 9: Traffic & Transport, Appendix A9.2-B Traffic and Transport Assessment Charlemont Station, section 6.1.3. Pedestrian Impact Assessment. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. The proposed pedestrian crossing on Grand Parade will have minimal impact on the traffic flow along Grand Parade and can be programmed to operate in sync with the existing signalised junction at Grand Parade /Charlemont Street to maintain the flow of traffic movements. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Furthermore, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus.

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5	Station box on Hines site	2	The station box at Charlemont, as constructed in 2021 /22 by Developer Hines, does not have the benefit of planning permission and has not been part of the EIA undertaken for this project. We have experienced high impact of drilling and construction in recent years (2021 -3) as the Hines Charlemont site is opposite our property, where the piling apparatus was in operation a few meters from the front of our houses.	The station box at Charlemont does have planning permission. As detailed in Chapter 4 of the EIAR (Section 4.17.12), planning permission was granted to Hines in April 2019 for Two Grand Parade including the refurbishment of Carroll’s Building (an eight-storey office building), demolition of the warehouses at the rear, provision of offices and other works (Dublin City Council reference 2373/17, An Bord Pleanála reference PL29S.300873). Permission was granted in February 2020 for amendments to the previously approved proposal (DCC reference 4755/19). The permission includes a condition requiring the developer to enter an agreement with Transport Infrastructure Ireland and the NTA, inter alia, “to accommodate the potential development, construction and operation of a Metro or light railway on, at or near the site of the approved development.” The permission requires the developer to facilitate the proposed Project by constructing a structural deck founded on bored secant piles which will form the central section of the Charlemont station box roof slab. The Hines (Grand Parade Property Trading Co. development) and Metrolink construction works required for Charlemont Station are presented in Appendix A5.3 Construction Sequence Report. As presented in EIAR Chapter 30, the cumulative potential of the Charlemont works has been assessed.

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6			It would radically impact the community of Dartmouth Road and Square for 8-10 years while the tunnelling, drilling, piling and construction work is carried out and the road closed to regular traffic. There would also be future negative impacts on the area. The nearby houses, including our's (32 Dartmouth Road, built 1890) will not be tolerable to live in while construction is carried out. It would inflict excessively high levels of noise, vibration, dust, and possible damage to Victorian properties.	Please refer to Responses (4) and (7) for the assessed traffic and pedestrian impacts during construction. TII have carefully assessed the construction impacts and TII do understand your particular concerns regards the proximity of 32 Dartmouth Road to the construction of the proposed Charlemont Station. While TII are of the view that the construction environmental impacts can be mitigated (please see further detail below), relocation is an available option during peak construction. Temporary re-housing is covered in the Airborne and Groundborne Noise Mitigation Policy and TII are available to discuss this option if that is something the property owner would like to explore. The Construction Sequence Report (Appendix A5.3, Section 8.4) shows diagrammatically the phasing of construction works at the site and the proximity to properties on Dartmouth Road. Noise associated with piling activities has been assessed in Chapter 13, Airborne Noise and Vibration. Noise associated with the piling works in closest proximity to Nos 26-34 Dartmouth Road has been assessed as being significant to very significant without any mitigation. However, with the mitigation measures proposed (as detailed in Section 13.6), residual noise levels are calculated to be controlled to below the construction noise thresholds and/or below the upper construction limit at these properties. Noise mitigation, as summarised in section 13.6.1 of the EIAR, includes for boundary hoarding around the station working area, comprising 7m high hoarding at the north boundary, and 4m at the remaining boundaries. All planned night-time work activities will have to be undertaken, controlled and mitigated under the detailed Construction Environmental Management Plan (EIAR Appendix A5.1) to maintain impacts below the agreed construction noise thresholds. Examples of mitigation measures that can be used to reduce impact are detailed within Chapter 13, section 13.6, including the use of enclosure structures for planned activities outside of the standard working hours. The rationale for 24/7 working on activities such as Mechanical Electrical Power (MEP) installation, TBM strip out, and tunnel clean and track laying, is that they can be managed underground without causing disturbance at night. While activities below ground are progressed on a 24/7 basis, site level activities such as deliveries etc will be limited to standard working hours (Chapter 5, Section 5.5.17.3 refers). Owing to the nature of the sprayed concrete intervention tunnel construction and to ensure a safe and stable method of excavation, and minimising settlement impact, the sprayed concrete intervention tunnel construction will be undertaken 24 hours per day, seven days per week. The groundborne noise and vibration arising from mechanical excavation of the tunnel will not exceed VDV Threshold Levels of 0.8ms-1.75 (VDV day) and 0.4ms-1.75 (VDV night) as set out in EIAR Chapter 14, section 14.2. During night-time support works at the surface, an acoustically clad steel framed building will be used within the compound to control airborne noise breakout to surrounding sensitive properties. All concrete to support the sprayed concrete tunnel lining operation will be batched on site within the acoustic enclosure and will not require night-time delivery. The predicted level of groundborne noise during TBM Passage is 47dB, above the Threshold Level of 45 dB indicating a potential significant impact to occupants for the limited duration of TBM passage, which is estimated to be 2-weeks. Unfortunately there are no effective methods available to reduce groundborne noise from TBMs at source and therefore the principal mitigation measure is advance consultation and engagement to inform residents of the timing of the TBM passing to allow building occupants to prepare for the temporary elevated noise levels. Therefore with the exception of some temporary disturbance (c. 2 weeks) resulting from the TBM passing, all other activities are not predicted to cause significant impact. As outlined in Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6), there is a process in place whereby further mitigation measures can be implemented at individual properties should this be merited.

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			Response (6) continued.	Other Groundborne Noise and Vibration EIAR Appendix A14.5, Groundborne Noise and Vibration and Blasting Modelling Results, 14.4 Section AZ4 Northwood to Charlemont, presents the predicted day and night groundborne noise and vibration levels for the construction and operational phases. The results for 32 Dartmouth Road are summarised below. (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs). • The predicted day and night levels of groundborne vibration during TBM Passage are 0.226ms-1.75 (VDV day) and 0.190ms-1.75 (VDV night). Both of these values are lower than the VDV Threshold Levels of 1ms-1.75 (VDV day) and 0.5ms-1.75 (VDV night), meaning that no significant impact is expected on the property or occupants as a result of vibration during TBM passage. • The predicted day and night levels of groundborne vibration during Mechanical Excavation are 0.003ms-1.75 (VDV day) and 0.002ms-1.75 (VDV night). Both of these values are lower than the VDV Threshold Levels of 0.8ms-1.75 (VDV day) and 0.4ms-1.75 (VDV night), meaning that no significant impact is expected to the property or occupants during mechanical excavation. • The predicted levels of groundborne vibration during blasting activities is 7mm/s (PPV - peak particle velocity) and air overpressure 110.9 (AOpdB). Both of these values are lower than the Threshold Levels of 8mm/s PPV and 125 AOpdB meaning that no significant impact is predicted to the property during Blasting. • The predicted level of groundborne noise during mechanical excavation is 39 dB, below the Threshold Level of 40 dB, meaning that no significant impact is expected on the building occupants from groundborne noise during mechanical excavation. Construction Traffic Noise Construction traffic noise impact is assessed and presented in Chapter 13, Section 13.5.2.6.9 AZ4: Construction Traffic. This shows that construction traffic noise impacts are neutral to not significant based on the peak construction month in 2028. As noted above, the construction traffic volumes used in the assessment are based on the reasonable worst case peak scenario which reflects a 'worst case month' under which the construction of multiple work sections are taking place concurrently as part of the proposed Project in AZ3 and AZ4. A further sensitivity assessment was undertaken for each of the main site compounds in AZ4 during the AM peak period using data for the most impacted traffic road section during this period as advised by the traffic team. During the assessed AM peak hour for each construction site compound within AZ4, the highest change in noise levels are all below 3dB resulting in a negligible to minor change in traffic noise level along the local roads. The calculated noise level along the road edge, whilst categorised as medium to high will not be altered to any perceptible level as a result of construction traffic flows and hence the overall impact is not significant.

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			Response (6) continued.	Dust / Air Quality Construction Phase EIAR Chapter 16, Air Quality, section 16.6 Mitigation Measures. The potential risk from dust emissions has been reviewed for the most important activities and for each of the construction areas. Before commencing relevant works, an Air Quality Management Plan will be prepared and submitted for approval to the planning authority (ref EIAR Appendix A51. CEMP, Section 6.3). The plan will take account of all relevant dust and emissions applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. The plan will be developed by the contractor and for each worksite shall include: - An inventory and timetable of activities which may give rise to emissions or dust; - Alert levels; - Alert system to be used (including notification process); - Details of control measures; - Details of dust monitoring arrangements, including the location of sensitive receptors, monitoring locations, and monitoring equipment to be used; and - Details of the air quality reporting requirements. In order to ensure that no dust nuisance occurs, a series of measures will be implemented, as detailed in Appendix A16.4. In summary, the measures will include: - Material handling systems and site stockpiling of materials designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; - Any blasting will be completed by specialised contractors with a specific blasting dust management plan; and - Hoarding will be provided around the construction compounds. Strict dust prevention will be in place at all times to minimise any potential emissions and these procedures will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations. Consistent implementation of good dust minimisation practices will ensure that the impact from construction dust is Long-Term, Localised, Reversible and not significant when considered with respect to the Environmental Protection Agency (EPA) description of effects (EPA 2022). Construction Generated Ground Movements The EIAR has assessed the impact of settlement on the houses on Dartmouth Road. EIAR Appendix 5.17 refers. The settlements predicted for the buildings directly over the tunnel are up to 45mm. The Phase 2 assessment of the impact for these buildings is "Slight" - please refer building B151 (32 Dartmouth Road) in table 5-2 of that appendix. The protected buildings along Dartmouth Road, within the zone of influence of the works, will be subject to a further Phase 3 refined assessment (despite the impact only being assessed as 'slight') to take account of final design and construction methodology details, most likely utilising advanced numerical modelling techniques and further surveys of the building. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements.

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7	Impact on Dartmouth Road and residents	2	Traffic will not have access to Dartmouth Road, we would not have vehicle access to our property, or use our off street parking, or street parking near the house for an estimated 8+ years. The area would involve haul routes and vehicle holding areas for an excessive length of time. It is vital that residential parking be reinstated as it affects 1 0 houses on that stretch of Dartmouth Road. The area is already short of parking spaces, the Hines site facilitates so few space for an office development for many hundreds people, that there is bound to be extra pressure on the area in the coming years as a result. There is valid concern about access for emergency vehicles -fire engines, ambulances, delivery trucks etc that would impact Dartmouth Square and Road, Cambridge Tee and surrounding roads where roadways access are closed.	Dartmouth Road will not be closed for 8+ years, and while TII do acknowledge the impact, the closure of the road is necessary to enable construction. The closure will take place in two stages, the total duration of which is 4 years, noting the first closure of 18 months will be partial . 1. Partial closure of Dartmouth Road to enable utilities to be diverted. Subject to Statutory Undertaker approvals (ESB, Eircom etc.) This process is estimated to take up to 18 months, while access is maintained along Dartmouth Road via a proposed single lane closure. 2. Full closure. Once the utilities have been diverted, the road is then shut to through traffic (pedestrian access is maintained) and is estimated to take up to 30 months to complete the piling, and roof slab of the station. The utilities and road will then be reinstated and the road reopened. During the closures, diversions will be put in place for local access, including deliveries, emergency services, bin collection, and pedestrian access maintained to all properties. All required diversions will be appropriately signed, and a comprehensive publicity and information campaign will take place prior to the Commencement of works to minimise the severity of the impact. Approximately 30 on street parking spaces will be lost during the main works, however there will be no impact to on-street loading bays. EIAR Chapter 5, MetroLink Construction Phase specifies the 5 residential properties that will be impacted during the works. As detailed in Chapter 9 (Traffic and Transport) section 9.7.1.2., the closure will be monitored to determine if it is required at all points, or if the spaces for parking can be reinstated temporarily throughout the works. On completion of construction and reopening of Dartmouth Road, parking will be reinstated. During the periods of partial (18 month) and full closures (30 months) of Dartmouth Road the closed lanes may temporarily be utilised for lorry holding / marshalling to control the movement of HGVs onto site and thus mitigating the potential for traffic build up on adjacent roads. As detailed in the Scheme Traffic Management Plan (Appendix A9.5), Charlemont is within the Dublin City Council HGV restriction zone and permits will need to be arranged for HGVs to enter the zone and specific routes followed. By agreement with the Local Authority, construction vehicles will be strictly controlled in terms of the hours of operation (i.e. construction traffic may be prohibited during periods of very heavy traffic) and by imposing restriction on vehicle size and weight. There will be strict controls and regulations at the entrance to the site in order to ensure the safety of other road users. Construction vehicles will be required to switch their engines off when stationary as noted in EIAR Appendix A5.1 CEMP, Table 6.2: Noise and Vibration Measures, Topic ANV5. During the duration of the road closure along Dartmouth Road, access for emergency response vehicles will be maintained through the site to the edge of the excavation in front of No. 32 to 35 Dartmouth Road. The Outline Construction Environmental Management Plan (CEMP) referred to in Appendix A5.1 sets out the full requirements of the main contractor to protect the environment during the construction phase. The CEMP includes the requirement to provide an Emergency Response Plan, section 5.10. The plans for emergency access through the site will be developed by the contractor and agreed in consultation with the emergency services and documented as part of the detailed CEMP in advance of construction commencement for approval by DCC. Also, as previously noted, when the Station is operational, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus or for drop-off and pick-up.	

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8	Metro project piling, tunnelling and associated works.	2	The proposed tunnelling drilling/piling for the Metro project would be much closer, for much longer than the Hines site works in recent years. The closeness of this proposed activity to our houses is not clearly indicated on plans, but would be within a few metres of the front elevation of our house. The piling machinery and processing of ground works, removal of materials etc is extremely noisy, makes the properties noticeably vibrate, and is a stressful environment to live in. These buildings were not constructed with an eye to heavy duty drilling and construction. Settlement issues which might arise from tunnel drilling under our property, could cause damage to houses, outbuildings and land are a real concern. The road area that is proposed to be closed for years, to facilitate construction, has planned an area outside our houses on Dartmouth road as holding area for heavy trucks, with deliveries and removal of materials etc.	TII note that drawing ML1-JAI-SRD-ROUT_XX-DR-Z-02090 (Structures Details Book 2 of 3) shows and labels the outline of the underground station, and which indicates the southern extent of the underground element of the station. Property Drawing ML-P 307 0-A (Property Details, Book 2 of 2) also shows the footprint of the station in relation to surrounding property, as does Alignment drawing ML1-JAI-ARD-ROUT_XX-DR-Y-03096 (Alignment Details Book 2 of 2). Response (6) outlines the assessed impact of construction noise and vibration, and settlement, and response (7) sets out the proposed traffic management for Dartmouth Road.	
9	Impact from work schedule during proposed construction period.	3	The extended “working day” for the development of the proposed project is much longer than what is considered a working day, beginning very early in the day, to late in the evenings, Monday to Saturday (half day Saturday) well beyond what would be considered acceptable on a road of family homes. It will disturb sleep and rest, impact on the whole home environment, perhaps 70+ hours per week, almost double hours of the accepted working week. Add to that the set up 1 /2 hour allowed each end of the day extends the time it would impact us. The TBM (boring machine) would operate 24/7 under our properties. Our experience with the Luas embankment maintenance is that it often works outside Luas operating times, with scant regard for the people living beside and near the line sleeping at night/ early mornings	Please refer to Response (6) above as regards working hours and the assessed impacts of construction, including reference to asociated mitigation proposals,	

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10	Metro station Entrance/Ext on Dartmouth Road	3	The proposed positioning of a Metro entrance/exit right opposite our homes would mean exposing us to continuous extra light and noise, as is usually experienced around station entrances when operational, 365 days/nights annually. The entrance/exit is not suited to a quiet residential road and should not be positioned facing and in such close proximity to our houses. There is no reason why the entrance has to face in this direction, as depicted on plans. Noise would arise from surface passenger movements, with usual luggage, PA announcements, noise of escalators, lifts, rail operating noise, ventilation, local traffic, car parking and set down area, whoever is accessing the station from the south side. There is no indication of screening off entrance area.	The current access arrangement whereby the entrance canopy faces Dartmouth Road is the optimum design solution as it will allow passengers to exit the station and move away from the station quickly. Noise With regards to the noise of operating rail infrastructure, EIAR Chapters 13 and 14 present a comprehensive and detailed assessment of operational airborne and groundborne noise and vibration. No residual noise impacts are identified at this location during operation. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and result in a not significant to slight impact when added to the prevailing noise environment. EIAR Chapter 13, sections 13.2.3.2 and 13.5.3.2.3 recognise that ventilation systems if not designed and mitigated effectively are potential noise sources. Section 13.6.2.3 outlines the detailed considerations that will be included in the design to ensure that the ventilation systems do not exceed limits as per BS 4142, including: • Reduction of induct flow rates; • Reduction of elements in the airflow; • In duct attenuators; • Orientation of grilles and louvres away from sensitive receptors; • Acoustic louvres; and • Anti-vibration mountings and couplings will be incorporated into the design to control vibration. Measures to mitigate noise from the use of public address systems is also detailed in Chapter 13 (sections 13.5.3.2.4 and 13.6.2.4). Best practice design principles will be employed to minimise noise breakout at the surface from these systems via escalators, lift shafts and stairwells. Mechanical elements associated with lifts and escalators are housed below ground and are fully enclosed. The operation of lifts and escalators will not generate any notable noise sources during operation and will not be audible above the prevailing noise environment. With regards to stations entrances, these are transient areas for passengers entering and exiting the station. These activities are not the source of significant noise generation and form part of the existing soundscape in the existing prevailing environment. It is acknowledged footfall numbers will increase in the vicinity of the station entrance, however this activity does not translate to significant noise impacts. As noted above TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus. There will be no car parking or set-down areas on Dartmouth Road. Finally, the Operator will be required to adhere to noise limits to ensure that there are no significant effects. To provide further assurance, it will also be a requirement placed upon the MetroLink operator to act responsibly and considerately, and be a 'good neighbour' when operating the station.

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			Response (10) continued.	Lighting Regards lighting during the operational phase, EIAR Chapter 4, Description of the MetroLink Project, section 4.12.8.3 explains the lighting class (and therefore the light level and uniformity targets) for each area to be lit, and has been selected using BS5489-1:2020 with account made for the local ambient lighting and environmental zones. All lighting within the station and at ground level will be designed to ensure that there is no significant light spill effecting nearby residential properties. Furthermore, as outlined in responses above, noise levels from the entrance are not predicted to be significant. As explained in EIAR Chapter 6, Operation and Maintenance, Section 6.6.6 Lighting, the following measures will be undertaken to ensure the quality of life of residents will not be effected by station lighting: • LED lights will be used instead of traditional lights to control light spill, in compliance with the Institute of Lighting Profession 'GN01 Guidance Notes for the Reduction of Obtrusive Light' document; • The use of luminaires will ensure that zero upward light is emitted; and • Lighting will be adjusted depending on a stations setting for example lighting columns on highways will be 12m high but lighting columns in or near residential areas will be 8m high.
11	Barriers along pavement outside 32-34 Dartmouth Road	3	The proposed barriers at 6.4 m only reach half way up the upper floor of the houses 32-34, leaving the upper rooms very exposed to the vibration, noise, dust pollution etc and lack of privacy from this operation.	The proposed barrier (hoarding) is 4m high along the east boundary by houses 32 to 34. The primary purpose of the hoarding is to mitigate airborne noise. The height of the barrier has been determined through modelling and calculation of predicted construction noise levels. Refer to Response (6) forVibration impact assessment. As explained by Response (6) above, an acoustic enclosure will also be provided at Charlemont during night-time support works for sprayed concrete tunnelling works. The full range of noise mitigation and vibration mitigation measures are detailed in Section 6.2 of the CEMP (Appendix 5.1 of the EIAR). Whilst the barriers will provide mitigation for dust emissions, the main control measures will be focused on preventing dust generation and controlling generation at source (see response (6) above). The full range of dust mitigation measures are detailed in Section 6.3 of the CEMP, Appendix A16.2 (Site Specific Potential for Construction Phase Dust Impacts) and Appendix A16.4 (Dust Management Plan) of the EIAR.
12	Outdoor spaces and community	3	Loss of amenities to wider community, as Dartmouth Square is used regularly by a wide number of people for exercise during the working day and weekends, outdoor Yoga sessions, community events etc. The prospect of many years of not being able to use outdoor areas, our gardens etc. due to high levels of noise impacts during construction period. Bees have been kept at this property since the 1 960s and pollinators of even more importance in the present time.	TII acknowledge that construction noise is likely to be heard in outdoor spaces, including gardens close to Charlemont Station and Dartmouth Square. Chapter 13 presents the potential significant airborne noise impacts, with Table 13.90 summarising the potential construction noise impacts once noise mitigation has been considered. EIAR Appendix A13.7 Construction Phase modelling includes assessment of construction noise on Dartmouth Square properties (nos 62 to 68) representative of Dartmouth Square, based on the proposed noise mitigation. The Predicted Magnitude of Impact is indicated to be 'Not Significant' or 'Moderate to Significant' depending on the activity and whether weekday or Saturday mornings.

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13	Outdoor spaces and community	3	It is a well-accepted implication of the high levels of noise, disruption, anti-social behavior, displacement which this proposed project would inflict on the residents is harmful to health, leading to poor quality sleep and rest. The accumulated noise levels are acknowledged to elevate blood pressure and hypertension, and other cardiovascular impacts. The health impacts of prolonged exposure is a concern to those in the vicinity.	EIAR Chapter 10, Human Health has identified that there may some residual effects during construction after mitigation measures due to the noise and vibration arising from mechanical excavation, TBM advancement and proposed blasting resulting in "annoyance to users, but no health effects". No impacts to human health are predicted for the operational phase. Regards anti-social behaviour, the interchange will certainly increase the number of people passing through the area, however the risk of anti-social behaviour has been considered by the Project and is addressed by EIAR Chapter 6, MetroLink Operations and Maintenance. Section 6.6.5.8 specifically addresses how this will be managed, including how the architectural and urban realm design is designed to discourage anti-social behaviour, for example through the attractive setting, use of public lighting, open sight-lines, and avoidance of areas where individuals and groups of people can hide. Subject to data protection impact assessment and compliance with the General Data Protection Regulation (GDPR) CCTV will also be installed throughout the MetroLink system, to provide general security and surveillance of all the public areas. TII would also note Charlemont Station has been deliberately designed without drop-off (with the exception of a drop only for persons of restricted mobility on Grand Parade) and taxi pick-up areas.	
14	Properties impacted proximity to Metro Station	4	Although properties with easy access to a transport hub benefit, it does not enhance quality of life, property value or security to those in immediate vicinity. The proposed development would have impact on value of our properties, especially during the construction stage. Access to main transport is an advantage at a short distance, but being in the direct proximity to a station is negative in impact.	There is evidence to suggest that property values will in fact increase in close proximity to public transport infrastructure and that local residents will greatly benefit from having a world class Metro system providing access to the city centre, airport and north city at their door step. While TII are of the view that the construction environmental impacts can be mitigated (as described in above Responses), relocation is an available option during peak construction. Temporary re-housing is covered in the Airborne and Groundborne Noise Mitigation Policy and TII are available to discuss this option if that is something the property owner would like to explore.	
15	Assessments of properties	4	Facilitating of assessments, though necessary, before during and at the end of the proposed project intrude on our homes, limit the use of our outdoor space and any interim plans we may have for the property. The long term Issues of security, maintenance, insurance cover, etc require quick attention to any issues arising from impacts from site works, tunnelling etc affecting our property.	A detailed environmental impact assessment has been undertaken and submitted as part of the Railway Order application. Monitoring instrumentation will also be installed in the area to monitor the performance of the works and potential environmental impacts, including ground movements to ensure that acceptable limits are not breached. TII would also draw attention to the fact that private properties within 50m of the station excavation, or 30m of the tunnel are eligible to subscribe to the Property Owners Protection Scheme (POPs) which includes for pre and post-construction condition surveys. The Property Owners' Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor. Response (6) above outlines how noise, vibration and dust impacts will be mitigated so that use of outdoor space is not significantly impacted. TII acknowledge that the temporary closure of Dartmouth Road may limit interim plans for the property due to restricted access (but noting pedestrian access is maintained at all times), but would also note that MetroLink does not encroach within the boundary of the property itself, and after approximately 30 months the hoarding is moved back to the other side of Dartmouth Road, and the road reopened and parking reinstated. TII do not envisage any increase in security issues. TII would also draw attention to the Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) where there is a process in place whereby further mitigation measures can be implemented at individual properties should this be merited. Regarding insurance, the TII MetroLink Property Owners' Protection Scheme (POPS) is available to homeowners within 30m of the proposed Project, with any consequential damage caused by MetroLink works covered under the POPS scheme (see policy for full details). TII do not expect there to be any adverse impact on the insurability of residential properties arising from MetroLink. Finally, as noted above, TII also confirm that while of the view that the construction environmental impacts can be mitigated, relocation is an available option during peak construction. TII are available to discuss this option if that is something the property owner would like to explore and consider. Where temporary re-housing arrangements are made, TI will meet all reasonable costs associated with the temporary accommodation and all relevant expenditure associated with the move.	

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16	Please see additional illustrations/plans and photographs provided:	4	Construction proposals at 32-34 Dartmouth Road diagram showing extreme depth, proximity to properties, proximity of tunnelling under properties, restriction of footpath/access, denying off / on street parking access for construction duration, excessive height of hoarding /screen so close to the fronts of our properties, though only half way for upper floors, restricting daylight from homes, but not noise and vibration, dust etc. This will continue for 8.5 years and potentially extended beyond that if there are any unforeseen issues. Plan of proposed Metro Entrance/Exit escalators, Set Down area and its associated noise and light pollution impact 24/7 in close relation to our property, directly opposite the house. It also indicates direction of tunnelling under our property. No provision indicated for screening on proposed Metro entrance/Exit escalators to reduce light and noise (operating rail infrastructure, station announcements , vents, escalators, drop off, movement of passengers with their luggage, and additional traffic to drop off areas. This would seriously impact with its proximity to nearby homes. Needless to say an increase in litter, disturbance, security issues etc. are also of concern. Recent photo image taken from front of our property above garage/studio roof, showing proximity of roadway, proposed entrance/exit to Metro, how close it all is planned near the house facade.	Please refer to responses (4), (6), (7), (10), (12) and (13). Sources of light pollution have been addressed in the preliminary design for the scheme and operational requirements noted in Response (10) above. However if evidence remains of any potential light pollution arising from the scheme this will be fully mitigated at the detailed design stage.	
17	Conclusion	4	This submission supports the request made in the general area submission to omit from the Railway Order the section from Tara Street Station to Charlemont Station and associated onward tunnel extension and intervention tunnel. In addition to the strategic planning reasons for the omission of this section of MetroLink, this submission highlights that the EIAR fails to adequately assess impact of the development upon the houses on Dartmouth Road. The project would seriously affect the residential and other amenities of the residents of Dartmouth Road both during the construction and operational phases.	The above responses to the observations made explain why TII do not consider it is correct or appropriate that the MetroLink alignment south of the proposed Tara Station should be omitted, and also demonstrates why the proposed Charlemont Station has been selected by TII as the preferred interchange with the Luas Green Line A scheme which terminates at Tara Street would not be consistent with the Transport Strategy for Greater Dublin Area (2022-2042). In addition any decision to terminate the scheme at Tara will significantly impact on the overall viability and benefits of scheme. TII do not agree that the EIAR fails to adequately assess the impact of the development on Dartmouth Road as demonstrated by the responses to the observations made by this submission. The Railway Order application comprises a very detailed environmental impact assessment that has identified and assessed the potential environmental impacts of MetroLink and proposed mitigations for these impacts where necessary. TII would also draw attention to the detailed project description, construction phase description and operational phase description provided in EIAR Chapters 4 and 5 and 6, and EIAR Chapter 7 and associated appendices that present details of alternatives considered. EIAR Chapter 9 and appendices provides a detailed analysis of transport and traffic effects, and EIAR Chapters 13 Airborne Noise & Vibration, and 14 Groundborne Noise & Vibration provide a detailed assessment of potential noise and vibration effects, while Chapter 29 outlines the assessment of interactions between various environmental aspects, and Chapter 30 covers the cumulative impacts with other projects. As noted above, TII do understand your particular concerns regards the proximity of 32 Dartmouth Road to the construction of the proposed Charlemont Station. While TII are of the view that the construction environmental impacts can be mitigated, relocation is an available option during peak construction. TII are available to discuss this option if that is something the property owner would like to explore and consider, noting that the southern boundary to the site will only be close to the property for the period of the full Dartmouth Road closure, estimated to be 30 months, and will then be stepped back to the other sider of the road when Dartmouth Road is reopened. TII would further note that there are no profound impacts predicted during the operational phase.	

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1	Introduction	3	Our client, Tanat Limited, welcomes the opportunity to make a submission on the Railway Order for the MetroLink line. Our client has a number of observations and concerns in relation to the Railway Order. This submission is broken down under the following headings: 1 .Site Location and Context 2. Planning History of the Site 3. Engineering Considerations The following is enclosed with this submission: Technical Note prepared by CS Consulting Engineers Observation fee of €50	Thank you for the submission. We have reviewed the submission and provided detailed responses for the issues and concerns raised below.
2	Planning History of the Site	5	The below gives a brief outlined of the most relevant recent planning permissions on site: DCC Req. Ref.: 3794/18 / ABP-302980-18 Planning permission was granted on the 2nd April 2019 by An Bord Pleanala following a 1 st party appeal for a development consisting of a 22 no. storey landmark hotel and office building with a rooftop restaurant over 2 no. levels of basement accommodation. The development included for an upgrade to the public concourse serving Tara Street Station. The maximum height of the building is permitted at 88m. The development accommodates hotel use from 1 st to 4th floor with office accommodation from 5th to 20th floor. DCC Req. Ref.: 4054/19 Planning permission was granted on the 7th January 2020 by Dublin City Council to provide for the internal reconfiguration of the permitted development to provide for 1 no. additional floor increase the development to 23 no. storeys. There is no change to the overall height of the permitted development as a result of the internal reconfiguration. There is an increase of 1,435 sq.m, as a result of the development. DCC Req. Ref.: 4365/20 / ABP-308481 -20 Planning permission was granted on the 12th March 2021 by An Bord Pleanala following a 1 st party appeal for a development which consisted of the change of use from hotel to office accommodation at 1 st to 4th floor. The development also included for the change of use at ground floor level from hotel/restaurant foyer to restaurant/cafe/retail foyer and the change of use from hotel/office to retail/cafe/restaurant at 5 the floor level.	Thank you for this information. As part of the Chapter 30: Cumulative impacts of interaction between other projects and MetroLink, the development as referenced in planning applications 3794/18 & 4054/19 was assessed alongside the proposed Project during the Construction & Operational Phases. Please also refer to EIAR Appendix A30.1 Stage 1 & 2, Appendix A30.2 Stage 2 &3 Cumulative Impact Assessment Table(s). In relation to DCC Req. Ref.: 4365/20 and subsequent ABP-308481 -20 appeal, this was captured in the data gathering exercise but it was not brought through to assessment as the works are change of use and therefore minor in nature.

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3	Engineering Considerations (paragraph 1)	6	A note has been prepared by CS Consulting and is included as Appendix 1 of this submission. The Railway Order applies for a vertical deviation of 5 metres, however, the existing formation level of the basement is at -11.15m and the crown of the tunnel is at - 17.4m, leaving a 6.3m gap between the tunnel and the basement of the building. Whilst it is understood a deviation may be required due to detailed design or conditions encountered, the result of such a deviation in relation to the subject property is potential minimal distances of construction from substructure and increased impacts arising in relation to noise, vibration and associated building damage. The note from CS Consulting states:	The design includes for a limit of deviation which is required to allow for unforeseen obstructions and construction tolerances which may necessitate a change to the alignment. In the highly unlikely event that this were to occur, any resulting environmental impacts will comply with the limits set by the enforceable Railway Order. TII has carried out a comprehensive set of ground investigations in accordance with relevant guidelines and best practice. It has a high confidence that MetroLink can be constructed along the proposed alignment without requiring vertical or horizontal adjustment. However, in order to guard against rare and undetectable subterranean conditions that might interfere with construction, the Railway Order provides for limits of deviation (as have other railway authorisation since at least the 1840s). The impacts of potential changes within the Limits of Deviation are considered in the Wider Effects Report (Appendix A5.19). Cumulative impacts assessed for this property are outline within Appendix A30.2 Stage 2 &3 Cumulative Impact Assessment Table. As the detail design progresses and in advance of construction commencement the main works contractor appointed by TII to deliver the Project will produce a Construction Environmental Management Plan (CEMP) for review and approval by Dublin City Council. An outline of the CEMP is provided in Appendix 5.1 of the EIAR and has been prepared to provide a framework for the management and mitigation of all Environmental impacts from the Project during the construction phase. A key part of the Outline CEMP is the proposed approach to noise and vibration monitoring during the construction phase, detailed within section 6.2 and Table 6.2. The CEMP will contain the Construction Noise and Vibration Management Plan (CNVMP), which requires that the contractor undertakes a full monitoring and auditing programme of the works which will be agreed with Dublin City Council prior to the commencement of the construction phase	
4	Engineering Considerations (paragraph 2)	6	“As there is only a 6.3 metre dimension from the crown of the tunnel and the formation level of our concrete raft foundation, the above section 6.(d) ii. would not be acceptable, in which we would request that writing confirmation is needs to be provided by our client before on any deviations from the current -17.4 metre level below existing ground as indicated on the current sections.	Please refer to repose item number (3) first paragraph above.	
5	Engineering Considerations (paragraph 3)	6	Also, we seek writing confirmation from the NTA and TII that the MetroLink will not impede our ability to construct or maintain/operate our building/basement in the future."	As has been discussed and documented between TII and Tanat, the two projects are compatible and hence the basement can be built, operated and maintained.	
6	Engineering Considerations (paragraph 4)	6	Our client also seeks confirmation that there will be no vent shafts located on the subject site which would impact its future development. The note by CS Consulting states: “Your proposed building has a reinforced concrete raft foundation supported on the underlaying rock which will ensure the load spread of the rock strata to minimise local future loading on the underground tunnel. We would request that this proposal is acceptable and can be catered for in the future. Please confirm that no vent shafts or the likes to service the underground tunnels are to be located on our site as this would be problematic both now and for future development. ”	There are no vent shafts or other MetroLink assets are planned to be constructed on your site.	

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7	Concluding Comments	6	Our client welcomes the submission of the Railway Order and the sustainable transport benefits which would be delivered. Our client acknowledges that a scheme of this scale will result in significant impacts however these should be carefully managed to minimise the effects on the surrounding landholdings. Our client reserves the right to elaborate further on these issues as necessary should the Board decide to hold an oral hearing or require any clarification and would welcome any responses from the applicant. Our client also reserves the right to ensure that the development potential above and below ground of the lands in question are not compromised by the MetroLink proposal. We trust this submission will be taken into consideration in assessing the proposals.	An overview of the Oral Hearing process is provided in the EIAR Chapter 8.9.2. The Board has confirmed an Oral Hearing will take place.
8	APPENDIX 1: NOTE PREPARED BY CS CONSULTING GROUP (paragraph 2)	11	Our proposed building has a reinforced concrete raft foundation supported on the underlaying rock which will ensure the load spread of the rock strata to minimise local future loading on the underground tunnel. Please confirm that no vent shafts or the likes to service the underground tunnels are to be located on our site as this would be problematic both now and for future development. Vibration limits due to the construction of the MetroLink tunnel or any construction activities adjacent to our site need to be agreed prior to commencement of construction, along with a movement monitoring protocol to be put in place to monitor the vertical movement of our building during at after construction of the Metrolink tunnel and adjacent works.	Please refer to Item 7. Furthermore, Chapter 14 of the EIAR discusses vibration threshold levels during construction and operation of the railway in Section 14.2.1.2 in terms of both potential for structural damage and human response. The threshold levels used in the assessment presented in the EIAR are based on human response, which are much lower levels than those relevant to building damage. With regard to structural or settlement monitoring, TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling and station excavations impacting third party property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design and agree the methodology to instal to your property. TII will provide advance notice of any attendance that the monitoring contractor may require.
9	APPENDIX 1: NOTE PREPARED BY CS CONSULTING GROUP (paragraph 3)	11	We have had previous engagements with MetroLink regarding our proposed building and formation level of our raft slab foundation in which the National Transport Authority (NTA) and the Transport Infrastructure Ireland (TII) are satisfied that the proposed development will not impede their ability to construct the MetroLink tunnel and associated works in the future. Note these discussions are refer to in attached correspondence	Thank you for the information. It has been noted and agreed by the project team.

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10	CS Consulting Letter to NTA	14	In relation to the above mentioned application for the applicant, Tanat Ltd. we write to you on behalf of our client to ask if you/NTA can provide a letter for our inclusion in our planning application submission stating that our development will not impact the delivery of the MetroLink. A Pre-planning meeting was held on the 18th July 2018 at the NTA offices along with the TII and DCC present to discuss the proposed application in relation to the planned alignment and station location for the MetroLink. Further correspondence took place between ourselves/CS Consulting, TII and the MetroLink Design Engineers. In our discussions the main principal items were discussed and agreed 1.The Metrolink Station Access location. - See attached drawing TII drawing with MetroLink Station Access located South of Poolbeg street and therefore no impact on our basement or ground floor layout. Appendix A 2. Foundation levels and Secant pile depths in relation to top of MetroLink Tunnel - See attached email correspondence from TH with a number of queries and CS Consulting response addressing each point. Appendix B Further request from TII (Aidan Foley email on the 07/08/2018) with regards to the proximity of the proposed secant pile wall from the external face of the MetroLink Tunnel. See attached our response letter. Appendix C Also see attached our drawings indicating basement levels, ground floor and the pedestrian circulation through our site. Appendix D Therefore, as note above we ask if you/NTA can provide a letter for our inclusion in our planning application submission stating that our development will not impact the delivery of the MetroLink.	NTA have provided a consent letter to the planning application (ref. 3794/18) on 20th August 2018. Following amendments to the previous application and reports provided by Byrne Looby, NTA have issued another consent letter on 27th August 2020 and requested continued liaison with the NTA and TII.
				No Response Required

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Submission on Proposed Railway (Metrolink - Estuary to Charlemont Via Dublin Airport) Order (2022)				
1	Executive Summary	2	Under the proposed Railway Order the existing store would need to be demolished. The implications of the loss of this Starbucks store to the area would be significant given the expected population growth in the catchment area that it will service.	Where Starbuck's occupational interest at Airside Retail Park is to be acquired by the use of compulsory purchase powers, then there would be entitlement to make a claim for compensation in accordance with the compensation code. The code provides that qualifying occupiers can recover the reasonable costs of relocating, which have been properly and necessarily incurred as a direct consequence of the acquisition.
2	Executive Summary	2	An alternative site for the existing store has not been identified in the planning report.	The Planning Report sets out the planning policy compliance of the Railway Order application and does not, nor is required to include for the identification of alternative sites for relocation of people/businesses/organisations etc impacted by MetroLink land take.
3	Executive Summary	2	While the proposed station also appears to materially contravene the zoning objective of the development plan, the report concludes that in the absence of identification of a suitable replacement site/sites, the Railway Order should not be confirmed.	TII do not agree that "the proposed station also appears to materially contravene the zoning objective of the development plan". The proposed Project will deliver high-quality public transport infrastructure that will increase accessibility to Airside Retail Park and further strengthen its connections in the county. This will maintain the vitality and viability of Airside Retail Park in line with objective ED51 of the FDP: 'Maintain and strengthen the vitality, viability and regeneration of the County's Major Town, Town, Local and Village Centres by providing for civic, leisure, cultural and tourism attractions while ensuring that retailing remains a core function of these centres' and as such support the zoning objective in making the location more accessible, provide a more sustainable offering and contribute to improving the aesthetic quality of the setting. The Planning Report sets out the planning policy compliance of the Railway Order application and does not, nor is required to include for the identification of alternative sites for relocation of people/businesses/organisations etc impacted by MetroLink land take. The proposed Project will deliver high-quality public transport infrastructure that will increase accessibility to Airside Retail Park and further strengthen its connections in the county. This will maintain the vitality and viability of Airside Retail Park. The proposed metro station will help to support retail warehousing and ancillary services through improved connectivity and accessibility in line with the current land use zoning. <i>Note The 'report' that refers to a need for identification of an alternative site is in fact the observation itself not the Planning Report (which does not say that an alternative site needs to be identified).</i>
4	3.0 Fingal County Population	4	3.4 It is therefore submitted that the population projections provided by the Fingal Development Plan specifically shows that the consumer growth within the region over the next approximate 8 years will grow significantly. It is therefore considered that the potentially loss of the subject Starbucks will have major implications for servicing this strategic growth area. In addition, the loss and impact of the closing of the store today must also be mitigated into the future to take into account the increasing population over the next 8 years in this region. 3.5 The potential loss of the store to the town is especially serious given the significant population growth that is foreseen for the area including young population.	Refer to Response (3) above.
5	4.0 Development Plan Policy	5	4.3 Under the Fingal County Retail Hierarchy, Swords is the highest-level settlement in the county, i.e. Level 2 directly below Dublin City Centre which is Level 1. It is an objective of the (draft) Fingal County Development Plan that .."new significant retail development be primarily directed to the higher Levels in the Fingal Retail Hierarchy and specifically to the core retail areas identified for these centres. Only in exceptional circumstances (where the Planning Authority is satisfied that there are no sites or potential sites available either within the core retail area or on-the-edge of the core, and that the proposed retail development is necessary to serve the needs of the area) will proposed retail developments that are located outside of these centres and/or the core retail areas of these centres be positively considered. This means that any alternative site for the entire subject store to be demolished, must be located on the edge of the core retail area within the town of Swords as the core retail areas is not suitable for a store of this size and user class.	The comments made in relation to the Fingal County Retail Hierarchy are noted. Starbucks will need to consider potential relocation options, which they may wish to pursue, at the relevant time, in other locations including options outside of the immediate area.

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Organisation Name or Name of Submitter			Tanrat Limited TA Starbucks	
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Submission on Proposed Railway (Metrolink - Estuary to Charlemont Via Dublin Airport) Order (2022)				
6	6.0 Fostertown Station Materially Contravenes the Development Plan	6	6.2 The zoning objective in the draft development plan (which will soon become the operative plan) is Retail Warehousing and the objective is: ..."To Provide for Retail Warehousing."⁶ The zoning objective for Retail Warehousing does not facilitate the proposed use of a metro railway station. The planning report states the following in this regard: .."Fosterstown Station lies within lands zoned as HT and RW in the Fingal FDP. Under these zoning objectives, 'public transport station' does not come within either 'Permitted in Principle' or 'Not Permitted' uses. The FDP notes that 'Uses which are neither 'Permitted in Principle' nor 'Not Permitted' will be assessed in terms of their contribution towards the achievement of the Zoning Objective and Vision and their compliance and consistency with the policies and objectives of the Development Plan."⁷ 6.3 It is difficult to see how the proposed metro station would contribute towards the objective to provide for retail warehousing and ancillary services. In fact, it does exactly the opposite: it would remove a large retail warehouse building from the retail warehouse park without suggesting an alternative location for this building resulting in a considerable loss to the existing retailers. 6.4 The proposed development therefore materially contravenes the development plan zoning objective.	TII agree with the submission statement that, as per the Planning Report, Fosterstown Station lies within lands zoned as HT and RW in the Fingal FDP. However, In consideration of the fact that the proposed project is of strategic importance to the long-term development of the Dublin region for land-use and transport, and has been specifically identified as being of national importance in the National Planning Framework, National Development Plan, Fingal Development Plan and other key statutory documents, it is considered that the proposed station is consistent with the strategic policies and objectives of the development plan. More specifically, the proposed metro station will help to support retail warehousing and ancillary services through improved connectivity and accessibility.

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7	7.0 Location of the Fostertown Station Inconsistent with Development Plan	7	7.1 Under the draft Development Plan 2023-2029 and the Fostertown (draft) Master Plan, the proposed Fostertown Station is located immediately north of the subject site. While the development objectives in both plans are indicative in terms of the precise location, the need to locate the station slightly further south from the locations shown in both plans, is not explained in the planning report. 7.2 The proposed development is in a different location to that shown in the development plan objective. The proposed change from the location as shown in the Development Plan, is not explained.	Within the Fingal Development Plan 2023-2029 an alignment for a Metro serving Swords and Dublin Airport is referenced in the written statement and in the zoning maps. This is identified as an indicative alignment in the written statement and as 'Indicative Metro Route' on the development plan maps. For details of the proposed Fosterstown Station please refer to EIAR Chapter 7, Description of the Alternatives, section 7.7.10.4 and Appendix A7.1 Fosterstown Station Options Report. This outlines the evolution of the proposed Project and how alternatives to the alignment, station locations/layout and construction methods have been considered and assessed. This process of assessment and refinement of the route and station layouts has determined the proposed requirements for permanent land take. Fosterstown Station was identified in the Emerging Preferred Route as being located just north of Airside Retail Park on the R132 Swords Bypass. However, following a multi-disciplinary analysis as described in the EIAR Chapter 7, Section 7.7.9.2, a decision was made to relocate the Station for the Preferred Route to the east of the R132 Swords Bypass in the vicinity of Airside Retail Park. The design developed for the Preferred Route had footbridges proposed across the R132 to allow access to the Station. However, the requirement for these footbridges was removed due to the Fingal County Council proposals to develop the R132 upgrade project which aims to turn the road into an urban road with direct pedestrian and cycling access across the roadway to Fosterstown Station. As part of the preliminary design development, other station location and alignment options at this location were considered to determine whether other feasible options (station location and alignment) could be adopted that would mitigate the impact on the Airside Retail Park and in particular identify design solutions that would avoid demolition of the end of terrace retail warehouse unit. In each case, the station location has been moved either north or south of the present proposed location that coincides with the end of terrace retail unit, with the associated track alignment moved west. The current proposed station location was compared to a number of alternative options. A two stage multi-criteria analysis (MCA) was undertaken to identify the preferred location for the Fosterstown Station taking into consideration the potential for direct impacts on commercial properties in the Airside Retail Park, and on traffic movements on the R132. All options were subjected to an initial MCA to provide an Initial appraisal of these options. From this assessment the two best performing options – the Preliminary Design option (current proposed RO application) and Option 2A (<i>The station is moved to the north. MetroLink alignment moved west to avoid Airside buildings and runs under the R132 over a length of approx. 140m</i>) were subject to more detailed comparison. This more detailed MCA comparison indicated that Option 2A – avoiding the Airside building – although considered cost neutral compared to the current proposed station location, had significant disadvantages compared to the proposed Preliminary Design option (current proposed RO application). It would have more extensive construction impacts, including additional utility diversion requirements; significant impact on the R132 traffic and other road users over an extended length of the R132 with an approximate 5-year construction period; a poor urban integration of the station adjacent to the R132; and the introduction of a poor horizontal track alignment which would constrain the operational speed of trains in this area. On this basis it was concluded that the best available option for the MetroLink alignment and the Fosterstown Station location past Airside is that proposed by the submitted Railway Order application.
8	8.0 Lack of Alternative Location for the Store/Cafe User	7	8.2 The planning report further suggests that ..." there is capacity to construct a new unit, either on its own or as part of a more significant development to replace the demolished unit." ⁹ However, no suggestion is made for such an alternative location. Our clients are very concerned that it will not be feasible to find an alternative locations for the existing store which is as convenient to the customer base that is has created and served in terms of accessibility and catchment within the retail park and surrounding locations.	TII are working with Smyths to identify an alternate site for Smyths Toy Store and which could also meet the needs of Starbucks.

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9	8.0 Lack of Alternative Location for the Store/Cafe User	8	8.3 It is considered that the proposed Railway Order and the accompanying planning report are deficient in failing to examine alternative locations for the existing store that needs to be demolished under the proposed plans. The identification of a suitable alternative location should form part of the planning analysis of the proposed Railway Order and in the absence of such analysis the Order should not be granted, or further information should be sought from the applicant re this matter. 8.4 No provision is made in the proposed Railway Order for a replacement or relocation of the existing retail store.	Please refer to our comments made in Response (1) above. TII introduced the MetroLink Land Acquisition Strategy with a view to setting out the arrangements proposed for the provision of information and assistance to the commercial occupiers of land and property subject to compulsory purchase for the delivery of MetroLink. TII will use reasonable endeavours to make arrangements to provide businesses with a longer period in which to relocate than the statutory process allows for. In such cases, the overall aim will be to provide as long a period as possible, commensurate with the co-ordinated progress of the project works. TII has committed to providing as a minimum the best estimate available date upon which the Starbucks unit is likely to be required. With a view to assisting Starbucks, it may be beneficial for an estate agency service to be instructed to provide impartial advice in support of any business relocation. TII will engage with Starbucks to understand their property requirements and consider possible future options for relocation where suitable alternatives may be available.	
10	9.0 Conclusions	10	The proposed demolition of the existing store to facilitate the development of a railway station would materially contravene a zoning objective in the current and draft county development plans.	Please refer to Response (3) above.	
11	9.0 Conclusions	10	The proposed railway station is in a different location to that shown in the development plan for the area. The justification for this change in location is not provided in the application for the Railway Order.	Please refer to Response (7) above.	
12	9.0 Conclusions	10	No provision is made in the proposed Railway Order for a replacement or relocation of the existing retail store even though the demolition of the existing store is stated to be necessary.	Please refer to Response (9) above.	
13	9.0 Conclusions	10	While the planning report refers to 'capacity" to construct a new unit to replace the demolished unit nothing has been proposed and it is unclear where the capacity exists.	Please refer to Response (8) above.	
14	9.0 Conclusions	10	Given the population based in the catchment area of the current store and the anticipated growth in the population particularly in the younger age category, the loss of the store will result in a significant loss to Tenant.	Please refer to Response (1) and (9) above.	
15	9.0 Conclusions	10	In the absence of the identification of an alternative site for the proposed demolition of the Starbucks store, the proposed Railway Order is deficient and should not be confirmed.	Please refer to Response (9) above.	
16	9.0 Conclusions	10	The Starbucks Airside Store has traded successfully for the past 7 years and benefits hugely from the customer flow of Smyths Toys Superstore and also developed its own young & affluent strong business base within this Retail Park and catchment.	Please refer to Response (9) above.	

Submission No.			289	
Organisation Name or Name of Submitter			Terenure West Residents Association	
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Submitted by Michele Van Valey Hon. Secretary TWRA on behalf of Terenure West Residents Association				
1	Letter	1	This is a submission on behalf of Terenure West Residents Association c/o. We represent residents of about 600 houses in the western part of Terenure bounded by Terenure Road West, Fortfield Road and Greenlea Road. We fully welcome the decision to link the city centre to Swords via the airport, which we believe will indirectly help those we represent access the airport and other north city areas without using a car.	TII appreciates the submission and notes the overall endorsement of the MetroLink Project. We have reviewed the submission and responded to the observations made below.
2	Letter	1	We believe however that the needs of our area and the greater south west city will only be met by a metro into the south west city, which has a stop in our case, somewhere in the Terenure area. Further we reject completely the assertion by various transport bodies, particularly National Transport Authority, that buses alone will cater for the public transport needs of the south west city including Terenure. Indeed they themselves issued a Strategy Development and Modelling Report in connection with their draft Dublin area plan in November 2021. In that document at page 91 they forecast passenger demand per hour of 6,600 on the Harold's Cross Road and 9,300 on the Rathmines Road corridor, way beyond the capacity of any bus system . However buses do have an important role if they facilitate proper connectivity. We note that in census 2022 the southside area between the two existing Luas lines has a population of over 350,000. We believe that in the interests of proper planning and development, any strategic decision about public transport needs to reflect these two core issues (metro to south west and bus connectivity).	While the provision of bus services do not fall within the scope of the MetroLink Project or within the remit of TII, it is of note that the proposed MetroLink route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) which states that the south city terminus at Charlemont is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise. Future metro services to the Terenure area do not form part of the Metrolink scheme as presented under the Railway Order. TII's role is to deliver Metrolink as supported by the Transport Strategy for Greater Dublin Area (2022-2042) and Dublin City Development Plan 2022-2028 . The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy. The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise."

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Organisation Name or Name of Submitter			Terenure West Residents Association	
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Submitted by Michele Van Valey Hon. Secretary TWRA on behalf of Terenure West Residents Association				
3	Letter	1	To our regret ,the current proposals for metro do not respect these principles. It is our view that while a metro station at St Stephen's Green as proposed does allow metro linkage to the south west city and indeed anywhere else southside, this is not the case with Charlemont. A Charlemont terminus constrains the options for extension into the south city. We believe that it is simply not possible to continue a line from Charlemont to either Rathmines or Harold's Cross which are populous suburbs. Further we believe that the range of potential locations for a station serving Terenure would be prejudiced by having to extend a metro line from Charlemont. Therefore we think it is bad planning for all of the south city to have the south city terminus at Charlemont.	It is proposed to run MetroLink to a station at Charlemont for the reasons explained below. Response (2) above addresses your observation regards the possible extension of Metro to Rathmines or Harold's Cross, while as also noted by response (2), extension to the southwest, including Terenure, of the proposed Charlemont Station would be possible if the need for it was justified. The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all any of the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an interchange at St Stephen's Green Station. The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. This is detailed in Chapter 7 (Consideration of Alternatives) section 7.7.8. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ratio (BCR).

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4	Letter	1	On the assumption that BusConnects is to proceed as planned, the "workhorse" of services for much of Terenure will be the A spine. Alone of the eight radial spines, it seems to be the only one which will not intersect with the metro on the southside in or close to the city centre. On this basis alone we are shocked that the documents submitted to you give no consideration whatever to routing the metro towards Rathmines, where there could be an easy connection to A buses. We believe it is fundamental to proper planning that each spine be linked to the metro at some point convenient to the city centre.	As noted by response (3) above, and in accordance with the policy set by the GDA Transport Strategy 2022-2042 (published in January 2023), Charlemont is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise. Please refer to response item (2) in relation to future extensions of MetroLink.	
5	Letter	2	Further if indeed there is to be a metro station at Charlemont, it is likely that some people will opt to walk from Rathmines Road to the metro at Charlemont. Indeed many people currently leave buses at South Richmond Street and walk on the city side of the canal to access the Georgian Quarter around Fitzwilliam Street. The pedestrian infrastructure here however is not satisfactory and we are surprised that no thought is given in the plans submitted to you to upgrading the pedestrian infrastructure between the Rathmines Road corridor and the suggested metro station given the likelihood that some bus passengers will see an approximately 10 minute journey on foot as an option. We would note that under current BusConnects plans, Lower Rathmines Road is to be closed to through car traffic, it will have 7 separate bus routes and in the aggregate more than a bus per minute.	The scope of the MetroLink Project does not extend to improving the wider transport network and is limited to the immediate area surrounding the proposed Charlemont Station, including the interchange with the Luas Green Line at Charlemont. EIAR Appendix A9.2-B presents a Traffic and Transportation Assessment of Charlemont Station during the Operational Phase. A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station. The model indicates that with the new pedestrian infrastructure in place (additional staircase to Luas interchange and repositioning of pedestrian crossing on Grand Parade) the model displays an acceptable level of network performance in the assessment. Transport modelling as part of the Project includes the implementation of BusConnects Network Redesign and the Core Bus Corridors (including the associated changes to pedestrian infrastructure). The quality of pedestrian infrastructure associated with the BusConnects project is outside the scope of the MetroLink project when not directly interfacing with the proposed Charlemont Station. Where direct interface is provided, TII have worked closely with BusConnects to ensure adequate provisions are made to facilitate seamless interchange between the modes.	
6	Letter	2	We believe that survey after survey shows that the south west city has a disproportionate share of population commuting by car as compared with other areas. This is likely primarily caused by the lack of a rail option. Metro is the only alternative likely to attract the sort of switch over that is needed. If this were done, the environmental benefits in terms of less pollution, less congested and safer streets and less emissions would be huge.	As noted by response (3) above, and in accordance with the policy set by the GDA Transport Strategy 2022-2042 (published in January 2023), Charlemont is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.	
7	Letter	2	We note also the many problematic issues with the Charlemont station summarised on the website misplacedterminus.ie and in particular the less than satisfactory connection between metro and Green Line Luas at Charlemont.	Please refer to response (3) above that explains the rationale for the proposed location of a MetroLink Station at Charlemont. TII do not consider there are "many problematic issues with the Charlemont station". With regards to the observation "less than satisfactory connection between metro and Green Line Luas at Charlemont.", as noted by response (5) above, a microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers.	
8	Letter	2	We would accordingly submit that you should omit the Charlemont station and the part of the line serving it from any Railway Order you approve.	The above responses to the observations made explain why TII do not consider it is correct or appropriate that the MetroLink alignment does not extend to Charlemont, and also demonstrates why the proposed Charlemont Station has been selected by TII as the preferred interchange with the Luas Green Line Any decision to terminate the scheme prior to Charlemont will significantly impact on the overall viability and benefits of scheme.	

Submission No.			290	
Organisation Name or Name of Submitter			Tesco Ireland (represented by RMLA Planning Consultants)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022				
1	RMLA Letter	3	We, RMLA Limited, are acting for our Client, Tesco Ireland, Gresham House, Marine Road, Dun Laoghaire, County Dublin in relation to the lodgement of the Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022 by Transport Infrastructure Ireland (hereafter 'TII'). The payment of €50, being the appropriate fee for making a submission, has been made online. Please note all correspondence in relation to this submission should be sent to the Agents, RMLA Limited, Unit 3B, Santry Avenue Industrial Estate, Santry Avenue, Santry, Dublin 9, D09 PH04. We request that An Bord Pleanála (hereafter ‘ABP’) keep us informed of any updates relating to this application. The retail sector makes a major contribution to Dublin City and its suburbs, by increasing the vitality and viability of its urban settlements and villages, and acts as an economic anchor, creating significant employment and indirect economic and social activity. Having regard to this, we welcome this opportunity to engage with TII in respect of the preparation of the Railway Order 2022. As such, please see enclosed transport specific report prepared by SYSTRA in response to this application and setting out our client's position in relation to matters directly effecting their stores and distribution centres. Tesco Ireland welcomes the proposed investment in public transport, active travel, and the urban environment of Dublin City. It is considered that the proposed Metrolink Scheme will greatly improve the way in which Dublin City functions from an economic, social, and environmental perspective. However, we would request the below issues highlighted are not overlooked and would welcome engagement at a later date. We trust that the points raised in this submission will be considered by An Bord Pleanála as part of the assessment of this application. We are available for discussion on any of the matters referred to below and would also appreciate if you could confirm receipt of this submission by return.	Thank you for the submission. TII welcome your support for MetroLink project development and note your observations/concerns, which we address below. TII confirm availability for constructive engagement with Tesco Ireland regarding your concerns and our responses below.
2	Introduction	4	Tesco Ireland welcomes the opportunity to take part in the Railway Order process for Metrolink. Tesco Ireland has 162 stores across Ireland which are supplied from two Distribution Centres in Ballymun and Donabate. We serve as a significant contributor to the national and local economies, employing over 13,000 colleagues nationwide. The purpose of this submission is to positively engage on Metrolink, recognising the importance of the project to the future sustainability and vitality of the Greater Dublin Area, but not losing sight of potential transport issues that may need to be considered further through the Railway Order process and at later stages of the project.	Please refer to response item number (1) above.
3	Tesco Ireland operations in the vicinity of Metrolink	4	Tesco Ireland has a strong presence along the Metrolink Corridor. Its two Distribution Centres, which serve the 162 stores nationwide, are located at Ballymun and Donabate. There are also 15 Tesco stores located along the alignment. Figure 1 below shows Tesco Ireland operations relative to Metrolink alignment and its stations.	Thank you for sharing this general information related to Tesco Ireland operations.
4	Tesco Distribution Centres (DCs)	5	Deliveries are particularly important for convenience retailers given customers' demands for fresh produce on a daily basis. Larger stores typically require two deliveries per day to cater for chilled and ambient products and these deliveries require the use of delivery vehicles of varying scales. Tesco Ireland along with other large-scale convenience retailers currently operate a 'Central Distribution System' for deliveries. This involves the consolidation of individual supplier products at a central warehouse where they are organised and redistributed as part of a complete delivery. This system is an exemplar in terms of transportation management and environmental sustainability, as it allows one vehicle to deliver convenience goods to a number of stores. Importantly, it reduces the overall number of trips made by goods vehicles to each store and can be considered a demand management tool. There is a range of logistical considerations that form part of this delivery system that makes it an efficient yet complex process, two of those considerations being timing and availability of space for deliveries at a store. The Distribution Centres operate on a 24-hour cycle to ensure sufficient levels of fresh produce are available to be delivered to stores each day.	The plans for the delivery of MetroLink, particularly those set out within Chapter 9 and appendices: Traffic and Transport seeks to maintain access and limit disruption to all businesses as the project is progressed. Further comment is provided below.

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Organisation Name or Name of Submitter			Tesco Ireland (represented by RMLA Planning Consultants)	
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5	Tesco Ireland Stores	6	Tesco Ireland customers travel to the 15 stores along the Metrolink Corridor by various means. For many households, private vehicles are used for large weekly shops known as 'trolley shops'. This has the benefit of reducing the overall number of trips made within a week. Public transport, walking and cycling is more often used for convenience trips or by smaller households where the volume of goods purchased is manageable to carry onwards. Colleagues use a variety of modes to travel to work depending on their place of residence relative to the store. Deliveries to store are made by Heavy Goods Vehicles from our DCs. Larger stores operate a 'grocery home shopping' and click-and-collect facilities; namely Tesco Superstore Holywell and Tesco Superstore Cabra along Metrolink's alignment.	Please refer to response item number (4) above.
6	Potential for impact on Tesco Ireland operations	6	Tesco Ireland recognises the extensive work undertaken by Metrolink's Project Team to prepare and submit the Railway Order Application and has reviewed the documentation outlined in Table 1 to understand the potential impact on its operations during the construction and operational stages of Metrolink. This includes consideration of the future scenarios developed by Metrolink's Team as part of the Environmental Impact Assessment Report: • Construction Model 2024 for Enabling Works; • Construction Model 2028 for Main Works; • Operational Phase Opening Year: 2035; • Operational Phase Design Year: 2050; and • Operational Phase Forecast Year: 2065 No temporary or permanent land take requirements which involve Tesco Ireland have been identified in the documentation provided. As a result, the review focused on construction and operational stage impacts using the processes set out below.	Please refer to response item number (1) above.
7	Construction stage review process	7	The review of Metrolink's construction impact on Tesco Ireland was undertaken in two stages: • Stage 1: Initial review of Metrolink Enabling and Main Works proposals to identify potential for impact with consideration to: - o temporary traffic management measures that materially reduce accessibility for Tesco deliveries, colleagues and customers to its Distribution Centres or Stores - o Construction haulage volumes that materially affect capacity on the road network • Stage 2: Where the potential for material impact was identified then Works proposals relative to Tesco were considered in further detail	This observation is noted.
8	Construction stage review process, Table 2 (assumption 1)	7	A9.5 - Scheme Traffic Management Plan is a standalone document within the EIAR which consider traffic impacts during the construction stage. Works are split into Advance Enabling Works (utilities) and Main Works with different assessment periods modelled as follows: A 2024 scenario for Advanced Enabling Works A 2028 scenario for Main Works	TII welcome and note this General Statement. As noted in Appendix A9.5, the 2024 Do-Minimum model was used for analysis of the Advanced Enabling Works. The 2028 demand model was utilised to reflect the period during construction which generates the highest volume of construction based trips.
9	Construction stage review process, Table 2 (assumption 2)	7	The 2024 scenario assumes R132 Connectivity Project in Swords has been delivered. This includes (1) conversion of roundabouts at Northern Swords R125-R132 (Estuary), Seatown-R132, Malahide R106-R132 and Pinnockhill R125-R132 to traffic signals and (2) reduction of general traffic capacity to facilitate enhanced bus priority and active travel measures along the corridor.	TII welcome and note this General Statement. As noted in Appendix A9.5, the Do Minimum model consists of a 2028 base network with the addition of two further committed schemes - the inclusion of the measures proposed within the R132 Connectivity Study and the proposed BusConnects infrastructure designs.
10	Construction stage review process, Table 2 (assumption 3)	7	The 2028 scenario is based on an NTA forecast for traffic schemes delivered by 2028 and includes the R132 Connectivity Project listed above and two elements of BusConnects Ballymun Finglas to City Centre - Bus Gate on St. Mobhi Road and operational changes around Blackhall Palace.	Please refer to response item (9) above.

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11	Construction stage review process, Table 2 (assumption 4)	7	This review looks at the outcome of the Stage 2 Assessment process and considers residual impacts following mitigation measures. It considers the following Key Performance Indicators developed by the Metrolink Team to assess the construction impact on general traffic: Increase in traffic flow (PCUs) Increase in driver delay (seconds) Length of diversion	TII welcome and note this General Statement. TII confirm the Key Performance Indicators used to assess the construction impact on general traffic.
12	Construction stage review process, Table 2 (assumption 5)	7	Existing service delivery routes from Donabate and Ballymun Distribution Centre remain in place as they have been identified by Tesco Ireland as the most effective way of delivering to stores both economically and sustainably	TII have noted this assumption and refer you to response item number (4) above.
13	Operational stage review process (paragraph 2)	8	This approach acknowledges the proposed segregation of network Metrolink services by cut-and-cover and tunnel along the corridor. The key assumption underpinning the operational stage review is that Fingal County Council R132 Connectivity and NTA BusConnects proposals will be fully delivered by the time Metrolink becomes operational which will transform the at-grade transport network. Fingal County Council R132 Connectivity Project received planning permission under ABP Reference JP06F.310145 whilst NTA BusConnects proposals are yet to receive permission.	TII have noted this assumption.
14	Construction Stage Assessment (paragraph 1)	9	Construction is anticipated to last up to 10 years and is programmed as four main works packages: • Enabling Works Central and South • Enabling Works North • Main Works Central and South • Main Works North	Please note that the main works contracts are planned to be split between Central and South.
15	Construction Stage Assessment (paragraph 3)	11	The Works Area listed below are identified in the Stage 1 Review as needing further assessment. • R132 Corridor Works • M50 Crossing South • Dublin Tunnel Portal • Northwood Station • Ballymun Station • Collinstown Station The Works are considered under 'North Section' and 'Central and South Section' to provide consistency with Metrolink assessment approach.	The structure of the response is noted.

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16	Stage 2 Assessment - North Section	11 & 12	The North Section consists of Works along the Metrolink Corridor between M1 Lissenhall Junction and Dublin Airport Roundabout. Due to the proposal for a 'cut and cover' tunnel along this section of the corridor there is transport disruption along the R132 Corridor. Major works include: • Estuary P&R and Station • Seatown Station • Swords Central • Fosterstown Station • Cut & Cover at junctions including the crossing of Estuary Roundabout, R106 Malahide Road, Pinnock Hill Roundabout and Nevinstown Lane Appendix 9.5. Scheme Traffic Management Plan of Metrolink Railway Order Application provides details of Metrolink construction sequencing and temporary traffic management proposals for Works in North Section. The construction sequencing is replicated in Figure 3 below. Construction Works expected to affect Tesco Ireland are outlined in Figures 4-7 below. • Figure 3 - Metrolink construction sequencing for the North Section • Figure 4 - Metrolink Construction Stage impact associated with Pinnock Hill Roundabout - R125 Closure • Figure 5 - Metrolink Construction Stage impact associated with Nevinstown Lane Closure - one-way wb • Figure 6 - Metrolink Construction Stage impact associated with Estuary Junction left in left out • Figure 7 - Metrolink Construction Stage impact associated with Seatown Junction left in left out The proposals are typically described as having a Stage 2 impact assessment rating of 'severe' on general traffic in Appendix 9.5. Scheme Traffic Management Plan of Metrolink Railway Order Application. This is of significant concerns to Tesco given the location of Tesco Holywell Store in relation to its customers, colleagues, home delivery routes and Donabate Distribution Centre delivery route.	As noted in Appendix A9.5 Scheme Traffic Management Plan, a hierarchical approach to traffic management has been adopted, with pedestrian/cyclists, public transport and commercial needs taking preference over private car usage. Some alternative HGV routes within the Swords area have been identified to reduce the volume of traffic that is moving through the works. The promotion of these alternative routes for traffic will form part of the construction traffic management for the scheme and has the potential to decrease congestion by 30%. These movements are designed to improve movements within local areas. These routes will primarily be promoted through a combination of signage including static signage, variable signage and community publicity. While these routes will be encouraged throughout the duration of the construction of the MetroLink project, the analysis presented in Appendix A9.5 does not consider these impacts, and therefore should these reductions be achieved, the impact to general traffic, and all other users, will be reduced.

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17	North Section Impact Assessment on Tesco Ireland	14	Proposed Works along R132 Corridor adversely affect accessibility of Tesco Holywell Store for customers, colleagues, deliveries and home deliveries. The most significant impact is associated with proposed closure of R125 Arm of R132 Pinnock Hill Roundabout for 6-9 months and given its significance Tesco Ireland is focused on highlighting this concern. This is because a high proportion of trips to Tesco Holywell Store use Pinnock Hill Roundabout to get to and from the store: • Deliveries from Donabate Distribution Centre travel along R132 and R125 to reach the store. There is no suitable alternative to this route without unsustainably extending trip lengths. This is because M1 Junction 3 at R125 does not contain an off-ramp for southbound traffic or on-ramp for northbound traffic • Customers, colleagues and home deliveries travelling to and from Swords and its northern and western suburbs use this route. There is no suitable alternative without unsustainably extending trip lengths as Ward River Valley Park restricts possible movements • Passing customers, use R125 as part of longer journeys involving M1 Junction 3 and R132. For example, evening commuters currently stop at Tesco Holywell Store on their way home to Swords and its northern and western suburbs. They are discommoded by this proposed closure and are therefore likely to seek an alternative route, i.e. using M1 Junction 2 Dublin Airport, resulting in a direct loss of trade. As a result of impact on above trips to and from the store, the proposed closure is anticipated to directly affect Tesco Ireland 's ability to trade under normal conditions. Tesco Ireland acknowledges some disruption is likely to occur given the scale and complexity of Metrolink's construction, however it is respectfully requested that further mitigation is sought to address impacts associated with Works at Pinnock Hill Roundabout. Potential ways to further mitigate against impact on Tesco Ireland could include: • Retain R125 access via Pinnock Hill Roundabout • Reduce proposed closure period of R125 access via Pinnock Hill Roundabout • Ensure junction capacity at Airside Junction / Nevinstown Lane is maximised to offset impact of closure and schedule wider Works so as to minimise overall impact on the transport network • Provide for direct engagement between Metrolink's Traffic Management Co-ordinator and Tesco Ireland during Design and Build Stage of the project to ensure early warnings of upcoming traffic management proposals are in place such that impact on Tesco Ireland customers, colleagues, deliveries and home deliveries are mitigated insofar as practicable.	The diversion due to the closure of the R125 eastern arm for 9 months is approximately 1.2km via the outlined traffic management plan in Figure 5-41 of Appendix A9.5. Alternatively, delivery trucks could divert 2.1km from R132 at the Malahide junction via Mountgorry Way. As outlined in Appendix A5.1 Outline CEMP, a Project Construction Traffic Forum will be established with representatives from key stakeholders to maintain engagement throughout the construction phase and monitor the ongoing impacts. Prior to the commencement of the Construction Phase, a comprehensive publicity and information campaign will take place, ensuring all members of the public are aware of the upcoming traffic management measures. The public will be provided with advanced warning of any proposed diversions and disruption through appropriate signage on site and continuous updates on construction progress on the project website. Ongoing monitoring will occur throughout the construction phase to determine if closures can be removed as soon as possible. The Scheme Traffic Management Plan (Appendix A9.5) details mitigation techniques and the types of measures to be employed to minimise the impacts generated by the proposed Project during the Construction Phase. The extent of the mitigation will be dependent on the severity of the impact. With specific regard to the Tesco proposals: 1. It is not feasible to omit this closure at this stage of the design and hence the impacts of it are assessed in the EIAR and diversion routes assessed. TII will work with the contractor during detailed design in order to minimise any disruption caused. 2. TII will ensure it is incumbent on the contractors to minimise all road closure durations. 3. Capacity will be maximised so far as is reasonably practical and take cognisance of the wider works to ensure disruption is minimised. 4. TII will establish a Project Construction Traffic Forum- with representatives from key stakeholders, including Tesco. Advance notice of closures will be given.
18	North Section Impact Assessment on Tesco Ireland	14	Tesco Ireland would appreciate the opportunity to engage with Metrolink's Design and Build Team as the construction programme is being developed to arrive at an optimal solution for all interested parties.	TII will establish a Project Construction Traffic Forum during the detailed design phase, with representatives from key stakeholders, including Tesco, such that the traffic management design and phasing is coordinated and communicated to all parties.
19	Central and South Sections	15	The Central and South Sections consists of Works between Dublin Airport Tunnel Portal and Charlemont Station. Major works with the potential to impact Tesco Ireland are as follows: • M50 Crossing • Northwood Station • Northwood Dublin Tunnel Portal • Ballymun Station • Collins Avenue Station Appendix 9.5. Scheme Traffic Management Plan of Metrolink Railway Order Application provides details of the construction works and associated temporary traffic management measures. For Tesco Ireland there is significant concern around the ongoing operation of its Ballymun Distribution Centre. The Distribution Centre located off Old Ballymun Road is used to serve 162 stores nationwide with a focus on fresh goods deliveries. The Ballymun Distribution Centre requires a combined total of 1,200 vehicle movements in and out of the Centre each day to maintain successful operations including suppliers, delivery vehicles and colleagues.	As noted in Appendix A9.5 Scheme Traffic Management Plan, a hierarchical approach to traffic management has been adopted, with pedestrian/cyclists, public transport and commercial needs taking preference over private car usage. No closures are proposed on the Old Ballymun Road as part of the construction of Northwood Station, and therefore access to the distribution centre will be maintained.

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20	Metrolink Construction Stage impact associated with M50 Crossing	16	M50 J4 Ballymun is a key junction for access in and out of Tesco Ireland's Ballymun Distribution Centre. M50 Crossing Works involve four main phases described below and as shown in Figure 9. • Phase 1-3 months - eastbound on-slip at M50 J4 reduced from two lanes to one lane • Phase 2-3 months - eastbound on-slip at M50 J4 reduced from two lanes to one lane • Phase 3 - night time possessions - Two full night time closures of main M50 carriageway • Phase 4 - night time possession - One night time closure of main M50 carriageway Access to the construction site for southern section of M50 Crossing Works is via a new roundabout on Old Ballymun Road. The construction haulage route to M50 is shared by vehicles to and from the Ballymun Distribution Centre. The proposals are described as having a Stage 2 impact assessment rating of moderate in Table 6-35 of Appendix 9.5. Scheme Traffic Management Plan of Metrolink Railway Order Application. This is of concern to Tesco Ireland because it's on the main access route for fresh goods delivery in and out of the Ballymun Distribution Centre to serve several stores across the country.	As noted in Appendix A9.5 Scheme Traffic Management Plan, the construction of the M50 Crossing will require four unique phases of traffic management, with phases 1 and 2 each taking place over approximately a 3-month period. Phases 3 and 4 will only require night-time possession. The results indicate that the restrictions put in place will have a slight impact on traffic volumes in the local area. During both peak periods there is a small decrease in volume on the M50 main carriageway (mainly between 1-2%). This loss in volume results in very minor increases in traffic volume on local roads to the south of the M50 Junction 4. The speed restrictions in place at the area of works will result in a small journey time increase on the main carriageway (travel time between J3 and J5 increases by up to 20 seconds). The removal of one lane on the eastbound on-slip will result in a moderate increase in delay on vehicles accessing the M50. The increased delay is most notable during the evening peak period where there is an increase of almost 4 minutes. Please refer to response item number (18) above in relation to the proposed mitigation measures to reduce the impacts during the construction phase.
21	Northwood Station and Dublin Tunnel Portal	17	Northwood Station Works require significant alterations to R108 Ballymun Road at St. Margaret's Road and Northwood Avenue Junctions. Both junctions are critical for access in and out of Tesco Ireland's Ballymun Distribution Centre. Northwood Station Works involve five enabling phases and two main works phases requiring temporary traffic management at the junctions. Dublin Tunnel Portal Works use an access point off St. Margaret's Road. Works are described in further detail below.	While delays will be incurred at these locations as outlined in Section 7.5.2.3.1 of Appendix A9.5 Scheme Traffic Management Plan, full commercial access at these locations will be maintained throughout the project.
22	North wood Station Enabling Works	17	Enabling works are split into five phases as shown in Figure 10 below. The various phases are anticipated to last up to 6 months. The proposals are described as having a Stage 2 impact assessment rating of 'severe' in Table 7.3 of Appendix 9.5. Scheme Traffic Management Plan of Metrolink Railway Order Application. This is of significant concern to Tesco Ireland because it's on the main access route for fresh goods delivery in and out of the Ballymun Distribution Centre to serve stores nationwide.	Please refer to response item number (21) above in relation to commercial access during the construction phase.
23	North wood Station Main Works	19	Northwood Station Main Works are split into two phases as shown in Figure 11 below. Phase 1 is expected to be in place for approximately 1.5 years while Phase 2 is expected to be in place for five years and nine months. The proposals are described as having a Stage 2 impact assessment rating of 'moderate' for general traffic and 'severe' for HGV traffic in Table 7.15 of Appendix 9.5. Scheme Traffic Management Plan of Metrolink Railway Order Application. This is of significant concern to Tesco Ireland because it's on the main access route for fresh goods delivery in and out of the Ballymun Distribution Centre to serve stores nationwide.	Please refer to response item number (21) above in relation to commercial access during the construction phase.
24	Ballymun Station Works	20	Ballymun Station Works consist of Enabling Works Phase and Main Works Phase. Both phases involve reduced lane capacity on R108 Ballymun Road. Capacity on this corridor is important for access between Tesco Ireland's Ballymun and Donabate Distribution Centres to stores in the North Inner City. Works are described in further detail below.	Due to works ongoing at Ballymun and Northwood Stations, there will be an impact on travel times, particularly at peak hours, along the R108 due to lane reductions, however full access will be consistently maintained in this area. The maximum delay at the Northwood Avenue Junction - where Tesco Vehicles enter the R108 - is 50 seconds (Section 7.2.6.3.1 of Appendix A9.5) during the main works. In the vicinity of the Ballymun Station, delay is minimal on the R108 due to a reallocation of traffic onto surrounding roads (Section 7.3.6.3.1 of Appendix A9.5) during the main works, while R108 sees a reduction in traffic by 45-50% during AEW. While major adverse effects to Tesco trucks in this area are not expected, TII will continue to engage with affected stakeholders throughout the project.

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25	Ballymun Station Enabling Works	20	Enabling works involve a single phase with temporary traffic management proposals affecting R108 as shown in Figure 12. The phase is anticipated to last up to a few weeks. The proposals are described as having a Stage 2 impact assessment rating of 'moderate' in Table 7.18 of Appendix 9.5. Scheme Traffic Management Plan of Metrolink Railway Order Application. This is of significant concern to Tesco Ireland because it affects Tesco Ireland's ability to get goods from Ballymun and Donabate Distribution Centres into its stores in the North Inner City.	Please refer to response item number (24) above in relation to impacts to general traffic during the construction phase.
26	Ballymun Station Main Works	20	Main Works involve a primary phase with temporary traffic management proposals affecting R108 traffic as shown in Figure 13. The phase is anticipated to take place over a period of approximately 8 years and three months. The proposals are described as having a Stage 2 impact assessment rating of 'slight' in Table 7.18 of Appendix 9.5. Scheme Traffic Management Plan of Metrolink Railway Order Application. However, this is still of significant concern to Tesco Ireland because it affects Tesco Ireland's ability to get goods from Ballymun and Donabate Distribution Centres into its stores in the North Inner City. The origin, destination and nature of these trips means the re-routing of these deliveries isn't a sustainable alternative.	Please refer to response item number (24) above in relation to impacts to general traffic during the construction phase.
27	Collins Avenue Station	21	Ballymun Station Works consist of Enabling Works Phase and Main Works Phase. Both phases involve reduced lane capacity on R108 Ballymun Road. Capacity on this corridor is important for access between Tesco Ireland's Ballymun and Donabate Distribution Centres to stores in the North Inner City. Works are described in further detail below.	Please refer to response item number (24) above in relation to impacts to general traffic during the construction phase.
28	Collins Avenue Station Enabling Works	21	Main Works involve 5 phases with temporary traffic management proposals affecting R108 traffic as described in Figure 13. The phases are anticipated to last up to 9 months. The proposals are described as having a Stage 2 impact assessment rating of 'slight to moderate' in Table 7.32 of Appendix 9.5. Scheme Traffic Management Plan of Metrolink Railway Order Application. However, this is still of significant concern to Tesco Ireland because it affects Tesco Ireland's ability to get goods from Ballymun and Donabate Distribution Centres into its stores in the North Inner City. The origin, destination and nature of these trips means the re-routing of these deliveries isn't a sustainable alternative.	Please refer to response item number (24) above in relation to impacts to general traffic during the construction phase.
29	Collins Avenue Station Main Works	22	Main Works involve 2 phases with temporary traffic management proposals affecting R108 traffic as described in Figure 14. Phase 1 is anticipated to last up to 6 months and Phase 2 is anticipated to last up to 6 years. The proposals are described as having a Stage 2 impact assessment rating of 'severe' for general traffic as described in Table 7.38 of Appendix 9.5. Scheme Traffic Management Plan of Metrolink Railway Order application. This is of significant concern to Tesco Ireland because it affects Tesco Ireland's ability to get goods from Ballymun and Donabate Distribution Centres into its stores in the North Inner City. The origin, destination and nature of these trips means the re-routing of these deliveries isn't a sustainable alternative.	Please refer to response item number (24) above in relation to impacts to general traffic during the construction phase.

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Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022				
30	Central and South Section Impact Assessment on Tesco Ireland	23	Proposed Works at M50 Crossing, Northwood Station, Ballymun Station and Collins Avenue Station adversely affect accessibility for Tesco Ireland to deliver goods to its stores from Ballymun and Donabate Distribution Centres. The most significant impact is associated with Northwood Station Works where temporary traffic management arrangements directly affect access in and out of Tesco Ballymun Distribution Centre. Works further south along the R108 Corridor at Ballymun Station and Collins Avenue Station affect Tesco's ability to get goods to store in Dublin's North Inner City from Ballymun and Donabate Distribution Centres: • Tesco Express Glasnevin Ave • Tesco Metro Drumcondra • Tesco Metro Phibsborough SC • Tesco Express Dorset St Lower • Tesco Metro Jervis Street SC • Tesco Express Temple Bar • Tesco Express College Green • Tesco Express Aungier Street As a result of impact on above trips to and from Tesco Distribution Centres and stores in Dublin's North Inner City, the proposed works are anticipated to directly affect Tesco Ireland 's ability to trade under normal conditions. Tesco Ireland acknowledges some disruption is likely to occur given the scale and complexity of Metrolink's construction, however it is respectfully requested that further mitigation is sought to address impacts associated with works at M50 Crossing, Northwood Station, Ballymun Station and Collins Avenue Station. Potential ways to further mitigate against impact on Tesco Ireland could include: • Retain general traffic lane capacity along R108 combined with bus gates for public transport priority. • Ensure north-south movements on R108 Ballymun Road are prioritised, particularly during Phase 1 of Northwood Station Main Works. • Ensure junction capacity at R108 / Northwood Avenue is maximised with specific consideration given to the volume of Heavy Goods Vehicles using Northwood Avenue which are not appropriate to re-route. This includes retention of dedicated turning lanes in and out of Northwood Avenue to safely cater for Heavy Goods Vehicle traffic • Provide for direct engagement between Metrolink's Traffic Management Co-ordinator and Tesco Ireland during Design and Build Stage of the project to ensure early warnings of upcoming traffic management proposals are in place such that impact on Tesco Ireland customers, colleagues, deliveries and home deliveries are mitigated insofar as practicable.	Please refer to response Item numbers (21) and (24) above. As outlined in Appendix A5.1 Outline CEMP, a Project Construction Traffic Forum will be established with representatives from key stakeholders to maintain engagement throughout the construction phase and monitor the ongoing impacts. Prior to the commencement of the Construction Phase, a comprehensive publicity and information campaign will take place, ensuring all members of the public are aware of the upcoming traffic management measures. The public will be provided with advanced warning of any proposed diversions and disruption through appropriate signage on site and continuous updates on construction progress on the project website. Ongoing monitoring will occur throughout the construction phase to determine if closures can be removed as soon as possible. The Scheme Traffic Management Plan (Appendix A9.5) details mitigation techniques and the types of measures to be employed to minimise the impacts generated by the proposed Project during the Construction Phase. The extent of the mitigation will be dependent on the severity of the impact. With specific regard to the Tesco proposals: 1. The current design does not impact significantly and hence remains suitable. As stated previously the Project Construction Traffic Forum will be able to review proposals at detailed design to ascertain whether betterment can be achieved. 2. Refer above. 3. Refer above. 4. TII will establish a Project Construction Traffic Forum- with representatives from key stakeholders, including Tesco.
31	Central and South Section Impact Assessment on Tesco Ireland	23	Tesco Ireland would appreciate the opportunity to engage with Metrolink's Design and Build Team as the construction programme is being developed to arrive at an optimal solution for all interested parties.	TII will establish a Project Construction Traffic Forum during the detailed design phase, with representatives from key stakeholders, including Tesco, such that the traffic management design and phasing is coordinated and communicated to all parties.
32	Operational Stage Assessment	24	This approach acknowledges the proposed segregation of network Metrolink services by cut-and-cover and tunnel along the corridor. The key assumption underpinning the operational stage review is that Fingal County Council R132 Connectivity and NTA BusConnects proposals will be fully delivered by the time Metrolink becomes operational which will transform the at-grade transport network. Fingal County Council R132 Connectivity received planning permission under ABP Reference JP06F. 310145 whilst NTA BusConnects proposals are yet to receive permission.	Please refer to response item number (13) above.
33	Impact Assessment on Tesco Ireland at Ballymun Distribution Centre	26	Tesco Ireland wishes to ensure the level of traffic, including a high proportion of Heavy Goods Vehicles, is safely accommodated at junctions along the route between Tesco Ballymun Distribution Centre and R108 Ballymun Road; recognising the route is equally important to other local parties and Metrolink operations. Of particular importance to Tesco Ireland is that junction alterations proposed to R108/Northwood Avenue junction and along Old Ballymun Road will successfully cater for the volume of HGV turning movements in the area.	Junction Modelling of the R108/Northwood Avenue Junction during the construction phase has been carried out in Section 5.3.1 of Appendix A9.5 - Appendix D STMP. This analysis finds that the junction will operate within capacity in the PM Peak and marginally above capacity at the AM peak. Junction operation will be monitored throughout the project and stakeholders will be engaged throughout the project to address any concerns or issues arising.

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34	Impact Assessment on Tesco Ireland at Ballymun Distribution Centre	26	Tesco Ireland would appreciate the opportunity to engage with Metrolink's Design and Build Team as the design progresses to achieve a positive design outcome for all parties which can include the sharing of data for movements in and out of its Distribution Centre.	TII will establish a Project Construction Traffic Forum during the detailed design phase, with representatives from key stakeholders, including Tesco, such that the traffic management design and phasing is coordinated and communicated to all parties.
35	Conclusion and Next Steps (paragraph 1)	27	Tesco Ireland reiterates its broad support of Metrolink notwithstanding the specific considerations and assessment outcomes identified in this submission Tesco Ireland recognises the important role Metrolink plays in delivering greater accessibility and connectivity across the Greater Dublin Area. Tesco Ireland's colleagues and customers will benefit from attractive sustainable travel choices Metrolink provides.	TII welcome your support for MetroLink Project development.
36	Conclusion and Next Steps (paragraph 2)	27	In reviewing Metrolink's Railway Order Application, Tesco Ireland has assessed impacts which affect how it can serve goods to its customers during the Construction and Operational Stages of Metrolink. It is trusted that potential measures put forward to mitigate against these impacts are considered further and in turn help Metrolink's Project Team arrive at solutions which cater for the variety of stakeholder affected, thereby resulting in a successful outcome for all parties.	TII have taken note your proposed mitigations and will further consider these through the detailed design phase to minimise impacts. TII remain fully committed to mitigating all impacts as far as reasonably possible, and have included for this in the EIAR, both in the designs developed to date and in the process set in place to manage all impacts throughout the project.
37	Conclusion and Next Steps (paragraph 3)	27	Tesco Ireland again thank you for the opportunity to engage on the project through the Railway Order process. In relation to the specific matters identified, we would welcome the opportunity to work closely with Metrolink's Project Team as the design and build progresses, to ensure the future success of Metrolink, and retain safe and efficient access to Tesco Ireland's Distribution Centres and Stores for its customers, colleagues and trading partners.	Thank you again for the submission. TII reiterate the availability for further constructive engagement with Tesco Ireland during design and build phase.

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Organisation Name or Name of Submitter			The Abbey Theatre Amharclann na Mainistreach	
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The Abbey Theatre Amharclann na Mainistreach Cover Letter - Re: Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order [2022] Metrolink. Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin				
1	Cover letter - Planning Policy	8	RPO 9.24 <i>Promote and facilitate the role of arts and culture in recognition of its importance to people's identity and the potential for economic development through a unique cultural tourism offering throughout the Region.</i> Cultural and the arts are important elements to the Irish society and Irish economy, generating revenue from local, national and international tourists. The Abbey Theatre is notably the national theatre of Ireland. Thus, the protection of its operations should be facilitated. This is not evidenced within the submitted railway order documentation.	TII recognise the National (and International) importance of the Abbey Theatre and are of the view that a high quality transportation corridor that MetroLink will provide will only serve to enhance this theatre and other nationally important arts and cultural venues in Dublin City Centre. As described in our response to specific observations with regards to noise and vibration below, MetroLink will not cause any significant long term impact on the operation of the Abbey Theatre. There will be potential for a short term impact during the progression of the Tunnel Boring Machine which would last for approximately 2 weeks. TII and their contractors will undertake advanced consultation and stakeholder engagement to provide significant advanced notice for the Abbey Theatre to prepare for the passing of the TBM so that any impacts can be effectively mitigated during this short duration.
2	Cover letter - Dublin City Development Plan 2022- 2028	10	The relevant development plan against which any planning application at our clients' premises would be assessed against is the Dublin City Development Plan 2022-2028. This plan is set to come into effect in December 2022, replacing the current Dublin City Development Plan 2022-2028.	Please refer to Response (7) below.
3	Cover letter - Concerns on Submitted Application	12	As stated, our clients are generally supportive of necessary improved public transport infrastructure within Dublin City and County, as well as the improvement of national connectivity. However, the submitted railway order application causes some concerns, primarily relating to the lack of communication by the Applicant with the Abbey Theatre and possible adverse impacts arising from the proposal on the operations of the theatre.	TII are appreciative of Abbey Theatre's support for the Project. Since the receipt of this submission, TII have engaged with the Abbey Theatre to discuss mitigation measures that will be necessary in respect of the effect of ground borne noise which will occur during the passage of the TBM. This will occur over a period of two weeks. Mitigation measures will be put in place to ensure operational noise and vibration impacts are kept within and beneath stated thresholds contained in the EIAR.

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The Abbey Theatre Amharclann na Mainistreach Cover Letter - Re: Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order [2022] Metrolink. Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin				
4	Cover letter - Concerns on Submitted Application	12	The Abbey Theatre is located along the red Luas line. This light railway system has extremely high frequency during peak hours as well as having regular frequency trams at non-peak times of the day. This proximity currently results in disturbance to the Abbey Theatre. Our clients seek reassurance that Metrolink will not result in any additional disturbance of performances or rehearsal space. The purpose of the rehearsal is to prepare the performance and to also achieve a sense of the performance space, allowing for familiarity with the surrounds. This could be adversely impacted by any adjoining vibrations, noise and/or disturbance which may result from the operation of Metrolink or the tunnelling works related to same.	Regarding the possible disturbance to the Abbey Theatre during the construction and operational phases, the only possible disturbance will occur due to noise and vibration arising from (i) the passage of the Tunnel Boring Machine (TBM) and (ii) from train movements during the operational phase. <u>Construction Phase</u> EIAR Chapter 14, Ground-borne Noise and Vibration, section 14.4.1.8 AZ4 Groundborne Noise during Construction, Table 14.29, presents the predicted noise levels during TBM Passage compared to the threshold values for noise for various sensitive receptors (including Abbey Theatre). Table 14.29 shows the L_{Amax}'s for TBM Passage at Abbey Theatre has a value of 45 dB while the Threshold Level for this building is 30 dB, resulting in a significant impact on the buildings operation during TBM passage. It is important to note that the TBM advancement will only potentially effect the Abbey Theatre for a short period of time (up to 2 weeks). As noted above, unfortunately, there are no effective methods available to reduce groundborne noise or vibration from the TBM at source. As a result, the principal mitigation measure to minimise effects on the Abbey Theatre will be advance public consultation and stakeholder engagement to reduce the significance of groundborne noise effects during construction so that the Abbey Theatre is prepared for the passage of the TBM and resultant elevated noise levels. TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 of the EIAR). With regards to Groundborne Vibration, EIAR Chapter 14, section 14.4.1.9 AZ4, Groundborne Vibration during Construction, Table 14.32 shows the predicted vibration levels during TBM Passage compared to the threshold values for vibration for various sensitive receptors (including Abbey Theatre). Table 14.32 shows the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) for TBM Passage at Abbey Theatre has a value of 0.217 m/s-1.75 and is therefore much lower than the VDV Threshold Level for this building of 1.0 m/s-1.75, resulting in a not significant impact on the buildings operation. <u>Operation Phase</u> EIAR Chapter 14, table 14.44 shows the L_{Amax},s for operation at Abbey Theatre has a value of 27 dB while the Threshold Level for this building is 25 dB, resulting in a significant impact on the buildings operation if not mitigated. As a result, mitigation measures, will be implemented to reduce the noise and vibration effects on the building's operation. As set out by section 14.5.2 Operational Phase, Table 14.47, in the case of the Abbey Theatre, the specific mitigation measure proposed will be a Floating Slab Track system for this section of the alignment, resulting in a residual impacts that are not significant for the Abbey Theatre during the operational phase. EIAR Chapter 14, table 14.45, shows the predicted vibration levels during Railway Operation for various sensitive receptors. For the Abbey Theatre, the predicted VDV (Vibration Dose Value) for Railway Operation is 0.004 m/s-1.75, resulting in a not significant impact on the buildings operations.

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5	Cover letter - Concerns on Submitted Application	12	The Applicant has not directly consulted with the Abbey Theatre group, nor have they submitted adequate information, models or details to demonstrate that rehearsals or performances will not be impacted upon. Such relevant information includes possible additional contaminants from electromagnetic interference to instruments, amplifiers, sound loops, broadcast units etc..	TII consider that they have provided adequate information, models and details to demonstrate the impacts on the Abbey Theatre. This is set out in a detailed EIAR, that identifies, describes, assesses and mitigates, where necessary, the environmental impacts resulting from the construction and operation of MetroLink. TII would also draw the Abbey Theatre's attention to response (4) above, and TII's further response below with regards to assessed electromagnetic interference (EMI) impacts that summarises why the Abbey Theatre is not expected to be impacted by EMI. TII would also note that for identified stakeholders, including the Abbey Theatre, information requests were made to complete questionnaires listing potentially sensitive equipment. Predominantly stakeholders listed standard electrical and electronic items such as phone systems, hard drives etc. These types of equipment are discussed within the EIAR and evaluated to not be at risk of interference from electromagnetic radiation (DC, AC or RF fields) from the proposed Project. No feedback was received from the Abbey Theatre. The Abbey Theatre is not expected to possess atypical equipment other than what would be found in other similar entertainment and arts venues. Specifically that of professional audio, video and broadcast equipment. Professional audio visual equipment is more vulnerable to EMI as a result of operating in the audio acoustic range and as a result undergoes specific immunity testing in that frequency range before sale in the European Market place. Similar stakeholders from whom feedback was received, and who are closer, to the alignment include the Gate Theatre and the National Concert Hall. Neither of these sites have been identified as being at risk of interference from the proposed development. EIAR Chapter 12, Electromagnetic Compatibility and Stray Current, section 12.4.2 details the width of the study area for EMI which is up to 100m. As noted above, questionnaires would have been received by identified stakeholders within that area to identify and highlight equipment that they would class as potentially being sensitive to EMI. This 100m range relates to equipment vulnerable to two aspects of the electromagnetic radiation generated from the proposed development. That of DC magnetic field perturbations and Radio Frequency field interference e.g. Scanning Electron Microscopes (vulnerable to DC), Radio equipment (vulnerable to RF). The sensitivity and potential impacts on these types of equipment are discussed within the chapter for any stakeholders that may be in possession of such equipment. The Abbey Theatre is circa 30m from the alignment. This is close enough that a questionnaire should have been sent but not close enough to be at risk or require consideration for AC Field interference. (see paragraph below). For the third aspect of the electromagnetic radiation generated by the proposed development (that of AC fields), the study area is narrowed to within 10m of the proposed alignment, see Table 12.2 of the EIAR, Chapter 12. This is due to the fact that the AC fields generated decrease rapidly with distance from the alignment to the point of falling below background levels at greater distances. AC field interference with respect to audio visual equipment is discussed within the chapter for sites that do fall within this 10m envelope. CE marked broadcast, IT, audio visual, or any other approved electrical equipment will not experience EMI from the proposed development. Unapproved/custom equipment (such as magnetic pickups on electric guitars) will not be vulnerable to interference from AC fields due to the distances involved (30m approximately). Therefore, potential impacts from AC fields were not classed as requiring additional investigations from an EMI perspective for the Abbey Theatre, which was considered when reviewing the Baseline Environment and assessing the distances involved. As noted by response (3) above, TII propose a meeting is held between TII and The Abbey Theatre to discuss the observations and responses made with regards to this submission and any other relevant matters.
6	Cover letter - Concerns on Submitted Application	12	Again, a significant concern arises in relation to the construction period of the railway if approved, especially during the tunnelling period which may be highly disruptive and may require changes to performance or rehearsal programmes operating at the Abbey Theatre. There is a lack of information demonstrating how the construction stage, including tunnelling, may affect the structure of the Abbey Theatre and surrounding buildings.	Please refer to Response (4) above.

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7	Cover letter - Concerns on Submitted Application	12	As noted, the Abbey Theatre has been earmarked for large-scale redevelopment within national plans prepared by the Government. This has not been referenced by the Applicant. Information on the possible impacts of Metrolink operations of the Abbey Theatre and the impending comprehensive redevelopment should be sought and considered prior to any grant of permission. Such information should be provided by the Applicant and its team with all relevant stakeholders, including our clients.	TII can confirm that the planning assessment for the Railway Order (RO) application was carried out using the relevant plans published at the date of RO lodgement: i.e. the DCDP 2016-2022 then in force. TII also reviewed the draft DCDP 2022-2028 that was available at the time which did not include reference to any redevelopment of the Abbey Theatre. At the time of our assessment of the environmental impacts on the Abbey Theatre 2019-2022, a planning application for a large scale redevelopment of the Abbey site had not been lodged and could therefore not be assessed by the MetroLink team. TII commit to working with the Abbey Theatre to seek to ensure that any large scale developent at this important cultural site is not unduly constrained by MetroLink. For the reasons noted in Response (5) above, TII consider they have comprehensively considered and assessed the impacts and required mitigations resulting from the construction and operation of MetroLink. Potential impacts on the Abbey Theatre (as it currently stands) are assessed in the EIAR having regard to potential impacts arising from Groundborne Noise and Vibration, and EMI, both discussed above by responses (4) and (5) respectively. Construction generated ground movements have also been considered (see EIAR Appendix A5.17, Table 5.2) where it was assessed there would be no impact on the Abbey Theatre from settlement.
8	Cover letter - Conclusion	12	We submit that the proposed railway order application has been made without consideration of the possible adverse impacts on the functioning or operation of the Abbey Theatre and surrounding properties. The Abbey Theatre is designated as Ireland's National Theatre and thus should be protected from undue impacts arising from developments, including at construction and operational stages. The Abbey Theatre currently adjoins a high frequency Luas line. Rail traffic along the line will increase in the event of the Metrolink being approved and constructed, resulting in impacts to performance and rehearsal spaces of the Abbey Theatre and the Peacock Theatre. The level of impact has not been measured or detailed by the Applicant. Whilst our clients are generally supportive of the improvement of national public transport infrastructure, it is submitted that the scheme should not be approved without consideration of any impacts it will have on the Abbey Theatre and/or appropriate conditions to mitigate same.	TII do not agree that the Railway Order application has been made without consideration of the possible adverse impacts on the functioning or operation of the Abbey Theatre and surrounding properties. TII have submitted a detailed and comprehensive EIAR that evidences that the level of impact has been measured and assessed, and which identifies, describes, assesses and mitigates (where necessary) the environmental impacts resulting from the construction and operation of MetroLink. A summary of this assessment, covering groundborne noise and vibration, EMI and construction generated ground movements has also been presented in responses (4) and (5) above, noting that the only environmental impact that cannot be mitigated is groundborne noise from the TBM. As a result, advance consultation with the Abbey Theatre will be necessary to reduce the significance of groundborne noise effects during construction so that the Abbey Theatre is prepared for the passage of the TBM and resultant elevated noise levels. As noted above, TII propose a meeting is held between TII and The Abbey Theatre to discuss the observations and responses made with regards to this submission and any other relevant matters.

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Organisation Name or Name of Submitter			The CMCCG Action Group (Sabine Klinger)	
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1	Introduction	6	Firstly we wish to state our general support of the MetroLink project, as a significant improvement to Dublin's public transport network, with a direct link to Dublin Airport. However, we take issue with Transport Ireland's proposals in the Rail Order for Tara Station, which result in the loss of city centre housing for 150 residents, during Ireland's ongoing housing crises. We therefore request that the retention of the College Gate/Markievicz building be conditioned as part of any future planning consent for MetroLink and indicate options, as to how this may be achieved.	TII wish to thank you for your submission and stated support for the delivery of MetroLink. EIAR Chapter 7 (Consideration of Alternatives) details the decision-making process that has led to the development of the proposed Project, including the route alignment and station locations. Appendix A7.2 Tara Street Station Report, presents in detail the various options that were considered by TII for this location. Concerns had been raised during the public consultation on the Emerging Preferred Route (EPR) regarding the demolition required for the station in the location proposed, and concerns were again raised during the consultation on the Preferred Route. A number of alternative station locations were considered to try and address these concerns. Option 0 is the proposed station location, with a further 11 options assessed. Three options as submitted by College Gate residents, with the station relocated either to the north or south of the EPR proposed location, have been reviewed in detail. In addition, other options developed through the Preferred Route design process including a mined option and realignment of the route to the east of Tara Station have also been reviewed. All were assessed against the EPR proposed station location (Option 0) as a base case, adjusted to suit the single bore and reduced station box length. The various options were taken through a Multi Criteria Analysis to compare aspects of each different option. Assessment of options considered the viability of the rail alignment, the quality/ease of interchange with Tara DART Station (a key requirement given that this will be one of the busiest stations on MetroLink with high passenger interchange with the DART), demolition/construction impacts (including minimising impacts on the existing DART infrastructure/operations), other environmental and planning issues, including traffic and utility impacts, and urban integration, health and safety issues, and potential construction costs. A mined station option at Tara was considered as a solution to avoid the demolition of the College Gate building. The option comprises the construction of two deep shafts either side and immediately adjacent to the College Gate apartments to provide construction access for mining the tunnel under College Gate apartments and to subsequently provide permanent access, ventilation and back of house facilities for the operation of the station. It was established that 24 hour working would be the most feasible approach to construct the cavern. Therefore, the nature of the work, drill and blast with mechanical excavation, would generate a level of groundborne noise and vibration that would mean it would not be possible to reasonably inhabit the College Gate apartment block due to the disturbance caused, leading to a relocation of residents for a minimum of two years. However, there are possible risks that could extend the duration further, and therefore this option has a similar impact on College Gate residents to the cut and cover preferred option. TII consider that when balanced against the significant direct construction cost increase compared to the preferred cut and cover option, that demolition and redevelopment of the area around the site of the proposed Tara Station as part of the wider integrated development and regeneration of the site provides a better option. The mined option economically performs worse with a much greater risk allowance required compared to the preferred cut and cover option, and the preferred proposed cut and cover station provides a higher quality operational station that is consistent with the MetroLink architectural vision and operational and maintenance strategy. This assessment identified that for a number of reasons including constructability, cost, and retention of a good interchange facility, that Option 0, including demolition of College Gate and Markievicz Centre, remains the preferred station location: * This location retains a good interchange facility with Tara DART Station; * It reduces risk to the overall construction programme; * It offers cheaper overall construction cost; * It retains opportunity for future adjacent development by others; * Mitigation for the loss of the College Gate apartments is being addressed as part of the Project with the support of DCC. In particular, TII, in consultation with DCC, will support rehousing and provide compensation for the loss of the residential units; * TII will continue to work with DCC in relation to the development of an alternative sports and recreational facility to replace the Markiewicz leisure centre and intends to fund the alternative. However, TII does not have control over that development, which is part of DCC's function to provide public sport and recreational facilities in its function area. DCC may or may not be in a position to deliver it in parallel with the MetroLink project. Accordingly, the Board should assess the MetroLink project on the basis that the alternative may not be available. The impact would then be significant, but nonetheless one that would not outweigh the strategic scale long term benefits that MetroLink will deliver.

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2	Introduction	6	The demolition of 70 no. apartments and 8no. duplexes, of which are in good condition, will have a drastically negative impact on the lives of the soon to be uprooted residents, many of whom are socially deprived families and elderly citizens on low income.	As noted in Response (1) above, mitigation for the loss of the College Gate apartments is being addressed as part of the Project with the support of DCC. Please refer to Response (1) in relation to the alternative options considered for this station location, and the reasons for selecting this location as the preferred option. By way of support, TII will ensure that both property owners and tenants are protected. TII are working with DCC with regard to provision of alternate accommodation for tenants, and as noted in EIAR Chapter 21 (Land Take), TII will offer compensation to property owners for land that is deemed to be acquired land in accordance with the general compulsory purchase code. Compensation will be provided through the Compulsory Purchase Order (CPO) process. In recognition of the impact on residential cases where properties are to be acquired and given the unique circumstances surrounding the proposed impacts to College Gate apartment complex, TII will engage the services of a property advisory company to engage directly with property owners. Property owners will be invited to participate in a Discretionary Scheme. The Discretionary Scheme will offer property owners the opportunity to negotiate and reach a 'Pre-Agreement' on both a baseline residential unit price and other matters of compensation that an owner would normally be entitled to under the compensation stage. This will provide the parties with as much certainty as possible at this early stage.
3	Introduction	6	Men, women and children working and living in the area will lose the only publicly owned swimming pool left in Dublin's Inner City.	See Response (1).
4	Option 0	7	We therefore request that if OPTION 0 is granted approval, conditions be placed on the planning consent for any future development at Tara Station, so that it is mainly residential in use and that of 70 apartments be provided for the owners of existing accommodation in College Gate.	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce "Guidance Note for Developers" that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future. As identified in the Planning Report submitted as part of the Railway Order, section 4.5.14.6 states that the Tara Station box does not restrict the potential of the zoned development sites to deliver high intensity city centre, mixed use development, in line with the zoning objective. Therefore, residential buildings may be accommodated in the future, subject to their own statutory process. Please refer to Response (2) in relation to the compensation and support offered by TII to residents of College Gate.
5	Option 0	7	We also request that the Markievicz public swimming pool and leisure centre be re-accommodated on this site.	Please refer to Response (1).

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6	Option 0	7	There is potential to build multiple stories higher than the original development given that the site is situated within the Docklands Strategic Development Regeneration Zone (S.D.R.A 6). The fact that Ireland is in the depths of a housing crisis should be more than enough argument for this essential housing stock to be replaced and increased.	As identified in the Planning Report submitted as part of the Railway Order (Section 4.5.14.6) it is noted that the development site for Tara Station does not restrict the potential of the zoned development sites to deliver high intensity city centre, mixed use development, including residential, under the existing zoning objective for the site. Therefore, high-density residential development may be accommodated in the future, subject to its own statutory processes.
7	Alternative Design Strategies for Tara Station	8	We would ask that if An Bord Pleanála deems it appropriate to condition the retention of the College Gate/ Markievicz Building for the reasons given above the following alternative design strategies (options) as explored by Preferred Route Design Development Report by Jacobs IDOM may be adopted to successfully mitigate all Risks and Constraints raised by the design team.	Please refer to Response (1) above in relation to the assessment of options and the reasons for the identification of the preferred option. Mitigation measures to address the concerns of the preferred option are presented in Response (2) and (3).

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8	Option 4	9	Option 4 of the Preferred Route Design Development Report by Jacobs IDOM was intended to remove the need for the demolition. Outlining the potential mining underground, beneath the apartment block and leisure centre. TII mentions concerns regarding noise, vibration and safety during the construction process and having to rehouse the inhabitants of College Gate during the works: "Construction of the two shafts would lie very close to the College Gate structure due to the space constraints of the site. As such, shaft construction and also the mined section between the shafts would produce noise and vibration during the excavation work and <i>disturbance is likely to residents</i> during construction. The College Gate foundations are constructed on piles and there <i>could be</i> interference with the mined tunnel section where it would pass under the edge of the existing building, resulting in more construction disturbance." Surely this level of disturbance would be tolerable for the residents if they were to keep their homes. Issues regarding noise and vibration have been resolved in other similar projects in major cities across the globe. We do not underestimate the level of engineering expertise required for this type of development; we do feel there are alternative sites, which could be re-considered.	Please refer to Response (1) above in relation to the options considered for Tara Station, and the reasons for the selection of the proposed station location. As part of the options assessed, a mined option (Option 4) was considered. This option would reduce the demolition involved, retaining the College Gate apartment block and the leisure centre, compared to Option 0 (the proposed location). Additionally, the option retains similar benefits to Option 0 in terms of interchange opportunity, traffic impacts, utility impacts, rail alignment and future development opportunities. The mined option would comprise the construction of two deep shafts either side and immediately adjacent to the College Gate apartments to provide construction access for mining the tunnel under College Gate apartments and to subsequently provide permanent access, ventilation and back of house facilities for the operation of the station. There are two things of particular note: (i) a mined tunnel / cavern of this size would need each advance to be excavated in stages with a combination of side drifts and headings. This is time consuming and costly when compared to cut and cover construction. It is also of note that a mined tunnel option would still require extensive cut and cover works at both ends of the station for vertical access, ventilation and to accommodate necessary back of house equipment, and may require smaller temporary construction shafts constructed initially so that mining of the cavern can be commenced as earlier as possible to avoid delaying the completion of the MetroLink Project. (ii) the tunnelling operation would need to progress 24 hours a day, 7 days per week. This would be necessary to ensure the safety and security of the works. As the tunnelling would be by "open faced " non pressurised tunnelling techniques (i.e. excavation in advance of the installation of the subsequent sprayed concrete tunnel lining) it would be critical to advance and support the excavated face continuously - particularly as the excavation would be below the water table. If a face was left unsupported for a period, ground movements become more challenging to manage and hence increase the likelihood of tunnel instability and surface settlement. This would add increased risk of damage to third party property, noting that the DART is also in close proximity and movements to the rails risk impacting the running of DART services. To not mine the tunnel 24 hours day would mean that the face would need to be secured at the end of every day shift, and the timing of blasting would need to adhere to a strict predetermined schedule so that the tunnel face is always secured at the end of each shift. In simple terms if such an approach was adopted, the impact on the programme would more than double the duration of cavern construction as a result of the constraint of day time working together with the inefficiencies in working this way. The sequence of working would also import significant cost escalation. Therefore 24-hour working is essential for constructing the mined cavern. It was established that 24 hour working would be the most feasible approach to construct the cavern. Therefore, the nature of the work, drill and blast with mechanical excavation, would generate a level of groundborne noise and vibration that would mean it would not be possible to reasonably inhabit the College Gate apartment block due to the disturbance caused, leading to a relocation of residents for a minimum of two years. However, there are possible risks that could extend the duration further, noted above, and therefore this option has a similar impact on College Gate residents as the cut and cover preferred option. TII consider that when balanced against the significant direct construction risk and cost increase compared to the preferred cut and cover option, that demolition and redevelopment of the area around the site of the proposed Tara Station, as part of the wider integrated development and regeneration of the site, provides a better option. The mined option economically performs worse with a much greater risk allowance required compared to the preferred cut and cover option. Additionally, the preferred proposed cut and cover station provides a higher quality operational station that is consistent with the MetroLink architectural vision and operational and maintenance strategy.

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9	Option 3.5	10	The PRDDR report outlines OPTION 3 as having a direct impact on large sewers along Townsend Street (including a 2.4m circular brick foul sewer and 1.2m circular concrete foul sewer) which would require diversion; a significant engineering challenge in this built-up area and an important constraint on this option. Merging option 3 and 4 of the PRDDR is another potential solution. Shifting the excavation southwards with the southern entrance to the Metrolink becoming the northern entrance. Adopting similar construction methodology of option 4, the main cause for concern in option 3 (disruption of diverting main sewers) could be mitigated. We feel that the re-consideration of Option 4, including aspects of Option 3 could prevent the need for the demolition of Countess Markievicz Sport and Fitness Centre and College Gate Apartments, saving an essential amenity and invaluable housing stock for the people of Dublin.	Please refer to Response (1) and (8) in relation to the options assessed, and the reasons for the selection of the preferred option.

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Organisation Name or Name of Submitter			The Foley Family	
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Letter dated January 16 th 2023				
1	Letter	1	The houses of concern for us are THE MEWS, Orchard Lane, DOG PK50. now I believe designated as 1, Orchard Lane And FERNEY, Orchard Lane, D06 H3N3. now designated as 7, Orchard Lane. The Mews is an 1846 stable dwelling. Ferney a new 2008/9 house, it has a large glass atrium set into the entire middle of the house. As a family we tried to get the laneway taken in charge on two occasions and were rejected, so for 50 years we have been the people who have keep the lane clean and surfaced. (The laneway) It is owned jointly by each new house which has been given planning permission to build on the old wooden garages belonging to houses on Ranelagh road. THE MEWS is owned jointly by our 3 adult children and ourselves, they live there, the issue for us all would be disturbance to the entire structure and it's integral stability. FERNEY, is our home for the last years of our life, we are hurtling towards 80 and have designed the house to be used as a downstairs zone with all such needs catered for , kitchen, living and bedroom areas plus bathroom.	TII would like to provide assurance that the impacts of construction generated ground movements on your properties have been considered. The approach taken by TII for assessing the impact of construction generated ground movements reflects the industry standard three-phased ground movement impact assessment process that is undertaken on tunnelling and underground projects around the world, that includes Channel Tunnel Rail Link (CTRL), Dublin Port Tunnel, Crossrail and High Speed 2. EIAR Appendix 5.17 refers. The Phase 2 assessment of the assessed impact on buildings above the tunnel in close proximity to your properties have been assessed as being within the "negligible" damage category (an explanation for which can be found in Table 4-4), please refer to building B220, 221 (55, 57 Dexter Terrace) and B-217 (47 Ranelagh Road) in table 5-2 of that appendix. Irrespective of the current assessments, given the age of your property, it will be subject to a further Phase 3 refined assessment (despite the impact only being assessed as below "slight") to take account of final design and construction methodology details, most likely utilising advanced numerical modelling techniques and further surveys of the building. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. Monitoring instrumentation will also be installed in the area to monitor the performance of the works and potential environmental impacts, including ground movements to ensure that acceptable limits are not breached. TII would also draw attention to the fact that private properties within 50m of the station excavation, or 30m of the tunnel are eligible to subscribe to the Property Owners Protection Scheme (POPs) which includes for pre and post-construction condition surveys and the repair of damage attributed to the scheme. Chapter 21 Land Take, section 21.6.1.4 Property Protection refers.The Property Owners' Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor.
2	Letter	1	We strong oppose the proposal to bring the Metrolink to Charlemont on the South side. It is the wrong location for a city centre terminus.	The rationale for a proposed station and turnback at Charlemont is explained below. The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were was prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area.

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Organisation Name or Name of Submitter			The Foley Family	
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			Response (2) continued.	The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all any of the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).

Submission No.			295	
Organisation Name or Name of Submitter			The Residents of Albert College Lawn (14 Albert College Lawn)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Metrolink. Area 304 on plans for Metrolink ML-RO-304-E-F				
1	Letter	1	The Residents of Albert College Lawn do NOT object in principle to the proposed station at the church. As Dublin's housing density increases, there is a greater need to protect every available green space for future generations and accordingly, we do not want the station to be built in the Albert College Park. However, we have noted the closure of Albert College Drive onto Ballymun Road and the traffic exit congestion and traffic flow from Albert College Estate onto Collins Avenue during the 10 year construction phase and therefore, propose that traffic lights be constructed from Albert College Estate to Collins Avenue to facilitate Albert College Residents ease of exit, or simply move the current traffic light back 20 metres. Also during the construction of the station in front of Our Lady of Victories Church, with modern technology and engineering prowess, why can't a temporary up and over motor corridor be created from Albert College Drive onto Ballymun Road?	Thank you for your submission and for sharing your observations with regards to the MetroLink project to which we have responded below. TII acknowledges your support for the delivery of MetroLink and for a station at Collins Avenue. As outlined in EIAR Chapter 7, Consideration of Alternative, section 7.7.10.7, the assessment undertaken for the Emerging Preferred Route (EPR) identified a preferred route option including the proposed station location in front of Our Lady of Victories (OLV) Church. This location for the station provides a number of advantages when compared to other location options, including Albert College Park: (1) It allows the Project to achieve a core project objective of providing public transport that is integrated in the existing and future proposed transport network, providing for interchange between bus routes both on Collins Avenue and on Glasnevin Road. A station location further south at the northern section of Albert College Park would not provide a good level of interchange as there would be over 500m separating potential bus stop locations on Collins Avenue and the MetroLink station. (2) The proposed Collins Avenue Station will have a significant catchment area, noting the analysis undertaken at the Emerging Preferred Route (EPR) stage identified this route option had the highest potential passenger numbers when compared with other route options. (3) During the construction phase, the location of a station within the frontage to Our Lady of Victories means that traffic disruption to Dublin would be reduced when compared to the location of a station within the road corridor (partially or fully). TII acknowledge that there is potential for significant environmental effects on the surrounding area to the proposed MetroLink station if not mitigated effectively. However, as detailed in relevant chapters of the EIAR, TII's assessment shows that it is possible to mitigate the potential impacts identified at this location during the construction period. Once the construction phase is completed, the location of a MetroLink station at OLV Church will provide significant positive benefits to the local community in terms of enhanced public transport provision, reduced traffic (EIAR Chapter 9, section 9.8.2.2) and the resultant improvements in the environment, with reduced noise (EIAR Chapter 13, section 13.5.3.1) and air quality (EIAR Chapter 16, section 16.5.3.2) pollution. EIAR Chapter 7, section 7.7.11.1 also covers the environmental impact assessment undertaken considering the possible locations for the intervention shaft, and why Albert College Park was determined as the optimum location for reasons of; it is no more than 1000m from either Collins Avenue or Griffith Park stations; it is adjacent to the tunnel on the west side of the park in order to reduce the length of connecting tunnel; the park area is the only "open space" on the MetroLink route between the two stations and as a result the location of the intervention shaft here avoids the requirement for any demolition; and the tunnel intervention shaft can be accessed easily by emergency vehicles with enough area for safely congregating passengers in an emergency. As detailed in Appendix A9.5 Scheme Traffic Management Plan, with the reduction in capacity on Ballymun Road during the construction phase, traffic in the local area redistributes primarily to avoid the Collins Avenue/Ballymun Road junction, which will operate over capacity and experience moderate delays. Therefore, the diversion via Albert College Estate bypasses this junction to facilitate ease of movement and access for residents travelling eastbound on Collins Avenue Extension. Appropriate signage will be provided at this location to indicate the diversion to oncoming traffic. A yellow 'no-stopping' box is currently present at the junction of Collins Avenue Extension/Albert College Estate, which will be maintained to ensure unobstructed access for residents. As a result, it was no considered necessary to relocate the existing traffic lights at this location. Prior to implementation, all traffic management measures will be agreed with the relevant local authority (FCC or DCC) and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken. The temporary traffic management measures have been designed in line with the road user hierarchy of the Transport Strategy for the GDA, which prioritises pedestrian/cyclist, public transport and commercial needs provision over private vehicles. The additional construction associated with a 'temporary up and over motor corridor' would cause further impacts to road users, and therefore, in line with the construction objective, the proposed traffic management measures aim to minimise the impact on road users.
2	Letter	1	We have viewed the planning maps and it doesn't appear that the cul-de-sac on Albert College Lawn will be opened for exit onto Ballymun Road, during the construction phase. However, we have noted in earlier proposals by the TII before the Railway Order was lodged that there was a possibility that Albert College Lawn would be opened to give access for residents and people coming from Collins Avenue to Ballymun Road. On the basis of this understanding, we wish to make our concerns and objections known to An Bord Pleanála.	As presented in the Temporary Traffic Management Measures for the works at Collins Avenue, and indicated in diversion drawings included in Appendix A9.5 Scheme Traffic Management Plan, Albert College Lawn will not be opened for exit onto Ballymun Road. Access for residents in Albert College Grove, Court, Avenue, and Lawn will be provided from the existing Collins Avenue Extension to the north of the site. The full estate becomes a cul-de sac, removing the potential of 'rat-running' through the area. It may have been possible that opening this route was considered previously, however the Railway Order as submitted does not propose to open Albert College Lawn.

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Organisation Name or Name of Submitter			The Residents of Albert College Lawn (14 Albert College Lawn)	
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3	Objections	1	The Residents of Albert College Lawn strongly object to the possible opening of the cul-de-sac on Albert College Lawn onto Ballymun Road to facilitate exit onto Ballymun Road during the construction phase of 10 years. Such an action would create a rat run from Collins Avenue through our Estate onto Ballymun Road, posing further hazards for the safety of our residents, school going children, wheelchair users (three on the street) and partially sighted and elderly people, who already have to cope with large volumes of parking on our streets from DCU students.	Please refer to response (2) above in relation to the temporary traffic management measures at Albert College Lawn.
4	Objections	1	We strongly object to any interference with or the felling of the 250 year old Beech Tree at the west end of Albert College Lawn for any construction purposes.	The beech tree to the west of Albert College Lawn is not required to be removed as part of the proposed Project, as part of either the construction of Collins Avenue Station or the Albert College Intervention Shaft and is not shown for removal within the EIAR. This is presented in Appendix A27.3 Aboricultural Impact Assessment.
5	Objections	2	Also DCU traffic turning left into DCU Avenue from Ballymun Road is too close to a possible exit from the Lawn and would create a huge hazard for accidents, given the amount of pedestrians, particularly school children and park walkers using the pathways and crossing Ballymun Road.	Please refer to response (2) in relation to the temporary traffic management measures at Albert College Lawn. As indicated, Albert College Lawn will not be opened for access. Therefore, traffic turning left from Ballymun Road into DCU Avenue will not be impacted by traffic going to/from Albert College Estate.
6	Objections	2	Furthermore, we strongly object to any proposal that an alternative route could be opening Albert College Lawn/Avenue onto the access Avenue into DCU in front of No. 16 for motor traffic, for the reasons outlined above.	Please refer to response (2) above in relation to the temporary traffic management measures at Albert College Lawn.

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Organisation Name or Name of Submitter			The Residents of Albert College Lawn (14 Albert College Lawn)	
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7	Letter	2	During construction of the Metro Station, where will the construction workers park their own cars in already overloaded parking spaces in Albert College Estate?	Appendix A5.1 of the EIAR Outline Construction Environmental Management Plan notes that all staff and workforce will be encouraged to make their way to site and home from site by public transport, by project specific transport (e.g. minibuses), by bicycle or on foot. Limited parking spaces will be provided for vehicles required for the construction activity and for employees. The nominated contractor(s) may provide a transfer pick-up and drop-off service from suitable public transport hubs. A Construction Mobility Plan will be prepared for by the proposed Project by the contractor(s) to outline access arrangements to construction sites by sustainable travel modes. Each site will need a specific plan for project personnel mobility. The following measures will need to be considered within the final Construction Mobility Plan: * The provision of cycle parking for staff; * Ensuring safe and segregated pedestrian access to site; and, * Provision of site specific transportation (minibuses) where frequent movements are going to be occurring (e.g. between different work sites).

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Organisation Name or Name of Submitter			The Rotunda Hospital		
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Re: Railway (Metro-Link Estuary to Charlemont via Dublin Airport) Order 2022					
1	Introduction (paragraph 1-4)	6	1.1 The Metrolink railway development is proposed by the TII (Transport Infrastructure Ireland) as a part of the public transport development strategy within the Dublin Metropolitan area. 1.2 We have been advised by TII that an application for a Railway Order for the proposed Metrolink development was lodged with An Bord Pleanála (the Bord) on 30th September 2022 under Section 37(1) of the Transport (Railway Infrastructure) Act 2001. 1.3 The proposed development comprises a new railway tunnel which runs directly beneath lands at the Rotunda Hospital. 1.4 The Rotunda Hospital, founded by Bartholomew Mosse in 1745. It was the first lying-in hospital in the world and has continued to provide services for the women and children of the city to the present day. It is currently the largest maternity hospital in the country. In 2021 alone, the hospital cared for more than 10,000 pregnant mothers, and delivered over 9,400 babies.	TII thank you for your submission with report and for sharing this general information related to the Rotunda Hospital history and future development plans.	
2	Introduction (paragraph 5)	6	1.5 The Hospital has major plans for the development of the hospital property at Parnell Square, consistent with the HSE's plans for development of maternity services nationally, and, with the support of the HSE, has recently embarked on a major capital development plan for improved critical care and inpatient services at the hospital. The proposed development includes an Outline Development Control Plan (ODCP) for future strategic service developments on the site, in order to provide a planned structural framework within which all future projects will be developed at the Rotunda.	Please refer to response item number (1) above.	
3	Introduction (paragraph 6)	6	1.6 We understand that the Board will consider submissions in relation to the likely impacts of the proposed development. We have prepared a short Report, on behalf of the Rotunda Hospital, outlining the concerns of the Hospital regarding the potential impacts on the services currently provided by the hospital and the possible impact on its future strategic infrastructure plans.	We have reviewed the documents and noted your concerns/observations. Please refer to response to the issues/ concerns raised in detail below.	
4	Introduction (paragraph 7)	6	1.7 There has been no meaningful information received from TII or substantive engagement or discussion on mitigation measures prior to the submission of its application, and consequently the Rotunda has had little time to consider the possible implications of the proposed development and to agree such mitigation measures in advance.	TII representatives met with Rotunda Hospital and Gate Theatre in 2018 and 2019. As detailed in EIAR Appendix A8.19 Meetings Register, five meetings have been held with Rotunda Hospital (dating 03/10/18, 04/10/18, 04/11/18, 13/05/19 and 21/07/19). During these meeting information was shared with Hospital representatives. During these meeting TII representatives shared information detailing the horizontal and vertical alignment for the scheme, the proposed construction methodology and the assessed impacts on the Rotunda Hospital, such as how construction dust and noise will be controlled and managed. Further details can be found in EIAR Appendix A8.18 Summarised Questions. The details of these consultations is outlined in EIAR Chapter 12 (Section 12.8.4.5 Rotunda Campus), EIAR Chapter 8 (Table 8.2) and EIAR Appendix A8.19 Meetings Register. However, TII are happy to engage further with the Rotunda Hospital regarding your concerns related to the potential impact of MetroLink project.	
5	Introduction (paragraph 8)	6	1.8 The hospital has advised the TII that it would welcome constructive engagement over the coming months so that the concerns, risks and long term impacts of the proposed development, as outlined in our Report, are addressed by the TII as soon as possible.	TII confirm that arrangements will be made to meet to discuss and review all matters of concern directly with the Rotunda Hospital.	
6	Introduction (paragraph 9)	6	1.9 We would be pleased to elaborate on the details in this submission at an Oral Hearing which we request is held by the Bord under Section 218 of the Local Government Planning and Development Act 2000.	The oral hearing process is managed by the An Bord Pleanála. An overview of the Oral Hearing process is provided in the EIAR Chapter 8.9.2. The Board has confirmed that an oral hearing will be held. The purpose of the oral hearing will be to allow issues relevant to an application for approval be examined.	

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7	Proposed Development by TII (paragraph 1-3)	7	2.1 TII has advised that the proposed Metrolink will generally comprise the construction of a Railway approximately 18.8 kilometres in length which is mostly underground: this includes the section adjacent to and beneath the Rotunda Hospital on Parnell Square, Dublin 1. 2.2 The proposed tunnel sits between 18m and 22m below the Rotunda property as it runs from Parnell Street, beneath the Ambassador, the Rotunda Pillar Room/Gate Theatre, the Rotunda Gynae and Fertility Day Clinic and the Rotunda's Private and Semi-private clinic, exiting the Rotunda property near the Garden of Remembrance on Parnell Square East. 2.3 Notwithstanding the substratum land acquisition issues noted above, more immediate issues arise in connection with the possible construction impacts of the works on services at the above buildings.	The possible impacts of the MetroLink works on buildings services during construction phase can arise due to settlement, airborne and groundborne noise and vibration, electromagnetic interference, or road/path closures and diversions. These possible impacts for the Rotunda Hospital are set out below 1 - Settlement EIAR Appendix A 5.17, Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on properties. Table 5-2 outlines the results of the Phase 2a Building Damage Assessment conducted on representative buildings along the proposed tunnel alignment, including for buildings referred to (B-79 Rotunda Hospital, B-80 Rotunda IVF clinic, B-81 The Ambassador Theatre, B-82 Gate Theatre). Table 5-2 shows that assessments to date indicate that all these buildings (B-79, B-80, B-81, B-82) falls into the "slight" damage category. The damage categories are described in section 4.3.2 of the EIAR Appendix A 5.17, Building Damage Report. Given the age and importance of these properties, they are designated as 'special buildings' which means they will be taken forward for a Phase 3 Assessment that will be undertaken by the main works contractor at the detailed design stage of the Project. This further assessment will pick up on the building's condition closer to the time when the building will be impacted. The Phase 3 assessment will take account of final design and construction methodology details, and each building will be subject to a survey and detailed assessment on an individual basis to inform the detailed analysis of how the individual elements of each building would be affected by the predicted ground movements. The method and extent of the detailed analysis will be determined on a case-by case basis and may include a more sophisticated semi-empirical or a detailed soil-structure interaction using finite element modelling methods. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. Please also refer to response item numbers (21) to (24) below. 2 - Airborne noise and vibration EIAR Chapter 13, Airborne Noise and Vibration includes an assessment of airborne noise and vibration from the construction of nearby O'Connell Street station. Chapter 13 presents the predicted airborne noise impacts, including Table 13.65 which summarises the noise impacts from the construction of O'Connell Street Station. The assessment of airborne noise from construction activities at O'Connell Street station as presented in Chapter 13 of the EIAR has predicted airborne noise levels at the mentioned buildings within Rotunda campus property generally being below the construction noise threshold level with a magnitude of impact of Not Significant. There is an exception to this for the Rotunda Hospital, that occurs during the short-term demolition works, where noise values of 71-75 dB are above the threshold of 70 dB resulting in a Moderate to Significant Impact in this instance. As a result, noise mitigation will be implemented including a specific measure in case of O'Connell Street Compound to use 4m high construction site hoarding instead of standard 2.4 m high. The full suite of calculation results is given in Appendix 13.7 Construction Phase Modelling to the EIAR. Following the implementation of these mitigation measures, significant residual noise impacts are not anticipated at this location, as indicated in section 13.7.1 of EIAR Chapter 13 (Airborne Noise and Vibration). Please also refer to response item numbers (15) to (19) below.

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			Response (7) continued.	3 - Groundborne noise and vibration EIAR Appendix 14.5 Groundborne Noise and Vibration and Blasting Results presents the predicted noise and vibration levels due to mechanical excavation and blasting operations during construction of nearby O’Connell Street station and TBM Passage during tunnel construction for various sensitive receptors, including buildings located within Rotunda Campus (Rotunda Hospital, Gate Theatre, Ambassador Theatre). EIAR Chapter 14.3.1.4 Sensitive Receptors AZ4 Northwood to Charlemont, Table 14.18, presents the threshold values for ground borne noise and vibration for various sensitive receptors (including hospitals and theatres) for the construction phase. Construction Groundborne Noise and Vibration and Blasting modelling results for Rotunda Hospital, Gate Theatre and Ambassador Theatre are summarised below. The full suites of ground borne noise and vibration results are presented in Table 14.4 (Section AZ4) of EIAR Appendix 14.5. Regarding groundborne noise due to mechanical excavation and blasting operations during construction of O’Connell Street station, the predicted levels are below the groundborne noise threshold levels and hence there is no significant impact on the fore mentioned buildings. The predicted groundborne noise levels during TBM Passage, for the mentioned buildings, are between 47 and 49 dB, above the threshold levels resulting a significant impact on the buildings operation during TBM passage (which is of a very short duration, approximately two weeks). Unfortunately, there are no effective methods available to reduce ground borne noise or vibration from TBMs at source but noting that the duration of this impact will be in the order of up to two weeks as the TBM passes. TII will liaise with all stakeholders to ensure the timing of these impacts are known. According to the vibration calculations there is no significant impact on mentioned buildings as a result of vibrations from construction, except for the Rotunda Hospital where impact from TBM passage is significant (night-time only) being "Noticeable to all and disturbing to some over a number of days". TII will consult with all stakeholders to ensure the timing of the impacts of Noise and Vibration from the TBM Operation to the Rotunda Hospital are known will in advance of occurring. Please also refer to response item numbers (15), (16), (18) and (19) below. 4 - Electromagnetic interference The above buildings were assessed for electromagnetic interference, based on the lists of equipment potentially sensitive to EMI supplied by the owners. The results are presented in Chapter 12 of the EIAR. The significance of effects of Electromagnetic Emissions and Stray Current on the mentioned buildings has been determined, during the construction phase as imperceptible, while during the operational phase as slight. In both cases the quality of effects is classed as Neutral resulting in no impact on the operation of the Rotunda Hospital. 5 - Road closures and diversions Table 11.62 of EIAR Chapter 11 (Population and Land Use) outlines that the impacts due to road/path closures and diversions during the construction of O’Connell Street Station may negatively impact emergency service vehicles and visitor amenity; however, alternative routes will be available and access to the hospital will not be disrupted. The pre-mitigated impact is considered negative, significant, medium-term effect. However, mitigation measures (Alternative access arrangement or diversions) reduce effects to negative, slight, medium-term. EIAR Appendix A9.5 Scheme Traffic Management Plan, section 7.8 details the construction traffic management associated with O’Connell Street Station. "

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8	Proposed Development by TII (paragraph 4)	7	2.4 In addition to the construction impacts the potential long term zone of influence of the tunnels extends over a 65-75m wide area of the Rotunda property as set out on the drawing below. This may impact on the Rotunda’s ability to develop its lands to the extent necessary to meet its medium term development needs that will enable it to continue to provide national and regional public maternity services.	During construction and following the completion of the tunnel, there will be no long term issues with the Rotunda Hospital Developing its land. The zone of influence for the Tunnel used in the EIAR is 30m from either side of the Tunnel. The main impact from the Tunnel is potential settlement during its construction together with the imposition of constraints on the design of structures above the completed tunnel. Both of these matters are referred to below. The potential settlement contours under the Rotunda Hospital are provided in Appendix C of Appendix A5.17 Building Damage report sheet 122 and 123 of 158, drawing reference ML1-JAI-EIA-ROUT_XX-DR-Y-21145 & 21146. Please also refer to response item numbers (7) above, paragraph 1. and number (24) below. The acquisition of substratum land beneath the building is to enable the construction of the Metrolink tunnel. Please also refer to response item number (9) below. MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce “Guidance Note for Developers” that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future. The proposed Project is not likely to have a material impact on extant planning permissions on the overall site. These extant planning permissions relate to small scale infill development, rather than significant schemes in terms of floor area. The overall site is zoned for Z8 Georgian Conservation Area. This zoning is quite restrictive on the extent of development that may be achieved, given its historic context and proximity to Protected Structures and an Archaeological Conservation Area.

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9	Proposed Development by TII (paragraph 5)	8	2.5 The application, if granted will include powers for TII to acquire compulsorily land or rights in, under or over land or any substratum of land specified in the order: we are advised that this will include substratum lands at the Rotunda, although the Rotunda has not been advised of the extent of the lands around the tunnel this will impact.	The substratum land take has been generated by creating a limit of deviation (LOD) ranging from 5 metres vertically upwards and 10 metres downwards to 15 metres laterally for the tunnel alignment. Substratum land take is shown on the Property Drawings submitted with the RO application and on Figure 21.1. of the EIAR Chapter 21 (Land Take). Rule 17 introduced by Section 48 of the Planning and Development (Strategic Infrastructure) Act 2006, states: 'The value of any land lying 10 metres or more below the surface of that land shall be taken to be nil, unless it is shown to be of a greater value by the claimant'. Notification letter CAP_ML_1646_66 issued on 20th of September 2022 at The Rotunda Hospital includes relevant extracts from the Book of Reference to the plan, indicating the identity of the owners and of the occupiers of the lands described in the Plan. The following unique land take referencing and numbering is identified for Rotunda area: "ML5E-U14 - under Rotunda Hospital", " ML5E-U15 - Under The Gate Theatre", "ML5E-U16 - Under The Ambassador Theatre". Relevant extracts of plans (including maps or drawings) which indicate the extent of the lands or land rights affected were also enclosed to the notification letter and include: • Individualised Property Details (Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-03528, ML5E-U14), which is the drawing marking out the extent under Rotunda Hospital; • Individualised Property Details (Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-03529, ML5E-U15), which is the drawing marking out the extent under Gate Theatre; • Individualised Property Details (Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-03530, ML5E-U16), which is the drawing marking out the extent under Ambassador Theatre. • Property Details Dorset Street Upper to Gardiner ROW (Plan drawing no.ML1-JAI-BOR-ROUT_XX-DR-Y-01088, ML-P 305 D-E), which shows the extent and types of land acquisition that TII proposes to acquire to facilitate the construction, operation, and maintenance of the MetroLink project along the section of the route close to Rotunda area.
10	Proposed Development by TII (paragraph 6)	8	2.7 In summary the Rotunda is very concerned that the proposals submitted by TII will have significant adverse impacts on the provision of patient services within the hospital and in the future development of the hospital, neither of which have been addressed by the TII in the proposals as currently submitted.	TII have fully assessed and presented the impacts. Please refer to response Item number (7) above for other construction impacts (e.g., noise and vibration, electromagnetic interference) on the provision of patient service. TII are happy to engage further with the Rotunda Hospital regarding your concerns related to the potential impacts of MetroLink project on the provision of patient services and future development of the hospital. Please refer to response item (8) in relation to future development.
11	Rotunda Property (paragraph 1)	9	3.1 The drawings submitted by TII indicate the area of Rotunda substratum lands to be compulsorily acquired, highlighted in green on the drawings below.	Please refer to response item number (9) above.
12	Rotunda Property (paragraphs 2, 3, 4)	9	3.2 The Rotunda has advised TII that the presumed Rotunda ownership property drawings are incorrect and do not recognise Rotunda's ownership of the Gate Theatre/ Pillar Room and Ambassador, both Rotunda properties. 3.3 We have set out on the drawing above the extended hatched area of the Gate theatre / Pillar Room and the Ambassador, not included on the drawings set out by TII in their application. 3.4 The additional areas significantly increase the area of Rotunda lands directly impacted by the proposed development.	Gate Theatre/ Pillar Room and Ambassador Theatre have been considered and included in the property drawings issued to the Rotunda Hospital - please refer to response Item number (9) above.

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13	Rotunda Property (paragraph 5)	9	3.5 In addition to the issue of the planning boundary of the areas to the compulsorily acquired, the Rotunda remains unclear regarding the extent of substratum lands impacted by the Railway Order, and how plans, by the Rotunda, for development above the tunnel itself can be protected. We understand there is no technical reason why this cannot be accommodated; however, until any such assurance and agreement is reached with TII on this point, it remains a major issue of concern for the hospital.	Please refer to response items numbers (8) and (9) above. TII are happy to engage further with the Rotunda Hospital regarding your concerns.
14	4 Impacts of Proposed Development on Rotunda, 4.1 Noise & Vibration (paragraph 1-2)	10	EIAR Chapter 14 “Ground-borne Noise & Vibration” assesses the impact of the Metrolink Project arising from Groundborne Noise and Vibration during the Construction & Operational Phases. The below table(s) summarise the predicted Impacts Un-Mitigated and Post Mitigation as assessed by the Applicant as extracted and relevant for the Rotunda properties (incl. Gate Theatre and Ambassador). Based on a short review of the applicant’s documents we have noted the following points which we would ask the Bord to consider in its review:	Please refer to responses to the issues/ concerns raised in detail, response item numbers (15) to (20) below.
15	4 Impacts of Proposed Development on Rotunda, 4.1 Noise & Vibration (paragraph a)	11	a. It’s not clear what building(s) the applicant has assessed within the Rotunda Campus/Ownership	The assessment of airborne noise and vibration during the construction phase for works being undertaken at O’Connell Street Station has been presented within Chapter 13 Airborne Noise and Vibration of the EIAR. The airborne noise and vibration assessment has included Rotunda Hospital and Ambassador Theatre. The predicted results are summarised above (please refer to response item number (7) above) and the full suite of calculation results is given in Appendix 13.7 Construction Phase Modelling to the EIAR. The groundborne noise and vibration modelling considers the closest part of the building to the tunnel for both TBM passage and operation of the railway. The Rotunda Campus/Ownership also falls within the study area for groundborne noise and vibration and hence Rotunda Hospital, Gate Theatre, Ambassador Theatre and other locations inside Rotunda area have been assessed. Calculations of groundborne noise and vibration during the construction and operation phases have been carried out and are fully presented in Appendix 14.5 to Chapter 14 Groundborne Noise and Vibration of the EIAR. The predicted results are also summarised above (please also refer to response item number (7) above).
16	4 Impacts of Proposed Development on Rotunda, 4.1 Noise & Vibration (paragraph b)	11	b. Threshold limits are dependent on Building Categorisations which need to be clarified — we believe this may need re-consideration and assessment + appropriate mitigation accordingly. (Receptor specific mitigation for sensitive activities/equipment).	EIAR Chapter 14 Ground borne Noise & Vibration, Section 14.2.1 Appraisal Method for the Assessment of Impacts, presents the assessment methods undertaken. It is acknowledged that the assessment is complex due to the consideration of groundborne noise and vibration arising from different activities such as the progress of the TBM, blasting, mechanical excavation etc. For the purposes of assigning a criteria for Groundborne Noise and Vibration, please refer to Table 14.3. The Rotunda Hospital was considered a hospital and so was assigned a noise assessment threshold of 40 dB LAmax,s, while Ambassador Theatre and Gate Theatre were considered a theatre in this assessment and so were assigned a noise assessment threshold of 25 dB LAmax,s, thresholds above which groundborne noise impacts would be considered significant. For the purposes of assessing the progression of the TBM, the assessment criteria were different, due to the very short duration of this activity at any single location. As a result, a threshold is proposed for groundborne noise from the passage of a TBM is 5dB LAmax,S greater than the thresholds for other sources shown in Table 14.3 i.e. 30 dB LAmax,S for theatres. In the assessment of vibration, a number of different assessment thresholds were used as outlined in section 14.2.1.2. The Rotunda Hospital, Ambassador Theatre and Gate Theatre were considered particularly sensitive to groundborne noise and vibration impacts along with buildings like libraries, lecture theatres, auditoria, churches, schools. Table 14.18 of the EIAR summarises the threshold levels for the different construction and operation phases of the project. The main mitigation measure for the passage of the TBM will be advanced consultation and engagement with stakeholders in order to minimise disturbance as far as possible.

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17	4 Impacts of Proposed Development on Rotunda, 4.1 Noise & Vibration (paragraph c)	11	c. The applicant notes they had site specific consultation with Rotunda Hospital and Gate Theatre.	Please refer to response item number (4) above.
18	4 Impacts of Proposed Development on Rotunda, 4.1 Noise & Vibration (paragraph d)	11	d. The applicant notes “Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from TBM at source” and noting impacts are of a Temporary nature (while TBM passes) references some mitigation measures primarily around Consultation and pre-Planning of activities.	Further to response item number (7), paragraph 3 above, this point is an accurate summary of Section 14.5.1.1 of the EIAR Chapter 14. Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from TBMs at source. However the following mitigation measures are proposed in the EIAR aimed at minimising the effects are as follows: • Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. • TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6 of the EIAR). It is important to note that the advancement of the Tunnel Boring Machine will be for a very short duration over a matter of days. TII and their contractors will engage with the Rotunda Hospital and other stakeholders regarding the potential impacts of these works and the proposed programme for the same once this information is available.
19	4 Impacts of Proposed Development on Rotunda, 4.1 Noise & Vibration (paragraph e)	11	e. The construction of the deep underground O’Connell St. station is in close proximity to the Rotunda Campus and unclear to what extent assessed for potential impacts on the Rotunda.	Rotunda Campus buildings (Rotunda Hospital, Gate Theatre, Ambassador Theatre) were assessed for potential impacts from the construction of the Metrolink tunnel and O’Connell Street Station. A summary of impact assessment results is presented above (please refer to response Item number (7) above). The EIAR fully details all noise and vibration impacts during construction and operation phase of the MetroLink. Please refer to, inter alia, EIAR Chapter 13 for Airbourne Noise (including Appendices) and Vibration and Chapter 14 for Groundborne Noise and Vibration (including Appendices).

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20	4 Impacts of Proposed Development on Rotunda, 4.1 Noise & Vibration (paragraph f)	11	f. The applicant should be requested to incorporate and extend the “Floating Slab Track” for the entire Rotunda Campus Lands and well beyond as mitigation and to protect future Rotunda Campus development.	Floating slab track is proposed as a mitigation measure in locations where buildings that are sensitive to groundborne noise have the potential for significant effects during the operation of the proposed Project. Table 14.44 and Table 14.45 of the EIAR Chapter 14, section 14.4.2.6 Section AZ4 Northwood to Charlemont, presents the predicted level of groundborne noise for various sensitive receptors (including hospital and theatres) during railway operation. The full suites of ground borne noise and vibration results predicted during railway operation are presented in Table 14.4 (Section AZ4) of EIAR Appendix 14.5. During railway operation the predicted level of groundborne noise at Rotunda Hospital is 33 dB LASmax, which is below the 40 dB LASmax threshold resulting in a not significant impact. Groundborne Vibration from railway operation at Rotunda Hospital is predicted to be 0.008 ms-1.75, much lower than the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) Threshold Level for the hospital of 0.2 ms-1.75, resulting in a not significant impact on the building. Therefore it is not considered necessary to install floating slab track for the operation of the railway at the Rotunda Hospital. During railway operation the predicted LAmass at Ambassador and Gate Theatres is 34 dB while the Threshold Level for these building is 25 dB, resulting in a significant impact on the buildings operation in the absence of mitigation. Groundborne Vibration from Railway Operation is predicted to be 0.008 m/s-1.75, which is below the threshold value of 0.8 m/s-1.75 resulting a not significant impact on the buildings operations. However, in recognition of the sensitivity of the Gate Theatre and the Ambassador Theatre it is proposed in Section 14.5.2 of the EIAR, that for the operational phase specific mitigation measures will be to use a Floating Slab Track system between Chainage 16+400 to Chainage 16+600, resulting in a residual impact considered not significant.
21	4.2 Potential Settlement & Building Damage Assessment (paragraph 1-2)	11	As part of the Railway Order application, the applicant has prepared a Building Damage Assessment which has set-out the process for Assessment of Settlement. The methodology used to predict ground movements and assess building damage has been adopted using the well-recognized worldwide Industry Standard three phase ground movement impact assessment, noted to have been undertaken for tunnels and underground projects including the Dublin Port Tunnel, Channel Tunnel Rail Project, Crossrail and High Speed 2 (HS2) with other worldwide examples. In summary, the three phase approach can be described as follows: (see PDF version, pg 11-12 for description of Phase 1-3)	TII note your observation - please refer to response Item number (7), paragraph 1 above for a summary of building damage assessment.
22	4.2 Potential Settlement & Building Damage Assessment (paragraph 3-4)	12	The initial Phase 1 “greenfield” settlement contours relating to the building stock along the eastern side of the Rotunda Campus (Rotunda Hospital, Gate Theatre / Pillar Room and Ambassador) predicts the potential to generate settlements of between 1 mm to 40mm (plus) across the campus. Following the refined Phase 2A assessment, these buildings have subsequently been classified under Damage Category 2-Slight (cracks likely less than 5mm). Whilst much of the building stock along this area dates back to 1700/1800’s and is highly sensitive to movements, it is not clear exactly what buildings have been assessed. Such potential movements (particularly if differential settlements of the order per the Phase 1 were to realize) have the potential to cause damage across these buildings, impact on service delivery and should therefore request the more detailed Phase 3 building damage impact assessment to be carried out immediately.	Further to response item (7), paragraph 1 above, a Phase 3 assessment will be undertaken by the contractor appointed by TII taking into account detailed design information together with existing building surveys closer to the time when the impacts of settlement will be realised. This process protects the building owner. A Phase 3 assessment is not required immediately due to the Phase 2a slight assessment. Please note that Phase 3 assessments refines the parameters used to undertake the assessment and are therefore less conservative than the current assessment and hence impacts are likely to be lower than currently assessed.

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23	4.2 Potential Settlement & Building Damage Assessment (paragraph 5)	12	It is essential that the building owners & occupiers are consulted and kept well informed on outcomes and potential impacts of these further assessments together with details on any proposed mitigation measures for agreement.	Owners and occupiers will be kept up to date with regular engagement by TII to inform them of the detailed assessments together with any proposals for monitoring and instrumentation.
24	4.3 Monitoring	12	We recommend that a comprehensive suite of settlement, noise and vibration monitoring equipment be installed at and within the Rotunda campus buildings and immediate vicinity, including the Gate Theatre/Pillar Room and Ambassador buildings to: i. Assess current background levels to inform appropriate “Trigger” levels ii. Monitor during the Construction Works iii. Monitor during Operation Appropriate “trigger” levels on a traffic light system basis should be established and agreed based on background levels together with best practice and industry standards referenced and predicted within the EIAR. The instrumentation should be logged in “real-time” basis and if/when trigger levels are exceeded, ALL Stakeholders are contacted, and pre-agreed mitigation proposals implemented.	Further to response item number (7), paragraph 1 above, the assessed properties at Rotunda Campus have been identified as 'special' buildings and will be subject to a detailed assessment (Phase-3 assessment) at the detailed design stage to verify the impacts and appropriate control measures will be implemented to protect the buildings. A programme of ground movement monitoring will be implemented, with the monitoring locations informed by the Phase 3 analysis to be undertaken during the detailed design stage. The movement monitoring design will be undertaken by the Contractor and they may need to install monitors to your property as part of that design. If the Phase 3 assessment indicates that monitoring is to be installed on or in your properties then the methodology and timing of the installations will be agreed with Rotunda Hospital together with any ongoing maintenance of the monitoring. The Contractor and TII will consult with you on these matters and provide updates as required during the construction process. As noted in response item (7) above, and in Chapter 14 (Groundborne Noise and Vibration), the impact of vibration on Rotunda Hospital will not be significant, with the exception of temporary high-time significant impacts identified during the passage of the TBM. The proposed mitigation for this, as detailed in Table 14.49 of Chapter 14, is to manage by way of public consultation and advanced stakeholder engagement during this time. Appendix 5.1 of the EIAR contains an outline Construction Environmental Management Plan (CEMP) which outlines the proposed approach to noise and vibration monitoring during the construction phase in Table 6.2. A full monitoring and auditing programme will form part of the CNVMP which will be agreed with the Local Authorities prior to the commencement of the Construction Phase. TII and their contractors will engage in consultation in advance of the construction to agree the proposed monitoring programme at the Rotunda Campus buildings and immediate vicinity. The assessment criteria outlined in the EIAR may be used as "trigger values" subject to the views of An Bord Pleanála. For the operational phase, a Floating Slab Track system will be installed between Chainage 16+400 to Chainage 16+600 as a specific mitigation measures in recognition of the sensitivity of the Gate Theatre and the Ambassador Theatre. During railway operation the predicted level of groundborne noise and vibration at Rotunda Hospital is below the threshold levels for the hospital, resulting in a not significant impact on the building. Therefore it is not considered necessary to install monitoring for the operation of the railway at this location.
25	4.4 Consultation	12	The Rotunda Hospital and its advisors have had little time to review the potential consequences and implications of this significant project and notwithstanding any previous consultations, the Rotunda Hospital request confirmation to be kept informed throughout the remainder of the An Bord Pleanála process, reserving the right to seek further information and comment on the construction & operation of the Metrolink.	Please refer to response item numbers (4) and (5) above.

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26	5 Rotunda Development Plans	13	5.1 The HSE has recently approved the development of a major new Critical Care Wing at the hospital. The estimated cost of this development is in the order of €90million. 5.2 The development also includes the preparation of a new Outline Development Control Plan (ODCP) for the hospital, also with HSE support, to plan and protect its future development in the years beyond the new completion of the Critical Care Wing. 5.3 The brief for the new Critical Care Wing (CCW), prepared by the HSE, comprises an area of approx. 7,500m2, and is likely to be located on the western side of the campus away from the proposed Metrolink to the east. 5.4 The brief for the ODCP, also prepared by the HSE, has identified a requirement for a further 18,000m2 of development necessary to meet the medium requirements at the hospital. While the ODCP is currently under development for completion in March 2022, it is likely that much of the area required for this future development will be on the eastern side of the campus, in and around the possible zone of influence the TII's proposed Metrolink. 5.5 It is essential, in the interest of protecting public services, that the Metrolink is co-ordinated with the Rotunda's needs and requirements as expressed in its ODCP. 5.6 As noted above, it is essential that TII now engage with the Rotunda to ensure the development of the Metrolink, on the Rotunda's property, is designed and developed in such a way that it protects and guarantees the future development needs of the hospital.	TII note your plans for future development of Rotunda Campus and are happy to engage further with the Rotunda Hospital regarding your concerns related to the potential impact of MetroLink project on future development of the site. Please refer to response Item number (8) above for information related to tunnel constraints on future developments.
27	6 Engagement with TII	13	6.1 Notwithstanding the fact that TII has not engaged in any meaningful way on such matters with the Rotunda to date, the hospital has written to TII requesting that TII to engage with the Hospital even at this late stage to further discuss the application. The hospital has advised TII it is happy to facilitate engagement and to trouble shoot issues and concerns raised in advance of any potential Oral Hearing the Bord may wish to convene. The Rotunda would be grateful if the Bord would also encourage and invite TII to engage with the hospital and to set out its proposals to mitigate potential impacts to ensure and protect the continuing provision and future development of public healthcare services at the Rotunda in accordance with its ODCP objectives. 6.2 A copy of the Rotunda's recent letter of 7th November to TII is enclosed with this submission.	Please refer to response item number (5) above.
28	7 Conclusion (paragraph 1)	14	7.1 The Rotunda asks the Bord to direct TII to engage immediately in meaningful discussions with the hospital and to set out proposals and mitigation measures which respect the current patient services and future development plans of the hospital.	Please refer to response item number (5) above. TII regret the perception of a lack of engagement and are committed to resolving the matter. TII will make the necessary arrangements to meet and consult further with Rotunda hospital in advance of the Oral Hearing.
29	7 Conclusion (paragraph 2)	14	7.2 Having regard to the issues outlined above, and in the absence of any agreed mitigation proposals from TII, the Rotunda must formally advise the Bord that it cannot support the TII's Metrolink proposals in their current form.	TII note your objections to the current MetroLink proposal. TII confirm availability for further constructive engagement with the Rotunda Hospital regarding your concerns/observations noted and addressed above. TII also contend that the proposals are realistic, impacts have been conservatively assessed and appropriate mitigations are in place. With regards to Electromagnetic Compatibility and Stray Current (presented in EIAR Chapter 12) impacts on sensitive medical and scanning equipment such as those at Rotunda Hospital, the following mitigation measures are available: * Relocation of effected equipment; * Installation of an active-cancellation system; and, * Shielding of the labs/rooms using specialised material designed to attenuate magnetic fields.

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30	7 Conclusion (paragraph 3)	14	7.3 The Rotunda remains available at all times for further discussion and constructive engagement with TII and will consider any realistic proposals by TII to develop design and construction proposals that address the impacts of the proposed development on the hospital and that co-ordinate with the current and proposed future service developments at the hospital.	As stated separately above, TII confirm availability for further constructive engagement with the Rotunda Hospital regarding your concerns/observations noted and addressed above. TII also contend that the proposals are realistic, impacts have been conservatively assessed and appropriate mitigations are in place.
31	7 Conclusion (paragraph 4)	14	7.4 We request the Bord holds an Oral Hearing on the application and affords the Rotunda an opportunity to elaborate on its preliminary responses set out in this submission.	The oral hearing process is managed by the An Bord Pleanála. An overview of the Oral Hearing process is provided in the EIAR Chapter 8.9.2. An Bord Pleanála have confirmed an Oral Hearing will be held. The purpose of the oral hearing will be to allow issues relevant to an application for approval be examined. The oral hearing can be attended by anyone, but only those that have made a written application may make an oral submission at the oral hearing.
32	7 Conclusion (paragraphs 5 and 6)	14	7.5 The Rotunda asks the Bord to have regard to the general concerns of the Rotunda Hospital as set out above, (including the property issues and substratum issues) and to direct TII to amend design and construction proposals for the Metrolink in response, and as set out in recent correspondence with TII. 7.6 We further ask the Bord to condition any grant of a Railway Order to the TII to ensure that satisfactory proposals for mitigation of impacts on the current services and future development plans at the Rotunda are fully incorporated into the development plans for the Metrolink in the interests of the provision of ongoing healthcare services at the hospital and in the interests of the proper planning and development of the area and the city.	TII note your objections to the current MetroLink proposal. TII confirm availability for further constructive engagement with the Rotunda Hospital regarding your concerns/observations noted and addressed above. TII also contend that the proposals are realistic, impacts have been conservatively assessed and appropriate mitigations are in place, as outlined in the responses above.
33	The Rotunda Letter (paragraph 1-2)	15	The Rotunda Hospital is a voluntary healthcare service provider and registered charity which works in tandem with statutory organisations in order to provide healthcare services in a range of areas. This collaboration is necessary to ensure a high performing health system which benefits service users throughout Ireland. The Rotunda Hospital is Ireland's busiest maternity hospital. In 2021 alone, the hospital cared for more than 10,000 pregnant mothers, and delivered over 9,400 babies. The Hospital accommodates 25% of the neonatal care capacity in the State and admits the most critically ill babies, many of whom are transferred from other hospitals from the entire island of Ireland. In 2021, over 1,200 babies were admitted to the hospital's Neonatal Intensive Care Unit. The Hospital provides gynaecology services for the large catchment area of North Dublin and North Eastern region. The gynaecology services include general benign gynaecology clinics, Adolescent Gynaecology clinics, Urogynaecology, Fertility clinics, Reproductive Medicine clinics, Contraception and Family planning clinic, Colposcopy services, Outpatient Hysteroscopy service and a Termination of Pregnancy service. The Hospital is a tertiary referral centre for benign gynaecology and fertility services.	TII acknowledge the inclusion of this letter from 7th November 2022 as part of this submission document from the Rotunda Hospital.
34	The Rotunda Letter (paragraph 3-4)	15&16	We received your notification of an intended application by the NRA for the Railway Order 2022 (Metro Link) on September 20th 2022. It is somewhat disappointing and surprising considering the land issues involved and the potential impact and disruption to Rotunda hospital services which could have a national impact if disrupted that there has been no substantive discussion or engagement with the hospital in advance of the application. The Rotunda Board or advisors therefore have had little time to consider this application and the potential implications and to review and discuss in advance with TII in this regard the application documents submitted note that TII have been in substantive discussions with An Bord Pleanála since December 2018 and considering the potential impact on a major tertiary healthcare service provider this lack of engagement with the Rotunda as an interested party is a surprising omission.	Pre-application consultation meetings have taken place in advance of the application with Rotunda Hospital (in 2018 and 2019) - please refer to response Items number (4) above. Furthermore a notification letter with regard to substratum was issued on 20 Sept 2022. TII note your request and as set out in response item number (5) above are happy to engage further with the Rotunda Hospital.

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35	The Rotunda Letter (point 1)	16	1.The drawings submitted by TII to the Rotunda indicating the areas of Rotunda substratum lands to be compulsorily acquired does not recognise the Rotunda’s ownership of the Gate and Ambassador theatres.	Gate Theatre and Ambassador Theatre have been considered and included in the property drawings issued to the Rotunda Hospital - please refer to response Item number (9) above.
36	The Rotunda Letter (point 2)	16	2. Based on the drawings submitted by TII the railway tunnel when constructed will sit between 18m and 22m below the existing ground levels at the Rotunda. Notwithstanding the substratum land acquisition issues noted above, more immediate issues arise in connection with the possible construction impacts of the works on patient services in the Ambulatory Gynaecology Unit including Fertility, RCSI building, Ultrasound scanning in the Grainne Suites and the Private/Semi Private Clinic. Other issues may arise regarding service utilities such as power and water supply.	Please refer to response item number (7) above, that provides a summary of potential impacts.
37	The Rotunda Letter (point 3)	16	3. The Rotunda currently has approval for major interim developments and capex investment on its Parnell Square campus. As part of this process we are currently progressing an Outline Development Control Plan to future plan for development on the campus. It is not clear at this stage whether the development of MetroLink could impact or restrict the scope of any future developments which may have a consequential impact on the Rotunda’s ability to address and mitigate infrastructure risks and for providing service in a current and appropriate build environment.	Please refer to response item number (8) above for information related to tunnel constraints on future developments.
38	The Rotunda Letter (point 4)	16	4. There is no alternative decant buildings on the Rotunda campus to safely re-locate the above clinical services (including ambulatory gynaecology, fertility, RCSI, gynaecologic ultrasound, or private/semiprivate clinics) if TII executes a compulsory purchase order on this part of our campus. This will significantly negatively impact on Rotunda service provision for women and families, not only from North Dublin, but from throughout Ireland. The other two maternity hospitals in Dublin do not have the spare capacity to take on board these clinical services if no longer provided on the Rotunda campus.	For the avoidance of doubt, TII are not proposing permanent or temporary surface land take at your property or relocate your property. TII confirm that acquisition of substratum land beneath your property is required to enable the construction of the Metrolink tunnel. Substratum land take is shown on the Property Drawings submitted with the RO application and on Figure 21.1 of EIAR Chapter 21 (Land Take). Please also refer to response item number (9) above. There is no need to vacate any of your campus buildings. As previously stated above, TII are happy to engage further with the Rotunda Hospital regarding your concerns related to the potential impact of MetroLink project on future site development.
39	The Rotunda Letter	16	It is our intent to make a substantive submission to An Bord Pleanála by November 25th highlighting the Hospital’s concerns and issues. In the interim The Rotunda are prepared and would encourage TII to engage with the Hospital to further discuss this application. We are happy to facilitate engagement and to trouble shoot issues and concerns raised in advance of Bord Pleanála hearings.	Thank you for this submission. TII note your concerns/observations and request for immediate engagement. TII have reviewed your queries and response to the issues/ concerns raised in detail above.

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Reference: Intended application by NRA [operating as Transport Infrastructure Ireland] for Railway [MetroLink- Estuary to Charlemont via Dublin Airport] Order [2022]				
1	Cover letter	2	Their application includes the acquisition of Substratum land beneath our property. While I support the proposed MetroLink, I have concerns in relation to the potential structural damages that may occur to our property during the construction stage.	TII thank you for your support of the MetroLink Project. We note your concerns regarding potential structural damage to your property due to the construction of the Metrolink tunnel, and provide a summary of the EIAR assessment undertaken below that we hope assist with these concerns. An assessment of the effects of ground movements and potential impacts on existing buildings has been carried out as part of the Scheme Design. For the MetroLink Project, the approach to ground movement and building damage assessment is described in EIAR Chapter 5 (Metrolink Construction Phase) section 5.4.11.1, and follows the industry standard three-phased ground movement impact assessment process that is undertaken on tunnelling and underground projects around the world, that includes the Channel Tunnel Rail Link (CTRL), Dublin Port Tunnel, Crossrail and High Speed 2. The MetroLink tunnel has been assessed going under these properties at the depth and on the alignment proposed and TII are satisfied that the assessed movements will not lead to structural damage to your properties. EIAR Appendix A 5.17, Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on your property. Table 5-2 of this report shows that your building (B-163) has been assessed as falling within the "Negligible damage" category, an explanation for which can be found in Table 4-4 of the aforementioned report. This damage category refers to hairline cracks. The calculated settlement contours were used to undertake the building damage assessment and conclude that your building would not suffer any structural damage. The damage categories are described in section 4.3.2 and Table 4-4 of the Building Damage Report in EIAR Appendix A5.17. As your property is within the negligible category, no further assessment beyond the Phase 2a Building Damage Assessment is required. Appendix A5.17 Appendix C contains the predicted settlement contour drawings. Sheet 20 of 30, drawing ML1-JAI-EIA-Rout_XX-DR-T-21140 refers to the tunnel alignment relevant to your property. TII is committed to having a Property Owner Protection Scheme (POPS) in place prior to construction works commencing to provide protection to your property during the completion and commissioning of the works. Once you have registered it is intended that the scheme will provide protection for residential property owners such as yourselves that are located within 30m of the edge of the MetroLink alignment. Further details on the scheme can be found in Chapter 11 (Population and Land Use) section 11.6.1.1. The POPS comprises condition surveys of private properties and other selected properties along the route of the proposed Project. The purpose of the condition surveys would be to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether the same may be attributable to the proposed Project and recommend repairs as appropriate. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in the swift and accurate verification of any property damage claims which may be received from property owners. The POPS will be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department. Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/assets/downloads/MetroLink_FAQ.pdf
2	Cover letter	2	I would therefore request that TII indemnify us against and structural damage or any loss of Rental income that is caused as a direct result of this development being approved and going ahead. In the case of my wife's Healthcare business at 3a St. Mobhi Rd, any loss of income or disruption to her business as a direct result of this development been approved and going ahead I would request similar indemnity to be in in place. I am presently negotiating with potential purchasers for my property. I therefore do not want potential building works to compromise this sale.	During the construction phase and subject to registering for the Property Owners Protection Scheme (POPS) your property will be protected in accordance with the terms of th POPS. It is the property owners responsibility to notify their insurance company to any change in circumstances which may impact their policy, though as this is a substratum acquisition which is 9 metrrs below ground level, the impact to the above ground property is likely to be negligible. Where substratum land is to be acquired Rule 17, section 48 of the Planning and Development (Strategic Infrastructure) Act 2006 will apply. The substratum value for deep tunnel projects is that it has no value in the market due to its depth below the surface and its limited use, therefore property values should not be impacted. For further information on compensation, please see: https://www.metrolink.cpoguideline_final_september-2022.pdf. The proposed MetroLink works should not preclude owners proceeding with the sale of their property.

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Organisation Name or Name of Submitter			Thomas Harty (3 and 3A Mobhi Road)	
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Reference: Intended application by NRA [operating as Transport Infrastructure Ireland] for Railway [MetroLink- Estuary to Charlemont via Dublin Airport] Order [2022]				
3	Cover letter	3	If TII are not willing to indemnify us against any structural damage, loss of income, loss of sale of property due to this development been approved or work commencing. We therefore object to the project.	Please refer to response items (1) and (2) above

Submission No.			298	
Organisation Name or Name of Submitter			Thomas Herlihy, Oakfront, Charleville	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Hand written letter re Metrolink Railway Order Application. ABP Case Reference: NA29N.314724 Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont Co Dublin				
1	Letter	1	I wish to oppose the granting of planning permission to the Metro North on several grounds. 1. It will encourage air travel which is very bad for the environment because of co2 emissions.	EIAR Chapter 9 presents the passenger demand modelling at Dublin Airport for which the proposed Project has been designed, noting that this is based on the requirements set by daa. The proposed Project does not determine the Airport passenger demand or usage, this is a matter for daa and planning control. EIAR Chapter 03 (Background to the MetroLink Project) details the need for the Project, and how MetroLink will address challenges such as climate change and the production of CO2 emissions. As noted, private vehicles are a significant contributor to Ireland's GHG emissions, and providing an alternative to private vehicle-based journeys is a key benefit of the proposed Project. The proposed Project will aim to be a fully sustainable and carbon neutral public transport alternative (by the Design Year of 2050), and therefore the way in which people access Dublin Airport, and other parts of the city, will be in a much more sustainable way than at present. The proposed Project, as a sustainable mobility option, will have a direct and long-lasting impact on Ireland's transition to a low carbon economy. The proposed Project will be fully electrified, and will be able to reduce its emissions footprint as Ireland moves increasingly to green energy production. This is detailed in Chapter 3 (Background to the MetroLink Project), section 3.4.5. Based on modelling undertaken for EIAR Chapter 17 (Climate) it is estimated that the modal shift resulting from the provision of MetroLink will result in a reduction in GHG emissions of between 12kt and 13kt in the opening year, with the reductions expected for 2050 (Design Year) of between 2kt and 14kt. This is detailed in Chapter 3 (Background to the MetroLink Project) section 3.4.5.

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Organisation Name or Name of Submitter			Thomas Herlihy, Oakfront, Charleville	
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Hand written letter re Metrolink Railway Order Application. ABP Case Reference: NA29N.314724 Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont Co Dublin				
2	Letter	2	2.The excavation for the metro and the disposal of the spoil will dump thousands of tons of co2 into the atmosphere. 3.The manufacture of all parts required include the fixed infrastructure and the mobile trains / carriages will dump more co2 into the atmosphere. 4.All the structural works needed for the installation of the tracks and stations along the way will again dump more co2 into the atmosphere.	EIAR Chapter 17 (Climate) presents the proposed Project's carbon emissions during both the construction and operational phase. During the construction phase the embodied carbon assessment includes for construction materials such as concrete or steel, excavations, waste, transportation of materials and waste, power usage and water usage. Full details are available in Section 17.5.2.1 of the EIAR. As calculated using the TII Carbon Tool (v2.1) the proposed Project will result in total Construction Phase GHG emissions of 1,149KT CO2eq over the 9.25 year period, equivalent to an annualised total of 0.37% of Ireland's non-ETS 2030 target. Over the predicted 60-year lifespan the annualised emissions due to the initial Construction Phase and ongoing maintenance of the Proposed Project will reach at most 0.05% of Ireland's non-ETS 2030 emissions target, or 2% of the 2030 transport sector carbon budget. With regard to the emissions linked to the excavation of MetroLink, these emissions are considered within the embodied carbon assessment in section 17.5.2 of the EIAR. In addition to excavation of this material, the disposal and transportation of the material is considered within the embodied carbon assessment. With regard to equipment associated with the operational MetroLink, Section 17.5.3.5 discusses the embodied carbon of the rolling stock. The rolling stock is not final and once the rolling stock is finalised an Environmental Product Declaration (EPD) will be prepared for the exact specification. As this is currently not available, for the proposed Project, an EPD published in 2019 for rolling stock that is utilised on a similar Metro project (Sydney Metro Northwest) has been sourced to give a likely estimate of the embodied carbon of the rolling stock. The main components of the rolling stock are metallic materials and electronic and electrical equipment which allow a high recyclability (95.2%) potential. The Sydney Metro Northwest EPD for rolling stock had upstream and core emissions of 0.3447gCO2e per passenger km. With future improvements in technology, energy efficiency and sustainable practices the proposed Project aims to future reduce the rolling stock embodied carbon. This is detailed in Chapter 17 (Climate), section 17.5.3.5. With regard to the engineering structure works required to construct MetroLink, this has been included within the embodied carbon assessment in Section 17.5.2.1 of the EIAR. Both the materials, transport of material, water usage and power required to complete the structural works have all been included within the assessment. Furthermore, please note that monitoring and reporting of the embodied carbon in the Construction Phase will be conducted. The aim of the monitoring will be to see further ways to minimise climate impacts. Monitoring will include contractual obligations, in line with the most recent Climate Action Plan and sectoral targets. Commitments to monitor GHG emissions during the construction phase will also be secured through the outline CEMP (Appendix A5.1). Monitoring will include; embodied carbon of construction materials, water usage, power and fuel usage and waste generation (including reuse and recycling rates). A Waste Management Plan for Construction and Demolition Waste will also be implemented, as detailed in Appendix A5.1 Outline CEMP section 6.6. Please refer to response (1) above in relation to the anticipated GHG emissions during the Operational Phase. Additionally, a whole -life Carbon Management Plan will be implemented to inform the detailed design, build and operation of MetroLink. This commitment is detailed in Appendix A5.1 Outline CEMP section 6.3.
3	Letter	2	5.The cost which we are told will be 9 billion is very optimistic and I think that it will be 15 billion or more should not be put on the general taxpayer and should be paid by the users.	The project costs and benefit to cost ratios are provided in the Preliminary Business Case for the scheme which was approved by Government in July 2022.

Submission No.			300	
Organisation Name or Name of Submitter			Tom Harrington	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Reference: Railway(Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022 Case Ref: NA29N.314724				
1	Letter - introduction	1	I am making this submission as a concerned householder on Dartmouth Road. Firstly I do think development of the Metrolink is a very positive development for Dublin. My concerns in relation to proposed Charlemont Metrolink terminus primarily centre on 3 major points.	Thank you for taking the time to make a submission and your overall endorsement of the MetroLink Project. We have reviewed your submission and responded to the observations made below.
2	Letter - Point 1	1	1. Selection of Charlemont as Metrolink southern terminus versus city centre terminus form a huge cost to taxpayer perspective and prejudicing options for expansion of transport network in the future. We currently have an excellent public transport connection to Stephens Green from Charlemont on the Luas Green line so why replicate this with a metro line that stops at Charlemont terminus in a residential area with only easily accessible public transport option, if onward travel required, is the same Green Luas line. I cannot see the public good or business benefit in the extension of Metrolink to terminus at Charlemont at this enormous cost to our taxpayers and years of significant residential disruption during construction. The opportunity cost of this investment on a redundancy in public transport infrastructure versus spending the money on some project offering a greater public good is not defensible. Building a terminus in Charlemont also prejudices future decisions on the potential direction of a south/southwest Metrolink line given any future project would be constrained this development and sunk cost versus a terminus in Stephens Green which would offer far greater flexibility in future transport policy decisions. On position that there is no current policy to extend Metrolink beyond Charlemont then why pursue this section of route from Stephens Green. The environ of Charlemont is a residential area not a city centre location. A city centre location has a high number of trips attracted and generated. There is scope for increased densities in the city centre, but very limited scope in the area around Dartmouth Road/ Dartmouth Square.	TII do not agree that Charlemont is the incorrect location for an interchange with the Luas Green Line or that it prejudices future options for integration with the wider transport network for the reasons set out below. <u>Rationale for Charlemont Station</u> The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. The section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).

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			Response (2) continued.	<u>Cost and Replication</u> MetroLink does not replicate the Luas Green Line between St Stephen's Green and Charlemont given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.

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Reference: Railway(Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022 Case Ref: NA29N.314724				
3	Letter - Point 2	1	2. Noise, disturbance and impact on amenities. The development will have a very significant impact upon the amenities of those residing in the area. This will result from the lengthy construction period of c 9 years, with noise and vibration impacts from tunnelling, the construction of the cut and fill new station, tunnelling and boring associated with the new tunnel and the intervention tunnel. Noise impacts on properties in the vicinity (Dartmouth Square West, Dartmouth Road and Cambridge Terrace) will all range from moderate to very significant. The hours of working are specified as 07:00 hrs to 19:00 hrs. The passage of the Tunnel Boring Machine (TBM) through the stations will be on a 24 hours, 7 days a week basis. HGV deliveries will be ongoing over a lengthy period of time. The impact upon this residential neighbourhood will be very significant.	Note the predictions reported below are the same as for 26 Dartmouth Road which is located slightly closer to the proposed MetroLink works. The Proposed Working Hours are outlined in EIAR Chapter 5, MetroLink Construction Phase, section 5.2.4. Standard working hours will generally be the norm for all above ground works i.e Monday to Friday 07:00 to 19:00 and Saturday 07:00 to 13:00. Only tunnelling and other works underground will be undertaken 24 hours a day. The only exception to this is the requirement for work above ground outside standard working hours for exceptional events such as concrete pours, and abnormal deliveries. In the exceptional event these are necessary, the contractor will engage with the local community and local authority before such works are undertaken. Chapter 13 Airborne Noise and Vibration includes an assessment of airborne noise and vibration from the construction of the project. The potential significant airborne noise impacts from the construction of nearby Charlemont Station is presented in Table 13.68 where a 'Significant' to 'Very Significant' magnitude of impact is predicted at this location prior to the implementation of noise mitigation measures. Noise mitigation, as summarised in section 13.6.1 of the EIAR, includes for boundary hoarding around the station working area, comprising 7m high hoarding at the east boundary, and 4m at the remaining boundaries. In addition, the above ground support works for below sprayed concrete tunnelling works will be enclosed within an acoustically clad steel framed building to control noise breakout to surrounding receptors. With these mitigation measures in place, the magnitude of impact at 27 Dartmouth Road is reduced to "Slight to Moderate" during piling works and excavation below slab, and "Not Significant" during enabling works and finishing and fit-out works as indicated on pages 23-28 of EIAR Appendix 13.7 Construction Phase Modelling. All planned night-time work activities will have to be undertaken, controlled and mitigated under the detailed Construction Environmental Management Plan to maintain impacts below the agreed construction noise thresholds. Examples of mitigation measures that can be used to reduce impact are detailed within Chapter 13, section 13.6, including the use of enclosure structures for planned activities outside of the standard working hours. The rationale for 24/7 working on activities such as Mechanical Electrical Power (MEP) installation, TBM strip out, and tunnel clean and track laying, is that they can be managed underground without causing disturbance at night. While activities below ground are progressed on a 24/7 basis, site level activities such as deliveries etc will be limited to standard working hours (Chapter 5, Section 5.5.17.3 refers). Owing to the nature of the sprayed concrete intervention tunnel construction and to ensure a safe and stable method of excavation, and minimising settlement impact, the sprayed concrete intervention tunnel construction will be undertaken 24 hours per day, seven days per week. The groundborne noise and vibration arising from mechanical excavation of the tunnel will not exceed threshold limits. During night-time support works at the surface, an acoustically clad steel framed building will be used within the compound to control airborne noise breakout to surrounding sensitive properties. All concrete to support the sprayed concrete tunnel lining operation will be batched on site within the acoustic enclosure and will not require night-time delivery. The predicted level of groundborne noise during TBM Passage is 47dB, above the Threshold Level of 45 dB indicating a potential significant impact to occupants for the limited duration of TBM passage, which is estimated to be 2-weeks. Unfortunately there are no effective methods available to reduce groundborne noise from TBMs at source and therefore the principal mitigation measure is advance consultation and engagement to inform residents of the timing of the TBM passing to allow building occupants to prepare for the temporary elevated noise levels. Therefore with the exception of some temporary disturbance (c. 2 weeks) resulting from the TBM passing. All other activities are not predicted to cause significant impact. As outlined in Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) there is a process in place whereby further mitigation measures can be implemented at individual properties should this be merited.

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			Response (3) continued.	<u>Other Noise and Vibration</u> EIAR Appendix A14.5, Groundborne Noise and Vibration and Blasting Modelling Results, 14.4 Section AZ4 Northwood to Charlemont, presents the predicted day and night groundborne noise and vibration levels for the construction and operational phases. The results for 26 Dartmouth Road (appropriate for 27 Dartmouth Road) are summarised below. (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) • The predicted day and night levels of groundborne vibration during TBM Passage are 0.226ms-1.75 (VDV day) and 0.190ms-1.75 (VDV night). Both of these values are lower than the VDV Threshold Levels of 1ms-1.75 (VDV day) and 0.5ms-1.75 (VDV night), meaning that no significant impact is expected on the property or occupants as a result of vibration during TBM passage. • The predicted day and night levels of groundborne vibration during Mechanical Excavation are 0.003ms-1.75 (VDV day) and 0.002ms-1.75 (VDV night). Both of these values are lower than the VDV Threshold Levels of 0.8ms-1.75 (VDV day) and 0.4ms-1.75 (VDV night), meaning that no significant impact is expected to the property or occupants during mechanical excavation. • The predicted levels of groundborne vibration during blasting activities is 7mm/s (PPV - peak particle velocity) and air overpressure 110.9 (AOpdB). Both of these values are lower than the Threshold Levels of 8mm/s PPV and 125 AOpdB meaning that no significant impact is predicted to the property during Blasting. • The predicted level of groundborne noise during mechanical excavation is 39 dB, below the Threshold Level of 40 dB, meaning that no significant impact is expected on the building occupants from groundborne noise during mechanical excavation. <u>Construction Traffic Noise</u> Construction traffic noise impact is assessed and presented in Chapter 13, Section 13.5.2.6.9 AZ4: Construction Traffic. This shows that construction traffic noise impacts are neutral to not significant based on the peak construction month in 2028. As noted above, the construction traffic volumes used in the assessment are based on the reasonable worst case peak scenario which reflects a 'worst case month' under which the construction of multiple work sections are taking place concurrently as part of the proposed Project in AZ3 and AZ4. A further sensitivity assessment was undertaken for each of the main site compounds in AZ4 during the AM peak period using data for the most impacted traffic road section during this period as advised by the traffic team. During the assessed AM peak hour for each construction site compound within AZ4, the highest change in noise levels are all below 3dB resulting in a negligible to minor change in traffic noise level along the local roads. The calculated noise level along the road edge, whilst categorised as medium to high will not be altered to any perceptible level as a result of construction traffic flows and hence the overall impact is not significant. The methodology used in this assessment is discussed in Section 13.2.5.1.3, with results for AZ4: Northwood to Charlemont set out in Table 13.71.

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4	Letter - Point 2 (continued)	2	2. (continued) There is no effective provision made for drop-off at this important interchange. Taxi, bus and casual private car users are not appropriately catered for. There is only a short drop on the northern side of the carriageway of Grand Parade and none on Dartmouth Road. There is no taxi rank or provision for future bus services. The interchange with other modes is therefore wholly inadequate. Drop-off on Grand Parade will result in traffic congestion and a traffic hazard (especially for cyclists as the proposed Drop-off replaces the existing footpath and cuts across the existing cycle lane). The development would have an adverse impact upon traffic during the construction and operational phase, drop-off has not been properly designed and there is poor integration with other modes.	TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used for private car drop-off, with the Station deliberately designed so that it is part of a 'through transport corridor' rather than a terminus station. The MetroLink forms part of an integrated public transport network. The system is designed in an integrated manner so that people travelling from the area south of Dublin to access locations north of Charlemont, such as Dublin Airport, Mater, Swords etc. will utilise public transport to interchange with the MetroLink, or will walk or cycle to access their local station. It should also be noted that the proposed station is within a 5-minute walk distance of the BusConnects proposed A Spine and E Spine routes. The system is not designed to encourage people to drive to stations within the City and TII actively discourage people from doing so other than the Park & Ride station at Estuary. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Chapter 9: Traffic & transport, Appendix A9.2-B Traffic and Transport Assessment Charlemont Station, Section 6.1.2.refers. TII has modelled and assessed the impact on traffic during the construction and operation phases, and no significant impacts are predicted, as summarised below. Construction Phase: EIAR Appendix A9.5 Scheme Traffic Management Plan presents the analysis undertaken to assess the impact of the traffic management measures on the local road network surrounding the proposed Charlemont Station during the construction phase. At the local level the following parameters have been used to assess impacts on general traffic and on pedestrians: • Increase in walking distance/quality of service for pedestrians (through removal of footpath, reduction of quality of service, removal of a pedestrian crossing or relocation of crossing by more than 100m); • Increase in driver delays at junctions; • Changes in traffic flows on surrounding streets; and, • Additional distance travelled due to diversions. The analysis undertaken at this location indicates that the increased volume of traffic on Grand Parade and Northbrook Road does not translate into any significant increase in driver delay. The largest increase in driver delay of 12 seconds is registered on the westbound approach on Grand Parade to the Ranelagh Road signalised junction. During the construction phase, pedestrians will experience a reduction in quality of pedestrian infrastructure and space. The construction site boundary will encroach upon footways in the local area, including the northern side of Dartmouth Road, and the southern side of Grand Parade. However, a temporary signalised crossing will be provided west of the Luas to maintain pedestrian access to and from the Stop. Whilst there are partial closures on Dartmouth Road and Grand Parade, pedestrian movements will be maintained on appropriately sized footways through the area.

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			Response (4) continued	Operational Phase: A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. The proposed pedestrian crossing on Grand Parade will have minimal impact on the traffic flow along Grand Parade and can be programmed to operate in sync with the existing signalised junction at Grand Parade /Charlemont Street to maintain the flow of traffic movements. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065, including Dartmouth Road. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. In overall terms, Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. TII therefore do not expect the provision of a MetroLink Station at Charlemont to negatively impact the quality of life of those in the immediate neighbourhood, and would further note that that local residents will greatly benefit from having a world class metro system providing access to the city centre, airport and north city at their door step. Chapter 9: Traffic & transport, Appendix A9.2-B Traffic and Transport Assessment Charlemont Station, Section 7 Summary refers.	
5	Letter - Point 2 (continued)	2	2. (continued) I have significant concerns that this major interchange station will attract anti-social behaviour for up to 19 hours a day during its operational times, and also when the station is closed. This is common with many European capital interchanges. This currently is a relatively quiet residential area that benefits from amenities, but the potential for late night arrivals, taxi pick-ups, drop-offs and anti-social behaviour would disturb these amenities and alter the nature of the area.	 The interchange will certainly increase the number of people passing through the area, however it is important to note that people will be using MetroLink, similar to LUAS as a transport hub, moving quickly in and out of the area. The station will not be a destination attracting people to the area. Furthermore as outlined in Chapter 6 of the EIAR, CCTV will be installed at all stations including Charlemont with monitoring of each station being managed from the Operational Control Centre. This means that in the unlikely event of antisocial behaviour, MetroLink security staff and /or An Garda Siochana will be notified immediately to manage the situation.	

Submission No.			300	
Organisation Name or Name of Submitter			Tom Harrington	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Reference: Railway(Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022 Case Ref: NA29N.314724				
6	Letter - Point 3	2	3. Residence Impact It is clear there will be significant disturbance for extended period during construction and it is unclear whether it will be possible to access or reside in 27 Dartmouth Road during this phase. While I appreciate this is a consequence of many projects to develop our public infrastructure it is very difficult to accept when to construct Metrolink terminus at Charlemont seems flawed at many levels as presented in detail in the 'Charlemont & Dartmouth Community Group Metrolink submission'. From a personal perspective I would ask you to reconsider this proposed development and the cost/benefit assumptions before inflict these difficulties on the residents whether this is a result of CPO, temporary relocation or consequence the general disturbance during construction and in operation on residents of Dartmouth road.	Access TII can confirm that although parking may be impacted during the closure of Dartmouth Road, West of the Luas Bridge in accordance with Chapter 9, Appendix A9.5 section 7.11.5.3.5, it will be possible to locate the proposed site entrance/exit (Figure 7.58) to maintain access to 27 Dartmouth Road throughout the duration of the construction Phase. Parking may need to be suspended during normal working hours for traffic management purposes during construction operations. The closure of Dartmouth Road will take place in two stages, the total duration of which is 4 years, noting the first closure of 18 months will be partial. 1. Partial closure of Dartmouth Road to enable utilities to be diverted. Subject to Statutory Undertaker approvals (ESB, Eircom etc.) this process is estimated to take up to 18 months, while access is maintained along Dartmouth Road via a proposed single lane closure. 2. Full closure. Once the utilities have been diverted, the road is then shut to through traffic (pedestrian access is maintained) and is estimated to take up to 30 months to complete the piling, and roof slab of the station. The utilities and road will then be reinstated and the road reopened. Diversions will be put in place for local access, including deliveries, emergency services, bin collection, and pedestrian access maintained to all properties. The impacts on parking will be monitored during construction to reinstate any disrupted areas as soon as practicable. On completion of construction and reopening of Dartmouth Road, parking will be reinstated. During the closure of Dartmouth Road, approximately 30 on street parking spaces will be lost during the main works, however there will be no impact to on-street loading bays. EIAR Chapter 5, MetroLink Construction Phase specifies the 5 residential properties that will be impacted during the works. The closure will be monitored to determine if it is required at all points, or if the spaces can be temporarily reinstated temporarily throughout the works. Once the construction works are complete and Charlemont Station is operational, the remaining on-street spaces will be fully reinstated. As outlined in Appendix A5.1 Outline Construction Environmental Management Plan, the contractor(s) will be required to maintain emergency access routes throughout the construction phase. These will be developed in consultation with the emergency services and documented as part of the detailed CEMP(s). All required diversions will be appropriately signed, and a comprehensive publicity and information campaign will take place prior to the Commencement of works to minimise the severity of the impact. Noise and Vibration As noted by response (3) above, including allowing for any necessary mitigation measures, noise and vibration levels at 27 Dartmouth Road will not be significant with the exception of TBM groundborne noise for a short temporary duration of approximately 2 weeks. Therefore it is considered relocation will not be necessary. It is also noted that following mitigation measures the airborne construction noise levels at 27 Dartmouth Road will be below the threshold value of 70 dB and as such mitigation in the form of noise insulation to the windows of this property will not be required. Once operational, MetroLink is not predicted to cause disturbance, and will as noted by response (4) above will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. TII therefore do not expect the provision of a MetroLink Station at Charlemont to negatively impact the quality of life of those in the immediate neighbourhood, and would further note that that local residents will greatly benefit from having a world class metro system providing access to the city centre, airport and north city at their door step. Rationale for a Proposed Station at Charlemont Response (2) above explains the rationale for a proposed station at Charlemont, noting that the Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR), as well as being in accordance with the 2022 - 2042 GDA Transport Strategy approved by Government.

Submission No.			301	
Organisation Name or Name of Submitter			Tony Graham, 58 Holmspatrick, Skerries	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Observation on a Strategic Infrastructure Development Application				
1	Observation details 5. Grounds Stations should have more covered bicycle parking	3	1. Bicycles can increase the catchment area of a station. Covered bicycle parking will help users be more inclined to use bicycles for the first and last mile of their trips. 2. Hire bicycles should be restricted to designated parking racks at MetroLink stations to stop the hire bicycles from suppressing private bike usage by leaving no room for private bicycles at bicycle parking racks.	As detailed in EIAR Chapter 6 , MetroLink Operations and Maintenance, one of the key design requirements for the proposed Project is the provision of cycle parking facilities at and near each station to facilitate passengers who wish to cycle to/from the station. The bicycle parking provision determined for each station within the DCC and FCC areas is outlined in EIAR Chapter 4, Description of the MetroLink Project. Cycle parking provision at stations along the alignment of the proposed Project falls into a number of categories: * Open Air: The provision of simple Sheffield stands/hoped design or bollards set in the ground; * Sheltered: The provision of cycle parking covered by a canopy to ensure that the cycles and users are covered; * Overhung: The provision of cycle parking sheltered by station roofs to ensure that the cycles and users are covered; and, * Semi-enclosed: The provision of cycle parking covered by a large roof structure with glass or solid walls. These spaces are double stacked with a secure gate system. There is a limited number of fixed cycle parking spaces that can be provided as part of the Project, and the remainder of the demand for cycle parking spaces will require a strategy and commitment from the respective local planning authorities. There is a clear mix of uses in the areas surrounding MetroLink stations, which may see cycle demand varying in peak times. As a result, it requires a combined approach and delivery from multiple agencies, e.g. DCC, FCC, and NTA to identify how future demand can be accommodated sustainably and the maximum benefits of the parking is achieved. The provisions are likely to involve a combination of fixed and shared bicycles and other facilities to support the delivery of mobility hubs across the region.
2	Observation details 5. Grounds Provide public toilets at all MetroLink stations	3	3. As far as I can tell, there are no plans for public toilets at any station, not even at the Glasnevin interchange with Irish Rail. The toilets in the plans all seem to be down narrow corridors away from the public areas.	As noted in EIAR Chapter 6, MetroLink Operations and Maintenance, public welfare facilities will only be provided at the main interchange stations, which does include Glasnevin Station. The remaining non-interchange stations will not be provided with public welfare facilities for reasons of safety, deterring anti-social behaviour, maintenance and security.
3	Observation details 5. Grounds Provide more station entrances	3	4. The single entrance to most of the stations may look good on paper but the aesthetics will be lost on anyone who has to walk the length of the station in the rain or, as at Collins Avenue and O'Connell Street, wait in the rain to cross a four-lane road to be able to get to the station entrance. Even the single entrance to the Mater station is located as far as possible from the hospitals that the station is meant to serve.	Passenger demand forecasts together with Access for All design guidelines have been used to design the size and layout of the public areas used by passengers, including the entrances, as detailed in EIAR Chapter 6, MetroLink Operations and Maintenance. Each station's position along the alignment has also informed the orientation of the entrance to facilitate passenger wayfinding, by maintaining similar layouts of stations along the alignment. In most cases, passenger circulation is based on a single access route along the longitudinal axis of the station box. The exceptions are Northwood, Glasnevin, Tara and Charlemont which have two entrances due to their urban location and anticipated pedestrian footfall. Where necessary, pedestrian crossings have been provided to maintain desire lines between the station and surrounding area.

Submission No.			301	
Organisation Name or Name of Submitter			Tony Graham, 58 Holmpatrick, Skerries	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Observation on a Strategic Infrastructure Development Application				
4	Observation details 5. Grounds Underground or undercover access to Airport station	4	5. There should be underground or undercover (at the very minimum) access from the airport terminals to the MetroLink station. Walking in the rain, with luggage, and having to wait at a pedestrian crossing will be a very poor introduction to Ireland.	TII's VISWALK model shows that all the crossings in the immediate vicinity of MetroLink operate efficiently for both pedestrians and vehicles, with no excessive vehicle queuing or pedestrian crowding evident. The TII VISWALK model demonstrates that signal timings can be implemented that will accommodate both pedestrians and vehicles, with vehicles accommodated without excess delay and an appropriate level of service (LoS) is provided for pedestrians. Refer to EIAR Chapter 9. TII therefore confirm that current pedestrian modelling does not justify the need for an additional walkway, either above or underground and as such the design does not include for such a walkway. The surface walkway will be covered where practicable between the Station and the terminals.
5	Observation details 5. Grounds Plan for underground access at stations in commercial centres	5	6. It will improve access to the stations and be more convenient for users if adjacent buildings can make underground connections to a concourse at the station. For example, Sydney Town Hall station was built without any connection to adjacent buildings, but has, over time, been extended with multiple access points.	Response (3) above explains the rationale for determining the number of passenger entrances at each station. Additional entrances or connections through adjacent buildings are not required at this stage. As outlined in EIAR Chapter 6, MetroLink Operations and Maintenance, each of the proposed stations has been designed to provide a high-quality environment at the station approach to ensure easy access from the existing pedestrian footpath network surrounding the station. The Transport for London Pedestrian Comfort Guidance for London (Transport for London, 2010) was used as a reference during the design development process to guide the design of access to each station to ensure that pedestrian footpaths and road crossings are appropriate to the volume of type of users accessing the stations.

Submission No.			302	
Organisation Name or Name of Submitter			Townsend Apartment Management Company Limited	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Reference Number: ML60-A10. Townsend Apartment Management Company				
1	Intro	1	We act on behalf of the above client who has been served with notice of the making of the above Railway Order Application. Our client is the Owners Management Company for the College Gate property which has been included in the Railway Order Application. Having reviewed the drawings and documentation accompanying same, our client has instructed us to object to the confirmation of the Metrolink Railway Order Application and all of the supporting documentation to include the proposal Railway Works and Land Requirements, the Book of Reference, the EIAR and the Natura Impact Statement on the following grounds:	TII appreciate the submission and provide the following comments in response to the matters raised.
2	Project Need	1	As currently designed, this project is excessive and is leading to a significant overspending versus alternatives. The requirement in relation to increased use of public transport could be met in alternatives ways that would have been much less costly and at the end of the day, would have been better than the Metrolink as it is currently proposed.	TII disagree and have demonstrated the benefits in both the EIAR and the approved business case. Chapter 03 (Background to the MetroLink Project) details the overall need for the Project, and how MetroLink will address a number of current challenges, including compact growth, sustainable mobility, enhanced regional connectivity, quality international connectivity, transition to a low carbon and climate-resilient society, enhanced amenity and heritage, maximising sustainability gains, strong economy supported by enterprise innovation and skills, access to quality childcare, education and health services, and strengthened rural economies and communities. Chapter 07 (Consideration of Alternatives) presents the decision-making process that has led to the development of the proposed Project, including the consideration of alternative transport options. The options assessed included for heavy rail, light rail, Bus Rapid Transit (BRT) options in addition to combination options. The short-listed options were subject to assessment by way of a Multi-Criteria Analysis (MCA) having regard to Environment, Economy, Safety, accessibility and Social Inclusion and Integration. The assessment identified an Optimised Metro North as the best medium-and long-term transport project for the Greater Dublin Area for the following reasons: * It was the most economically advantageous scheme when compared to other options, delivering the highest benefit to cost ratio (BCR) of 1.5, almost double the BCR of the next best scheme (tunnelled Luas); * It generated the highest level of transport benefits when compared to other options, with the highest number of additional public transport trips generated in the morning peak travel period; * It provided a new strategic public transport corridor, avoiding reliance on either the existing heavy rail lines or the Luas Cross City line; * It delivered a connection right into the centre of the city, serving O'Connell Street and St. Stephen's Green; * It retained the opportunity to extend Luas Cross-City to Finglas, which would not be feasible if the tunnelled Luas options were selected, and it avoided reducing the service level on Luas Cross City to Cabra and Broombridge; * Due to the high level of segregation, it was considered to significantly increase capacity to allow for potential future growth along the corridor, when compared to other options; * It could potentially extend southwards in the longer term to alleviate high travel demand on the Luas Green Line and ultimately form a complete north south metro corridor traversing both the north and south city; and, * This option delivered the highest safety benefits when compared to other options. The business case for the Project has been Approved in Principle by Government in line with the Public Spending Code, based on economic and financial appraisals undertaken in a range of scenarios. The assessment finds that MetroLink is a very positive investment for the people of Ireland, in the country's journey to a low carbon and more sustainable transport network. TII as the Government Agency responsible for delivering MetroLink, are committed to expediting the delivery of this transformative project on receipt of an Enforceable Railway Order, to ensure the benefits of MetroLink can be realised as soon as possible.
3	Economic Analysis of Metrolink Versus Alternatives	1	The projected total budget cost of the Metrolink Project is extremely high versus other infrastructure capital projects. Analysis is showing that alternatives would have been able to deliver a similar or higher overall benefit and at a lower cost. Therefore, the economic cost benefit analysis on the Metrolink Project should mean that the project should not be progressed in its current form.	Please refer to response (2) above in relation to the consideration of alternatives, the reasons that the Proposed Project was selected as the preferred option, and the economic assessments undertaken.

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Organisation Name or Name of Submitter			Townsend Apartment Management Company Limited	
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Reference Number: ML60-A10. Townsend Apartment Management Company				
4	Route Selection	1	Even if one assumed that the Metrolink project was needed and it did stand up to economic analysis, the route chosen is flawed. Better alternative routes were available to the Designers.	Metrolink is needed and the economic analysis has been reviewed and approved. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the Metrolink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision. Chapter 07 (Consideration of Alternatives) presents the decision-making process that has led to the development of the proposed Project, including the route selection process. The NTA and TII commissioned an Alignment Options Study to determine the Emerging Preferred Route (EPR) for New Metro North proposed in the Transport Strategy for the GDA. The New Metro North Alignment Options Report (TII, 2018), and all relevant appendices can be reviewed at www.metrolink.ie. The study area was based around a corridor from Swords to Dublin City Centre via Dublin Airport, in line with the Project's objective as identified in the Transport Strategy for the GDA. The overall study area was broken into three sections, with a number of station location options proposed within. Based on the conclusions of the MCA, Option 9 was recommended as the EPR for NMN for the following primary reasons: * In terms of Economy, it delivers substantially more benefits than most of the options resulting in the joint highest BCR; * It performs among the best in terms of public transport usage i.e. boardings over 24 hours; * It integrates better with the wider transport network with better potential for seamless interchange with other modes, particularly heavy rail in the city centre and bus in Swords, than other options considered; * It integrates better with current Land Use Policy particularly in Ballymun and Swords; and * In terms of Environment, while there are some impacts in terms of Landscape and Visual and Archaeology, Architecture and Cultural Heritage, these impacts can largely be mitigated. Submissions made by stakeholders and the public during the Public Consultation in 2018 on the EPR were carefully analysed. Taken together with other proposed route alignment and design improvements, design responses to consultation submissions have resulted in a number of changes to the EPR leading to a Preferred Route, including alterations to the alignment which led to alternative station locations: * Realignment of the EPR at Lissenhall; * Realignment of the EPR along the R132 Swords Bypass through Swords; * Realignment of the EPR over the M50 Motorway and to Ballymun; * Realignment of the EPR at O'Connell Street Station; and, * Alignment under Trinity College Dublin (TCD). Chapter 07 also provides an outline on a station-by-station basis of alternative station locations, layout or design changes. For full details of the analysis undertaken, please refer to the Metrolink Preferred Route Design Development Report (TII, 2019), available at www.metrolink.ie.

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Organisation Name or Name of Submitter			Townsend Apartment Management Company Limited		
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5	Mitigation of Impacts on the Human Environment	1	In the case of the College Gate Apartment Complex and the Owners Management Company (i.e. Townsend Apartment Management Company Limited by Guarantee) the proposed impact mitigations put forward by the Acquiring Authority are seriously flawed and inadequate. The common areas of the complex and the overall property has been severely blighted since the route for the Metrolink project was decided and it was clear that the College Gate Complex was within the preferred route for the scheme and would have to be demolished should the scheme proceed on foot of a Railway Order as submitted. It was open to the Acquiring Authority to step forward at that stage and immediately offer to fully deal comprehensively with all of the individual owners in the complex and the Owners Management Company with a comprehensive suite of measures. These would include an offer of adequate full compensation to each owner and other measures such as immediate advance payments to the Owners Management Company to upkeep the common areas. It would have been open to owners to sell at that stage to the Acquiring Authority, if they so choose. This has not been forthcoming from the Acquiring Authority and the complex has remained blighted and the lives of the owners severely impacted since the route for the Metrolink was chosen. Contrary to what has been stated publicly, there is nothing in law to stop the Acquiring Authority in this case doing the right thing, that being to have stepped in immediately and dealt comprehensively with a suite of measures for the College Gate Complex including a full purchase offer for owners wishing to sell and move on with their lives. The early negotiations optional proposal put forward by the TII is a totally unsatisfactory proposal and is deeply flawed in many respects. It is not an adequate mitigation offer. Mitigation is critical in relation to all impacts of a scheme.	TII has held a series of non statutory public consultation meetings and correspondence with the College Gate appointed property management agents, Directors of the Owners Management Company (OMC), and individual apartment owners, over the past number of years. Engagement, including one to one information sessions, were arranged in order to provide a platform for direct engagement between TII and parties with a legal interest in the apartment development. As part of our Land Acquisition Strategy, detailed in section 21.6.1.3 of Chapter 21 (Land Take), TII has introduced a discretionary scheme to encourage early engagement through the discretionary process prior to confirmation of a Railway Order and service of a Notice to Treat. The intention is to enter into a pre-agreement with residential property owners to agree a baseline apartment price and other matters of compensation, which will be payable under the compensation code. This will be determined at an early date and provides a commitment from TII to agree terms, ahead of the statutory process, locking in a baseline apartment price, with an agreement to apply an index to reflect any future uplift. The scheme will accelerate the acquisition process following an enforceable Railway Order avoiding the potential for negotiations to be drawn out at a later stage. TII advocates that residential property owners are professionally advised and as part of the process have agreed to meet all reasonable professional fees and costs in relation to the negotiation and settlement of the apartment owners legal interest. The scheme does not prejudice property owners nor are they obligated to participate. Residential property owners will continue to be responsible for discharging all contractual obligations under the terms of their long leasehold interest until the acquisition of their property interest has been completed. TII have appointed external property consultants to assist them with the implementation of the discretionary scheme. This also ensures that engagement with residential property owners continues and concerns can be addressed where practicable. Further details on TII's Land Acquisition Strategy can be viewed on the Your Property section of the MetroLink website together with a Compulsory Purchase Order (CPO) Guideline FAQ document https://www.metrolink.ie. TII will continue to be available to engage with Directors of the OMC and / or its appointed property management agents or other appointed consultant, where necessary, as the MetroLink progresses.	
6	Time Frames and Funding	2	There is a lack of clarity with regard to time frames and funding for the Metrolink Project. There is no clarity with regard to the approval process and how long this will take. While this is ongoing, the severe blight on the College Gate Complex will continue and the hardship placed on the owners and the Owners Management Company will continue. This is wrong.	TII as the Government Agency responsible for delivering MetroLink, are committed to expediting the delivery of this transformative project on receipt of an Enforceable Railway Order. Upon approval, the construction phase is anticipated to last approximately 9 years, with the MetroLink planned to be operational in 2035. See response to point (4) in relation to when approval was granted to enable the submission of the railway order application. The Non-Technical Summary (submitted as part of the Railway Order) outlines the Railway Order process, including how An Bord Pleanála will consider the feedback/submissions received during the statutory public consultation process. It is likely at this stage that The Board will call an Oral Hearing prior to making a decision on the application, however this is at the absolute discretion of An Bord Pleanála under section 42 of the Transport (Railway Infrastructure) Act 2001. The Oral Hearing is a process whereby TII and its specialists are given an opportunity to present evidence on the proposed Project and on submissions received. There is also an opportunity for The Board and parties who made submissions during the statutory consultation process to question TII and its specialists. Following this process, and based on information available to The Board, they will make a decision on the application.	
7	Oral Hearing	2	All of the points raised above can be fully addressed at an Oral Hearing which we request be held in relation to the Metrolink project. The above is only a basic outline of some of the points that are relevant to our client and these points will be further elaborated on and additional points raised at the Oral Hearing, as more information becomes available.	Please refer to response item (6) above in relation to the Oral Hearing process. Further information is available at www.pleanala.ie/en-ie/oral-hearings	

Submission No.			302	
Organisation Name or Name of Submitter			Townsend Apartment Management Company Limited	
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Reference Number: ML60-A10. Townsend Apartment Management Company				
8	Capital Gains Tax	2	The Principle of Equivalence is being severely breached in the case of apartment owners who are investors and not in occupation. This is due to the anomaly of Capital Gains Tax being payable on compensation. The Acquiring Authority are aware of this matter but have not resolved it.	Where an entitlement to statutory compensation exists, each claim will be assessed on its own merits. The assessment of compensation and relevant heads of claim are derived from a combination of statute, case law and established practices which are referred to as the compensation code. There needs to be casual connection between the loss and the acquisition due to the scheme, which should not be remote. Claimants are expected to take reasonable steps to mitigate their loss and cannot claim any unavoidable losses. Experienced professionals should advise on the relevant heads of claim which commonly include the following: (i) value of legal interest in land e.g. freehold or leasehold (ii) severance or other injurious affection which relates to the devaluation of the retained lands (iii) disturbance and other matters including professional fees and losses sustained or expenses incurred by an owner as a result of the acquisition of land.
9	Additional Grounds of Objection	2	We reserve the right to include other grounds of objection and to elaborate on the above listed grounds of objection and to tender these at the An Board Pleanála Oral Hearing which we request be held.	Please refer to response item (6) and (7) above in relation to the Oral Hearing process.

Submission No.			303	
Organisation Name or Name of Submitter			Trinity College Dublin	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
MetroLink - Railway (MetroLink - Estuary to Charlemont via Dublin Airport) Order 2022 Submission made on behalf of Trinity College Dublin ABP Ref.: NA29N.314724				
1	1.1 Background and Context	2	For the reasons detailed in this Submission, the application for approval as submitted is materially deficient with regard to the identification and mitigation of likely significant impacts, which are matters of the utmost concern for Trinity.	TCD's position is noted, however, TII disagree with this position as outlined in the responses to the queries below.
2	1.1 Background and Context	2	Whilst the EIAR clearly identifies "significant" and "negative" impacts on Trinity's educational and research facilities, it is also acknowledged in the EIAR itself that the mitigation measures proposed in the design will not adequately protect the identified sensitive receptors. In this regard, the EIAR states, inter alia that: " TII will continue to work with Trinity with respect to provision of appropriate mitigation to protect sensitive equipment at locations that would still require some protection based on this revised alignment." (EIAR Section 7.7.9) [Emphasis added]	This is considered to be a misinterpretation of the position presented in the EIAR. TII are confident that the proposed mitigation measures will address the identified impacts (having regard to Groundborne Noise & Vibration and Electromagnetic Interference). The text referenced refers to the fact that mitigation will be required at the location of some equipment and as such will have to be determined in consultation with TCD.
3	1.1 Background and Context	2	The Arup assessments of the proposed alignment and design have identified significant information gaps, omissions, errors, reliance on reference to mitigation measures that are asserted to have worked elsewhere without any reference to context or circumstance for comparison, and reference to future engagement with Trinity to design mitigation measures in respect of which the EIAR and submitted documents provide no certainty, or even an acceptable level of confidence, can be effective. In the latter respect, it is well- established that it is impermissible to devise mitigation measures after development consent is granted. The EIAR is materially inadequate and qualitatively deficient in this regard, and those inadequacies and deficiencies have significant consequences for Trinity's existing teaching and research and development facilities and thus the application documentation fails to adequately identify, describe and assess the likely direct and indirect significant effects of the MetroLink project on Trinity.	The reference to design of mitigation measures after the grant of RO is to matters of detail only. TII have consulted with TCD on the proposed Project since September 2018, where the first request for data of sensitive equipment on the campus was requested. This was followed by numerous email requests for data. The assessment presented in the EIAR (for Electromagnetic Interference (Chapter 12) and Groundborne Noise & Vibration (Chapter 14) is based on data requested from and provided by TCD. Furthermore, TII have presented the outputs of assessments to TCD on a number of occasions commencing with a presentation of data on 25/3/21. This presentation clearly outlined the potential effects of the proposed Project on TCD equipment (with and without mitigation). On no occasion prior to this submission have TCD identified that there were gaps in data provided to MetroLink by TCD. TII note that the EIAR Appendix A7.10 Trinity College - Alignment Options Assessment, which contains details of the assessment of potentially affected equipment within TCD buildings and assessed mitigation requirements, has been previously shared with TCD. Having regard to the requirement to demonstrate that the mitigation measures proposed will be effective, TII and their consultants have met with TCD presenting this position and evidence of where the proposed mitigation measures have worked at sensitive locations around the world (Refer to the Response (7)). Please also have regard to Section 5.6.4 of Appendix A7.10 of the EIAR, which presents examples of where active cancellation has been an effective mitigation measure. As outlined in this document and in previous consultations with TCD, Compliance Engineering Ireland (CEI) have global experience of utilising this proposed technology. Furthermore Rupert Thornley-Taylor is a global leading specialist in Groundborne Noise & Vibration from rail systems and has identified the proposed mitigation measures based on experience and has also modelled the outputs of the implementation of both Gerb springs and isolated base slabs to demonstrate the effectiveness of these proposals to sufficiently mitigate the groundborne noise & vibration levels. In conclusion, the assessments presented in Chapter 12 and Chapter 14 of the EIAR have been undertaken based on the information requested from and received from TCD. The analysis has been undertaken using this data (from TCD) by competent and global leaders in their fields (in the preparation of both Chapter 12 and Chapter 14) and is not inadequate or deficient as we will demonstrate throughout this response.

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4	1.1 Background and Context	2	The significant uncertainty in respect of the availability and efficacy of potential mitigation measures also has significant implications for the future provision, upgrade and enhancement of equipment and research programmes in the affected buildings. In this regard, the proposed alignment, together with the wholly inadequate mitigation measures identified, have significant potential to constrain or sterilise Trinity's existing and future core academic and research activities on the eastern part of its campus.	There is no uncertainty in respect to the availability and/or efficacy of the proposed mitigation measures. The proposed mitigation measures presented in Section 12.11 of Chapter 12 of the EIAR present the following potential mitigation measures (a) Potential relocation of effected equipment (b) Installation of active cancellation systems or (c) Shielding of labs/rooms using specialised materials designed to attenuate magnetic fields. TII are confident based on the experience presented by CEI (in Section 5.6.4 of EIAR Appendix A7.10) that active cancellation systems will be fully effective to mitigate EMI at all identified equipment at TCD. However, TII have also offered two further options to ensure there is significant scope to reach agreement with TCD. In EIAR Chapter 14, mitigation measures are presented (for the operational phase) in Section 14.5.2. These mitigation measures will entail two primary elements (a) Floating Slab Track and (b) the use of "base-isolated foundation slabs" to support equipment. It is considered that (a) will be sufficient in the vast majority of cases, but should TCD introduce new equipment, there may be a requirement to also consider (b). In conclusion, the implementation of the proposed mitigation measures as outlined in EIAR Chapters 12 and 14 will ensure that there will be no sterilisation of the eastern part of the TCD campus, as suggested.

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5	1.1 Background and Context	2	Based on Arup's assessment of the proposed alignment, and the ineffective nature of the mitigation measures proposed in the EIAR to protect the performance requirements of the affected equipment, the only effective mitigation strategy is based on the following elements; • Trinity's Proposed Mitigation Strategy: Mitigation by design with a localised realignment of the line beneath the Campus, identified on Figure 1.1 below as 'Alignment Option 5', moving the alignment 61.5 m westward of the current proposed alignment; and Further detail and assessment provided by the Applicant, by way of response to a Request for Further Information issued by the Board, in respect of the Mitigation Measures proposed in the EIAR, as supplemented in this submission by Trinity's experts, to demonstrate to the satisfaction of the Board (and Trinity) the efficacy and practicality of those measures based on robust survey data, monitoring, assessment, and evidence of successful comparators, based on the Option 5 Alignment.	The proposed Project design underneath the TCD campus has been assessed for its impacts on sensitive TCD equipment and the EIAR assessments indicate that appropriate mitigation can be provided to all impacted equipment (see Response (4) above). Our assessment indicates that: - the proposed Project alignment with a 350m radius curve from Tara station underneath the TCD campus moves the alignment away from a number of sensitive locations on the campus, therefore reducing impacts on some items of sensitive equipment when compared to the 400m radius curve, which is the project standard; - for remaining equipment which is still assessed as impacted by EMI effects, the proposed installation of Active Cancellation is proposed by TII to provide appropriate EMI protection. - as outlined in EIAR Chapter 13, the inclusion of "Gerb type" floating slab track would be effective at mitigating groundborne Noise and Vibration at the majority of sensitive equipment locations. The modelling indicated that in the SNIAMS building, at the worst case location, VC-E limits can be achieved, while for the Fitzgerald building, at the worst case, VC-D limits can be achieved. If additional mitigation is required, this would be achieved by the use of "base-isolated foundation slabs". As such, the proposed Project design and mitigation proposals will provide effective mitigation during the operational phase to all known potentially affected TCD equipment. With regard to alternative alignments further away from the TCD campus, requiring tighter radius curves, the EIAR Appendix A7.10 Trinity College - Alignment Options Assessment document provides details of our assessment of a 302m radius curve in lieu of the 350m radius curve adopted in the proposed Project. The key reasons why we cannot accept this proposed reduction in the curve radius (or the further reduction to 260m as suggested in the TCD Option 5) is that the adopted minimum 350m radius curve is the minimum radius that meets the proposed Project operational requirements and provides the appropriate space proofing required at this stage of design. In particular the minimum curve radius of 350m in the tunnel section allows for: - the space proofing for equipment incorporated in the tunnel based on the maximum usual size of known equipment required; - the Dynamic Kinematic Envelope (DKE) for the train design assessed at this preliminary design stage; and - retention of the Infrastructure Manager Reserve (also referred to as the Additional Infrastructure Traverse Allowance) of 200mm as specified for the proposed Project by TII. This allowance is the clearance between the limit (dynamic gauge) and the nominal (structural) gauge and is the same as that adopted by other international metro/railway operators. Retention of this allowance is necessary at this early stage of the proposed Project to facilitate and not restrict future operators design proposals and train provision and thus maintain effective procurement competition. Reducing the curve radius, to 302m (as assessed in EIAR Appx A7.10) or below, would increase the DKE profile such that it would be hard against the tunnel infrastructure, removing the current 200mm reserve (M3b, Additional Infrastructure traverse allowance). To regain the required reserve would require a permanent speed constraint of 60kmph in this section, compared to the TII operational design requirement of 80kmph, and which would also reduce project economic benefits. The TCD proposed Option 5, incorporating a further reduction in the curve radius to 260m, would similarly impact the tunnel space proofing and further locally reduce the design speed to 55kmph. Furthermore, it is generally accepted in the railway industry that lower radius curves can introduce greater rail/wheel interface issues, with increased noise, vibration and wear impacting passenger comfort and maintenance requirements. A reduction in radius would thus increase these risks of creating a poorer operational environment at this location.
6	1.1 Background and Context	3	A spreadsheet is attached at Appendix C to assist the Board in understanding the interactions between the sensitive equipment and receptors, the route alignment options and the proposed mitigation measures. The spreadsheet identifies all sensitive equipment, the 'as submitted' route alignment with EIAR mitigation, the alternative route alignment options with mitigation, and alignment Option 5 with EIAR mitigation. The spreadsheet uses a colour coded system to identify the predicted EMI and vibration impacts on all elements of sensitive equipment. The colour coding demonstrates the increasing confidence in the efficacy of mitigation the further west the alignment is moved. In this regard, Trinity's Proposed Mitigation Strategy is the only approach that provides an acceptable level of confidence that significant impacts will be alleviated.	See Response (5) regarding the use of tighter radius curves as proposed by TCD. In addition, as outlined in Chapter 12 of the EIAR, Active Cancellation (or shielding) would be effective in mitigating any effects on the identified sensitive equipment. As outlined in EIAR Chapter 13, the inclusion of "Gerb type" floating slab track would be effective at mitigating groundborne Noise and Vibration at the majority of sensitive equipment locations. The modelling indicated that in the SNIAMS building, at the worst case location, VC-E limits can be achieved, while for the Fitzgerald building, at the worst case, VC-D limits can be achieved. If additional mitigation is required, this would be achieved by the use of "base-isolated foundation slabs".

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7	1.1 Background and Context	3	Based on the information submitted with the application, it is the opinion of Trinity's technical experts that the Applicant has failed to demonstrate that it is proposed mitigation measures are capable of effective implementation. In particular, the mitigation measures proposed in the EIAR are qualitatively deficient in that they lack substantive validation by robust survey data, monitoring, assessment and evidence of successful comparators.	TII have in a number of meetings held with TCD, provided examples of where the proposed EMI mitigation measures have been effectively utilised. Furthermore please also have regard to Section 5.6.4 of Appendix A7.10 of the EIAR where it is outlined that Active Cancellation is an industry recognised and cost-effective method of providing appropriate EMI protection to sensitive equipment when protection at source is either not feasible or desirable. As identified to TCD previously, CEI (TII's specialist consultants) have identified Active Cancellation is a viable option to address residual EMI effects on TCD equipment. This is based on their practical experience gathered from projects including: 1. Neils Bohr Building, Copenhagen, Denmark (SEMs) 2. Qatar Science and Technology Park, Doha 3. Francis Crick Institute, London (NMRs, SEMs) 4. Irvine Materials Research Institute, California (TEMs) – used in combination with shielded room 5. Royal Hospital Melbourne, Australia (Linac) - Ongoing. In terms of Groundborne Noise and Vibration, it has been identified (by modelling) that mitigation measures in the form of floating slab track incorporated into the design will remove any significant effects during the operational phase for the SNIAM building and the Fitzgerald building as identified in Response (6).
8	1.1 Background and Context	3	In the event that the Applicant fails to demonstrate that effective, proven mitigation measures can be implemented, then Trinity will be left in the position where it requests that the Board should refuse consent, or decide to terminate the MetroLink at a point north of Trinity's Campus⁴, having regard to the likely significant adverse, permanent and unacceptable impacts on the University's sensitive equipment, its established and future research facilities, its students, researchers and staff, and its global status and funding. (Footnote: ⁴It is noted that the termination of the MetroLink further north echoes one of the observations made by the Major Projects Advisory Group of the Department of Public Expenditure & Reform (Jul-22) which provides that 'the rationale for extending the preferred scheme to Charlemont is seen as being strategically weak, given the additional costs involved and the duplication of the LUAS Green line which also provides a public transport service to these areas of the city';)	An Bord Pleanala should have full regard to the fact that TII have engaged fully with TCD, having presented outputs of both the EMI and noise and vibration assessments to TCD, in addition to proposed mitigation measures in advance of lodging the RO application. For the purposes of the EIAR and the RO application, TII have presented these proposed mitigation measures and are confident based on the global experience of our specialists that the proposed mitigation measures will be effective. The TCD position that active cancellation will not mitigate EMI/EMC is contrary to the information that TII previously presented to TCD and that included in the EIAR. Furthermore, TCD have provided no evidence as to why it is considered that the mitigation measures will not be successful. With regard to termination of the proposed Project before the section under the TCD campus, the MPAG comments were made in the context of the financial approvals for the project which are a function of the Government and not An Bord Pleanála. The conclusions of the MPAG were known to the Government when it approved the Preliminary Business Case for the project. As regards consideration of terminating the alignment north of TCD, this would be a material contravention of the NTA's GDA Transport Strategy 2022-2042, which proposes that MetroLink terminate at Charlemont. In addition, the alternative of terminating MetroLink at St. Stephen's Green compared to Charlemont is considered in EIAR Appendix A7.9, Terminus Station at Charlemont compared to St. Stephen's Green. The main conclusions of this assessment would also apply equally to a termination of the line further north (at Tara Street for example), including: • future proofing of the Green Line connection • bypassing of the capacity constrained Luas on-street running section • supported by the Transport Strategy for the Greater Dublin Area 2022-2042 • all potential future connectivity options enabled • additional fare/revenues collected with a favourable Cost Benefit ratio likely.
9	1.1.1 Objectives of this Submission	5	this submission is intended to provide a basis for the Board to issue a Request for Further Information inviting the applicant to submit a revised EIAR, revised plans and all necessary assessments, in respect Trinity's Proposed Mitigation Strategy	Noted, however see Response (5).

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10	1.1.1 Objectives of this Submission	5	The submitted Arup Reports provide detailed assessments of the impact of the proposed alignment and the EIAR mitigation measures on Trinity's equipment and faculties. Indeed, it should be noted that the Arup assessments are based on information supplied by Trinity to the Applicant at the pre-application consultation stage. That information includes details of the location and type of all affected equipment and facilities and information in respect of the applicant's assessment of likely and significant impacts and the proposed mitigation measures.	Noted. TCD do not note any omissions or deficiencies in the data provided during consultation. See also Response (3)
11	1.1.1 Objectives of this Submission	5	As noted, the Arup assessments conclude that there are significant omissions and errors in the assessment of potential impacts, that the potential efficacy of the proposed mitigation measures are inadequate and/or have not been demonstrated by reference to monitoring, data and relevant comparators.	TII completely refute this TCD position. There are no significant errors and omissions in the EIAR assessments. Specific responses to these charges are provided in responses to items below. TCD in their submission refer to uncertainty with regard to the effectiveness of mitigation measures. However no evidence or information is presented that supports this position and as outlined in Responses (6), (7) and (37), TII have already presented TCD with evidence and information to support the proposed mitigation measures.
12	1.1.1 Objectives of this Submission	5	It is imperative that the Applicant provides the significant additional information in respect of proposed mitigation measures identified in this submission for the following reasons: 1. To enable an assessment by the Board of the efficacy of proposed mitigation measures that are reasonable, feasible and that can be implemented. 2. To clearly detail and articulate in the EIAR the proposed mitigation measures to which the Applicant is committing and will be obliged to implement at its own cost in the event that the project proceeds. 3. To clearly detail monitoring that will be undertaken by the Applicant for the duration of construction and operation phases, and further mitigation measures that may be necessary in the event that the mitigation measures are not effective. This submission and the accompanying reports provide the technical evidence base for the Board to invite the applicant to submit a revised EIAR, plans and assessments in respect of the Trinity's Proposed Mitigation Strategy. This submission also itemises the information that the Board is invited to request from the Applicant for the purpose of satisfying items 1 to 3 above.	TII have provided a level of detail on proposed mitigation measures and monitoring requirements that are sufficient to demonstrate that the magnitude of impacts can be reduced to residual impacts described in the EIAR. Please refer to other Responses provided here as clarification to the technical issues raised and specific mitigation proposed or incorporated as part of the RO Application. As outlined in EIAR Chapter 14, Section 14.5.2 TII are happy to work with TCD to work through detail of the implementation of the proposed mitigation measures (and monitoring) at equipment locations.
13	1.1.1 Objectives of this Submission	5	Trinity's Proposed Mitigation Strategy presented in this submission identifies possible mitigation measures, in addition to the measures identified in the EIAR, that are necessary to protect the equipment and to avoid unacceptable impacts on the University's educational and research facilities, its students, researchers and staff, and its global status and funding. It is requested that TII is invited to assess these mitigation measures, based on the information available and supplied by the University and Arup, and to incorporate those mitigation measures into the EIAR so that they are legally binding, in the event that the Board grants development consent. The revised EIAR and design details must demonstrate to the satisfaction of the Board that the mitigation measures are reasonable, feasible, will be effective, and will be the responsibility of TII to implement.	Please refer to Response (5) above regarding TCD Option 5.

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14	1.1.1 Objectives of this Submission	5	As noted, this submission presents evidence for Option 5 as a reasonable alternative to reduce significant impacts that should be considered. Option 5 has been considered by Trinity's experts and there is no apparent planning, technical or engineering reason which would preclude the Board from considering this route option. In order to do so, however, the Board should request TII to provide all necessary information to enable a complete assessment of this route alignment. This is further addressed in Section 4.1	Please refer to Response (5) above regarding TCD Option 5. EIAR Appendix A7.10 provides the TII assessment information for alternative alignments past TCD. This assessment indicated that an alignment with a radius of 302m (Option 4) was not acceptable to TII for a number of reasons (ref section 6.1) and the TCD submitted Option 5 with a radius of 260m would further exacerbate the noted concerns. These planning, technical and engineering constraints for track radii less than 350m have been identified to TCD in consultations and as such are not further addressed in their submission.	
15	1.1.1 Objectives of this Submission	6	As noted, in the event that the Applicant does not demonstrate to the satisfaction of the Board that effective mitigation measures can be implemented at its expense, Trinity reluctantly requests the Board to refuse consent, or to terminate the MetroLink at a point North of Trinity's Campus, having regard to the likely significant adverse, permanent and unacceptable impacts on the University	TII have engaged with TCD as outlined in Response (3). During these engagements TII have provided TCD with information and evidence with regard to where the proposed mitigation measures have been implemented successfully (ref EIAR Appendix A7.10, section 5.6.4). TCD specific concerns and TII response regarding the proposed mitigation are as follows: (1) TCD claim Active cancellation is not an appropriate mitigation measure. Refer to TII Response (7) which outlines it is widely used to mitigate EMI/EMC and has been used in all of the institutions listed. (2) TCD claim Floating Slab Track (Gerb springs) is not a viable mitigation measure, without any evidence provided for this assertion. Refer to TII Response (37) which notes where this system has been successfully used. TII are confident that both of these proposed mitigation measures can be successful and are happy to work with TCD to implement these measures.	
16	1.3 Contributors to this Submission	6	This submission has been informed by the following Reports, which are referenced throughout this document and are attached as appendices: •A Review of Alignment and Associated Tunnelling Matters prepared by CECL Global (Appendix D) •MetroLink Impacts - Electromagnetic Interference (EMI) prepared by Arup (Appendix E) •MetroLink Impacts - Vibration Assessment prepared by Arup (Appendix F)	Noted - no response required.	
17	2.1 Details of Buildings, Departments, Faculties and Equipment Impacted	7	Approximately 312m of the alignment as presented in the Draft Railway Order documentation (Option 2) passes directly under the eastern side of the Trinity Campus.	Noted - no response required	

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18	2.1 Details of Buildings, Departments, Faculties and Equipment Impacted	7	The Departments, Faculties and buildings impacted by the construction and operation of the proposed alignment are listed below and identified on Figure 2.1 overleaf. Table 2.1 on the following pages itemises and details the affected equipment located in those buildings, and its purpose and importance to the relevant Departments', Faculties' or Institutes' teaching and research activities. The affected buildings identified on Figure 2.1 overleaf are: •The Option 2 alignment passes directly under the Simon Perry Building and The Pavilion and Moyne Institute of Preventative Medicine. •The Botany Building and Fitzgerald Building are located immediately east of the Option 2 alignment. •The Sami Nasr Institute of Advance Materials and the Lloyd Institute are immediately east of the Botany and Fitzgerald buildings. The closest element of sensitive equipment is 58 m from the Option 2 alignment. •The Chemistry Building is to the east of the Option 2 alignment. The closest element of sensitive equipment is 45 m from the alignment. •The Panoz Institute is immediately east of that building. The closest element of sensitive equipment is 115m from the Option 2 alignment. •The Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN) is approximately 98 m to the north-west of the Option 2 alignment.	TII acknowledge that the proposed alignment passes in proximity to the said buildings. However it should be noted that the assessment of Electromagnetic Interference (Chapter 12) and Groundborne Noise & Vibration (Chapter 14) have assessed the potential impacts on these buildings and particular equipment within them and as outlined in these chapters have identified that the potential impacts on the buildings and equipment can be mitigated. The exception to this position is during the TBM progression whereby there is potential for exceedances of groundborne noise and vibration during the short progression of the TBM under or close to any single location. The duration of this impact at any single location will be so limited in duration that TII are confident that these impacts can be mitigated by way of engagement with TCD around the management of equipment during this short period, as already discussed with TCD. See also Response (52).
19	2.1 Details of Buildings, Departments, Faculties and Equipment Impacted	14	The assessments undertaken by Arup (and to a lesser extent, the assessments in the EIAR) establish that there is a high probability of significant impacts on the operation of the equipment during the construction and operational phases of the proposed MetroLink development. Damage to, or the inability to reliably use, the equipment would result in severe disruption to, and (in a worst case scenario) a complete shutdown of, many current teaching and research activities, including world leading research being undertaken by PhD students and post-Doctoral researchers. Furthermore, negative impacts on the ability to reliably use equipment would result in the discontinuation of grants and an inability to secure new grants for further research and development. The loss or revenue from external sources would seriously impact the viability of many of the University's research activities 5.	Without the proposed mitigation incorporated in the proposed Project then the assessment indicated that there would be some significant impacts on particular equipment. However, the proposed mitigation measures for Groundborne Noise & Vibration and EMI is assessed to remove these significant impacts.

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20	2.1 Details of Buildings, Departments, Faculties and Equipment Impacted	14	The EIAR does not adequately reflect the range and extent of vibration sensitive locations and facilities that would potentially be affected, both by construction and operation of MetroLink; only a small sample of the impacts are described in Chapter 14 of the EIAR. With regard to the construction phase of the project, in particular, the disruption impacts are anticipated to be widespread and more difficult to mitigate than operational stage impacts. Construction impacts will arise from the tunnel boring machine (TBM) and from any temporary construction railway. Vibration from the TBM is predicted to impact all facilities and may also cause adverse ground borne noise impacts in some spaces. Vibration from any temporary construction railway would be at least as high as that from the unmitigated operational railway, although there would be fewer movements per day. During construction, disruption to Trinity's activities would occur for several months. The only mitigation proposed in the EIAR is for Trinity to "work around" the tunnelling programme, which would significantly disrupt Trinity's activities. Furthermore, the risks from blasting works for Tara Station have not been reported or assessed.	TII do not accepted that the EIAR does not adequately reflect the range and extent of vibration sensitive locations and facilities. Please note that TII have engaged with TCD since September 2018 in order to define the locations of sensitive equipment at TCD. Based on the information made available from TCD, a programme of baseline vibration surveys were undertaken at the eight separate sensitive locations identified in the EIAR Chapter 14, Groundborne Noise & Vibration, Table 14.21. The locations and equipment assessed are those that have been identified by TCD to MetroLink and the locations are consistent with those presented in Table 2.1 of the TCD submission, all of which have been assessed. However, in order to undertake building specific modelling, TII was restricted to undertaking this modelling for buildings to which TCD provided details (i.e. Fitzgerald, SNIAM). However, it is important to note that these buildings are a worst case as they are adjacent to the MetroLink alignment. The statements put forward by TCD that "Damage to, or the inability to reliably use, the equipment would result in severe disruption to and in a worst case scenario a complete shutdown" is inaccurate and unnecessarily alarmist. As outlined in the EIAR, there will be potential for a short term impact (a number of days) at each location during the construction phase due to the advancement of the TBM which will result in exceedances of groundborne Noise and Vibration impacts. As outlined in EIAR Chapter 14, Section 14.5.1.1, mitigation measures will be implemented which have specific reference to TCD and this is "With regard to vibration effects on the use of sensitive equipment, there is potential to plan the passage of the TBM during weeks when critical use of the equipment can be avoided. The programme for the TBM will be planned by the contractor. Consultation will be undertaken with TCD as soon as this programme is available to ensure that sensitive research operations on the campus do not coincide with the passage of the TBM". A temporary construction railway has not been proposed to be used during the construction phase. Blasting during construction has been assessed within the EIAR, with predicted vibration levels from blasting given in the EIAR Chapter 14, Table 14.34, for locations that are in close proximity to blasting activities. As the TCD campus is outside of the 1 mm/s contour from blasting, as shown in EIAR Figure 14.4, values for TCD buildings are not included in this table. With predicted levels of blasting of less than 1 mm/s no potential adverse impacts are anticipated from blasting at TCD buildings.
21	2.1 Details of Buildings, Departments, Faculties and Equipment Impacted	14	There will be limited impact from an EMI, EMF or stray current perspective likely during the Construction Phase of the proposed Project. However, sensitive equipment assessed by Arup would be affected by vibration during the construction phase and impacts require to be properly assessed and demonstrably effective and feasible mitigation measures proposed. The operational phase of MetroLink, as currently proposed, is predicted to impact the performance of sensitive equipment within the Departments and Institutes identified in Table 2.1, above.	For clarity the assessment presented in Chapter 12 of the EIAR identifies that there is no potential for environmental effects arising from EMI, EMF or stray current during the construction phase of the proposed project (Refer to Section 12.6.1 of EIAR Chapter 12). Potential effects from vibration during the advancement of the TBM are properly and fully assessed in the EIAR. Please refer to the results presented in Section 14.4.32 of Chapter 14 of the EIAR and in Appendix A14.5 of the EIAR, where vibration results are provided at every building overlying the alignment. The mitigation measures proposed in Section 14.5.1.1 of Chapter 14 of the EIAR are the only effective mitigation measures that can be used to mitigate the effects of the advancement of the TBM on each location of sensitive equipment. i.e. advanced consultation to ensure that the sensitive research operations do not coincide with the passage of the TBM. Also refer to Response (20). During the operational phase, groundborne noise levels are presented in Table 14.44 of Chapter 14 of the EIAR where no significant impact is identified on a select number of TCD buildings. For groundborne vibration, Table 14.46 in Chapter 14 of the EIAR identifies the potential for exceedance of the VC-E threshold value for the Trinity College - Chemistry Building, the Sami Nasr Institute and the Moyne Institute. In order to mitigate these impacts, floating slab track is proposed under TCD as outlined in EIAR Table 14.47, which sufficiently reduces vibration to remove this potential adverse impact. With the inclusion of this mitigation measure for these closest buildings, those buildings that are further away will also be effectively mitigated.

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22	2.1 Details of Buildings, Departments, Faculties and Equipment Impacted	15	During operation, with the track system proposed for other locations, the EIAR identifies that there would be significant risk to Trinity's equipment from vibration. EIAR Chapter 14 states that the impacts at Trinity will be fully mitigated by track design and by additional local mitigation where needed. A complex track support system is proposed by TII that Arup's analysis indicates could address the majority of significant effects, however, there are uncertainties about the viability of the proposal. The predictions of vibration impacts at low frequencies are uncertain due to uncertainties in the input parameters. Furthermore, the track support system proposed would result in track deflections much greater than normal or proven for floating slab track, which has not been described or assessed in the EIAR.	It should be recalled that the vibration measurements carried out on sensitive equipment at Trinity College in the current situation already exceed the vibration specifications required by the TCD for such equipment. The floating slab track solution incorporated by MetroLink offers the best attenuations over a wide frequency range and if the concern is at low frequencies, increasing the stiffness is not appropriate. See also Response (37).
23	2.1 Details of Buildings, Departments, Faculties and Equipment Impacted	15	The proposal in the EIAR to mitigate residual significant effects at the receptor (sensitive equipment) through the use of base-isolated foundation slabs would not be practicable for all equipment and buildings, especially for locations where equipment is not on a ground floor or basement level slab. It cannot, therefore, be concluded that all vibration risks to Trinity's equipment would be addressed. Furthermore, provision of sufficient and adequate mitigation at any affected items of equipment would be disruptive and/or impracticable.	The modelling has indicated that if equipment is located on floors above the ground floor or basement, there will be no requirement for further mitigation other than the floating slab track to be incorporated through this section of the route. This is because buildings are more prone to increased vibration as you move up floors/levels and existing levels of vibration are likely to be significantly in excess of any any vibration generated by MetroLink. See also Responses (4) and (6).
24	2.1 Details of Buildings, Departments, Faculties and Equipment Impacted	14	Trinity has considered an alternative potential mitigation option that would involve the relocation of sensitive equipment. This option is not viable or practical for the reasons identified below: •There is no current viable relocation option available on the Campus, in terms of the areas required to accommodate the relocated activities. •The damage to Trinity's reputation as one of Ireland and Europe's leading research universities and the consequential damage to Ireland's overall reputation within the European research community which would arise from such disruption and uncertainty •The prohibitive cost of relocating equipment, particularly equipment currently accommodated in specially designed and purpose-built structures, buildings and parts of buildings. •The time and cost of securing suitable alternative premises and the associated costs in their renovation and fit-out to provide acceptable facilities. •The time required to decommission and recommission would be long and disruptive	Noted, however the EIAR assessments as noted in other Responses indicate that the proposed mitigation will address assessed impacts on sensitive equipment and relocation will not be necessary.
25	3.1 omissions and Errors in the EIAR Assessments	16	The assessments included in the EIAR have failed to identify, describe and assess the range and nature of sensitive equipment likely to be impacted.	This is not the case. Please refer to Response (26) and (38) in regard to Groundborne Noise & Vibration and Response (29) in regard to EMI effects..

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26	3.1 omissions and Errors in the EIAR Assessments	16	With regard to ground borne noise, the EIAR identifies only three sensitive receptors on the Trinity campus for assessment- the Chemistry Building Extension, SNIAM and the Moyne Institute (see EIAR Ch 14, Section 14.3.1.4 and Table 14.18). The EIAR does not accurately identify or describe the range and extent of locations and facilities that would potentially be affected by ground borne noise during both the construction and operation of MetroLink.	EIAR Chapter 14 Section 14.3.1.4 and Table 14.18 presents examples of receptors that are considered to be representative of all receptors in the area of AZ4 and in the vicinity of the project. A larger list of receptors that have been assessed together with prediction results are presented in Appendix A14.5 Groundborne Noise and Vibration and Blasting modelling results. The three buildings included within the Chapter 14 were selected as representative of the closest Trinity College buildings to the tunnel route. The identification of the closest buildings and mitigation proposals for those buildings will result in the removal of potential adverse impacts for buildings that are further away from the tunnel route.
27	3.1 omissions and Errors in the EIAR Assessments	16	Section 14.4.1.7 of the EIAR states: "with regard to vibration effects on sensitive equipment, Criterion VC-E will occur within a distance of 250m either side of the tunnel centreline, and during the passage of the TBM there is a potential significant effect on the operation of sensitive equipment". However, no predictions are provided for the many other facilities within the 250m wide corridor and in particular those identified in Table 2.1. The EIAR assessment of predicted impacts during the passage of the TBM only tabulates predictions for the three buildings identified in Table 14.18 [Chemistry Building Extension, SNIAM and the Moyne Institute], EIAR Table 14.21 provides a much more extensive list of buildings and facilities within the 250 m corridor. EIAR Appendix A14.5 provides a table of all vibration modelling results and shows the whole of the Trinity campus to be exposed to vibration above VC-A, which is above the criteria for all Trinity's sensitive equipment. As such, there are significant omissions, gaps and internal inconsistencies in the information presented and the assessments undertaken in the EIAR.	The statement relating to a potential significant effect for equipment sensitive to vibration within a distance of 250m of the tunnel centreline establishes that there is a potential impact for sensitive equipment within this corridor, as such predictions for specific locations are not considered to be necessary. It should also be noted that calculation results for VC during the TBM passage are included for many additional receptors close to the MetroLink alignment in EIAR Appendix A14.5, Groundborne Noise and Vibration Blasting Modelling Results, in addition to the results presented in EIAR Table 14.18. The three buildings included within the EIAR Chapter 14 were selected as representative of the closest Trinity College buildings to the tunnel route. The identification of the closest buildings and mitigation proposals for those buildings will result in the removal of potential adverse impacts for buildings that are further away from the tunnel route.
28	3.1 omissions and Errors in the EIAR Assessments	16	Having regard to operational groundborne noise and vibration, EIAR Section 14.2.5.4.3 states: "at Trinity College Dublin examples of the most sensitive cases were fully modelled in three dimensions" . Details of the modelling for each building have not been included in the EIAR and Table 14.44 provides predicted groundborne noise levels for only three buildings (Chemistry Building, Sami Nasr Institute and Moyne Institute).	The EIAR does not include detailed 3D modelling reports of groundborne vibration for the buildings. The buildings reported (Chemistry Building, Sami Nasr Institute and Moyne Institute) were selected to be representative of the closest buildings to the tunnel route and were considered adequate.
29	3.1 omissions and Errors in the EIAR Assessments	16	In terms of sensitivity to EMI, the refined list of equipment identified in EIAR Section 12.8.4.9 is generally consistent with the sensitive receptors identified by Arup and is considered to be adequate for the purpose of assessment.	With the exception of the SEM Zeiss Sigma 300, (see Response (38)), the list provided in the Respondent's submission (Appendix C) does not highlight any additional equipment that would be considered at risk of impact from EMI from the proposed development.
30	3.1 omissions and Errors in the EIAR Assessments	16	In addition to the above omissions and deficiencies, the following further omissions and deficiencies in the EIAR have significantly constrained an assessment of the magnitude of likely significant impacts and the need for or efficacy of proposed mitigation measures:	See Responses below.

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31	3.1 omissions and Errors in the EIAR Assessments	17	•Appendix A7.10, Trinity Alignment Options Report, should contain detailed Horizontal / Vertical Alignment Detail drawings for each of the 4 no. alternative alignment options considered (Appendix E of that Report). These have been omitted contributing to the difficulty in assessing the relative merits of each of the alternatives considered.	It is correct that the EIAR appendix does not contain the additional technical information referenced. TII are happy to provide additional information to TCD as required.
32	3.1 omissions and Errors in the EIAR Assessments	17	•EIAR Appendix A14.2 provides insufficient detail on rolling stock to facilitate a rigorous swept path analysis for the purpose of determining the potential for a slightly tighter radius curve enabling the alignment to move further westward from the sensitive receptors.	The rolling stock design adopted for the proposed Project to assess the DKE requirements is not based on a specific supplier rolling stock, but has been developed as a generic design at this preliminary design stage to retain the opportunity during procurement for various manufacturers to offer compatible rolling stock. The design has been developed in accordance with EN 15273 Railway Applications - Gauges, Parts 1, 2 and 3 which outline a method to calculate the nominal gauge to implement the design of the infrastructure (the structural gauge) based on an adopted rolling stock static profile. Thus the design approach is based on the use of a theoretical static gauge envelope which is appropriate for a generic configuration of rolling stock. From this, a dynamic envelope for the vehicle was developed and appropriate safety margins applied. A detailed check on the swept path analysis will be carried out in future design stages once train parameters are defined by the supplier based on the design parameters provided. At this stage, TII consider that the proposed 350m radius curve is the best alignment compromise (as the change in lateral acceleration reaches limiting values for passenger comfort) to address TCD concerns; to ensure that the proposed Project is not operationally constrained; and provides sufficient tolerance between the DKE and the tunnel internal furniture to maximise supplier interest in future procurement activities.
33	3.1 omissions and Errors in the EIAR Assessments	17	•EIAR Section 14.3.2.2, considering vibration surveys at Trinity Buildings, refers to EIAR Appendix A13.5 and states that "full details of survey location, methodologies, parameter definitions and results of the baseline surveys at Trinity" are provided. A summary rather than the full results is provided in EIAR Appendix A13.5.	TII disagree with this assessment. A 47 page report is provided in Appendix A13.5 which provides precise and accurate details of the survey locations, of the monitoring methodology and equipment. It should be noted that, as outlined in Section 2.4 of that report, a summary of results is provided as the full dataset on which the summary is based consists of a significant volume of material which does not add significantly to that provided in the report.
34	3.1 omissions and Errors in the EIAR Assessments	17	•Vibration from tunnel boring has been predicted using the FINDWAVE® numerical modelling method (EIAR Section 14.2.5.2.1), with details of the methodology stated to be presented in EIAR Appendix A14.4. The Appendix only describes the software application to operation of MetroLink and not the construction.	TII acknowledge that EIAR Appendix A14.4 does focus on the operational phase assessment requirements. However, EIAR Chapter 14, section 14.4.1 Construction Phase Impacts, provides an overview of the assessment of groundborne noise and vibration from tunnel boring. Noise and vibration assessment results are provided in table 14.29 and table 14.32, based on use of the Findwave model.

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35	3.1 omissions and Errors in the EIAR Assessments	17	•EIAR Chapter 5 provides a detailed description of equipment needed to support the TBM but does not include any detail how personnel and materials such as tunnel lining segments would be transported through the tunnel to the TBM. Assumptions relied upon in EIAR Chapter 14 (Groundborne Noise & Vibration) include that "the TBM will not be serviced by a temporary construction railway, but instead conveyors will be used for the transfer of materials from the TBM and out of the tunnel Rubber tyred vehicles will also be used for the transportation of material and people". Certainty regarding the nature of transport to the TBM is critical to determine the likely impacts on the operation of sensitive impacts and the duration of potential disruptions due to such movements.	As outlined in Section 6.4 of EIAR Appendix A5.13 Tunnelling report, rubber tyre bi-directional multi-purpose vehicles will used for the primary transport and haulage activities in the tunnels to feed the TBM.
36	3.1 omissions and Errors in the EIAR Assessments	17	•There are significant deficiencies in the numerical modelling presented in the EIAR. The vibration modelling demonstrated that the predictions are very heavily dependent on the assumed ground stiffness parameters and the track isolation assumptions. Using the parameter values assumed in the EIAR, the modelling predicted vibration to be low. However, there is uncertainty in the ground properties assumptions, for which small differences in the assumed values have a large effect on the predicted vibration, particularly at low frequencies	TCD outlined a position where there is uncertainty in the ground conditions which would affect the input assumptions in the models prepared. TII refute this position and can identify that the project has excellent information on the ground conditions and are satisfied that the ground stiffness parameters are accurate. TII have utilised the services of Rupert Thornley Taylor, one of the leading groundborne noise & vibration specialists in the world to prepare the models for this work. Rupert has identified that the project has excellent information on the ground conditions and is satisfied that the ground stiffness parameters used are accurate. The assumptions used in the modelling are based on measured parameters from the construction of the Mater retaining wall for "Old Metro North".
37	3.1 omissions and Errors in the EIAR Assessments	17	•The floating slab track proposed as mitigation in the EIAR assumed a very low spring stiffness, which leads to an unsuitable track design solution due to the deflection that would occur under the static loading of the train. To control the static track deflection, springs with higher stiffness would be more typically used. Modelling with higher spring stiffness, leads to higher predicted vibration and hence greater risk to Trinity's equipment. Furthermore, modelling by Arup indicates that the combination of booted sleepers and a floating slab track may make the vibration impacts on Trinity's sensitive equipment worse than an optimised floating slab design alone.	The floating slab track system is the best system to mitigate low frequency vibration and allows a compromise between low frequency attenuation and track deflection to be adopted. Please note that the proposed "Gerb" floating slab track has been widely used around the world with examples with low spring stiffness including the Elizabeth Line (Cross Rail) (7hz), Beijing Metro Line 4 (6 - 7 Hz), Beijing Metro Line 10 (6.5 - 8.0 Hz), Beijing Metro Line 13 (5.0 - 6.5 Hz), Shenzen Metro Line 1 (5 - 8.5hz), Tramway Bielefeld, Germany (5Hz), Tramway Cologne (6.5 Hz), Frankfurt/Main/International Airport (5hz), Stuttgart-Ruit (5.7 Hz), Oslo Wessels Plass (5 Hz) and the Thomson-East Coast Line in Singapore. Modelling undertaken for the MetroLink project do not identify a significant difference between the VC levels achieved using "Gerb springs" i.e floating slab track with booted block when compared to floating slab track with resilient base plates.

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38	3.1 omissions and Errors in the EIAR Assessments	17	•Having regard to EMI, EIAR Table 12.14 assumes that all SEMs have same performance requirement of 0.1pT p-p. However, the Zeiss Sigma Installation Requirements (2019) supplied by Panoz technical lead on 5 August 2020, state a requirement of 0.05pT p-p. There are also differences in the performance requirements for the SQUID.	The stated sensitivity utilised in the EIAR is 0.1 μT as opposed to 0.1 pT. The initial equipment list submitted for the Panoz Building cited three SEMs. These were identified to be - Room B-23 containing an SEM (model: Zeiss Supra 35VP) - Room B-24 containing an SEM (model: Tescan Mira3 Tiger) - Room B-28 containing an SEM (model: Tescan S8000) A note from discussions with TCD suggested they were planning to replace the Zeiss Supra 35VP with a Zeiss Sigma 300 (a more sensitive piece of equipment) but it was not installed on the site at the time of our visit and field testing. The impact assessment was performed based on what was understood to be the equipment in the Panoz at the time of the assessment. The installation (whether already installed or at a later date) of a Zeiss Sigma 300 with its lower sensitivity threshold would need mitigation regardless of whether or not the proposed project goes ahead due to its sensitivity of 0.05 pT p-p. This would typically be in the form of shielding. For comparison, the current baseline within the Panoz was measured to be 0.15 μT (i.e. 150,000 pT) which is well in excess of 0.05 pT. Other equipment identified and considered for TCD, that is not discussed in the main chapter, is detailed in EIAR Appendix A12.2. For example, the STMs within CRANN which were determined to not be at risk of impact from the proposed scheme but, at the request of TCD were subjected to simulated field testing. The simulated field testing detailed in EIAR Appendix A12.6 confirmed this assumption. It was noted that a future SEM was also listed for the CRANN building but the EIAR with respect to EMC only considered equipment that was installed on site at the time of the assessment. The SQUID was tested and noted not to experience interference at the modelled DC field levels as discussed in EIAR Appendix A12.2. This assessment was based on the Preferred Route Alignment as published at that time. This passed closer to the SQUID than the now proposed Project alignment submitted with the RO application, so the applied levels for that earlier assessment are slightly higher than what is now modelled for the revised alignment. The field simulation testing performed at the equipment is detailed in EIAR Appendix A12.6. If there are discrepancies in the stated sensitivity it would not be cause for concern due to the testing performed at the equipment which simulated worst-case field levels for the originally proposed alignment. It is also worth noting that the consultant for TCD has rated the predicted impact for the SQUID as Low Risk/Meet Criteria in Appendix C of the Respondent's submission. No additional vulnerable equipment has been listed in the submission Appendix C that would be considered at risk of impact from EMI from the proposed development with the exception of the Zeiss Sigma 300 noted above.
39	3.1 omissions and Errors in the EIAR Assessments	17	•Significantly, the operational phase assessment of EMI carried out does not take into account the cumulative impact of the MetroLink and the baseline environment which will mean that conditions are likely to be worse than that assumed (so it is not a worst-case).	A cumulative impact assessment with the baseline with respect to EMI from the proposed development is not considered necessary for the proposed development. We believe the submission most likely refers to DC fields, with the baseline emissions from the DART interacting with those from the proposed development to generate a cumulative effect. The DART and the proposed alignment do not run parallel through the Trinity campus at the locations of the discussed equipment and therefore their field vectors would not be considered significantly additive. While it is possible for a small cumulative effect to occur, as the schemes are not completely perpendicular, in practice during operation of both schemes (MetroLink and DART) any cumulative effect would be significantly below those that have been modelled and presented in the EIAR which has looked at a worst-case operational condition on the proposed development i.e. maximum current draw on both lines and from a single substation at the one time (simultaneously).

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40	3.2.1 Vibration	18	Groundborne Noise and Vibration impacts are only reported in the EIAR for a small number of Trinity's buildings, as noted above. The results presented in the EIAR do not reflect the range and extent of vibration sensitive locations and facilities that would potentially be affected by both construction and operation of MetroLink. In particular, no consideration is given to the Panoz Institute, the Lloyd Institute, CRANN or the Fitzgerald Building, all of which were identified to TII as sensitive receptors by Trinity.	The EIAR Chapter 14 Groundborne Noise and Vibration presents predictions from various sources of groundborne noise and vibration for a small number of receptors next to the alignment, with a larger number of receptors reported in the Appendix 14.5. The identification of the closest buildings and mitigation proposals for those buildings will result in the removal of potential adverse impacts for buildings that are further away from the tunnel route. The receptors reported within Chapter 14 were selected to be representative of the potential worst affected receptors closest to the tunnel alignment. For Trinity College, results are reported in EIAR Chapter 14 for the Moyne Institute, Chemistry Building and SNIAM building, which are located closer to the tunnel alignment than the Panoz Institute, the Lloyd Institute or CRANN building. These buildings are indicated in the following Figures: Figure 14.2 Groundborne Noise from Tunnel Boring Machine Figure 14.3 Vibration from Mechanical Excavation Figure 14.4 Blasting Contours of PPV Figure 14.5 Blasting Air Overpressure Contours Figure 14.6 Groundborne Noise from Operation
41	3.2.1 Vibration	18	With regard to the Construction Phase, EIAR Table 14.32 identifies significant impacts in terms of predicted vibration at the Trinity buildings identified [Chemistry Building, SNIAM and the Moyne Institute] associated with the passage of the TBM.	Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from TBMs at source. The principal mitigation measures aimed at minimising impacts are as follows: • Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects during construction, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. • TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see EIAR Appendix A14.6). • With regard to vibration effects on the use of sensitive equipment, there is potential to plan the passage of the TBM during weeks when critical use of the equipment can be avoided. The programme for the TBM will be planned by the contractor. Consultation will be undertaken with TCD as soon as this programme is available to ensure that sensitive research operations do not coincide with the passage of the TBM.
42	3.2.1 Vibration	18	There is inconsistency in the reported extent of the corridor potentially adversely impacted by vibration during construction of the tunnel. In one section it is stated that the corridor would be 100m either side of the tunnel and elsewhere 250m is stated. Furthermore, the 100m corridor is the same as that stated for the operational impacts. It is submitted that a wider corridor would be expected for tunnelling than from operation of the railway.	EIAR Chapter 14 Ground-borne Noise and Vibration, Table 14.14, identifies that there may be vibration and groundborne noise impacts within 100m of the tunnel during tunnel boring as the rationale for the assessment of tunnel boring. This is considered to be applicable to standard receptors. In relation to more sensitive receptors, in this Chapter, Section 14.4.1.7 Section AZ4 Northwood to Charlemont, discusses potential impacts from groundborne noise and vibration in the AZ4 section, where Trinity College is located. The final paragraph of this section identifies that there is a potential for sensitive equipment to be impacted by vibration from the Tunnel Boring Machine within a distance of 250m from the tunnel centreline.

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43	3.2.1 Vibration	18	As outlined above, the description of the construction works (EIAR Chapter 5 MetroLink Construction Phase) does not describe how personnel and materials such as tunnel lining segments would be transported through the tunnel to the TBM. The EIAR vibration assessment, however, is based on the assumption that there would not be a temporary construction railway, but rubber tyre vehicles will be used instead. It is critical that clarity is provided on the manner by which personnel and materials will be transported as the provision of a temporary construction railway would result in significant potential impacts for an extended duration during the construction period.	See Response (35)
44	3.2.1 Vibration	18	Furthermore, there is a risk that groundborne vibration from blasting works for Tara Street Station could exceed the vibration criteria for some sensitive equipment. This has not been reported in the EIAR and would need to be assessed before any such works to determine the impacts on Trinity's activities.	As stated in Response (20): Blasting during construction has been assessed within the EIAR, with predicted vibration levels from blasting given in the EIAR Chapter 14, Table 14.34, for locations that are in close proximity to blasting activities. As the TCD campus is well outside of the 1 mm/s contour from blasting, as shown in EIAR Figure 14.4, values for TCD buildings are not included in this table. With predicted levels of blasting of less than 1 mm/s no potential adverse impacts are anticipated from blasting at TCD buildings.
45	3.2.1 Vibration	18	Based on the foregoing it is considered that insufficient clarity has been provided to appropriately quantify potential construction phase impacts and the duration and magnitude of such impacts.	The potential impacts during the construction phase on TCD for Ground-borne Noise and Vibration are identified in Chapter 14 of the EIAR. Please refer to Table 14.49 where impacts are identified for representative buildings at TCD as being temporary and significant and associated with the advancement of the TBM only. See also Response (40).
46	3.2.1 Vibration	18	In respect of the Operational Phase, with the track system proposed elsewhere on the MetroLink, the EIAR identifies that there would be significant risk to Trinity's equipment from vibration.	This is not correct. The specific mitigation measures proposed for the alignment underneath TCD entail the usage of Gerb spring Floating Slab track which is not proposed elsewhere on the alignment. As such, operational modelling results for other sections of the route are not applicable to the TCD section.

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47	3.2.1 Vibration	18	As outlined, the EIAR only considers groundborne vibration at three locations [Chemistry Building, SNIAM and Moyne Institute], EIAR Table 14.46 predicts that the effect of groundborne vibration at these three locations will be 'significant'. However, assessments carried out by Arup determine that the extent of significant impacts will be much wider than reported in the EIAR. It is submitted that the EIAR does not adequately report on the full extent of potential impacts to sensitive receptors within Trinity. The Arup assessment concludes that there is significant risk that vibration will exceed assessment criteria for equipment located within the Panoz Institute, the Lloyd Institute, CRANN and the Fitzgerald Building, in addition to those identified in the EIAR. In particular, unacceptable risk was identified for equipment located within the Panoz Institute (2x Confocal Microscopes), CRANN (1x Stylus Profileometer) and the Fitzgerald Building (3x STM, 1x STM, 1x AGFM and 1x Optical Telescope).	The buildings presented in Table 14.46 of the EIAR Chapter 14 are representative example receptors of buildings containing sensitive equipment, and is not intended to be a comprehensive list of all sensitive buildings within TCD. EIAR Chapter 14 Section 14.5.2 discusses mitigation for the operational phase, and contains the following paragraph; "With regard to sensitive laboratory equipment, detailed building-specific numerical modelling will be required to establish the likely exceedance of equipment specifications, and to find the optimum specification for the track support system to minimise exceedances. Mitigation at the receptor for specific rooms within sensitive buildings in the form of the installation of base-isolated foundation slabs to support the equipment may also be required. As the specific sensitive equipment in use at TCD is expected to change between the time of this assessment and the opening of the proposed Project, close consultation should be undertaken between TII and TCD in relation to the specifically sensitive rooms." In addition, the statement "Detailed design measures for specific rooms containing sensitive electronic equipment" in EIAR Chapter 14 Table 14.54 reinforces that mitigation will be considered at the detailed design stage for rooms within Trinity College that contain sensitive electronic equipment. This is a clear commitment that there will be detailed consultation with TCD to establish an updated list of sensitive equipment and locations within buildings and in order to design appropriate mitigation before opening of the proposed Project.
48	3.2.1 Vibration	19	Notwithstanding the deficiencies identified in the EIAR with regard to the identification of affected buildings and equipment, and the assessment of vibration impacts, the EIAR vibration assessment concludes that the identified impacts will be fully mitigated by track design and by local mitigation at the sensitive equipment, where needed	See Response (47).
49	3.22 EMI	19	The following equipment in Trinity has been identified as being at risk of negative impact from the MetroLink: •3 no. Scanning Electron Microscopes (SEM) in the Panoz Institute •3 no. Nuclear Magnetic Resonance (NMR) machines in Chemistry •2 no. Magnetic Resonance Imaging (MRI) machines in the Lloyd Institute •1 no. SQUID machine in Sami Nasr Institute of Advanced Materials (SNIAMS)	TII confirm that this list matches that provided in EIAR Appendix A7.10, Table 1.1.
50	3.22 EMI	19	During the construction phase the impact from EMI on this sensitive equipment will be minimal. The EIAR proposes that Trinity's equipment that is also vibration sensitive will be turned off as the Tunnel Boring Machine (TBM) passes near to Trinity.	No response needed

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51	3.22 EMI	19	During the operational phase the EIAR predictions of emissions from the MetroLink are broadly consistent with Arup's assessment. However, the EIAR does not assess the cumulative effect of existing baseline environment and the additional emissions from MetroLink. In this regard, baseline fields (from survey) and MetroLink emissions (from modelling) considered together generate more EMI than the MetroLink emissions considered on their own: •The EIAR assessed MetroLink emissions only. On the basis of the modelled emissions, the SEMs and NMRs are at risk from interference and are predicted to not meet equipment performance requirements. •Arup's assessment of Baseline + MetroLink emissions concludes that MRIs, SEMs and NMRs are at risk from interference and are predicted to not meet equipment performance requirements. •Arup's assessment also concludes that the predicted EM fields at the location of the sensitive equipment will not meet the performance requirements for some of the equipment under the Trinity proposed Option 5 alignment, and additional mitigation will be required. Accordingly, it is clear that significant additional information is necessary from the Applicant for the purpose of identifying and assessing the efficacy and practicality of proposed mitigation measures to protect sensitive equipment from EMI emissions accurately predicted on the basis of Baseline + MetroLink sources.	The first point has been discussed under Response (39) but in summary for a cumulative effect to occur the associated vectors from the sources of the perturbations would need to be in approximately the same direction for an additive cumulative effect to occur. The DC field perturbations associated with a train accelerating and drawing current are transient in nature and last only a matter of seconds. For a cumulative effect to occur a localised vector would need to be generated in parallel with that associated from the proposed development and occur coincident with the maximum current draw event from the proposed development. The EIAR assessed the SEMs and NMRs are susceptible while TCD's consultants assessment conclude that MRIs, SEMs and NMRs are. The main discrepancy here is that the inclusion of the MRIs are also being considered as not having their minimum performance requirements met. The MRIs were identified as at risk from DC magnetic field perturbations for the original proposed alignment (Option 0 discussed in EIAR Appendix A7.10, which was the earlier Emerging Preferred Route/Preferred Route alignment at that time). With the realignment as now included in the RO Application (referred to as Option 2 in Appendix A7.10), the modelled levels for this option were reduced to a level below which it is expected that the MRIs will not be impacted (worst-case levels of 0.7 µT modelled as detailed in EIAR Chapter 12 Table 12.14 and Appendix A7.10 Table 5). TCD's consultant concludes that the MRI performance requirements will still be exceeded as a result of accounting for a cumulative effect between the fields from the proposed development and the baseline. However, there will be no significant cumulative effect from DC fields due to the requirement for the worst-case scenario to occur at the same time as a significant vector occurring from another source with a vector that would add a net gain in the same direction as those from the proposed development. The equipment is sensitive to changes in the DC magnetic field and these changes occur in time. The modelled worst-case levels from the proposed development will not be enduring for a significant period, similar to those fluctuations that were measured over seconds as part of the baseline surveys conducted, the results of which are detailed in EIAR Appendix A12.1 and A12.2. TCD's consultants also conclude that the predicted EM fields at the location of the sensitive equipment will not meet the performance requirements for some of the equipment under the Trinity proposed Option 5 alignment, and additional mitigation will be required. If the Zeiss Sigma 300 SEM is in situ at the discussed location within the Panoz building, then this conclusion is correct. However, the stated sensitivity levels for this equipment are already exceeded within the baseline conditions (see EIAR Appendix A12.2) within the Panoz building and so mitigation needs to be considered regardless of the operation of the proposed development. This SEM system, when installed, would require mitigation to protect against the current baseline (particularly interference from the DART line). This would most likely be in the form of Mu-Metal shielding. Any mitigation provided to prevent interference from the DART for this equipment will work just as effectively for potential interference from the proposed Metrolink. TCD has requested that additional information be supplied for the purpose of identifying and assessing the efficacy and practicality of proposed mitigation measures to protect sensitive equipment. Subject to agreement with TCD, TII are proposing to trial the ACS systems at the potentially affected equipment with the aim of providing TCD further evidence as to the effectiveness of this mitigation. [Text based on CEMAR CN-146 Active Cancellation Trials - Trinity College]. It is expected that the proposed mitigation will suffice for the identified equipment as discussed in EIAR Appendix A7.10 i.e. the use of active cancellation. Two additional points are worth noting at this stage. The first is that in the event of the system failing trials, other mitigation is possible such as passive shielding. The second is that, in operation, it may not be necessary to switch on the active cancellation system as, in practice, DC field perturbations at levels in excess of the current baseline of the stated equipment sensitivity may never occur.

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52	3.3.1 Vibration	22	For the TBM, assuming a tunnelling rate of 7m per day and that the effects on sensitive equipment would be apparent up to 100m from the tunnel face as reported in the EIAR, disruption could be 29 no. days continuously (including both before and after the TBM passes). However, the EIAR also states that the affected corridor could extend to some 250m around the TBM which would increase the period during which the requirement for sensitive equipment is exceeded to 71 no. days. Slower rates of tunnelling would further extend the duration of the disruption. No programme is available but disturbance to Trinity could be expected for several months in the absence of any system to mitigate construction phase mitigation measures. To fully quantify the level of disruption to Trinity's activities clarification is required in respect of potential impacts on blasting, the manner by which personnel and equipment are transported to the TBM and the construction programme.	The TBM is expected to advance at approximately 70m per week in Limestone. This means that the TBM will be underneath the TCD campus for approximately 4.5 weeks. If a worst case scenario is assumed, that a piece of sensitive equipment is vulnerable to excessive noise and vibration when the TBM is within 250m of it, then for each piece of sensitive equipment there will be a maximum period of potential effect of 7 weeks (50 days). However this is expected to be very much a worst case scenario. Evidence from a recent TBM advancement in Sydney, Australia has identified that in a sandstone bedrock of a similar hardness to the Dublin limestone, groundborne vibration levels reduced by 80% over 7 days with the TBM advancing at a rate of just 40m per week. Indicative tunnel drive programme information is provided in EIAR Appendix A5.2,Construction programme Including Tunnel Elements with the detailed schedule planned on the rates stated herewith. Regarding blasting, see Response (44). For construction movements along the tunnel see Response (35).
53	3.3.1 Vibration	22	To mitigate operational phase vibration impacts, a complex track support system is proposed in the EIAR. EIAR Section 14.5.2 describes mitigation of vibration at source (in the track system design) and at receptors and provides: Arup's analysis indicates that the proposed track support system would assist in addressing some of the significant effects. However, there are several items of equipment generally not identified or assessed in the EIAR for which the relevant criteria would be exceeded, even with the implementation of the proposed track support system.	See Response (47).
54	3.3.1 Vibration	22	Allied to this, there remains a significant level of uncertainty about the predictions at low frequencies due to uncertainties and sensitivity of numerical modelling to assumptions about the ground properties. Furthermore, the track support system properties stated would result in a system for which deflection of the rails under the static load imposed by the train is likely to be considerably greater than what is normal or proven for floating slab track. No confirmation of the practicability of the proposed system is provided.	Please refer to Response (37) regarding "uncertainties in ground conditions". As communicated in previous meeting to TCD, TII are confident that this measure can work at this site to mitigate effects on the TCD equipment. This confidence is based on the expert opinion of our specialist (Rupert Thornley Taylor). In addition it should be noted that the proposed (Gerb Spring) floating slab track system has been used successfully in other Metro Systems around the world including on the Thomson-East Coast Line in Singapore.

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55	3.3.1 Vibration	22	EIAR Section 14.5.2 acknowledges that there are facilities within Trinity that will require detailed consideration in the design to comply with the equipment requirements. Furthermore, it acknowledges that there may be changes in equipment between the present and the opening of MetroLink that need to be considered and mitigated: <i>"With regard to sensitive laboratory equipment, <u>detailed building-specific numerical modelling will be required to establish the likely exceedance of equipment specifications, and to find the optimum specification for the track support system to minimise exceedances. Mitigation at the receptor for specific rooms within sensitive buildings, in the form of the installation of base-isolated foundation slabs to support the equipment may also be required.</u> As the specific sensitive equipment in use at Trinity is expected to change between the time of this assessment and the opening of the proposed Project close consultation should be undertaken between TII and Trinity in relation to the specifically sensitive rooms."</i> [Emphasis added] The proposal in the EIAR to mitigate residual significant effects at the receptor (sensitive equipment) through the use of base-isolated foundation slabs is not practicable for all equipment and buildings, especially for locations where equipment is not on a ground floor or basement level slab. Even where this solution could be possible, construction would cause significant disruption to Trinity's activities. Furthermore, any future requirements for vibration sensitive equipment to be installed in the same facilities could also be compromised.	TII acknowledge that there is potential for some disruption during the installation of base-isolated foundation slabs for sensitive equipment. However such installations would improve the environment for any equipment, regardless of low level noise and vibration predicted from MetroLink. TII do not agree that it is not practicable to install these structures as these installations are common and standard. It is also important to note that if very sensitive equipment is located above ground floor level, it is already likely to be subject to elevated noise and vibration that would not be consistent with the limits set for such sensitive equipment .	
56	3.3.2 EMI	23	EIAR Section 12.10.1 addresses construction phase mitigation for EMI and states: <i>"As part of mitigation measures for noise and vibration some of these (particularly in Trinity) will not be in operation as the TBM passes, reducing the likelihood of DC magnetic field interference to nil for those equipment types".</i> While it is understood that such measures are dictated by vibration mitigation requirements rather than EMI, it is considered that the practicality of such measures, given the size of the TBM and the duration it will take to pass, would be seriously detrimental to Trinity's activities.	TII acknowledge that there will be potential for disruption to activities using very sensitive equipment on the site during the progression of the TBM for the duration described in Response (52). However describing these impacts as "seriously detrimental to Trinity's activities" appears to be an overstatement of these short term impacts.	
57	3.3.2 EMI	23	Section 12.11 of the EIAR states: "With regards to DC magnetic field impacts on sensitive medical and scanning equipment such as those located in Trinity, the Rotunda and the Mater the following mitigation measures are available: •Relocation of effected [sic] equipment; •Installation of an active-cancellation system; and •Shielding of the labs/rooms using specialised material designed to attenuate magnetic fields. <i>"Active cancellation systems operate on the basis of responding to a changing magnetic field, whereby the system generates a counter field to cancel out fluctuations as they occur. The response time of such a system has been cited as a cause of concern by some of the technical experts at Trinity, in previous meetings, so if such a system were to be adopted then the speed of cancellation versus the equipment acquisition rate would need to be scrutinised, to the point of field testing the application for effectiveness. A final solution would be the installation of fixed shielding, a solution with which some of the departments and institutes at Trinity are already familiar."</i> [Emphasis added]	The available mitigation measures are detailed in EIAR Chapter 12, Electromagnetic Compatibility and Stray Current, Section 12.11. These are presented as an unordered list and not in an order of preference. It is recommended that use of Active Cancellation Systems is the solution adopted to mitigate static DC magnetic perturbations. The use of passive shielding would be the next preferred option before having to explore the relocation of potentially affected equipment. TCD have cited concern in relation to the response time to the deal with the speed of cancellation versus their own equipment operating speeds. TII's consultants CEI note that the bandwidth of an Active Cancellation system is of the order of kHz and capable of accounting for variations occurring at a rate of hundreds of Hz. Based off CEI experience and their discussions with manufacturers of Active Cancellation systems, these systems are purposely designed to deal with the quasi DC nature of electric rail systems and for protection of the research systems being discussed. The bandwidth is more than sufficient to cover a 50 Hz field for example. With the DC rail a rate of change of close to 0 Hz would be expected, so well within the capabilities of an Active Cancellation system. Active Cancellation systems have proven to be effective in other installations world-wide for these applications and there is no concern in relation to the system's response time or with bandwidth being an issue.	

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58	3.3.2 EMI	23	It is noted that relocation of sensitive equipment has been suggested as a mitigation option in the EIAR, but not examined in any detail. This mitigation approach is unacceptable given the level of disruption involved to Trinity, the absence of any alternative suitable on-campus locations, and the effective sterilisation of eastern portion of the Campus for future research opportunities.	The use of active cancellation, passive shielding or a combination of both would avoid the need to relocate the equipment, but relocation is always listed as a mitigation option in the event that the stakeholder does not wish to pursue the other suggested mitigation methods. Regarding sterilisation of the eastern part of the campus, see Responses (26) and (27).
59	3.3.2 EMI	24	The Active Cancellation Systems (ACS) system referenced as a potential EIAR mitigation measure consists of a number of orthogonal coils typically located around the room where the sensitive equipment is located, with a magnetic field sensor placed beside the sensitive equipment. The coils are used to create varying magnetic fields which oppose any magnetic field fluctuations at the sensor location. This is the mitigation option preferred in the EIAR at the location of the sensitive equipment. For the proposed alignment the sensitive equipment performance requirements are exceeded at the location of the NMRs (Chemistry Building) and SEMs (Panoz Institute) when the emissions from the MetroLink are considered on their own. The assessment of baseline and MetroLink emission is consistent with the EIAR methodology set out in the EIAR Guidelines, and the omission of the baseline levels from the assessment of impacts gives rise to significant deficiencies in the assessment of predicted impacts and proposed mitigation measures.	The baseline was measured and impacts were assessed. Whilst it is true that cumulative effects with the baseline are not discussed in detail within the EIAR, this is because no additive effects are anticipated to occur in the baseline at the same instant of maximum current draw in worst-case conditions from the proposed development. During the operational phase, measurable AC fields within buildings will arise from localised sources such as electrical equipment and building wiring. Similarly for radiofrequency fields. There will be no impacts from these fields either in isolation or cumulatively. For the DC and near DC fields, for a cumulative effect to occur the associated vectors from the sources of the perturbations would need to be in approximately the same direction for an additive effect to occur. The DC field perturbations associated with a train accelerating and drawing current are transient in nature and last only a matter of seconds. For a cumulative effect to occur a localised vector would need to be generated in parallel with that associated from the proposed development and occur coincident with the worst-case maximum current draw event from the proposed development.
60	3.3.2 EMI	24	The EIAR presents ACS as a viable mitigation option at the location of the SEMs and the NMRs. There is no assessment provided in the EIAR of how the ACS systems would work with 3 no. SEMs located in close proximity to one another (in the same room), nor is there any consideration of the practicality of using an ACS with NMRs. Arup has been unable to find precedents, comparators or indeed proven manufacturer ACS products for mitigation of EMI for NMRs. In addition, the coils of the active cancellation system cannot be placed close to reinforcement bars or other large ferrous masses as this will reduce its effectiveness, this may be challenging in an existing building.	At the Neils Bohr Institute in Copenhagen there are several ACS systems installed, also with instances of the equipment being installed in the same room. There is no concern about proximity to reinforcement bars on the efficacy of the system. The main challenge for the NMRs is their own static magnetic field which could saturate a sensor located too close to their magnet. ACS loops are typically installed in a closed loop configuration to maximise their field cancelling capabilities. There is however the option of utilising the system in an open loop configuration. The effect of this is that the sensor is not saturated, while satisfactory performance is still achieved. A large magnitude cancellation field will not be required for the NMRs. An ACS system with the capability of cancelling a 50 µT field, for example in closed loop configuration, will only need to utilise a fraction of this maximum capacity (modelled worst-case levels for NMR are 1.9 µT as detailed in EIAR Appendix A7.10 and EIAR Chapter 12 Table 12.14), and so can be configured for use in an open loop configuration.

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61	3.3.2 EMI	24	The final EIAR mitigation measures considered, which appears to be a last resort if ACS is not effective, is passive shielding. This mitigation option involves installing a high permeability material such as metal on all 6 sides of the room or laboratory. Compared with ACS passive shielding is highly disruptive and very costly. This option is partially explored as a solution for the NMRs. However, the budget of €90,000 proposed in EIAR Appendix A7.10 is considered to be unrealistic.	The example cited and its related cost relates to the use of Silicone steel as opposed to Mu-metal. The statement is correct that a mu-metal shielded room would significantly exceed the stated estimated cost of €90,000 but this figure was in relation to the use of Silicone steel which is a more cost effective alternative option that can provide sufficient magnetic field attenuation where the performance level of Mu-metal is not required. It is understood that the submission cites concerns about the disruption caused by implementing passive shielding which requires a significant overhaul of the affected room. This is one of the reasons why Active Cancellation is the recommended solution adopted.
62	3.4 Residual Risk Associated with Proposed Alignment	24	Notwithstanding the EIAR mitigation measures identified, the EIAR concludes that residual risk, for both vibration and EMI, remains 'significant' for the three Trinity buildings assessed. EIAR Section 14.6 sets out the expected residual significant effects of groundborne noise and vibration. Section 14.6.1.1 states: EIAR Table 14.49 provides that residual impacts associated with construction phase vibration remain significant at the three Trinity buildings considered. EIAR Section 14.6.2.2 addresses operational stage vibration and states: EIAR Table 14.54 also concludes that residual impacts associated with operational phase vibration remains "significant" at the three Trinity buildings considered.	EIAR Section 14.6.1.1 and Table 14.49 relate to construction impacts and specifically the passage of the TBM for which vibration mitigation is noted as not possible, however the impact will be of short duration with mitigation noted as 'Advance public consultation and stakeholder engagement'. EIAR Section 14.6.2.2 and Table 14.54 relate to vibration impacts on highly sensitive laboratory equipment during operational of the metro, with proposed mitigation noted in Table 14.54.
63	3.4 Residual Risk Associated with Proposed Alignment	25	The headway between trains is generally only around two minutes. If vibration from operation was to compromise the working environment, the time between trains would be insufficient for it to be practicable to carry out vibration sensitive activities during these short quiescent periods. As noted in Section 3.3.1, the practicality and the effectiveness of the EIAR outline mitigation measures do not provide an acceptable level of certainty that there will not be unacceptable vibration impacts	Mitigation measures will mean that train frequency is irrelevant. As outlined in Arup's analysis "the proposed track support system would assist in addressing some of the significant effects". In addition, "base-isolated foundation slabs to support the equipment" is a well-used and effective manner of further mitigating vibration where required. See also Responses (22) and (37).

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64	3.4 Residual Risk Associated with Proposed Alignment	25	With regard to residual EMI impacts, EIAR Section 12.12 states: <i>"Locations within the Trinity, Rotunda and Mater Campuses where DC and quasi-DC magnetic field perturbations are at elevated levels from the operation of the proposed Project may not be suitable for the installation or relocation of equipment with sensitivities to these types of fields'.</i> Section 12.12 goes on to state: <i>"Despite applied mitigation measures to minimise the magnitude of stray current, it is an inevitable phenomenon associated with DC rail systems. Continued monitoring of the performance of the traction circuit with respect to current returns to the substation will be required. "</i> As outlined, it is acknowledged that ACS systems are widely used with SEMs) and they have also been used with MRIs. However, it is Arup's understanding that ACS systems are not established technology for NMRs. Furthermore, it is considered that the location of multiple SEMs in the same room and installation in existing buildings may restrict the effectiveness and practicality of such systems. Given the level of uncertainty in the suitability and effectiveness of the mitigation measures proposed it is necessary that a trial of an ACS system is conducted at the location of the SEMs and that this informs the proposed EIAR mitigation strategy.	It is important to note that trials have been offered to TCD previously. Subject to agreement with TCD, TII are proposing to trial the ACS systems at the potentially affected equipment with the aim of providing TCD further evidence as to the effectiveness of this mitigation. See also Response (7) regarding existing proven use of ACS systems elsewhere.
65	3.5 Inadequate Assessment of Alternative Alignments	25	Section 4.1 below presents a robust technical assessment of the Option 5 Alignment utilising the same criteria used in the EIAR consideration of alternative alignments under the Trinity Campus. The alternatives considered all pass beneath the sensitive buildings on the eastern side of Trinity's campus and represent minor variations on the alignment applied for. As illustrated on the table in Appendix C, even with comprehensive mitigation, none of these alignments can demonstrably and fully mitigate the likely significant impacts on Trinity's sensitive equipment. The EIAR is materially inadequate and qualitatively deficient in this regard.	See Responses (5) and (6). The EIAR assessment of alternative routes and justification for the proposed route past Trinity is considered by TII to be robust and neither inadequate nor deficient.
66	4.0 MITIGATION OF LIKELY SIGNIFICANT EFFECTS	26	Based on Arup's assessment of the proposed alignment, and the ineffectual nature of the mitigation measures proposed in the EIAR to protect the performance requirements of the affected equipment, the only effective mitigation strategy is based on the following elements: •Trinity's Proposed Mitigation Strategy: o Mitigation by design with a localised realignment of the line beneath the Campus, identified on Figure 1.1 as 'Alignment Option 5', moving the alignment 61.5 m westward of the current proposed alignment; and o Further detail and assessment provided by the Applicant, by way of response to a Request for Further Information, in respect of the Mitigation Measures proposed in the EIAR as supplemented in this submission by Trinity's experts, to demonstrate to the satisfaction of the Board (and Trinity) the efficacy and practicality of those measures based on robust survey data, monitoring, assessment, and evidence of successful comparators, based on the Option 5 Alignment.	See Responses (5) and (6).

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67	4.1 Alternative Route Alignment (Option 5)	26	The Assessment recommended that the then preferred alignment (Option 0) be amended to Option 2. Option 2 does offer some improvement over the original alignment (Option 0). However, the EIAR itself clearly states that this option still results in "significant" "negative" impacts on Trinity's educational and research facilities.	As explained in the EIAR Appendix A7.10, Option 2, the alignment now included in the RO submission, provides improved settlement and noise mitigation compared to Option 0 (the earlier Preferred Route alignment) whilst remaining compatible with design parameters along the alignment and is a significant improvement in terms of potential EMI/EMC effects during operation compared to Option 0. With regard to operational noise and vibration, Option 2 would require some additional mitigation at track to address the potential localised specific vibration issue at the SNIAM building equipment at TCD. With the proposed mitigation measures noted in the EIAR, TII are confident that significant impacts can be addressed and mitigated.
68	4.1 Alternative Route Alignment (Option 5)	26	As detailed in the Arup EMI and Vibrations Studies, the current proposed alignment, together with the significant uncertainty in respect of the effectiveness of the proposed mitigation measures, will result in significant adverse effects on Trinity's educational and research activities. The EIAR Consideration of Alternatives and the Arup assessments undertaken clearly establish that the movement of the proposed alignment westwards, which increases the separation between the MetroLink and the highly sensitive equipment research equipment, will assist in reducing the magnitude of impact during both the construction and operational phases.	See Responses (5) and (6).
69	4.1 Alternative Route Alignment (Option 5)	27	The EIAR identifies two more westerly alternatives (Options 3 and 4) and states that these were not feasible and, accordingly, these options were dismissed without presenting any detailed assessment⁶. The stated reasons are provided in EIAR Appendix A7.10 and are summarised as follows: •Inadequate space proofing of the tunnel to accommodate the dynamic kinematic envelope of the train operating on a tighter radius •TBM steering difficulties operating on a tighter radius •Operational Speed restrictions leading to increased journey times •Non-compliance with MetroLink's Design Parameters •Wheel-Rail Interference The CECL Global Report submitted herewith (Appendix D) disagrees with the findings of the options study and considers that a more westerly route could be designed which would have negligible impact on the construction, functionality or operation of the railway. (Footnote: ⁶It appears that TII has made a deliberate choice to prioritise the performance of the railway over the needs of TCD.)	The proposed Project alignment past the TCD campus incorporating a 350m radius curve is considered by TII to be the best compromise alignment to address TCD concerns and to ensure that the proposed Project is not operationally constrained. Further details are provided in Response (5) and below.

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70	4.1 Alternative Route Alignment (Option 5)	27	The Report presents an alternative feasible alignment (Option 5) which would increase the separation between the MetroLink and the highly sensitive research equipment without having consequential impacts to the alignment beyond Tara Street and St. Stephen's Green stations. Option 5 requires the following changes to the preferred alignment proposed in the Draft Railway Order: •One-degree clockwise rotation of Tara St Station •Reducing the minimum design radius to 260m •Reducing the operational speed to 60 km/h This alternative alignment is not a unique solution and other permutations of these types of changes may be used to achieve the same goal.	Refer to Response (5) for justification of the proposed Project alignment which TII consider is the best compromise to address TCD concerns whilst ensuring the proposed Project is not operationally constrained. In addition, Option 5, incorporating a slight rotation of Tara Street station, would require a tighter radius curve north of the station as well as that to the south, with additional impact on operational design speed and hence project economics.
71	4.1 Alternative Route Alignment (Option 5)	27	The Applicant has rejected similar solutions in its options assessment based on a number of assumptions. The Report prepared by CECL Global includes the following summary which addresses these concerns and demonstrates that Option 5 as presented is a feasible alternative and which the Board is requested to require the Applicant to assess as part of a Request for Further Information:	See specific responses below (Responses (72) to (76)).
72	Table 4.1: Extract from CECL Global Report Addressing Specific Concerns with a more Westerly Alignment	28	Inadequate space proofing of the tunnel to accommodate the dynamic kinematic envelope of the train operating on a tighter radius <i>The dynamic kinematic envelope design for the tunnel considers the worst coexistent combination of horizontal and vertical curvature. The proposed horizontal alignment immediately South of Tara St. Station is relatively flat and therefore would not generate the same envelope. We therefore contend that sufficient space exists to accommodate the Trinity Westerly alignment.</i>	As noted in Response (5) there are other issues with options with a radius less than 350m (as proposed in the TCD Option 5) that need to be considered. For the particular issue regarding space proofing, at this stage of design it is normal to consider the worst case of horizontal and vertical curvature to retain flexibility for later design stages when more information on specific tunnel infrastructure and rolling stock characteristics are known. To locally adopt more stringent design constraints at this stage would increase project risks for the later stages of design development. Being able to ensure that the tunnels will accomodate the necessary train size assumed for MetroLink is very important. Of relevance is the recent issue on Spain's rail network where new trains were specified which turned out to be too large for some tunnels, an error identified in January 2023, 'Spain has spent €258 million on trains that are too big to fit in its rail network's tunnels' (see https://www.euronews.com/travel/2023/02/21/unspeakable-botch-spain-spends-258-million-on-trains-that-are-too-big-for-its-tunnels).

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73	Table 4.1: Extract from CECL Global Report Addressing Specific Concerns with a more Westerly Alignment	28	TBM steering difficulties operating on a tighter radius <i>We have assessed that a tunnel radius as small as 225m (i.e. significantly smaller than we propose) would have no impact on the ability to steer the tunnelling machine or to maintain efficient logistical backup. The tunnel ring, TBM and logistics would simply be designed for this minimum radius. In the zone beneath Trinity, a full face of homogeneous competent Argillaceous Limestone rock is expected which should provide excellent conditions for steering the tunnelling machine.</i> <i>A significant length of tunnel will have already been built by the time the TBM drives beneath Trinity and issues relating to learning curve will therefore have long since passed.</i>	It is acknowledged that the TBM could be designed to accommodate a tighter radius curve as proposed by TCD, although wider consultations with Jacobs/Idom, an independent TBM specialist and Herrenknecht as a major TBM supplier all indicate that a minimum 500m curve is generally recommended where possible for optimum delivery. TBM requirements to accommodate the proposed tighter radius curves as proposed by TCD would be expected to incur a small cost increase compared to the proposed Project requirements, due to likely change in ring design at this location, associated slight reduction in output around the curve, and changes to the TBM design to accommodate the drive through this specific location. However, the suggested tighter radius is not considered appropriate for other reasons and the proposed Project has only 3 locations where curves of radius less than 400m are adopted: - a 350m curve south of Griffith Park station, where the alignment is constrained by adjacent station locations - 350m and 375m reverse curves between O'Connell Street and Tara stations, where the alignment is constrained by adjacent station locations; and - the 350m curve alignment past the TCD campus.
74	Table 4.1: Extract from CECL Global Report Addressing Specific Concerns with a more Westerly Alignment	28	Operational Speed restrictions leading to increased journey times <i>The new proposed alignment would require a modest reduction in operational speed which will result in a negligible increase in journey time. This however needs to be offset against an overall reduction in the length between the two stations which will reduce journey time. We calculate the net increase in journey time to be less than 1 second.</i>	The 302m horizontal radius curve requires the vehicle speed to be reduced to 60 km/h and the corresponding expected impact on journey time has been assessed. If a standard approach is taken (as recommended by TII), the speed limit is applied throughout the circular curve as well as the enter and exit transition curves. Maintaining the 60 km/h limit until the end of the south transition curve generates an additional time of +3.7s per direction. If one takes account of the fact that the south transition curve does not impact on how much the alignment can be pushed towards the west, then it can be lengthened to allow the train to accelerate to 80 km/h right after the point the end of the train leaves the circular curve. This shortens the total length limited to 60 km/h and therefore reduces the travel time faster, although it results in a non-standard asymmetrical curve with different transition curve lengths at the ends (same as the R=350m option). With this approach, the additional travel time is +2.12s NB and +2.17 SB or +4.29 additional time for the round trip. The reason for considering this second approach is to consider a solution which would minimise the travel time impact that could be achieved. While the margins on the face of it are small, 2.12s NB and 2.17s SB, the overall total lost benefit is estimated conservatively to be €600,000 per annum (see calculation below). Equating to a VOT (Value of Time) loss of €36M over a 60 year system life. An indicative assessment of the potential economic cost can be made as follows: •Additional round trip travel time due to speed constraint = 4.3seconds •Value of time assumed for urban commuter passengers; €44/hr= €0.0122/sec •Additional cost per round trip per passenger = 4.3*€0.0122 = €0.0524 •Total passengers/day approx. 90,000, say 50% commuters •Total lost benefit = 45000*€0.0524*252days say = approx. €600,000/annum. NOTE: This calculation is based on purpose of travel being “work” for 50% commuters and the value of their time @ €44/hr. No allowance is made for the other 50% of travellers and their VOT. This economic impact far outweighs the expected installation cost of the proposed Active Cancellation mitigation measures. This would also remain the case for the TCD suggested time saving of 1 second.

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75	Table 4.1: Extract from CECL Global Report Addressing Specific Concerns with a more Westerly Alignment	28	Non-compliance with MetroLink's Design Parameters <i>Inspection of the values used by the Designer reveals an exceptionally conservative approach to the design when compared with recognised European and international best practice. We therefore do not accept that compliance with MetroLink's "gold plated" design parameters should be viewed as a fixed constraint.</i>	In practice, worldwide, any railway or metro administration designs new railway lines or metro systems assuming the strict limits of EN 13803. In new infrastructure that involves a high investment and that will have an intense and extensive demand and use during a very long service life, high standards of safety, comfort and ease of operation and maintenance are defined and expected. For the proposed Project, the design parameters proposed are considered appropriate and are the same as adopted on other new GoA4 metro systems (e.g. Barcelona Linea 9, Naples, Santiago de Chile, Riyadh). See also Response (72).
76	Table 4.1: Extract from CECL Global Report Addressing Specific Concerns with a more Westerly Alignment	28	Wheel-Rail Interference <i>Wheel-rail interference would not normally be expected to be encountered on a properly maintained system above the minimum radius of 150m as recommended in the European Standard. We therefore also reject this argument against the Westerly alignment.</i>	Refer to Response (5).
77	4.1 Alternative Route Alignment (Option 5)	29	The proposed Option 5 alignment constitutes a reasonable alternative that should be addressed in a substantive manner by the Applicant by way of a Request for Further Information. It is acknowledged that scope to move the alignment westwards, without consequential changes to the alignment north and south of Tara Street and St. Stephen's Green stations, is limited⁷. Accordingly, while movement westwards by itself may not fully mitigate EMI and Vibration impacts, it can materially reduce and minimise the magnitude of such impact and to reduce the reliance on untested mitigation measures. Significantly, Option 5 also has the benefit of substantially reducing the impact on Trinity's future research and development activities within the College Green campus, providing scope for new or upgraded equipment to be located within the currently affected buildings on the eastern part of the campus. (Foot note: ⁷ The consequences of the proposed Option 5 Alignment on lands beyond the Trinity Campus are considered to be limited and of a low order of magnitude, and can be assessed in a revised EIAR.)	Refer to Response (5)
78	4.1 Alternative Route Alignment (Option 5)	29	The EIAR identifies significant construction phase vibration impact associated with the TBM. Due to the rate of movement of the machine, and the distances at which impacts will be felt, while the proposed Option 5 is unlikely to fully mitigate the impacts associated with the TBM, it would assist in creating a greater separation distance and therefore considerably reduce the duration and magnitude of the construction phase impacts.	The reasons why the TCD Option 5 is not acceptable to TII, together with justification for the proposed Project, are presented in Response (5). Regarding construction phase vibration, see Responses (40) and (45).

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79	4.1 Alternative Route Alignment (Option 5)	29	With regard to operational vibration impacts, the Arup Vibration Report identifies an improvement in the vibration risk associated with Option 5, compared to the EIAR preferred Option 2, as locating the tunnels as far west as practicable would, in conjunction with optimised floating slab track design, reduce the risks and need for additional local mitigation at Trinity's facilities. It is submitted to the Board that it is necessary for the EIAR to assess the potential of this proposed mitigation by design, coupled with verified in situ mitigation measures to be identified in the EIAR.	The reasons why the TCD Option 5 is not acceptable to TII, together with justification for the proposed Project, are presented in Response (5).
80	4.1 Alternative Route Alignment (Option 5)	29	The Arup EMI Report assesses the potential of the Option 5 alignment to mitigate the negative impacts on sensitive equipment locations. The NMRs in Chemistry dictate the separation distance as they are predicted to be exposed to high emissions from MetroLink and also are relatively sensitive to EMI (compared to the MRIs and the SQUID) and that equipment doesn't have established mitigation. The additional monitoring proposed in Section 5.0 below is required to properly understand and establish the baseline conditions. This will inform the distance that the alignment needs to move westwards to meet the performance requirements. The Arup EMI Report concludes that "<i>it is only by further increasing the separation between the MetroLink and sensitive equipment that the performance of the research activities at TCD can be assured.</i>" The Report states that to meet the performance requirements for the NMRs: •Using the EIAR survey and predicted emissions, the alignment would need to move an additional 65m (Option 5) west of alignment Option 2, and •Using Arup survey and predicted emissions, the alignment would need to move an additional 175m west of alignment Option 2. This emphasises the magnitude of the challenge to effectively mitigate EMI impacts under the Option 2 as applied for.	Option 5 as presented by TCD has not been modelled by CEI. However, as is presented by TCD's consultant (see Appendix C of the submission) it would still present an EMI risk with levels in excess of the performance requirements for the NMRs and SEMs and therefore still require mitigation based on their own modelling. Option 2, the proposed Project alignment as has been presented in the EIAR, has had its worst-case levels modelled and, while they also exceed the performance requirements for the same equipment, the re-alignment has ensured that the original levels associated with Option 0 have been significantly reduced; so much so that it makes the implementation of an Active Cancellation System solution more straightforward to achieve. The rationale for additional monitoring (three weeks as stated in Section 5 of the submission) is not understood. The monitoring performed to inform the EMI chapter of the EIAR was a snapshot of day to day levels. This snapshot was sufficient to establish that much of the sensitive equipment is already operating in an environment that exceeds their stated sensitives. Prolonging the monitoring period increases the window within which to measure field perturbations and therefore increases the chances of measuring levels that are further in excess of what was recorded during the short survey window previously utilised. It could lead to undermine TCD's case if the equipment is already operating in an environment further in excess of the previously measured baseline levels and possibly in excess of the modelled worst-case levels for Option 2. Nonetheless, TII are happy to work with TCD to develop a monitoring regime that meets TCD's requirements.
81	4.1 Alternative Route Alignment (Option 5)	30	In this regard, Option 5 as presented in the CECL Global Report moves the alignment approximately 61.5m westward of Option 2. Based on the information available, this is the extent the alignment can be moved without giving rise to more substantial design changes to the balance of the alignment.	The reasons why the TCD Option 5 is not acceptable to TII, together with justification for the proposed Project, are presented in Response (5), with further details in Responses (72) to (76).
82	4.1 Alternative Route Alignment (Option 5)	30	A spreadsheet is attached at Appendix C (and summarised at Table 4.2 below) to assist the Board in understanding the interactions between the sensitive equipment and receptors, the route alignment options and the proposed mitigation measures (subject to demonstrating efficacy). The Appendix identifies all sensitive equipment, the 'as submitted' route alignment with EIAR mitigation, the alternative route alignment options with mitigation, and alignment Option 5 with comprehensive and updated EIAR mitigation (subject to demonstrating efficacy). Table 4.2 below identifies all sensitive equipment, the 'as submitted' route alignment with EIAR mitigation, and alignment Option 5 with EIAR mitigation (subject to demonstrating efficacy by way of a Request for Further Information). The Table uses a colour coded system to identify the predicted EMI and vibration impact on all elements of sensitive equipment. The colour coding clearly demonstrates the increasing confidence in the efficacy of mitigation by design associated with the westward realignment, coupled with additional mitigation measures. In this regard, there is a demonstrable difference in respect of vibration impacts between the two options. This significant potential of this mitigation by design option clearly warrants its consideration by TII by way of a Request for Further Information. There is also a demonstrable improvement in the sensitive equipment impacted by EMI, noting that significant additional mitigation measures that are demonstrated to be effective and viable will be required for the NMR machines in Chemistry.	Refer to Responses (5) and (72) to (76) which describe the reasons why the proposed Project alignment is considered the most appropriate regarding both operational requirements and addressing potential environmental impacts. Whilst the TCD Option 5 would provide some additional mitigation at source, it would not fully mitigate all impacts (as assessed by TCD), so still requiring additional mitigation for EMI effects in a similar way to the proposed Project.

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83	4.1 Alternative Route Alignment (Option 5)	32	On the basis of the foregoing, it is submitted that the only mitigation strategy that can provide an acceptable level of confidence is: 1. Alignment Option 5, and 2. Further detail/corroboration on the EIAR Mitigation Measures, and: 3. Arup's recommendations, subject to: o The Applicant demonstrating to the satisfaction of the Board that the combined realignment and mitigation measures will be effective and practicable in mitigating impacts and residual impacts to an acceptable level.	See Response (5)
84	5.0 MITIGATION MEASURES - INADEQUACY OF INFORMATION	32	On the basis of the information presented above, it is evident that significant additional information is required in order to identify, describe and assess all likely significant direct and indirect impacts on all elements of sensitive equipment identified in this submission, that presents an evidence-based assessment of the magnitude of those impacts having regard to the baseline context, and includes proposals to mitigate those impacts to acceptable levels substantiated by appropriate data and analysis, and evidence of their successful use in comparable contexts. Accordingly, it is imperative that the Applicant is requested to provide significant further information for the following reasons: •To enable an assessment by the Board of the efficacy of proposed mitigation measures that are reasonable, feasible and can be implemented. •To clearly detail and articulate in the EIAR the proposed mitigation measures to which the Applicant is committing and will be obliged to implement at its own cost in the event that the project proceeds. •To clearly detail monitoring that will be undertaken by the Applicant for the duration of construction and operation, and further mitigation measures that may be necessary in the event that the mitigation measures are not effective. Accordingly, the Board is respectfully requested to issue a Request for Further Information.	TII fundamentally disagree with this assertion and instead consider the assessment presented in the EIAR to be appropriate for this stage of the project. TII have clearly presented the potential for significant effects at TCD in terms of both EMI/EMC and groundborne Noise & Vibration. Where these potential effects are identified, specific mitigation measures are outlined in the EIAR. TII also point out that they have engaged in significant consultation with TCD on the proposed mitigation measures where their effectiveness and where the queries raised here have been responded to. As outlined above in Response (7), Active Cancellation has been widely used as an effective mitigation measure for EMI/EMC. Furthermore, TII's specialists have demonstratable direct experience with this system (which has been presented to TCD). As stated in Response (64), subject to agreement with TCD, TII are proposing to trial the ACS systems at the potentially affected equipment with the aim of providing TCD further evidence as to the effectiveness of this mitigation. [Text based on CEMAR CN-146 Active Cancellation Trials - Trinity College] In terms of vibration, as identified in Response (37) the use of "Gerb spring" floating slab track has also been successfully implemented on Metro systems around the world including on the Elizabeth Line (Crossrail) in London.
85	5.1 Detail of Further Information Required	32	The Board is respectfully requested to issue a Request for Further Information that requires the applicant to submit the following information in respect of: A. All elements of sensitive equipment identified in Table 2.1 this submission. B. Route Option 2 (as submitted), and Route Option 5 (Alternative Alignment) as presented in this submission. The information required to undertake the necessary assessments, to specify mitigation measures and to demonstrate the efficacy and practicality of those measures, is summarised as follows:	Please refer to Response (5) which summarises the justification for Option 2 (as included in the proposed Project). In addition, as noted above, for the purposes of the EMI/EMC assessment (as presented in EIAR Chapter 12), all relevant equipment has already been assessed. In regard to Groundborne Noise & Vibration, the assessment (as presented in EIAR Chapter 14) presents an overall predicted analysis at each of the buildings on the campus and a specialist analysis of the Fitzgerald Building and Panoz building on equipment within those buildings which are considered to represent the worst case scenario locations at TCD. It should be noted that TII requested data from TCD on foundations and buildings for all buildings on the campus but received only details on these two buildings which restricted the level of analysis that could be undertaken at this stage. None-the-less, TII are confident that the analysis presented in the chapter represents analysis of the worst case receptors and that the proposed mitigation measures will be effective for all locations of sensitive equipment at TCD.

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86	5.1 Detail of Further Information Required	33	1. Confirmation and evidence that the track support system design is viable in terms of railway engineering design. In particular, detail is required in respect of the deflection of the track under the proposed design, and evidence as to how the proposed deflection is acceptable in terms of RAMS (reliability, availability, maintainability and safety).	TCD are requesting information that would not normally be provided at this stage of the project i.e. RAMS and specific detail on "the deflection of the track under the proposed design". However, to provide TCD with comfort about the applicability of the proposed solution, TII have engaged with track suppliers and have identified the wide scale use of floating slab track solutions to mitigate low frequency vibration but allow a compromise between low frequency attenuation and track deflection to be adopted. An example would be the use of "Gerb" floating slab track, which has been widely used around the world with examples with low spring stiffness including the Elizabeth Line (Cross Rail) (7hz), Beijing Metro Line 4 (6 - 7 Hz), Beijing Metro Line 10 (6.5 - 8.0 Hz), Beijing Metro Line 13 (5.0 - 6.5 Hz), Shenzen Metro Line 1 (5 - 8.5hz), Tramway Bielefeld, Germany (5Hz), Tramway Cologne (6.5 Hz), Frankfurt/Main/International Airport (5hz), Stuttgart-Ruit (5.7 Hz), Oslo Wessels Plass (5 Hz) and on the Thomson-East Coast Line in Singapore.
87	5.1 Detail of Further Information Required	33	2. Confirmation and evidence of the predicted vibration levels and spectra at each item of sensitive equipment at Trinity as identified on Table 2.1 of this submission. Details must include the modelling input data used, including assumptions about the building structure.	TII cannot provide "predicted vibration levels and spectra at each item of sensitive equipment at Trinity" as presented in Table 2.1 as despite requests for data, TCD have not provided building data to allow such models be run for every piece of equipment. However, the worst case scenario buildings, closest to the alignment, have been assessed with mitigation measures identified that will effectively mitigate these most sensitive buildings. As noted in Response (37), the identification of the closest buildings and mitigation proposals for those buildings will result in the removal of potential adverse impacts for buildings that are further away from the tunnel route.
88	5.1 Detail of Further Information Required	33	3. Confirmation and evidence that the predicted vibration levels and spectra at each item of sensitive equipment at Trinity as identified on Table 2.1 of this submission can be achieved by a track support system that is acceptable in terms of RAMS. Details must include the modelling input data used, including assumptions about the building structure	Please refer to Response (87) in regard to providing data for each equipment location. For information, the technical input data to the model is as follows. Proposed Metrolink track system: standard LVT system (LVT Standard) and high attenuation system (LVT HA) in sensitive areas as TCD section. The track system with which the model should be realised would be the LVT HA (see tables and graphics below response table). System definition: Dimensions: L x W [mm] Total weight (single rail support)* [kg] Preliminary global support stiffness** [MN/m] <i>*Total weight = single concrete block + resilient components + standard fastening system</i> <i>**Preliminary global spring rate, incl. rail pad, rubber boot and block pad</i> LVT Standard:676 x 300 1009 LVT High Attenuation:676 x 376 123 15 LVT HA 2 system allows obtaining attenuation values very similar to those obtained with a floating slab solution. A comparison in terms of attenuation between our LVT HA 2 system and a common floating slab system is shown on a separate tab in this spreadsheet. As outlined in Response (37), the "Gerb" floating slab system has been widely adopted across the world and is operating safely on multiple metro systems. A specific RAMS at this stage of the project in the context of the proposed floating slab track design is not appropriate, given the preliminary nature of the design. A full RAMS assessment of the slab track design will be undertaken based on final design proposals for the Metro prepared at subsequent design stages to ensure a safe system is adopted, which will also be subject to CRR approval.

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89	5.1 Detail of Further Information Required	33	4. Appendix A14.4 provides details of the FINDWAVE software used for the vibration predictions. It does not, however, provide spectral results and information relating to the level of uncertainty or error in the predicted vibration that would occur at the receptors. Due to uncertainties particularly related to the dynamic properties of the ground and the response of the various buildings, there are inevitably limitations in the accuracy of any prediction method, particularly related to low frequency vibration. Accordingly, further information on the uncertainty/margins of error in the predictions is necessary to substantiate the assessments contained in the EIAR, and to provide a better understanding of the risk implications.	Refer to response (36).
90	5.1 Detail of Further Information Required	33	5. Modelling evidence is required to demonstrate that the proposed combination of floating slab track and booted sleepers is the best solution and would successfully mitigate vibration in the full range of frequencies relevant to vibration sensitive equipment identified on Table 2.1. A sensitivity study is required to compare the outcomes of viable mitigation solutions, using a variety of combinations of floating slab track and sleeper isolation.	The proposed mitigation measures have already been modelled in the EIAR and, on this basis, residual impacts have been defined i.e. effects identified after the implementation of the proposed mitigation measures. As outlined in EIAR Chapter 13, the inclusion of "Gerb type" floating slab track would be effective at mitigating groundborne Noise and Vibration at most sensitive equipment locations. The modelling indicated that in the SNIAMS building, at the worst-case location, VC-E limits can be achieved, while for the Fitzgerald building, at the worst-case, VC-D limits can be achieved. It will only be at the most sensitive equipment that any additional mitigation measures will be required as outlined in the EIAR in order to meet the most onerous of limits (VC-E). TII are happy to work with TCD to work up the logistics of the installation of isolation systems on a room by room basis. TII do not agree that it is appropriate at this stage of the project to undertake a "sensitivity study" to compare the effectiveness of a various combinations of mitigation measures. However, TII are happy to work closely with TCD as the design develops further (post RO) to test the proposed design measures to further demonstrate to TCD the finalised design will be effective in mitigating the impacts.
91	5.1 Detail of Further Information Required	33	6. Where impacts cannot be demonstrated to be fully mitigated at source, further details are required to demonstrate how equipment can be isolated locally by the installation of isolated plinths or, for smaller items, isolation tables or resilient mounts. Each isolation system should be individually specified, with evidence presented to demonstrate effectiveness. Alternatively, it may be possible to combine insertion gain required for the track and equipment isolation.	It is important to note that in the majority of locations it is considered that the floating slab track proposals will be more than sufficient to mitigate adverse impacts at sensitive equipment. However as previously advised to TCD, TII are happy to work with TCD to identify specific requirements for the installation of isolation systems on a room by room basis if required. TII will work with TCD to design isolated plinths, isolation tables etc at the very limited number of locations where equipment is sensitive enough to require additional mitigation measures. However, the specification of the same can only be defined following further design development on the floating slab track design in the tunnel.
92	5.1 Detail of Further Information Required	33	7. Details of specific measures proposed, for all items of equipment which require local mitigation, should be provided, including evidence that the proposed solutions are effective and practicable.	Refer to Response (91).
93	5.1 Detail of Further Information Required	33	8. Details as to how the existing vibration conditions will be protected such that the MetroLink would not compromise Trinity's ability to expand and develop their facilities in the future.	As outlined in Section 14.4.2 of the EIAR, the assessment shows that criteria for sensitive equipment at TCD can be satisfied.

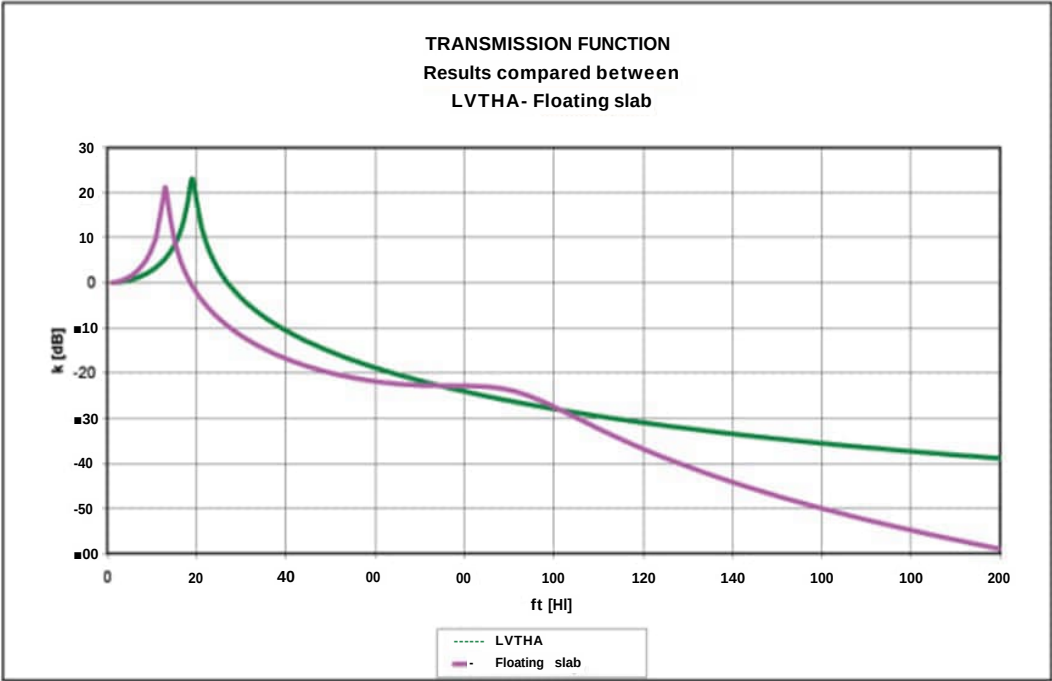
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94	5.1 Detail of Further Information Required	33	9. Additional detail on monitoring to demonstrate that the baseline environment will not be made worse than that currently enjoyed by Trinity, and detail on the manner in which agreed baselines are measured over an extended period of time, and at locations to be agreed between TII and Trinity.	TII are happy to work with TCD to develop a monitoring regime that meets TCD's requirements in advance of the construction phase of the project. As noted in EIAR Chapter 31 (Summaries of Route Wide Mitigation and Monitoring), mitigation and monitoring measures have been identified as environmental commitments and overarching requirements which shall avoid, reduce or offset potential impacts. Mitigation and monitoring measures have been identified as environmental commitments and overarching requirements which shall avoid, reduce or offset potential impacts. Mitigation measures have been proposed for all impacts resulting in a moderate significance or above. Furthermore, mitigation measures have also been proposed for some impacts with a lower significance where such measures are routinely applied (for example in the management of construction-related impacts) or where, based on professional judgement, there would be a material benefit to the receptor.
95	5.1 Detail of Further Information Required	33	10. Assessment of EMI monitoring is required to be undertaken. Three weeks of monitoring is required for EMI at the location of the NMRS identified on Table 2.1 of this submission.	The rationale for monitoring is described in Response (80).
96	5.1 Detail of Further Information Required	33	11. Proposals for a monitoring system (see example *link*) for longer term readings of the baseline EM fields are also required [state purpose].	The rationale for monitoring is described in Response (80).

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97	5.1 Detail of Further Information Required	34	12. Details of proposed mitigation proposals and evidence of their successful use in comparable contexts to demonstrate that EMI risks to all equipment identified on Table 2.1 of this submission can be minimised to an acceptable level. This should include evidence of ACS being successfully used for NMRs, SEMs (multiple SEMs in close proximity) and MRIs.	During a presentation to introduce the concept of Active Cancellation (03 March 2021), the following examples were cited: - Neils Bohr Institute, Copenhagen, Denmark (SEMs and TEMs). The installations within Neils Bohr Institute involved several systems with some operating in close proximity. - Qatar Science and Technology Park, Doha (SEMs and TEMs) - Francis Crick Institute, London (SEMs) - University of California Irvine Materials Research Institute, California (TEMs) – used in combination with shielded room - Royal Hospital Melbourne, Australia (Linac) - Ongoing The list as presented at the time focussed solely on projects in which CEI acted in some capacity. It omits examples for MRIs and NMRs which are requested within this submission. For MRIs, Active Cancellation Systems have been installed by the following suppliers of the systems: ETS-Lindgren (MRIs at St. Vincent’s Hospital, Australia and other sites over 20 years in the USA and Internationally) ITEL (Victoria House in South Yarra) Muller BBM (Installations in Europe and China) Stefan Mayer Instruments (installations in Europe and North America) IDE (worldwide but predominant experience with train systems in Japan). It is worth noting that IDE claim that for their system the sensor can be installed within the MRI space. Evidence of the use of Active Cancellation Systems with NMRs is limited. NMRs have the same characteristic as MRIs that is assumed to be the main obstacle preventing the successful use of an ACS i.e. an extremely strong magnet. MRIs are closely related to NMR machines and are in fact an application of NMR. That these systems can be successfully installed for MRIs means the same should be the case for NMRs.
98	5.1 Detail of Further Information Required	34	13. Trinity is agreeable in principle to the Applicant undertaking a trial of an ACS at the location of the SEMs in Panoz, and for the results to be submitted to the Board.	As noted in Response (64), subject to agreement with TCD, TII are proposing to trial the ACS systems at the potentially affected equipment with the aim of providing TCD further evidence as to the effectiveness of this mitigation. However, it is submitted that the evidence in the EIAR and these responses is sufficient assurance for the purposes of the RO application to allow ABP to grant same.
99	5.1 Detail of Further Information Required	34	14. Additional detail and clarification of the type of ACS's proposed and an assessment of efficacy of the system for the purpose of mitigating effects on all sensitive equipment identified on Table 2.1 of this submission.	TCD are requesting significant additional information that is not normally required at this stage of the project i.e. in advance of getting a RO approval. However, as per Item 13 above, TII are ready to do testing at each relevant piece of equipment to demonstrate the effectiveness of ACS following the grant of the RO. The specific type and set up at each location can then be worked through between TII and TCD.
100	6.0 CONCLUSION	34	The EIAR clearly identifies "significant" and "negative" impacts on Trinity's educational and research facilities. The EIAR acknowledges that the mitigation measures proposed in the design will not adequately protect the identified sensitive receptors. It is the opinion of Trinity's technical experts that the application fails to adequately identify, describe and assess the likely direct and indirect significant effects of the MetroLink project on Trinity. The EIAR has failed to assess and consider feasible alternatives to reduce the level of unacceptable impacts and the EIAR mitigation measures lack substantive validation by robust survey data, monitoring, assessment and evidence of successful comparators. The EIAR is materially inadequate and qualitatively deficient in this regard, with significant consequences for Trinity.	Refer to Response (2), (3), (7) and (62). Appendix A7.10 provides assessment of alternative options considered to address TCD concerns and details the mitigation measures proposed to address residual impacts.

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101	6.0 CONCLUSION	34	The significant uncertainty in respect of the availability and efficacy of potential mitigation measures also has significant implications for the future provision, upgrade and enhancement of equipment and research programmes in the affected buildings. In this regard, the proposed alignment, together with the wholly inadequate mitigation measures identified, have significant potential to constrain or sterilise Trinity's existing and future core academic and research activities on the eastern part of its campus.	Refer to Response (4) and other detailed responses above where these concerns are addressed in a comprehensive manner.
102	6.0 CONCLUSION	34	Based on Arup's assessment of the proposed alignment, and the ineffective nature of the mitigation measures proposed in the EIAR to protect the performance requirements of the affected equipment, the only effective mitigation strategy is based on the following elements: o Mitigation by design with a localised realignment of the line beneath the Campus, identified on Figure 1.1 as 'Alignment Option 5', moving the alignment 61.5 m westward of the current proposed alignment; and o Further detail and assessment provided by the Applicant, by way of response to a Request for Further Information, in respect of the Mitigation Measures proposed in the EIAR as supplemented in this submission by Trinity's experts, to demonstrate to the satisfaction of the Board (and Trinity) the efficacy and practicality of those measures based on robust survey data, monitoring, assessment, and evidence of successful comparators, based on the Option 5 Alignment.	Refer to Response (5) regarding the TCD Option 5 and other detailed responses above where these concerns are addressed in a comprehensive manner.
103	6.0 CONCLUSION	35	It is submitted that it is imperative that the Applicant provides the significant additional information in respect of proposed mitigation measures identified in this submission for the following reasons: 1. To enable an assessment by the Board of the efficacy of proposed mitigation measures that are reasonable, feasible and that can be implemented. 2. To clearly detail and articulate in the EIAR the proposed mitigation measures to which the Applicant is committing and will be obliged to implement at its own cost in the event that the project proceeds. 3. To clearly detail monitoring that will be undertaken by the Applicant for the duration of construction and operation phases, and further mitigation measures that may be necessary in the event that the mitigation measures are not effective.	See Response (12).
104	6.0 CONCLUSION	35	In the event that the Applicant fails to demonstrate that effective, proven mitigation measures can be implemented, then Trinity is left in the position where it requests that the Board refuses consent, or terminates the MetroLink at a point north of Trinity's Campus having regard to the likely significant adverse, permanent and unacceptable impacts on the University's sensitive equipment, its established and future research facilities, its students, researchers and staff, and its global status and funding.	Refer to Response (8) regarding termination of MetroLink north of Trinity College and other detailed responses above where mitigation measures and their efficacy are addressed in a comprehensive manner.
105	6.0 CONCLUSION	35	Given its support for the principle of the MetroLink project, Trinity respectfully requests that the Board presents the Applicant with a further opportunity to properly consider the likely significant direct and indirect effects on Trinity, and in particular adequate mitigation measures (including mitigation by design). Section 5 of this submission provides a basis for the Board to issue a Request for Further Information inviting the applicant to submit a revised EIAR, revised plans and all necessary assessments, in respect Trinity's Proposed Mitigation Strategy.	Please refer to responses above where these concerns are addressed in a comprehensive manner. Response (5) in particular addresses the alternative alignment put forward by TCD and the justification for retaining the TII submitted alignment past TCD as part of the RO Application.

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System	Dimensions L x W [mm]	Total weight (single rail support)* [kg]	Preliminary global support stiffness** [MN/m]
LVT Standard	676 x 300	100	9
LVT High Attenuation	676 x 376	123	15
*Total weight= single concrete block + resilient components + standard fastening system			
**Preliminary global spring rate, incl. rail pad, rubber boot and block pad			



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Organisation Name or Name of Submitter			Troys Butchers	
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Re: ABP Ref. 314724 (Observation from Stephen Troy, Director Troy's Butchers)				
1	Letter	2	The projected traffic volumes will have a disastrous impact on our fresh food business and impede access to & from our fresh food store. It would also create an unsafe shopping environment for customers alike in Moore Street North.	It is acknowledged that there will be impacts on business during the construction of MetroLink, however TII believe that scheme will deliver long term benefits to businesses in the locality of MetroLink when it becomes operational. A Scheme Traffic Management Plan (STMP) (see EIAR Appendix A9.5) will be implemented to manage traffic movements and minimise congestion. Construction vehicles entering the compound will come from Parnell Street to Moore Street, turn left on to O'Rahilly Parade, to enter the compound on the right and exit turning left on Moore Lane and then left again on Parnell Street. During the peak construction year, construction vehicle movements generally range between 50 and 100 movements per day, however there are a number of weeks with daily movements lower than this range. The maximum number of daily movements is 178 for a duration of one day only. Vehicle movements will be less than this for the rest of the construction works. Slight increases in traffic flow are anticipated, however these will have a negligible impact on delay in the area and therefore will not contribute to congestion. The existing footway provision on Moore Street / O'Rahilly Parade will be reduced during construction, however pedestrian movements will be maintained throughout the use of the construction compound 'Area 1' which will be located on the corner of Moore Street and O'Rahilly Parade. The safety of pedestrians is a key performance indicator in the Scheme Traffic Management Plan impact assessment (see Table 2-5: Stage 2 Local Assessments – KPI's). Safety risks to the general public will be managed so there is not an increased risk as a result of construction activity. A banksman (a trained and competent person who helps to ensure work activities involving vehicles and mobile plant are carried out safely) may be employed, if necessary, to manage pedestrian movements while construction vehicles are leaving. Alternatively, the minor arm could be signalised to permit safer pedestrian movements. The designated access and pedestrian routes around the construction sites, particularly at and/or along the hoarding lines, must not be perceived as uninviting by pedestrians. The environment around the sites, therefore, will be designed to ensure that pedestrians feel they are entering a safe and accessible environment. This will help to ensure that impact to businesses and shops adjacent to the works areas is minimised. There will be no diversions or road closures that will impact local access and it is anticipated that there will be no bus stops or bus routes which are impacted by the works on O'Connell Street Station. No on-street parking or on street loading bays will be removed as part of the traffic management works. Again, this will help to ensure that impact to businesses and shops adjacent to the works areas is minimised.
2	Letter	2	There will be dirt and debris along the roadway resulting in our award-winning window display and shopfront been plagued by dirt and noise pollution generated by large construction vehicles stacking/ queuing to access the designated holding bays and site compounds.	Refer also to item (1) above Air Quality / Dust A Dust Management Plan (see EIAR Appendix A16.4) will be implemented, along with the mitigation measures outlined in the Outline CEMP (see EIAR Appendix A5.1) and EIAR Chapter 16 'Air Quality' (see section 16.6.1) to ensure that dust will be controlled during construction. Once the dust minimisation measures are implemented, fugitive emissions of dust are not predicted to be significant and pose no nuisance or human health risks. Noise Chapter 13 Airborne Noise and Vibration includes an assessment of airborne noise and vibration from the construction of the project. Chapter 13 presents the potential significant airborne noise impacts with Table 13.65 summarising potential significant noise impacts during construction of O'Connell Street Station. The predicted magnitude of impact at this location is Moderate to Significant during ground level excavation, prior to the consideration of any noise mitigation. In order to mitigate airborne noise an outline Construction Environmental Management Plan (CEMP) has been prepared and is included as Appendix A5.1. This is a working document that will be updated by the contractor prior to commencement of construction and regularly as the project progresses. Mitigation measures to reduce noise from construction traffic are limited to restricting speed limits, maintaining road surfaces and ensuring all vehicles are properly maintained. In addition, any coverings on construction vehicles will be securely fastened before leaving site to avoid excessive 'rattling'.

Submission No.			304		
Organisation Name or Name of Submitter			Troys Butchers		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Re: ABP Ref. 314724 (Observation from Stephen Troy, Director Troy's Butchers)					
3	Letter	2	This narrow junction is already under severe pressure due to the roads been changed to facilitate the Luas line at Conway's pub. A traffic Island was placed in the middle of the road which impedes delivery lorries and the proposed construction traffic exiting onto Parnell Square and outwards by the rotunda hospital.	Please refer to response to Item no. (1) above in relation to the anticipated impacts on traffic as a result of the construction of MetroLink at this location. Appendix A9.5 Scheme Traffic Management Plan section 7.8 details the impacts on traffic in the vicinity of O'Connell Street. As detailed, traffic delays in the area around O'Connell Station will be negligible, with the construction works having minmmal impact to the surrounding road network. In relation to deliveries and loading, there is a loadin dock for the Lidl store located on the west side of Moore Lane. Auto-tracking analysis has been undertaken and HGV traffic can reverse into the loading bay from Moore Lane with the proposed new one-way arrangement in place.	
4	Letter	3	It would appear these projects are great in hindsight, but the reality is people are afraid to use public transport. We have shut down the city to customers who like the convenience of their cars, especially for those carrying a week supply of heavy meat.	TII note your concern that people may be afraid to use public transport but it is an objective of the proposed Project to provide a high quality, reliable, sustainable and resilient public transport project that will provide access to all. As noted in a number of European, National, Regional and Local Policies it is a key endeavour of the Government of Ireland to prioritise sustainable transport modes in Dublin. The DCC 'Climate Change Action Plan' (DCC and Codema 2019) noted that transport accounted for 24.8% of Dublin's GHG emissions in 2018 with 32% of transport in Dublin completed using a private car. It is the aim of DCC to achieve a doubling of all active travel and public transport trips and to halve private vehicle trips in Dublin by 2030. The proposed Project is part of an overall group of European, National, Regional and Local policies that endeavour to prioritise sustainable transport modes in Dublin. The National Development Plan (NDP) 2021-2030 (Government of Ireland 2021a) for example, includes the MetroLink as one of the National Strategic Outcomes under the Sustainable Mobility. MetroLink will also help to facilitate the delivery of other key transport projects such as BusConnects and the DART+ Programme.	
5	Letter	3	These large-scale projects have catastrophic effects on neighbouring businesses, customers don't buy fresh food from a noise polluted, traffic congested, dirty, construction site environments.	It is acknowledged that there will be impacts on business during the constructon of MetroLink, however TII believe that scheme will deliver long term benefits to businesses in the locality of MetroLink when it becomes operational.	
6	Letter	3	We note that Hammerson who are supposedly doing the metro enabling works also have plans for 5.5 acre site surrounding our business. These applications for Dublin Central are currently under review by An Bord Pleanála. Planning references;(2861/21, 2862/21, 2863/21 Jit's my understanding that a further three planning applications have also been recently lodged to Dublin City Council by Hammerson. Planning references; (312642/22, 312603/22, 313947/22) This large-scale project involves knocking down what's left of the existing city centre shopping retail core surrounding my business and also removing the Moore Street traders which would further impact on the very few remaining independent store traders on Moore Street.	The Metrolink project is being constructed in the context of a changing and evolving city centre. The Hammerson's project comprises one such development aiming to reconfigure and improve the retail offer in the North city centre. We have taken Hammerson's plans into account in the design of the Metrolink station at O'Connell Street. However, Metrolink is not contingent on delivery of the Hammerson's project in its current configuration.	
7	Letter	4	It's been divulged that Hammerson, DCC and the Dept of Heritage were all involved in a compensation process for these street traders who pay €225 annually for a licence yet independent store traders who incur substantial trading costs are expected to remain viable throughout an inordinate construction phase of (10-15yrs).	TII are not a party to the compensation scheme referred to.	
8	Letter	5	This compensation process was arbitrary and very disheartening considering our past experiences with the construction phases of the Luas. We have not been offered anything to maintain our livelihoods.	TII are not a party to the compensation scheme referred to.	

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9	Letter	5	We urge An Bord Pleanála to put a condition of planning in place to protect our business and our constitutional right to earn a living.	TII would not be supportive of such a condition being imposed on TII.

Submission No.			305	
Organization Name or Name of Submitter			Union Investment Real Estate GmbH (represented by John Spain Associates)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: SUBMISSION ON THE METROLINK RAILWAY ORDER APPLICATION IN RELATION TO THE SITE OF A COMMERCIAL DEVELOPMENT AT 2 GRAND PARADE, RANELAGH, DUBLIN 6.				
1	Introduction	2	The proposed development subject of the Railway Order application involves the permanent and temporary acquisition of lands within the site of the commercial development at 2 Grand Parade, Dublin 6. As set out above, our client respectfully requests the reconsideration of the permanent and temporary land take extents shown, and the substratum acquisition area. The permanent and temporary land take indicated includes areas within and adjoining the permitted commercial development comprising the permitted offices that are currently under construction. The existing Carrolls Building (a protected structure) is the only part of the overall site which is not indicated on the Railway /Order drawings as being within the area of either temporary or permanent land take.	We confirm that the discrepancy in the Railway Order Property Drawing ML-P-307 O-A is being discussed with Union and it is intended that agreement will be reached on the extent of land acquisition actually required at this location.
2	1. Permanent and Temporary Land Take	5	As noted above, the land acquisition mapping forming part of the Railway Order application indicates the entire site in the ownership of our client (with the exception of the existing Carroll's Building) within the permanent and temporary land take for the MetroLink project. It appears that this may represent a mapping error which should be clarified prior to the granting of a Railway Order or any associated Compulsory Purchase Order. As currently indicated, the land acquisition details illustrated on the Property Details drawings would not be acceptable to our client. As noted in the figure below, parts of the permanent and temporary land take illustrated at 2 Grand Parade actually fall within the built footprint of the office development which is nearing completion on site (as permitted under Reg. Ref.: 2372/17 / ABP Ref.: 300873-18, as amended by Reg. Ref.: 4755/19 and Reg. Ref.: 3486/20 / ABP Ref.: 309011-20). Therefore these areas of the site are not suitable either for temporary or permanent acquisition. While it is understood that the actual intended land acquisition as part of the Charlemont station will in fact be limited primarily to substratum acquisition (with the exception of specific above ground elements such as station accesses, vents etc.), it is submitted that this requires clarification of and amendments to the Railway Order drawings and documentation. Our client looks forward to engaging constructively with TII in relation to this matter. It is submitted that the extent of permanent land take should be revised to take in only the elements of ground-level development proposed as part of the Charlemont station (i.e. escalators, vents, station building etc.). Similarly, the temporary land take should be reduced to cover areas which will actually be required (and available) for use during the construction phase. This must exclude the footprint of the office building under construction and nearing completion on site, along with any lands necessary to maintain the access, underground services and operation of the office development. Additionally, the extent of the substratum land take proposed should be reviewed in light of the existing / under construction office development on site, and the points set out above in relation to the permanent and temporary land take areas. The extents of permanent, temporary, and substratum acquisition included on the Railway Order application drawings differ from previous agreements pertaining to development at this location. Finally, the grounds set out below (including in particular those relating to the location and design of surface level escalators, lifts, vents, and stairways) may necessitate further alteration to the extent of permanent and temporary land take at this location, to reflect the design changes requested in this submission.	

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3	2. Lift and Stairway to the west of the Carroll's Building	6	 the location and design of this stairway and lift access would negatively impact on our client's development at 2 Grand Parade as follows: • The structure would obstruct designated fire escape routes from the 2 Grand Parade development,	TII do not consider that the MetroLink lift and stairway will cause further obstruction to the designated fire escape route from 2 Grand Parade with a 1.4m width maintained and believe that sufficient capacity for the fire escape route is available.
4	2. Lift and Stairway to the west of the Carroll's Building	6	• There would be an additional risk of fire spread in the event of a fire due to proximity to the existing building.	As fire retardant materials will be used to construct the proposed Luas connection, there will no increased risk of fire.
5	2. Lift and Stairway to the west of the Carroll's Building	7	• Additional information needed in relation to pedestrian traffic flow and capacity for both normal and evacuation scenarios.	For pedestrian traffic flow information please refer to EIAR Appendix A9.2-B Traffic and Transport Assessment - Charlemont Station.
6	2. Lift and Stairway to the west of the Carroll's Building	7	• The stairway and lift shaft will negatively impact on the appearance and setting of the Carroll's Building, a protected structure which is integrated into the 2 Grand Parade commercial development.	The potential for indirect impacts on the Carrolls Building which is listed on the Dublin City Council Record of Protected Structures (RPS) is understood and is assessed in the Environmental Impact Assessment Report (EIAR) for the proposed Project. The provision of a high quality interchange between the MetroLink Station and the existing Luas stop at Charlemont is challenging due to the constraints in the area, including the Carrolls Building, the Grand Canal, the busy Grand Parade roadway, the new site development to the rear of the Carrolls Building and the significant level differences between the MetroLink and Luas systems. Taking account of these considerations to identify the optimum solution to connect the two transport systems, a number of options were considered that included providing: (a) access to Luas via a stairwell and lift at the front of the Carrolls Building; (b) a pedestrian crossing of Grand Parade, with a deck along the canal edge and stairs to the Luas platform at the north side of the canal; (c) an elevated walkway in front of the Carrolls Building; and (d) access to the Luas platform behind the Carrolls Building. Option (a) was selected because it: i. provides direct access between MetroLink and Luas of sufficient capacity which cannot be achieved by the other options; ii. avoids the unfeasible scenario of all passengers having to cross the busy Grand Parade roadway to access the Luas platforms from MetroLink; iii. minimizes direct impacts on the Grand Canal; iv. avoids having a direct impact on the Hines development site that would require a redesign of that third party development. The proposed stairwell at the front of the Carrolls Building has been designed to minimize the visual impacts on the building by providing maximum transparency.
7	2. Lift and Stairway to the west of the Carroll's Building	7	• The stairway and lift could give rise to privacy issues within the adjacent office building.	The stairway will be designed so that privacy to 2 Grand Parade is protected so far as practicable.

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8	2. Lift and Stairway to the west of the Carroll's Building	7	it is submitted that the lift shaft should be relocated to an alternate location (potentially the opposite side of Grand Parade adjacent to the Grand Canal) and the staircase proposed should be reconfigured to address the concerns raised. It is also noted that there is already a stair and lift immediately west of the Luas stop northbound platform. In its current form the stairway and lift would not be acceptable to our client, and it is requested that revisions are made to this aspect of the design prior to the granting of any Railway Order.	TII does not consider that relocating the lift and stairs to the north side of Grand Parade is an optimum solution from the perspective of accessibility. Please also note that there is already a stair and lift immediately west of the Luas northbound platform, noting the existing footpath width underneath the bridge does not provide sufficient capacity for Luas interchange pedestrian flows.
9	3. Entrance escalators and impact on building operations	8	Part of the permitted 2 Grand Parade scheme is a 6m roadway to access the development (with the width of the access based on two-way car traffic, fire access, cyclists, and to accommodate perpendicular parking). The escalators proposed would reduce the width of the access to an extent which would interfere with the accessing of the development.	TII are aware of Union's desire to have a through 6m carriageway at this location however TII are in discussions with Union and in light of the constrained nature of the site at this location TII anticapte reaching agreement with Union on the design width of 5.58m and a footpath of 1.467m at this location.
10	3. Entrance escalators and impact on building operations	8	This will also result in the realignment of the internal access road and of the main vehicular executive Drop-Off, impacting on the landscaped atrium plaza and alignment with the building entrance configuration, and on the removal of 5 no. existing trees adjacent to Dartmouth Lane (the eastern boundary of the site).	It is not proposed to realign the access road, and therefore the drop-off and building entrance configuration will not be impacted. It should also be noted that the Arboriculture Impact Assessment for the MetroLink project identified that the trees in question have poor crown formation due to repeated canopy pruning, likely due to accommodating works undertaken on the site.
11	3. Entrance escalators and impact on building operations	8	The design currently does not indicate a kerb alongside the escalators (which would be required) and this would further obstruct the access to the 2 Grand Parade development.	It is proposed that the area is treated as a shared area and therefore kerbs do not need to be provided.
12	3. Entrance escalators and impact on building operations	8	In this regard the DBFL technical note sets out that the minimum width considered acceptable by our client would be 5.5 metres for the carriageway, with a 2 metre footpath provided in addition to this.	Please refer to response (9) above.
13	3. Entrance escalators and impact on building operations	8	In addition to this, the MSA note states that this aspect of the design would have an adverse effect on escape from the 2 Grand Parade development via stair core 2.	The MSA report outlines that stairway 2 has a maximum capacity of 271 people. Even if the walkway were widened by 0.5m it would not be enough to receive this number of people evacuating and who would therefore need to occupy the shared roadway. It is assumed that in the event of an incident, vehicular access will be closed.
14	3. Entrance escalators and impact on building operations	8	Having regard to the foregoing, revisions should be made to the Railway Order application drawings and documents, to ensure that a minimum 5.5 metre carriageway and a 2-metre paved footpath to maintain adequate access (including fire access).	Please refer to response (9) above.
15	4. Raised table junction and pedestrian junction	9	The HJL document notes that further details are required in relation to the level of the raised table interface with the adjacent public road and the 2 Grand Parade access.	The purpose of the raised table junction is to alert/inform drivers they are approaching a different environment and to calm the traffic. Further details will be provided at the next stage of the design.

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16	4. Raised table junction and pedestrian junction	9	Additionally, a significant number of bollards are indicated along the frontage to Grand Parade and along the 2 Grand Parade access road. It is noted that some of these bollards would impinge on fire escape from stair core 2 of the Carrolls Building, and additionally it is noted that there are already several trees permitted along this frontage as part of the permitted 2 Grand Parade development.	The proposed bollards or equivalent are provided for Hostile Vehicle Management (HVM). TII do not consider that the proposed bollards impinge on escape from stair core 2 considering they are located away from the exit of stair core 2 and are spaced to permit the passage of pedestrians. Tree planting can be coordinated with the provision of HVM bollards or equivalent.	
17	4. Raised table junction and pedestrian junction	9	Furthermore, it is noted that a new pedestrian crossing will be provided crossing Grand Parade and aligning with the main entrance to the 2 Grand Parade development. Clarification is required in relation to the details and finishes for the adjacent paving and the paving at the entrance to the 2 Grand Parade development. Clarification is also required on the anticipated pedestrian flows associated with this crossing, noting that Charlemont is predicted to be one of the busiest stations on the MetroLink line (with predicted peak passenger numbers boarding and alighting of over 2000 and almost 4000 respectively by 2065). Further detail should be provided as part of the Railway Order application process on the foregoing, prior to the granting of any Railway Order.....	Further details of the pedestrian crossing will be provided at the next stage of design. For pedestrian traffic flow information please refer to EIAR Appendix A9.2-B Traffic and Transport Assessment - Charlemont Station.	
18	5. Hard and soft landscaping	9	As set out within the accompanying HJL Architects report (Appendix 1), further detailed consideration will be required of the hard and soft landscaping to be provided alongside the 2 Grand Parade development to ensure coordination with permitted tree planting and landscaping.	Noted and agreed. This will be coordinated and agreed with Union Estate during the detailed design stage.	
19	6. Tunnel ventilation, air inlet, and fire fighting lift	9	As set out in the accompanying HJL report (Appendix 1), further detail is required prior to the granting of a Railway Order in relation to the design, dimensions, and finishes proposed for above ground ventilation, lift shafts, and pumprooms, in order to appraise the impact of the development on the 2 Grand Parade development. As currently indicated / laid out, these aspects of the project would impact on car parking (referred to in further detail below), landscaping, and on a brick and stone wall adjoining the 2 Grand Parade site, which forms part of the curtilage of protected structures adjoining the site facing onto Dartmouth Square West.	Please refer to drawing 'METROLINK - STRUCTURES CHARLEMONT STATION PROPOSED STREET LEVEL DESIGN', drawing No. ML1-JAI-SRD-ROUT_XX-DR-Z-02090, and the 'Materials Palette' provided with the Railway Order application. TII propose that a meeting with Union Investment is held to discuss whilst also confirming that as proposals are further developed during the detailed design phase these will be shared and discussed with Union Investment.	
20	6. Tunnel ventilation, air inlet, and fire fighting lift	9	It is also noted that mitigation measures should be provided prior to the granting of a Railway Order to ensure that any smoke and hot air emanating from vents are vented away from users of the 2 Grand Parade development.	The vents are located away from the Grand Parade development. however, please note that a coordinated emergency response plan will be developed with Union Estate so that in the unlikely event of a MetroLink fire incident, the safe evacuation of 2 Grand Parade can be enacted. Local authority approvals will be in accordance with agreements with DCC.	
21	7. Alterations to permitted car parking at 2 Grand Parade and location of cycle parking	9	As set out in Appendix 1, to the west of the access road, it is proposed to provide over track exhaust tunnel ventilation systems adjacent to the Dartmouth Square boundary of the 2 Grand Parade site, and adjacent to the Dartmouth Road entrance, a pressurized air inlet pumping room access, a Dublin fire brigade lift and a tunnel ventilation system draught relief structure are proposed. This will result in a reduction from 14 to 8 no. car parking spaces at ground level. These structures are also located at the location of a brick boundary wall which is protected fabric. It is therefore requested to consider an alternative for these structures. In the event of the loss or curtailment of access to car parking for the duration of the MetroLink construction stage, provision should be made for replacement parking elsewhere.	Parking places were defined at ground level for persons of restricted mobility. The total capacity proposed in the new building basement, as per MSA report, states 22 parking spaces. "Building for Everyone Universal Design Approach" recommends 5% of the total parking capacity. The 8 spaces provided achieves 36% and it is therefore considered sufficient provision has been made	

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22	7. Alterations to permitted car parking at 2 Grand Parade and location of cycle parking	11	Finally, it is proposed to provide bicycle parking spaces to the south of the 2 Grand Parade Building, at the location of a designated fire escape access and egress route from stair core 1 within the development under construction, which would result in an important fire escape route being compromised, and also potentially impact on access to ESB substation rooms at this end of the 2 Grand Parade building. It is requested therefore that this bicycle parking be altered to avoid impinging on this route. A revised design in this respect should be submitted prior to the granting of a Railway Order.	The passageway is 1.96m wide and therefore we do not consider the proposed bicycle parking is creating an obstruction.
23	8. Noise and vibration during construction	10	As set out within the DBFL technical note (Appendix 2) it is noted that noise level thresholds will be exceeded throughout the duration of construction, by more than 1Odb for some operations, and will have a 'Significant to Very Significant' effect on 2 Grand Parade. This is set out within Appendix A13. 7 "Construction Phase modelling" of the EIAR submitted with the Railway Order application. Considering that the property is in the 'further mitigation measure' category, noise and vibration threshold limits should be agreed with all stakeholders and that procedures are to be put in place to mitigate exceedance of agreed thresholds. Further information regarding these mitigation procedures is required, and must be sufficiently precise, detailed, and enforceable. Further detail in this regard is necessary prior to the granting of any Railway Order.	Following the granting of the Railway Order, the Noise and Vibration limits as proposed in the EIAR or other limits that An Bord Pleanála consider appropriate will have to be adhered to by the appointed main works contractors during the construction phase. The EIAR assessments present the worst case scenario modelled for noise and vibration during construction at Charlemont. As outlined in the EIAR, construction noise levels along the south and east façade of the Hines building development exceed the "Noise Insulation" threshold for all work phases at this site. Noting that the assessment undertaken in the EIAR (as is outlined by BS5228 guidance) determines indicative noise levels at the building façade only. As the site includes new buildings with an upgrade to the Carrolls Building, it is likely that the buildings already have sufficient "noise insulation" to ensure that construction noise levels are mitigated. In order to further allay any concerns, TII are agreeable to undertaking a further step that is normally undertaken much later during the detail design phase – i.e., to undertake further calculations to determine what the internal noise levels are likely to be in this building. To do this, TII will need details of the building acoustic design characteristics to be provided. This work will allow us to understand (1) if the existing building façade has sufficient capacity to attenuate predicted noise levels, (2) if additional building specific measures need to be introduced and/or (3) as a last resort, if the noise insulation is not sufficient, how long would the building need to be vacated for. It is important to note that the modelled external noise levels for the works does not currently identify the need for the building occupants to be relocated. TII have prepared a Metrolink Airborne Noise & Groundborne Noise Mitigation Policy (See Appendix A14.6 of the EIAR) which includes the proposal to engage with all stakeholders at least 6 months in advance of the works commencing to discuss the limits set and mitigation measures to be taken at each construction location.

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RE: SUBMISSION ON THE METROLINK RAILWAY ORDER APPLICATION IN RELATION TO THE SITE OF A COMMERCIAL DEVELOPMENT AT 2 GRAND PARADE, RANELAGH, DUBLIN 6.				
24	8. Noise and vibration during construction	10	It is noted by DBFL that the PPV limit relating to ground-borne noise and vibration has been established at 7.5m/s within the Appendix E 'Blasting Strategy' A5.20 of the EIAR. Clarification on how these limits will be set and monitored is required and needs to be agreed with all stakeholders prior acceptance. Further detail in this regard is also requested prior to the granting of any Railway Order. An assessment of the new-build portion of the permitted (and under construction) development at 2 Grand Parade in relation to blasting should be carried out as blasting methods will be used for the excavation of the Charlemont station box and a significant proportion of excavation for this station is directly below the development. Further information in this regard is required to ensure that the excavation of the Charlemont Station does not adversely impact the 2 Grand Parade building, and the baseline limits and monitoring regimes should be agreed with all stakeholders prior to acceptance and granting of a Railway Order.	Following the granting of the Railway Order, the Noise and Vibration limits (Including PPV limits for blasting) as proposed in the EIAR, or other limits that An Bord Pleanála consider appropriate will have to be adhered to by the appointed main works contractors during the construction phase. The EIAR assessments present the worst case scenario modelled for noise and vibration from blasting during construction at Charlemont, whilst noting that it is likely that the levels of vibration generated by the proposed blasting strategy will be lower. Details of this blasting strategy can be viewed in Appendix A5.20 to the EIAR. Based on the proposed blasting strategy, the modelling exercise undertaken for the EIAR has identified that vibration levels resulting from blasting at Charlemont would exceed assessment criteria. See Vol 3, Book 1, Chapter 14: Ground-borne Noise and Vibration, Table 14.34. As such, the blasting patterns proposed for Charlemont would need to be adjusted to reduce the potential effects. The blasting designs can be amended by: • Preparing a correct blast design based on a survey of the rock face profile prior to design; • Minimisation of the explosive charge per delay. This could involve some or all of the following: - • Reducing the drilling diameter of the hole for explosives; • Shortening the length of the holes for explosives; • Initiating charges at different times, using the maximum number of detonators possible, and selecting an effective delay time between holes and rows which would avoid wave interaction and provide good rock displacement; • Set the explosive initiation sequence in a way that it progresses away from the structures to be protected; • Use an adequate powder factor (weight of explosives per volume of excavated material). When the powder factor is lower than what is needed, the increase in charge confinement leads to an increase in intensity of vibrations. Excessive consumption will create an unnecessary overload, accompanied by greater disturbing effects; • Increase confinement of the explosive charges with a long stemming height and use adequate, inert material; • Create shields or discontinuities between the structures to be protected and the blasting, place barriers between blasting area and sensitive receptors if required; or cover the blasting area carefully with a blast mat or similar; and • Cover the voids and use acoustic sheds, if required. As standard, the above will be supplemented by monitoring of blasting and re-optimising the blast design considering the results, changing conditions and experience. In the unlikely event that the blasting design cannot be revised to ensure that assessment criteria are not exceeded, then the following further mitigation measures will be considered: • Use of non-explosive blasting techniques, such as expanding grout or rock sawing; and • Use of mechanical excavation instead of blasting.
25	9. Noise and vibration during operation	10	As further noted within the DBFL technical note (Appendix 2), during the operation of the metro, the noise and vibration thresholds set out within the EIAR are likely to be exceeded, therefore an assessment of operational noise and vibration is required for the 2 Grand Parade Building and mitigation measures in this regard should be set out in full detail prior to the granting of any Railway Order.	For the operational phase of the project, the EIAR prepared for MetroLink has identified that Groundborne Noise and Vibration limits set in the EIAR will not be exceeded at this location. The EIAR has predicted Groundborne Noise levels of 29 LAmax,s dB compared to a limit of 40 LAmax,s dB. Vibration modelling predicted very low levels of vibrations at this location. (0.005 VDvday mms-1.75 which is less than the limit for “No effect” which is 0.2 VDvday mms-1.75).

Submission No.			305	
Organization Name or Name of Submitter			Union Investment Real Estate GmbH (represented by John Spain Associates)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: SUBMISSION ON THE METROLINK RAILWAY ORDER APPLICATION IN RELATION TO THE SITE OF A COMMERCIAL DEVELOPMENT AT 2 GRAND PARADE, RANELAGH, DUBLIN 6.				
26	10. Construction sequencing and phasing and access to the 2 Grand Parade Development	11	The technical note prepared by DBFL Consulting Engineers also sets out grounds of submission in relation to the phasing and management of the construction stage on this site. As set out therein, a scenario whereby vehicular, pedestrian, or cycle access to the 2 Grand Parade office development was curtailed during the construction phase would not be acceptable to our client. Firstly, it is noted that for one of the two proposals for the sequencing of construction of Charlemont Station, the basement of the 2 Grand Parade development will be accessible only for emergency purposes during the construction period. It is requested that the basement, plant areas and ESB substation are accessible to vehicles, pedestrians, and cyclists during the construction period. The second option provides for access to the basement during the construction period, however it is requested to provide further information in relation to the various element of the construction sequence to properly assess the impact on the 2 Grand Parade Building. Further detail and / or revised proposals in this regard are required prior to the granting of a Railway Order. Please refer to the DBFL technical note for further details.	The alternative plan was developed and shared over a number of months in discussion with Hines in 2021/2022 and has been taken account of by the EIAR. Earlier return to full width access from Grand Parade before final station completion may be possible on the understanding that a shared access can be provided for the delivery of MEP equipment and materials for Station finishing works.
27	11. Ground settlement and potential impact on 2 Grand Parade	11	As set out within the DBFL technical note (Appendix 2) it is noted within the Appendix 'Building Damage Report' A5.17 of the MetroLink EIAR, protection works are not necessary for the protected structure (the Carrolls Building) at 2 Grand Parade that is located within 2m of the station box. However, given the proximity of the building to the station, the report states potential mitigation will be required to reduce the effect of the ground movement on the Carrolls Building. Any proposal for ground/foundation improvement requirements is to be agreed with all stakeholders prior to implementing this as a solution, and further detail in this regard is requested prior to the granting of a Railway Order.	The potential for construction generated ground movements impacting the Carrolls Building has been carefully considered. The provision for possible protection measures has been raised as a precaution for future consideration (see below extracts from the EIAR). Irrespective of whether protection measures are subsequently deemed to be required, the impact on the Carrolls Building will be limited to Category 2 or less in accordance with the EIAR. EIAR Chapter 5 Construction Phase Appendix A5.17 Building Damage Report states the following in section 5.3, last paragraph. <i>Despite the damage classification from both the initial and the refined analysis of the Carrolls Building at chainage 19300 table 5-5 intervention may be required. This is due to the proximity of the building, figure 5.1 e to the Charlemont station structure. Local effects including variation in ground, the building ground and construction technique can influence the predictions. Therefore, it is prudent to anticipate a potential intervention around the structure until these are all known. This could be mitigated with very precise construction control, the installation of a physical separation, or ground treatment to prevent any movement.</i> Section 5.4, Assessment Summary and Conclusions, last paragraph concludes: <i>In particular, some form of foundation treatment might be required to protect the Carrolls Building (B-228) due to its very close proximity (less than 2m) to the proposed excavation associated with Charlemont station box construction.</i> During the detailed design and construction planning phase, this building will be assessed again. If an intervention as described above is required, TII will provide full details of the design and build contractors proposals for agreement in advance of work commencing.

Submission No.			305		
Organization Name or Name of Submitter			Union Investment Real Estate GmbH (represented by John Spain Associates)		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
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28	12. Pre-construction condition surveys required and reinstatement	11	The DBFL technical note (Appendix 2) further notes that pre-construction condition surveys of all assets (including structures, building fabric, water services, and mechanical and electrical services) for the entire 2 Grand Parade development (including the development currently under construction and nearing completion) are required and need to be agreed in advance of any site activities commencing. A condition to this effect should be included in any Railway Order. Additionally, a mitigation measure should be included to provide for the reinstatement of the area impacted by the MetroLink project at Charlemont / 2 Grand Parade, to provide certainty that the impact of the development on the 2 Grand Parade office development will be addressed post-construction.	Principles are agreed and will be reflected in the main works contractor's documentation. The extent of the condition surveys will be determined by the assessed impact and risk to 2 Grand Parade, all of which will be agreed with Union Estate.	
29	13. Maintenance of services to the 2 Grand Parade development	11	As set out within the DBFL technical note (Appendix 2) clarification is sought on how services at 2 Grand Parade will continue to operate and be accessible during the construction period. It is noted that service diversions are to be agreed with DCC and utility providers, further information is requested in this respect, as it is important that all services remain operational to the 2 Grand Parade development during the construction process.	TII confirms that all services provided to the Grand Parade development will remain operational during the construction phase.	
30	14. Plant replacement strategy	12	The DBFL technical note finally sets out that further detail should be submitted prior to the granting of a Railway Order in relation to the strategy for the replacement of large plant items and station equipment, and particularly in relation to the northern (Grand Parade) end of the station.	The removal or replacement of heavy equipment will be done via the equipment access shaft near Dartmouth road or via the tunnel. In both cases there will be no impact on Grand Parade operations.	
31	15. Fire strategy for Charlemont	12	The MSA technical note (Appendix 3) submitted herewith outlines that it is not clear from the Railway Order application documentation whether TII have considered the impact of the MetroLink project in terms of fire safety on the 2 Grand Parade project, in terms of impact on means of escape (set out previously), occupant numbers and flows, external fire spread between structures, required separation and boundary distances, fire service vehicle and personnel access to the site and building, station vent locations, potential fire alarm interfaces. Therefore, it is submitted that a detailed fire safety document to address interactions with an impact on the 2 Grand Parade development should be submitted prior to the granting of any Railway Order (with any resulting alterations to be incorporated into the design of the proposed development).	A MetroLink Fire Strategy has been developed that covers all proposed stations individually, including Charlemont. TII would welcome the opportunity to discuss the Charlemont Station preliminary design fire strategy with Union Estate.	
32	16. Construction stage impacts on fire safety for 2 Grand Parade	12	The MSA technical noted (Appendix 3) sets out that there has not been adequate consideration of the impact on the 2 Grand Parade development in fire safety terms during the construction phase. The construction management and phasing of development should be revised to address this issue.	See response to item No. (26) above.	
33	17. Requirement for detailed Fire Authority engagement	12	While the Railway Order application does note that consultation has been undertaken with Dublin Fire Brigade, the MSA technical note included as Appendix 3 sets out that greater detail is necessary in this regard, including in terms of fire strategy preparation, lodgement and approval.	See response to item No. (31) above.	
34	18. Estate management issues	12	Apportionment of Estate Costs: It would be appropriate for the applicant for MetroLink to contribute towards the repairs, maintenance and upkeep of estate lands which users of the 2 Grand Parade office development and the Metro station pass over. This would require development of a particular schedule of costs common to both 2 Grand Parade and the Metro station and an apportionment of these costs agreed between both parties.	This is not a matter for consideration as part of this RO application.	
35	18. Estate management issues	13	Cleaning Requirements: Periodic cleaning of all building fabric should be undertaken by the MetroLink contractor on a frequency agreed with our client. There would also be a possible requirement for additional cleaning/maintenance of M&E equipment (changing of filters etc) which may be required during construction works.	TII do not agree to this. It would need to be demonstrated that any cleaning required is due to MetroLink works.	

Submission No.			306	
Organisation Name or Name of Submitter			University College Dublin	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Ref No: ABP-302010-18				
1	Introduction	2	While welcoming the Railway Order application for the MetroLink, we are disappointed that the route will not directly serve the UCD campus at Belfield.	As explained by EIAR Chapter 7, Consideration of Alternatives, section 7.5 Assessment of Alternative Route Options, the assessment of alternatives to identify a preferred route for the proposed Project has been undertaken based on the assessment of a number of route options and station locations. The proposed MetroLink alignment has not been extended south of Charlemont for the reasons set out by the GDA strategy , section 12.3.10. Further information on the challenges associated with connecting to the existing Luas Green Line can be found in the TII published report: "Constructability Report - Green Line Closure, April 2019, ref https://www.metrolink.ie/media/ox0p3cjb/constructabilityreportgreenlineclosure.pdf". This showed that construction works to connect the metro from Charlemont to the Green Line would incur line closures over a period of up to 3-4 years, depending on construction methodology. For this reason it has been necessary to determine the most appropriate interchange and termination location for MetroLink. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.' This is also reflected by EIAR Chapter 7, section 7.7.8 MetroLink Southern Terminus Location that explains the rationale for selecting Charlemont as the optimum location for interchange with the Green Line. As noted by the GDA Strategy the selection of Charlemont does not preclude any potential future connections to the west or south of the city should a Railway Order application be made for same at some point in the future.
2	Supporting Sustainable Travel to UCD	3, 5	As the single largest generator of trips within the Greater Dublin Area, we would strongly request consideration of the future potential to extend the proposed MetroLink to UCD in the longer term.	Please refer to response (1) above.

Submission No.			306		
Organisation Name or Name of Submitter			University College Dublin		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Re: Ref No: ABP-302010-18					
3	Enhanced Public Transport provision to support sustainable Campus development	4	To fulfil and surpass the Travel Plan targets and continue to meet future demand to enable more people to access the Campus by sustainable means, a step-change in the delivery of public transport frequency, capacity and connectivity to and from the Campus is critical. This is essential to meet future demand for Ireland's largest and fastest growing University and enhance Campus accessibility across the Greater Dublin Area.	Please refer to response (1). As detailed in Chapter 9 (Traffic and Transport) section 9.4.3 and 9.4.4, the NTA's Eastern Regional Model has been utilised to obtain data on the strategic transport movements within the Greater Dublin Area, which inform the passenger demand forecasts for the Project. The ERM provides a detailed representation of all major transport modes including the public transport network, road network and active modes networks, accurate mode choice modelling of residents, a detailed representation of travel demand of four time periods (AM, LT, SR and PM), and a prediction of changes in trip destination in response to changing traffic conditions, transport provision and/or policy (such as transport projects identified in the National Development Plan and the Transport Strategy for the Greater Dublin Area 2016-2035). The NTA have also provided Planning Datasheets for the years 2035, 2050 and 2065, that includes forecasts for key trip generation and destination variables such as: * Population; * Population by age cohorts; * Population by school level (Primary, Secondary, Third Level); * Principal Economic Status; * Employment places at destination; * Employment paces at destination by type (Health, Retail, Food Retail); and * Education places at destination by level (Primary, Secondary, Third Level). These planning sheets are the principal land use scenario for all plans and schemes. Interim year planning sheets for years between 2016 and 2040, are straight line interpolation between 2016 and 2040. For years after 2040, these planning datasheets are created by extending this straight-line interpolation onwards to the forecast year, such as 2050 or 2065. Therefore, the Project has been designed to cater for future demand and growth projections within the Greater Dublin Area.	
4	Enhanced Public Transport provision to support sustainable Campus development	4	When the proposed Metrolink station at Charlemont is open, it will be essential to provide integrated and seamless connections between Charlemont and the Belfield campus.	Future Public Transport connections from Charlemont to Belfield do not form part of this Railway Order submission.	
5	Enhanced Public Transport provision to support sustainable Campus development	4	While welcoming the identification of additional Luas lines as identified in the draft GDA Transport Strategy 2022-2042, including the Green Line reconfiguration to provide for a line from the City Centre to Bray via UCD and Sandyford, UCD are disappointed that this is not planned for delivery until 'at a point beyond 2042' - particularly given UCD's position as Ireland's largest and fastest growing University.	Additional Luas lines identified in the GDA strategy do not form part of this Railway Order submission.	
6	Enhanced Public Transport provision to support sustainable Campus development	5	Noting the findings from the Metro UCD to Sandyford Feasibility Report, and as the Campus population grows, we would welcome continued engagement with the NTA and TII to establish the opportunities for the earlier planning and delivery of the additional Luas line serving UCD demand before 2042.	NTA and TII will maintain engagement with UCD and relevant stakeholders for future feasibility studies and route considerations.	

Submission No.			307		
Organisation Name or Name of Submitter			Upper Leeson Street Area Residents Association		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Observation on a Strategic Infrastructure Development Application					
1	Observation details 5. Grounds	3	ULSARA (The Upper Leeson Street Area Residents' Association) supports the development of public infrastructure mass transport initiatives that improve the amenity of our area and the wider Dublin city while protecting the built environment and communities of the city.	Thank you for taking the time to make this submission. TII appreciate your support for public infrastructure mass transport initiatives, and also confirm that protecting the built environment and communities within the city is also a priority for TII, whilst also noting the significant benefits that the MetroLink Project will deliver, not only to those who choose to use it, but also to other transport network users, by generating a modal shift from private car use, thereby reducing the demand for road space and creating the opportunity for the road transport system to achieve optimum levels of efficiency and effectiveness. Further, the proposed Project is part of an integrated transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2023 and make Dublin a more liveable and sustainable city. Whilst MetroLink is a standalone project that is not dependent on any other projects for its delivery or effective operation, it is nonetheless a critical part of the proposed integrated transport network for the Greater Dublin Area.	
2	Observation details 5. Grounds	3	We note the plans for a Metrolink station at Charlemont. While recognising the convenience of this proposed station for residents throughout the area, we are also acutely alert to the concerns of many residents in the immediate vicinity of the station and share their concerns that unregulated or poorly regulated surface transport delivering intending travellers to; and awaiting/collecting passengers from; the metro station could impact negatively on the quality of life for those in the immediate neighbourhood.	The MetroLink forms part of an integrated public transport network. The system is designed in an integrated manner so that people travelling from the area south of Dublin to access locations north of Charlemont, such as Dublin Airport, Mater, Swords etc. will utilise public transport to interchange with the MetroLink, or will walk or cycle to access their local station. The system is not designed to encourage people to drive to stations within the City and TII actively discourage people from doing so other than the Park & Ride station at Estuary. When the Project is operational, car mode share will decrease, with a reduction of over 340 car trips to and from the zones surrounding Charlemont Station over the 12hr period in 2035, and forecast to rise to approximately 830 car trips in 2065 (ref EIAR Appendix A9.2-B Traffic and Transport Assessment - Charlemont Station, section 6.1.2). In overall terms, the Charlemont Station will improve integration within the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Furthermore, TII have deliberately designed the Station with minimum set down space for cars (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used for private car drop-off. TII therefore do not expect the provision of a MetroLink Station at Charlemont to negatively impact the quality of life of those in the immediate neighbourhood, and would further note that that local residents will greatly benefit from having a world class metro system providing access to the city centre, airport and north city at their door step.	

Submission No.			307		
Organisation Name or Name of Submitter			Upper Leeson Street Area Residents Association		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Observation on a Strategic Infrastructure Development Application					
3	Observation details 5. Grounds	3	Given the fact that Charlemont may be for many years the most southerly end station on the route, the local area faces unique problems not confronting other stations. It will represent a potentially attractive “kiss and ride” location for family members to drop intending passengers from a wide area of South Dublin. It will also be identified as an attractive rendezvous location for those arranging taxi or private car collection to complete their Metro journeys from, for example, Dublin Airport.	Please refer to Response (2) above that explains why the proposed Charlemont Station will not exhibit characteristics of a 'drop-off' or terminus station. Existing parking restrictions in the surrounding area will further restrict drop-off opportunities. TII would further note that the terminus station for MetroLink is located at Estuary where all of the activities normally associated with a terminus (train sideways, depot, care centre and maintenance facilities) take place. At this location the high capacity public transport offering terminates and the public transport offering transfers to a completely different mode, i.e. bus. The environmental effect of the Metrolink terminus are accordingly assessed in the EIAR. In contrast, Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a “system turn back location”. Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, the public transport service offering is not considered to terminate but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. The associated environmental impacts for the turnback and station at Charlemont have been fully assessed in the EIAR main chapters. Additional detail is provided in EIAR Appendix A9.2-B Traffic and Transport Assessment-Charlemont Station (including public transport transfer opportunity and assessment) and a comparison of Charlemont station vs St Stephens Green as the system turn back location, is provided in the EIAR Appendix A7.9 Terminus Station at Charlemont compared to St. Stephen's Green.	
4	Observation details 5. Grounds	3	As a result, impeded access to the various lane ways in the neighbourhood, abuse of parking spaces allocated to drivers with disabilities, illegal parking on double yellow lines (including at junctions), obstruction of cycle lanes and blocking of access to private dwellings can all be predicted. This must not be a result of the opening of the station.	Responses (2) and (3) explain the how Charlemont is designed to operate, and that it is part of a 'through transport corridor' rather than a terminus station, with a single drop-off provided on Grand Parade for persons of restricted mobility only.	
5	Observation details 5. Grounds	3	To avoid these outcomes we strongly recommend that An Bord Pleanala should require the project promoter and Dublin City Council to agree, implement and enforce a rigorous surface transportation management plan specific to the Charlemont area which anticipates and effectively enforces prohibition of illegal parking and other rule breaking by motorists (including PSV license holders). This will undoubtedly require an agile approach - probably including sustained on-foot patrolling by authorised enforcement personnel. We believe it is essential that an adequate budget for this sustained enforcement programme is part of the area surface transport management plan. We further recommend that it be a requirement that representatives of the local community are consulted in an ongoing and structured way on the development and implementation of the plan	The traffic enforcement plan referred to will be a matter for Dublin City Council and would be part of DCC's wider traffic management enforcement strategy noting that as explained above, TII have designed the proposed Charlemont Station so that it is part of a 'through transport corridor' rather than a terminus station, with a single drop-off provided on Grand Parade for persons of restricted mobility only. Regarding on-going consultation. TII have undertaken extensive consultation and communication across the route of MetroLink and have listened carefully to the concerns of stakeholders and the community, as documented within EIAR Chapter 8 (Consultation). A Stakeholder and Community Engagement Plan has been developed which has guided the frequency and means of communication to date. The proposed Project will continue to progress community engagement by: • Regularly reviewing and updating stakeholder and community engagement plans; • Actively maintaining partnerships and design focus groups established with the community; and • Communicating in a timely and open manner. TII will continue to work closely with the National Transport Authority, Dublin City Council, and other key stakeholders throughout the construction and operational phases. A coordinated agency approach is imperative to its efficient delivery, and the assurance of minimal disruption.	

Submission No.			309	
Organisation Name or Name of Submitter			Vincent Harris and others 2 (represented by Marston Planning Consultancy) [Stephen Smith / Alex Smith / Robin Smith / Lauren Smith, Sheila Boyd / Francis Mackey / Jacqueline McElhinney]	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metrolink- Estuary to Charlemont via Dublin Airport) Order 2022, ABP Ref. NA29N.314724				
1	Letter	1	This submission should be read as an addendum to our original submission from November 2022 and addresses the noise impact of the construction and operational phases of the proposed development on the Coke Oven Cottages. Our clients concerns relating to all other issues raised in the original submission remain, and this submission should not be considered, in any way, as forming a submission that replaces in any way our original submission.	Thank you for your submission and for sharing your observations with regards to the MetroLink project to which we have responded below. TII acknowledges that this is a standalone submission, and have responded to your original submission (submission no.310) separately.
2	Letter	1	Our clients requested that we review in greater detail the impact of the works to the Maynooth to Connolly station line to the rear of their properties, and how this would impact upon their properties at nos. 1 to 4 Coke Oven Cottages, both during construction and in the operation of this railway both in the short and long term. It was notable that very little detail was provided in terms of the nature and extent of the exact works, with one section provided just to the west of the new station, where retaining works were required adjacent to the Glasnevin cemetery.	With regard to the scope of railway works behind Coke Oven Cottages please refer to drawing ML1-JAI-ARD-ROUT_XX-DR-Y-03081 Royal Canal Way Sheet 4 of 4 included in the Railway Order Plans\Drawings, Alignment Details, Book 2 of 2, DCC; and drawing ML1-JAI-SRD-MS11_XX-DR-Y-01005 Glasnevin Heavy Rail MGWR Long Section in the Structures Details Book 3 of 3, Other Linewide Structures. These drawings show the extent of the rail realignment and associated embankment and retaining wall works in proximity to Coke Oven Cottages. These works are wholly contained within the existing railway corridor and will be undertaken from the track level as noted in EIAR Appendix 5.5 – Glasnevin Station Construction Report, section 7. The works will include the start of the lowering and realignment of the existing railway track level from a point just west of the Coke Oven cottages, gradually reaching a 2m lowering and full realignment at the proposed Glasnevin station location. Whilst there will be no direct impact on the cottages, there will be construction noise associated with the works, which will be undertaken on a 24 hour basis in order to limit closure of the railway, to allow for more productive work and to shorten the duration of construction impacts. The lowering of the existing track will commence just to the west of the cottages and progress eastwards. The depth of the track will be confirmed at detailed design phase however the lowering adjacent to Coke Oven Cottages will be less than 1m. As presented in EIAR Appendix 13.7 Construction Phase Modelling, the noise level generated by the Track Alignment and Track Lowering would be above the nighttime threshold of 55 dB, if no mitigation is applied, resulting in an Significant to Very Significant impact during Night-time (23:00 – 07:00). The threshold will be mandated to the contractors and enshrined in the Railway Order. Contractors will then need to provide best practice mitigation to reduce the impacts. If the Contractor is unable to reduce the impacts sufficiently, such that residual levels are such that widespread community disturbance or interference with sleep is likely to occur, TII will consider whether the provision of further Noise Insulation (NI) or Temporary Rehousing (TRH) would be appropriate at locations where eligibility for either has been established. Measures to mitigate airborne noise are outlined in Section 13.6 of the EIAR Chapter 13 (Airborne Noise and Vibration), and includes measures such as noise control at source, site layout and selection of quiet plant. With consideration of the proposed noise mitigation measures residual impacts during the Glasnevin track possession works have been set out in Table 13.88, where it is indicated that Coke Oven Cottages would be eligible for the application of the TII Airborne and Groundborne noise mitigation policy, which is given in Appendix 14.6 Airborne Noise & Groundborne Noise Mitigation Policy of the EIAR. The document Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) sets out the further mitigation measures and supports which will be available to those who meet the eligibility criteria. As the NI option will only control internal noise levels, noise levels at external areas will remain impacted by construction noise. In addition, this option will also result in indirect impacts to residents (alternative ventilation systems or temporary relocation). On this basis, this option should only be considered where all other reasonably practicable measures have been implemented.

Submission No.			309		
Organisation Name or Name of Submitter			Vincent Harris and others 2 (represented by Marston Planning Consultancy) [Stephen Smith / Alex Smith / Robin Smith / Lauren Smith, Sheila Boyd / Francis Mackey / Jacqueline McElhinney]		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Re: Railway (Metrolink- Estuary to Charlemont via Dublin Airport) Order 2022, ABP Ref. NA29N.314724					
			Response (2) continued.	Temporary relocation relates to buildings where isolated floors or façades are impacted by the works and will benefit from temporary relocation of any noise sensitive activities for the duration of the phase of works. Where this option is recommended, a consultation process will be established between TII, the contractor and the building occupants/owners. Following the completion of the detailed design stage and the finalization of the proposed construction methodology and at least 6 months prior to commencement of construction works, TII in collaboration with the scheme contractor will update the EIAR airborne noise modelling predictions to reflect the planned construction methodology and timing of the works. Where the updated predicted airborne noise levels still exceed the trigger values, the owner/occupier of properties in close proximity to the works will be contacted and advised that they are eligible to enter into discussions with TII in respect to further mitigation measures to be put in place. No noise impact during operation of Metrolink is predicted on the Coke Oven Cottages due to their location at more than 300 m distance from Glasnevin Station and tunnel. The impact of train traffic from the Irish Rail network - Midland Great Western Railway (MGWR) is not assessed as part of the MetroLink works.	
3	Letter	1	We noted in our original submission that the interlinked works with the existing main line will require the western commuter line (that backs onto the Coke Oven Cottages) to be closed for a period of 21 months. Section 5.10.6 of the EIAR indicates that the train track will be lowered by c. 2m although the alignment drawings provide no detail as to where and along which stretch of the railway this reduction will occur. A drawing is noted as indicating as proposed earthworks to the rear of the Coke Oven Cottages. No detail is provided as to the nature and extent of these earthworks.	Please refer to Response (2) in relation to the works to the Irish Rail tracks running past the cottages which will be undertaken as part of a full line closure of 21months as noted in EIAR Appendix 5.5 – Glasnevin Station Construction Report, section 1. The reference to the 2m lowering relates to the rail tracks at Glasnevin Station. The track will be laid on a gradient to tie in to the existing tracks just north-west of Coke Oven Cottages as shown on the drawings noted in Response (2) above.	
4	Letter	1	We note that the EIAR states that the construction working hours differ at this location due to the interface with existing Iarnrod Eireann infrastructure and live railway line and will require working to be carried out on a 24 hour a day, seven days a week basis for some activities.	TII confirm that some 24 hour working will be required at this location to minimise the duration of the closure of the railway. Response (2) above describes the work and the proposed mitigation.	
5	Letter	2	We respectfully submit that such working hours are completely unacceptable on this stretch of railway to our clients and the need to uphold their residential amenities during the construction process. Whilst the EIAR states that the planning of such works will take consideration of sensitive receptors, in particular any nearby residential areas, there is a lack of clarity provided as to how such intrusive works would be managed to mitigate negative noise impacts in relation to Coke Oven Cottages. This is deeply concerning to our clients.	Please refer to Response (2) in relation in relation to the 24 hour working required at this location and to the proposed mitigation measures for noise impacts during the construction works including EIAR references.	
6	Letter	2	The impact of the construction phase of the lowering of the track in terms of the construction phase on Coke Oven Cottages were identified as set out below within Appendix A13.7 of the EIAR. This sets out that the Predicted Construction Noise Level at the Coke Oven Cottages will be 69dB. This Appendix identifies the Construction Noise Threshold at the Coke Oven Cottages as being 65dB between 7am and 11 pm all days of the week, and only decreases to 55dB between 11pm and 7am.	The construction airborne noise Level at the Coke Oven Cottages of 69 dB is the noise level before any mitigation measures are applied, resulting a Moderate to Significant impact during day time and a Significant to Very Significant impact during night time. Please refer to Response (2) in relation to how these impacts will be mitigated.	

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Organisation Name or Name of Submitter			Vincent Harris and others 2 (represented by Marston Planning Consultancy) [Stephen Smith / Alex Smith / Robin Smith / Lauren Smith, Sheila Boyd / Francis Mackey / Jacqueline McElhinney]	
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7	Letter	2	Chapter 13 of the EIAR, and entitled Airborne Noise and Vibration identifies that one of the gardens to the rear of Coke Oven Cottages was selected as one of the noise monitoring locations (Table 13.29, ID UT39) and Table 13.31 identifies that Coke Oven Cottages was one of the vibration monitoring locations (VM01). The unattended noise monitoring undertaken to the rear of one of the Coke Oven Cottages indicated background noise levels (CHART IN PDF). it is notable that this survey was not undertaken at the facade of the nearest noise sensitive receptor and therefore is misleading in terms of the existing noise environment of the Coke Oven Cottages that are located in a quiet environment. The only background noise of note is perpetuated by the trains that generally pass in each direction every 30 minutes or so currently apart from at peak commuting times when there are trains every 10-15 minutes for a period of an hour. Current noise levels are therefore considered to be significantly lower than indicated within the EIAR. This is reflected in Table 19 of Appendix 13.1 that sets out in more detail the results of the noise survey, which was undertaken between the 16th May and 22nd May 2019. The correctness and robustness of these survey results must be questioned given the fact that they were undertaken over three and a half years ago. It is notable that background noise levels during the day were generally measured in the range of 40-42dB LA90,i6hr. It is notable that background noise levels at night were very low at between 37 and 39dB LAso.sht that were reflective of some of the lowest background noise levels surveyed along the project. The predicted noise level impacts of the construction phase are indicated as follows within Appendix 1 3.7 of the EIAR.	The locations of the baseline noise and vibration measurement surveys are indicated in EIAR Figure 13.1 Noise and Vibration Monitoring Locations, sheet 5 of 7. A photograph of the noise measurement position at Coke Oven Cottages is also presented in Appendix A13.2 Baseline Noise Monitoring Report Appendices. A review of the location and photographs indicates that this measurement position is representative of the location of Coke Oven Cottages. The measurement results presented in Table 13.30 of Chapter 13 (Airborne Noise and Vibration) of the EIAR, and also Table 19 of Appendix 13.1 Baseline Noise Monitoring Report are measurements undertaken in the free-field, that is away from reflecting surfaces, such as a building facade. Measurements undertaken at 1m from the facade of a building would be expected to be +3dB higher. The background noise levels are as presented in the EIAR. The ambient noise environment is influenced by passing trains as noted by the observer. The variation in ambient (LAeq) and background (LA90) noise parameters of this nature is common in rural settings with rail noise sources which passes intermittently. In accordance with the guidance documents used for construction noise assessment (see EIAR Chapter 13, Airborne Noise & Vibration, Section 13.2 Methodology), the ambient noise environment is used to set the relevant construction noise thresholds for significance. The baseline noise measurement surveys at Coke Oven cottages have resulted in the lowest daytime construction noise threshold (65 dB LAeq,T). During night-time periods, the baseline noise levels measured have assigned a significance threshold of 55 dB as measured noise levels were above 45 dB LAeq during this period, over a 5 day monitoring period. The calculated night-time noise impacts associated with track lowering post mitigation are noted to remain above the NI or TRH trigger values. This is determined irrespective of the baseline noise environment and thus the age of the data is not material to the outcome of this assessment. It is noted in Table 13.88 of the EIAR that the Coke Oven Cottages are identified as properties where the application of TII Airborne and Groundborne Noise Mitigation Policy will be implemented where eligibility has been established.
8	Letter	2	However, these do not appear to tally with other documentation within the EIAR. Our clients note with particular concern that Table 13.63 within Chapter 13 of the EIAR as set out on page 99 entitled “Glasnevin - Track Possession Works - Potential Night Time Significant Construction Noise Impacts”, that relates to track alignment and track lowering works to the rear of the Coke Oven Cottages specifies that the predicted magnitude of impact at Coke Oven Cottages (referenced in Table 13.63) is "Very Significant to Profound" (see excerpt below). CHART IN PDF	According to EIAR Appendix 13.7 Construction Phase Modelling, the assessed impact is Significant to Very Significant. The Very Significant to Profound magnitude from the EIAR Chapter 13,Table 13.63 relates to the 5dB range quoted in the table of up to 70 dB. The specific impact of relevance to the property, and subsequent applicability of mitigation measures, is based on the specific assessment quoted in Appendix 13.7, which is marginally lower than 70dB. As presented in EIAR Appendix 13.7, the noise value for Track Possession Works is between 67 to 69 dB while the threshold value for night noise is 55dB, resulting 12-14 dB above the CNT (Construction Noise Threshold). As presented in the EIAR Table 13.13 of Chapter 13, the unmitigated impact effect is: • Significant to Very Significant if the CNL (Construction Noise Level) is above CNT +5 and below or equal to CNT +15dB; • Very Significant to Profound if the CNL is above CNT +15dB. Measures to mitigate airborne noise are outlined in Section 13.6 of the EIAR, and include measures such as noise control at source, site layout and selection of quiet plant. With consideration of the proposed noise mitigation measures residual impacts during the Glasnevin track possession works have been set out in Table 13.88, where it is indicated that Coke Oven Cottages would be eligible for the application of the TII Airborne and Groundborne noise mitigation policy, which is given in Appendix 14.6 Airborne Noise & Groundborne Noise Mitigation Policy. of the EIAR. Please also refer to Response (2) in relation to the proposed mitigation measures.

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Re: Railway (Metrolink- Estuary to Charlemont via Dublin Airport) Order 2022, ABP Ref. NA29N.314724					
9	Letter	2	Appendix A14.6 sets out noise mitigation measures and policy being proposed, that may include additional measures such as noise insulation, temporary rehousing, or soft interventions. We respectfully submit that it is deeply disappointing that for the clarity of our clients, the mitigation measures that will apply to the residents of Coke Oven cottages will only be known 6 months prior to commencement of construction works as set out under section 3.1 of Appendix 1 4.6. This would seem unreasonable that our clients can therefore not comment upon them under this submission.	As presented in EIAR Appendix A14.6, the airborne noise modelling in the EIAR is based on a reasonable worst-case scenario. Accordingly, there is scope to reduce the impact of airborne noise further at the detailed design stage and during the finalisation of the construction methodology for the works. As a result, at this stage, the specific mitigation measures in the case of Coke Oven cottages are not set up and cannot be commented on. Please refer to response item (2) in relation to the proposed mitigation measures. Following the completion of the detailed design stage and the finalisation of the proposed construction methodology and at least 6 months prior to commencement of construction works, TII in collaboration with the scheme contractor will update the EIAR airborne noise modelling predictions to reflect the planned construction methodology and timing of the works. Where the updated predicted airborne noise levels still exceed the trigger values, the owner/occupier of properties in close proximity to the works will be contacted and advised that they are eligible to enter into discussions with TII in respect to further mitigation measures to be put in place.	
10	Letter	2	We respectfully submit that given the very significant to profound construction impacts the highest degree of mitigation would be required for the residents of Coke Oven Cottages. It is clear that the proposed night time work will far exceed the 10dB change that is indicated as justification for rehousing and other mitigation measures. The noise impact will be an increase of c. 28-31 dB in background noise levels at night. Such levels of noise generated by the proposed works necessitate the strongest possible construction mitigation measures as it will make living in the cottages, even for a short period of time, during construction, untenable.	Please refer to Response (2), (8), and (9) in relation to the anticipated noise levels, and the proposed mitigation measures.	
11	Letter	2	In addition it is clear that due to the very nature of the night works they would also require floodlighting that will result in light pollution of the Coke Oven cottages. This is again completely unacceptable. We would request that, if night time works are required, due to the operational nature of the railway line, then it is inherently required that the strongest mitigation measures are employed. The use of acoustic screens during construction will not adequately address our clients concerns.	As presented in EIAR Appendix 5.18 Temporary Lighting Approach, light pollution can be a particular problem on construction sites, where new or temporary lighting may be installed and large areas flood-lit, causing over-illumination and nuisance. Guidelines for construction lighting include the Society for Light and Lighting's Code for Lighting (published by the Chartered Institution of Building Services Engineers-UK) and the Health and Safety Executive's Lighting at Work (UK) (HSG38). These suggest that construction light nuisance can be reduced by screening, effective programming of work, directional lighting and using the correct type of lights. The lighting provided to light up each site will be designed by the contractor or their representative to suit the construction methodology and equipment used at that site/location. It would provide a safe working environment within the construction site, without blinding or obstructing traffic, pedestrian, cyclists nor impact environmentally sensitive areas or residences around the site. The lighting towers and equipment would be designed and positioned to illuminate within the working area only and with minimum impact on surrounding receptors. The contractor will design the lighting to meet the environmental requirements. The CEMP developed by the Contractor will include a Lightying Management Plan (ref EIAR Appendix A5.1 CEMP, section 5.7).	
12	Letter	2	Our clients are also concerned in relation to the vibration impacts of the construction phase as a result of the construction works immediately adjacent to their property boundaries. Our clients are concerned in relation to the impact of this on the structural integrity of their properties and would request that irrespective of all other matters raised in this submission that a full structural survey, by a mutually agreed third party, of each of their properties is undertaken prior to the undertaking of works adjacent to their properties.	As presented in EIAR Chapter 14 (Groundborne Noise and Vibration), the sources of vibration from the MetroLink Project are Tunnel Boring Machine - TBM Passage, Mechanical Excavation and Blasting. Due to the distance of the Coke Oven Cottages from the Glasnevin Station, no impact is predicted from the TBM Passage vibrations. Regarding vibrations from Mechanical Excavation from the Track Possession Works, as presented in the EIAR Chapter 14, the calculated vibration levels are below the threshold for structural damage for any building type. Structural surveys are therefore not required.	

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13	Letter	2	We request the Board, to attach suitable conditions, irrespective of other issues raise in this submission, to address our clients reasonable concerns in relation to noise and vibration impacts as a result of both the construction and operational phases of the proposed development.	Please refer to the response items above in relation to the anticipated noise and vibration levels anticipated, and the mitigation measures proposed.
14	Letter	2	It is incumbent that the highest possible noise attenuation standards are applied at each of our clients' properties to ensure that they are not disenfranchised in terms of their residential amenity during the construction process.	As presented in EIAR Chapter 13 (Airborne Noise and Vibration), the main principals and standards required for noise mitigation are as follows: • The Contractor undertaking the construction of the works will be required to take specific noise abatement measures to the extent required and comply with the recommendations of BS 5228–1 (BSI 2014a); • The selection of plant items will be required to comply and European Communities Noise Emissions by Equipment for Use Outdoors (Amendment) Regulations 2006 (S.I. No 241/2006); • The outline CEMP will encompass a Noise and Vibration Management Plan (CNVMP) which will be formulated for the construction phase and used by all contractors based on the mitigation measures outlined in this chapter, in Chapter 14 (Groundborne Noise & Vibration) and the outline CEMP (Appendix A5.1). The CNVMP will be a live document. This will involve a detailed investigation of potential noise and vibration impacts associated with each construction compound. The assessment will identify through modelling and calculation, predicted construction noise levels, identification of potential exceedance of CNTs, identification of required noise mitigation measures specific to each work area to minimise noise and vibration impacts so far as is reasonably practicable; and • As part of the CNVMP a baseline noise study will be undertaken prior to the commencement of construction works to characterise the prevailing noise environment at impacted NSLs. This information will be used to inform the relevant CNTs. The key principals relating to noise mitigation will be applied across all construction areas for the proposed Project: • Noise control at Source: Selection of quiet plant, site layout, attenuation at source, operational control (hours and periods); • Noise Control along Pathway: Localised screening to plant items on site, enclosures, site buildings, site hoarding and noise barriers; and • Noise Control at Receiver: Noise Insulation (NI) and Temporary Relhousing (TRH). The impact assessment has identified that mitigation measures are required across the proposed Project to control construction noise impacts. Please refer to response item (2) and (9) in relation to the mitigation measures proposed.
15	Letter	2	Operational phase - it is notable that no assessment of the implications of the change in the operational phase from a cumulative impact perspective was undertaken in relation to the Coke Oven Cottages. The new station will generate and has the potential to increase train traffic and certainly train speeds incurring different noise levels to the rear of Coke Oven Cottages as they brake to stop and accelerate away from the new station.	The cumulative impact of MetroLink with other projects during construction and operation has been assessed and presented in EIAR Chapter 30 (Cumulative impacts of interaction between other projects and MetroLink). The Metrolink project does not result in any additional train movements along the surface railway. All rail movements associated with the MetroLink project are within the tunnel below ground level. The cumulative impacts identified between MetroLink and NTA/Iarnród Éireann - DART+ Programme during the operational phase are positive and significant on traffic and transport due to the provision of high capacity and high frequency public transport services, encouraging a modal shift from private vehicles to public transport. There will be no cumulative negative noise impact on the Coke Oven Cottages as no noise impact during operation of Metrolink is predicted on the Coke Oven Cottages due to their location at more than 300m distance from Glasnevin Station and tunnel, ref EIAR Chapter 13, section 13.5.3.7. The impact of train traffic from the Irish Rail network - Midland Great Western Railway (MGWR) is not assessed as part of the MetroLink works. See also Response (2).

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16	Letter	3	The change in noise levels will have a long term and negative noise impact on the residents of the Coke Oven Cottages and has failed to be adequately considered or mitigated for by the applicant. As outlined above the level of train services will likely increase as a result of the new Glasnevin station, and would result in noise levels being more noticeable to residents.	Please refer to Response (2) and (15) in relation to the anticipated noise levels during the operational phase.
17	Letter	3	There is a need to erect suitable acoustic screens above the existing boundary wall, to mitigate noise during the operational phase of the proposed development, along the length of the boundary with the Coke Oven Cottages.	Please refer to Response (2) and (15) in relation to the anticipated noise levels during the operational phase. As noted, the proposed Project will not create additional operational noise at the cottages.
18	Letter	4	Reduction in property values - We respectfully submit that the land subject to the application, and our clients lands that are negatively impacted should be considered in terms of any potential mitigation, or any future potential CPO procedure as being zoned for residential purposes.	There is no evidence indicating that property values will be negatively impacted as a consequence of the MetroLink proposed works.
19	Letter	4	For all the reasons as outlined above, the material reduction in our client's residential and visual amenity and the profound negative impact of the proposal on their properties, we respectfully submit that the subject proposal would have a material and significant reduction in the value of property adjoining and close to the application site both in the short and medium term during construction but in the long term also.	As presented in the EIAR Chapter 27, Landscape & Visual, no visual impact on the Coke Oven Cottages will occur during MetroLink construction or operation. Regarding property value reduction. see Response (18).
20	Letter	4	During the construction phase our clients concerns, is that any permitted development unless the proposed development is managed in a controlled and reasonable manner will have a profoundly negative impact on their residential amenity. This is compounded by the fact that a number of residents are over 70, and that one of the daughters of the residents, who is 16, and is on the autistic spectrum disorder and therefore is more susceptible to noise impacts.	TII intend to control the works and mitigate impacts such that residual impacts are acceptable. As presented above in Response (2) and (14), mitigation measures will be in place to ensure that the residents of Coke Oven Cottages will not be subject to any profound impact. Regarding residents susceptible to noise impacts, as presented in the EIAR Chapter 10, Human Health, Section 10.3.4 Sensitive Receptors, some human beings are more sensitive than others, due to their age, health status or other reasons and in order to be conservative, and in keeping with the worst-case approach it has been assumed that there are vulnerable individuals at every receptor. In addition, the assessment is aided because Health Based Standards are derived to protect the vulnerable and not the robust. For reasons of consistency, sensitive or vulnerable receptors are looked at in terms of their importance and sensitivity. In terms of Human Health, all human beings are considered to be equally important. (The use of the term 'importance' in this context refers to areas or buildings occupied by people). The importance of the receptor building/area is considered to increase as the number of people increases and the duration of time spent there increases. Residential areas, public and private health facilities, workplaces, hotels and educational facilities are considered to be 'very important' areas because a number of persons usually spend a substantial amount of time at these locations. The sensitivity of an area or building in this context refers to the vulnerability of the population. Reasons for this include inherent vulnerability such as is the case for the very young or old. Residences, schools, workplaces, commercial areas and places of worship are considered 'highly sensitive'. This is because these areas will include populations of elderly, young people and people with health conditions. In conclusion the health impact assessment was done considering the most sensitive receptors and not the most healthy and fit adults. TII have engaged with the residents and had numerous meetings with them and aware of the specific health concerns of these residents in question. The initial design would require taking a section of their gardens to realign the railway. Following discussions with the residents, taking their special needs into consideration, design was revised so that their properties were no longer impacted. Although some minor lowering of the railway will be required in front of their properties, main construction works are approximately 650 meters away from these cottages. A temporary bridge will be constructed to provide full access to these properties during the construction.

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21	Letter	4	The current proposal does not achieve any of these aims and there is a need to significantly control construction times and noise levels, with suitable noise monitoring, with absolutely no night time works. We believe this is a reasonable and considered approach to managing the construction phase of the development.	Please refer to Response (2) and (9) in relation to the anticipated noise levels and working hours during the construction.
22	Letter	4	The works will also compound the negative noise impacts in the long term that would be compounded by the loss of any trees. We respectfully request that suitable acoustic screening is provided to mitigate the operation phase of the main line trains accelerating and breaking out of and into the new proposed station. Without such screening it will have a profound negative effect on the residential amenity of the residents of Coke Oven Cottages.	Please refer to Response (2) and (15) in relation to the anticipated noise levels during the operational phase. As also noted in Response (2), works to the rail tracks in this area are wholly contained within the existing railway corridor and will be undertaken from the track, so existing trees/vegetation outwith the railway cutting will not be impacted.
23	Letter	4	It is incumbent on the MetroLink project and An Bord Pleanala to review precise noise and vibration mitigation for Coke Oven Cottages prior to making a decision on the Metrolink proposals.	Please refer to Response (2), (8), (9) and (15) in relation to the anticipated noise levels, and the proposed mitigation measures. Please refer to Response (12) in relation to anticipated vibration levels.

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Organisation Name or Name of Submitter			Vincent Harrison, no. 1 Coke Oven Cottages, Royal Canal Way; Stephen, Alex, Robin and Lauren Smith; and Sheila Boyd, no. 2 Coke Oven Cottages; Francis Mackey and Jacqueline McElhinney, no. 3 Coke Oven Cottage; Nessa Winder, no. 4 Coke Oven Cottage; represented by Marston Planning Consultancy	
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Letter Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022				
1	Cover letter	2	Our clients are concerned that the proposed Greenway in combination with the proposed Glasnevin Station (Metrolink station) and the works in its immediate vicinity will negatively impact their existing residential amenity and day to day access to their dwellings both during construction and operation of the Proposed Development.	Thank you for your submission and for sharing your observations with regards to the MetroLink project to which we have responded below. The concerns alluded to in the first page of the response are dealt with below but TII would like to point out that the EIAR is detailed and has fully assessed the impacts of the project.
2	Cover letter	2	Our clients would welcome engagement with the applicant and Dublin City Council in order to discuss their specific concerns with a view to generating a strategy in respect of the construction and operational management plan to ensure that all existing access arrangements to their dwellings are maintained in a safe and sustainable manner going forward. This is particularly important given the range of proposed infrastructural activity (i.e., the Green Way and the Metrolink projects) which will be ongoing over a significant period of time in the vicinity of our clients' dwellings at Coke Oven Cottages.	TII would welcome further engagement and respond to the issues raised below. EIAR Chapter 5 (MetroLink Construction Phase) Section 5.12.4.5 sets out TII Plans for Community and Engagement during the Construction Phase. Prior to the commencement of works, all traffic management plans will be provided to the local authorities (Dublin City Council, in this case) for approval. A Stakeholder and Community Engagement Plan has been developed which has guided the frequency and means of communication to date. The proposed Project will continue to progress community engagement by: • Regularly reviewing and updating stakeholder and community engagement plans; • Actively maintaining partnerships and design focus groups established with the community; and • Communicating in a timely and open manner. TII and its appointed contractor(s) will ensure that local residents, occupiers, businesses, local authorities and all other stakeholders affected by the proposed construction works, as outlined in the EIAR, will be informed in advance of work taking place. The notifications will detail the estimated duration of the works, the working hours and the nature of the works. In the case of works required in response to an emergency, the local authority, local residents and businesses will be advised as soon as reasonably practicable. All notifications will include a local helpline number. In addition, information on the works will also be available on the proposed Project website. TII will further develop the Community Engagement Plan to encompass the construction and operational phases of MetroLink. MetroLink has also include in EIAR Chapter 30 for the impact of interactions with other projects and liaising with both DCC and Waterways Ireland.
3	1 . Subject site and environs	3	It appears that part of the our client access route will be altered as a result of the proposed Glasnevin Station and its associated ancillary surface level urban realm and landscaped area.	As presented in EIAR Appendix A9.5, Scheme Traffic Management Plan and Appendix 5.5, Glasnevin Station Construction Report, during all phases of construction, local access to Coke Ovens Cottages via Royal Canal will be provided via a new bridge and a traffic diversion. The proposed diversion will be via Leinster Street North or Connaught Street, where traffic will then route north on Shandon Road, utilising a temporary bridge to re-join Royal Canal Way approximately 300 meters west of the existing access. This vehicular diversion route will be in place for approximately 4 years. The proposed bridge would utilise the abutments of the existing disused rail crossing next to the 6th lock. This is shown in EIAR Appendix 5.5 Section 6 Royal Canal Interfacing Works.
4	2. Nature and extent of the proposed development	3	Glasnevin station is identified as a Metrolink Main Interchange station and that this part of the route is to be delivered in a tunnel format. As a result Glasnevin Station is an underground station with a two storey element above ground. The street level design of the station is shown below. This indicates clear conflicts with the ability to access our clients' properties, with the access off the Prospect Road heavily restricted and with 6m high lighting proposed in the centre of the roadway.	There will be no conflict with your access to your properties post construction. As presented in the EIAR Chapter 5, Section 5.10.6 Glasnevin Station and Interchange, following the completion of the Construction Phase the canal towpath will be fully reinstated on its existing alignment. In order to maintain the existing width along the towpath a permanent cantilever structure will be provided to carry the towpath over the proposed Iarnród Éireann platform serving the Western Commuter Down Line. The lighting post positions in the image are indicative, and during detail design stage their final position will be set up as to not restrict or block the canal towpath especially due to the Royal Canal Way, being a dedicated Greenway in the GDA Cycle Network Plan.

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5	2. Nature and extent of the proposed development	4	The interlinked works with the existing main line will require the western commuter line (that backs onto the Coke Oven Cottages) to be closed for a period of 21 months; and the south-west commuter line for 5 months. Section 5.10.6 indicates that the train track will be lowered by c. 2m although the alignment drawings provide no detail as to where and along which stretch of the railway this reduction will occur. The application also provides no detail on noise mitigation during the construction and operational phases of the project. It is incumbent that the highest level of noise mitigation is installed along the boundary with the Coke Oven Cottages for both phases of the development.	With regard to the scope of railway works behind your properties please refer to drawing ML1-JAI-ARD-ROUT_XX-DR-Y-03081 Royal Canal Way Sheet 4 of 4 included in the Railway Order Plans\Drawings. This drawing shows the extent of the rail realignment and associated embankment and retaining wall works in proximity to Coke Oven Cottages. As presented in EIAR Appendix 13.7, the noise level generated by the Track Alignment and Track Lowering could be above the night-time threshold of 55 dB, if no mitigation is applied, resulting in an Significant to Very Significant impact during Night-time (23:00 – 07:00). The threshold will be mandated to the contractors and enshrined in the Railway Order. Contractors will then need to provide best practice mitigation to reduce the impacts. If the Contractor is unable to reduce the impacts sufficiently, such that residual levels are such that widespread community disturbance or interference with sleep is likely to occur, TII will consider whether the provision of further Noise Insulation (NI) or Temporary Rehousing (TRH) would be appropriate at locations where eligibility for either has been established. Refer to EIAR Appendix 14.6 Noise and Vibration Mitigation Policy. The document Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (see EIAR Appendix A14.6) sets out the further mitigation measures and supports which will be available to those who meet the eligibility criteria. As the NI option will only control internal noise levels, noise levels at external areas will remain impacted by construction noise. In addition, this option will also result in indirect impacts to residents (alternative ventilation systems or temporary relocation). On this basis, this option should only be considered where all other reasonably practicable measures have been implemented. Temporary relocation relates to buildings where isolated floors or façades are impacted by the works and will benefit from temporary relocation of any noise sensitive activities for the duration of the phase of works. Where this option is recommended, a consultation process will be established between TII, the contractor and the building occupants/owners. Following the completion of the detailed design stage and the finalization of the proposed construction methodology and at least 6 months prior to commencement of construction works, TII in collaboration with the scheme contractor will update the EIAR airborne noise modelling predictions to reflect the planned construction methodology and timing of the works. Where the updated predicted airborne noise levels still exceed the trigger values, the owner/occupier of properties in close proximity to the works will be contacted and advised that they are eligible to enter into discussions with TII in respect to further mitigation measures to be put in place. No noise impact during operation of Metrolink is predicted on the Coke Oven Cottages due to their location at more than 300 m distance from Glasnevin Station and tunnel. The impact of train traffic on Irish Rail network - Midland Great Western Railway (MGWR) is out of the scope of the current project.
6	4. Grounds of submission	4	The current scheme does not appear to provide continued access to our clients' properties once the station is in operation nor for a period during construction. We submit that it is essential that access to their houses is maintained at all times. The closure of the towpath for a period of 4 weeks, and the inability to access our clients' properties, whilst the temporary bridge is being installed is unacceptable. Our clients are seriously concerned that there is a lack of a clear and defined strategy and management plan for the control and use of the greenway and the proposed Glasnevin Station as well as safeguarding the residential amenity and safe access to the existing dwellings at Coke Oven Cottages both during construction and following completion of works.	Access to the properties is to be maintained and hence the provision of the bridge over the canal will be commissioned prior to the closing of the towpath. This location has been specifically chosen as the existing bridge abutments limits the scale of the works required. To install the bridge structure a single day (or night), temporary closure is anticipated. This closure will be coordinated with the residents once the detailed design has been undertaken. Refer to Item 4.

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7	4. Grounds of submission	4 and 5	The proposed Glasnevin Metrolink station will increase the level of pedestrians and cyclists along the tow path access road, and therefore there is a need for a robust set of management measure in order to ensure public safety and safeguard against user conflicts at this point, and all other points, along the greenway and the proposed station.	As presented in the EIAR Chapter 4, Description of the MetroLink Project, the access route for pedestrians is provided through multiple access points along Prospect Road to a level plaza that leads to the station building. To the south pedestrian and cycle access is provided to the Royal Canal and the cycle network. Chapter 9 Traffic and Transport has assessed the operational phase with no adverse impacts noted for the volume of traffic on the towpath nor only pedestrian or cyclists. The safety and security of all users is a fundamental principle for TII to be progressed through detailed design and into construction and operation. EIAR Chapter 1 Section 7.7 refers. Overall, the Glasnevin Station will provide for improvements to the public transport network resulting in decreased private car usage/trips and increased public transport usages, and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. EIAR Chapter 9 refers.	
8	4. Grounds of submission	5	Our clients have long enjoyed the benefits of living at this location. However, they are mindful on a day to day basis as active users of the towpath of the particular sensitivities of the merging of a variety of users along it. They are aware of the conflicts that arise and the need to ensure long term measures which promote safe access and usage by all users of the towpath. This is already becoming a significant issue where they have to deal with conflicts with other users on an almost daily basis. This will clearly be compounded by the location of the Glasnevin Station. There is a need to ensure users of the towpath are appropriately forewarned and properly alerted to the range of users of the towpath and the conflicts that may arise. This is required in order to ensure public safety, prevent traffic hazards and ensure that the amenity value as well as the residential amenity function (as a means of vehicular access) is considered in a balanced manner at this location.	Please refer to response item (7) in relation to active modes safety at this location.	
9	4. Grounds of submission	5	Unfortunately, our clients remain concerned that the documentation and plans provided with the Metrolink application do not give sufficient comfort to the residents of Coke Oven Cottages particularly in terms of the management of the lengthy construction phase as well as the long term management strategy of the proposed station and its immediate environs as well as the proposed greenway, it is within this context that our clients have made this submission.	Please refer to response item (3) and (4) in relation to the anticipated impacts on access to the Coke Oven Cottages. EIAR Appendix A5.1 Outline Construction Environmental Management Plan (CEMP) details the roles and responsibilities of the Employer, Employers Representative, the Contractor(s), Construction Manager, Environmental Manager and the Environmental Specialists engaged by the Contractor(s). This document also details the monitoring and mitigation measures to be undertaken throughout the construction phase to minimise the severity of all impacts, including details of external communication with local stakeholders and affected members of the public.	
10	Access to Coke Oven Cottages	5 and 6	The diagram (Diagram 9.44 from EIAR Chapter 9 Traffic and Transportation) is somewhat confusing and does not clearly identify to our clients how it will be possible for them to access their dwellings during the construction phase. It would appear to indicate a 90 degree turn off the temporary bridge that will extend across from the east of Shandon Mills complex some 300m west of the existing access. This would appear to be across the canal between the first and second lock at Royal Canal Lock 6, although the poor quality detail of this drawing makes it unclear.	The diagram included in Chapter 9 (Traffic and Transport) presents the general traffic direction; the bridge, as presented in the EIAR Appendix A5.5 – Glasnevin Station Construction Report, will cross diagonally the Royal Canal and would utilise the abutments of the existing disused rail crossing next to the 6th lock. For more information please see the EIAR Appendix 5.5, Figures 6.2 and 6.4. Appendix A9.5 Scheme Traffic Management Plan, as referenced in Chapter 9 (Traffic and Transport) also provides further details on the impacts to local access and the diversions proposed.	

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11	Access to Coke Oven Cottages	6	We note that the Railway Order does not identify how long these interim access arrangements will be in place, although it identifies that the construction of the Glasnevin Station will take some 102 months (8.5 years). Such a length of time will seriously disenfranchise our clients ability to access their properties. Our clients would request that the applicant identifies: What length of time will the bridge referenced on page 152 of chapter 9 of the EIAR be in operation? Has the proposed route to Coke Oven Cottages been designed in order to be accommodate Emergency vehicles/bulk gas deliveries/septic tank waste disposal/postal deliveries? Have swept path analysis been undertaken to establish that the above traffic can safely utilise the temporary bridge in a safe manner? Have local residents (on the south bank of canal) been consulted with regard to the additional traffic movements required to access the cottages as a result of these temporary access arrangements?	As stated at response item (3) above, the vehicular diversion route (including the bridge) will be in place for approximately 4 years. As presented in the EIAR Appendix A5.5, the temporary bridge is a combined vehicular, pedestrian and cyclist bridge. The detailed design of the bridge and foundations will be completed by the contractor and will be approved by Waterways Ireland and DCC prior to installation. The impact on road users of the new diversion was assessed during the traffic impact assessment of the Glasnevin Station construction phase and presented in the EIAR Appendix 9.5, Scheme Traffic Management Plan. TII recognise the constrained nature of this area and the design will be progressed by the Contractor to ensure the safety of this route. The detailed design of the bridge (and routing to and from) will be subject to swept path analysis to confirm that all requisite vehicles can transit through safely. The detailed design will consider further the visibility, speed restrictions and need for signalisation.
12	Access to Coke Oven Cottages	6	In addition to the station and tunnel construction, we note that works to the rear of their properties is also proposed under the Railway Order. The Irish Rail Tracks are proposed to be realigned, and a new retaining wall erected along the south-side of the railway adjacent to our clients' houses (refer to Drawing no. ML1 -JAL ARD-ROUT_XX-DR-Y-03081 / Plan no. ML-RO 304 8-9). It is again unclear how long these works will take.	The works in relation to the realignment of the Irish Rail tracks will be undertaken sequentially during possessions. The track lowering behind the properties will be undertaken in a 2 week period within the overall possession schedule, as noted in EIAR Appendix 5.5 Glasnevin Station Construction Report.
13	Operational Phase of the proposed Metrolink	6	Our clients at Coke Oven Cottages have extremely serious concerns in relation to the operational phase of the proposed Metrolink at Glasnevin Station and the proposals in its immediate vicinity. Our clients would request that the applicant and An Bord Pleanála ensure the safeguarding of our client's access to their properties in a safe and sound manner. The current proposals appear to remove the vehicular access to their property; as well as creating pedestrian pathways across the access road along the towpath that would create a traffic conflict. The submitted surface level drawing of the Glasnevin Station indicates 2 no. 6m high lights located centrally within the access road to our clients' cottages.	Please refer to response item (4) above related to access during operation. Access will be maintained in a safe and sound manner.
14	Operational Phase of the proposed Metrolink	7	The drawings provide a lack of clarity between the existing width of the towpath and the new towpath. Bollards along the main road also appear to restrict access for north travelling cars. The steps from the station concourse at street level that provides a connection to the canal will result in pedestrians blindly walking onto the access to the cottages, which is compounded by the position of the lifts abounding the steps and access road. This will result in a serious traffic and pedestrian conflict. The bollard on the road at the base of the steps will also further restrict our clients ability to access their property.	As presented in Chapter 3 (Background to the MetroLink Project), the proposed Project will by way of modal shift and by taking significant volumes of passengers movement underground, support the transformation of the surface level urban environment, making it more attractive for people to engage with. In recognition of the potentially complex routing and road crossing behaviour at this site, a VisWalk model was produced for the area surrounding the station, as presented in Appendix A9.2-G Traffic and Transport Assessment Glasnevin Station. The modelled layout includes the main roads and streets around the station. In summary, the microsimulation model for Glasnevin for the AM peak hour illustrates the high demand for the interchange from DART to the Project, as well as from Phibsborough and the surrounding roads. Analysis of the model indicates that the network operates with an acceptable Level of Service in both the AM and PM peak periods. TII will develop the design at detailed design to provide better clarity with the design intent including:- 1. The new tow path will be no narrower than the existing tow path and designed to suit the proposed use. Final dimensions will be developed at detailed design stage. 2. The interaction between pedestrians, cyclist and road vehicles will form part of the detailed design and be such as to eliminate the risks noted. This will include signage design. 3. The design will respect both north and south travelling vehicles access to and from the tow path. 4. Access to your properties will not be prevented by MetroLink in the operational phase.

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15	Operational Phase of the proposed Metrolink	7	We respectfully submit that it is clear that currently our client's access arrangements are not being upheld. It is critical that both greater clarity is provided and design changes are made to ensure that their access is maintained without creating unrequired traffic conflicts. These changes should ensure the following: Ensure that the residents of Coke Oven Cottages have their full vehicular/pedestrian/cyclist access via the towpath roadway restored upon completion of the Glasnevin Station; Ensure that their right to turn left or right at the Cross Guns Bridge exit is restored after the Glasnevin Station works are completed; and Any proposed signage to be agreed relating to the 'Rights of Way to be Respected' relating to Coke Oven Cottages.	Please refer to response item (3) and (4) in relation to the impact to local access during both the construction and operational phases, respectively. Please refer to response item (14) above in relation to pedestrian movements during the operational phase and further design intent. The layout drawing for Glasnevin Station, as presented in Appendix A9.2-G Traffic and Transportation Assessment-Glasnevin Station, indicates that a yellow box will be present on the R108 Ballymun Road in front of the access point to the Coke Oven Cottages. This will ensure access to/from this location is maintained. The stopline for the northbound general traffic lane is located south of the access point, indicating that both the left and right turns at Cross Guns Bridge will be maintained.	
16	Noise and Vibration Construction Impacts at Coke Oven Cottages	7	Our clients are extremely concerned about the reference in the EIAR to the fact that there will be 24 hour construction works, 7 days a week at certain locations in order to undertake specific activities, and the lack of clarity in terms of noise attenuation and mitigation being proposed. We note that Glasnevin Station, and works associated with it, is identified as a location for this format of intense construction activity. This is of particular concern to our clients at Coke Oven Cottages due to their house's proximity to the proposed station and the expansive works in the vicinity of the station including works to the existing rail line, and the lack of noise attenuation proposed.	As presented in EIAR Chapter 5 (MetroLink Construction Phase), Section 5.2.4 Working Hours, the majority of works will be done during standard working hours, from 07:00hrs to 19:00hrs on weekdays (excluding Bank and Public Holidays) and from 07:00hrs to 13:00hrs on Saturdays. There are however some activities that will require 24h per day working program and in the case of Glasnevin Station these are: •Sliding new rail bridge into position; •MEP station works; •Blockades or weekend possession work required with Irish railway (GSWR & MGWR). Regarding the noise impact and the mitigation measures, please refer to response item (5) above.	
17	Noise and Vibration Construction Impacts at Coke Oven Cottages	7	Our clients note with particular concern that the EIAR Table 13.63, p. 99, chapter 13 entitled "Glasnevin - Track Possession Works - Potential Night Time Significant Construction Noise Impacts", specifies that the predicted magnitude of impact at Coke Oven Cottages (referenced in the Table 13.63) is "Very Significant to Profound". Despite this, there appears to be a complete lack of noise attenuation proposed. It is incumbent on the applicant and the Board to address this failing of the application. The acknowledgement of the very significant and profound noise impact of the proposed construction period within the EIAR document is alarming to our clients and will without doubt profoundly negatively impact their residential amenity including their ability to sleep during these 24 hour construction periods which is of particularly concern to all the residents of Coke Oven Cottage but in particular given the fact that one of the our clients households includes a child with special needs. Yet there is no specific timeframe identified to highlight the duration of the proposed 24 hour works associated with the delivery of the new Glasnevin Station.	With regard to the noise impact and the mitigation measures, please refer to response item (5) above. Please note that the impact noted links to the track laying works if undertaken at night of the 2 weeks noted in Item (12) above. As presented in the EIAR Chapter 10 (Human Heath), Section 10.3.4 Sensitive Receptors, some human beings are more sensitive than others, due to their age, health status or other reasons and in order to be conservative, and in keeping with the worst-case approach it has been assumed that there are vulnerable individuals at every receptor. In addition, the assessment is aided because Health Based Standards are derived to protect the vulnerable and not the robust. In terms of Human Health, all human beings are considered to be equally important. The use of the term 'importance' in this context refers to areas or buildings occupied by people. Their importance is considered to increase as the number of people increases and the duration of time spent there increases. Residential areas, public and private health facilities, workplaces, hotels and educational facilities are considered to be 'very important' areas because a number of persons usually spend a substantial amount of time at these locations. EIAR Chapter 10 refers. The sensitivity of an area or building in this context refers to the vulnerability of the population. Reasons for this include inherent vulnerability such as is the case for the very young or old. Residences, schools, workplaces, commercial areas and places of worship are considered 'highly sensitive'. This is because these areas will include populations of elderly, young people and people with health conditions. EIAR Chapter 10 refers. In conclusion, the health impact assessment was done considering the most sensitive receptors, including children, and not the most healthy and fit adults.	

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18	Noise and Vibration Construction Impacts at Coke Oven Cottages	7	Nor is there specific information provided in relation to proposed noise/vibration barriers, their location, their height or the materials they are to be made from. We note that section 13.6.1.2, p. 138 of chapter 13 of the EIAR makes general statements in relation to noise mitigation.	Please refer to response items (5) above and (19) below regarding the noise mitigation measures. Chapter 13 (Airborne Noise and Vibration) provides details on screening as an effective method of reducing the noise level from construction work areas. It notes that the length of the screen should be in practice at least five times the height, however, if shorter sections are necessary then the ends of the screen will be wrapped around the source. The construction of the barrier will be such that there are no gaps or openings at joints in the screen material. In practice, screens constructed of materials with a mass per unit of surface area greater than 10kg/m2 will give adequate sound insulation performance. At Glasnevin Station, there will be a 4m hoarding on the north, south and east boundaries of the construction compound.
19	Noise and Vibration Construction Impacts at Coke Oven Cottages	8	Our clients as sensitive receptors in the vicinity of the proposed works associated with the construction of Glasnevin Station and associated works as acknowledged within the EIAR are extremely concerned at the lack of detail relating to noise attenuation screening, noise/vibration barriers and equally they are concerned at the fact they have not had any engagement from the applicant in terms of noise insulation measures to their dwellings or alternative arrangements. It is incumbent that the highest possible noise attenuation standards are applied at each of our clients' properties to ensure that they are not disenfranchised in terms of their residential amenity during the construction process.	As presented in EIAR Chapter 13 (Airborne Noise and Vibration), the main principals and standards required for noise mitigation are as follows: • The Contractor undertaking the construction of the works will be required to take specific noise abatement measures to the extent required and comply with the recommendations of BS 5228–1 (BSI 2014a); • The selection of plant items will be required to comply with the European Communities Noise Emissions by Equipment for Use Outdoors (Amendment) Regulations 2006 (S.I. No 241/2006); • The outline CEMP will encompass a Noise and Vibration Management Plan (CNVMP) which will be formulated for the construction phase and used by all contractors based on the mitigation measures outlined in the EIAR Chapter 14 (Groundborne Noise & Vibration) and the outline CEMP (Appendix A5.1). The CNVMP will be a live document. This will involve a detailed investigation of potential noise and vibration impacts associated with each construction compound. The assessment will identify through modelling and calculation, predicted construction noise levels, identification of potential exceedance of CNTs (Construction Noise Threshold), identification of required noise mitigation measures specific to each work area to minimise noise and vibration impacts so far as is reasonably practicable; and • As part of the CNVMP a baseline noise study will be undertaken prior to the commencement of construction works to characterise the prevailing noise environment at impacted NSLs. This information will be used to inform the relevant CNTs. The key principals relating to noise mitigation will be applied across all construction areas for the proposed Project: • Noise control at Source: Selection of quiet plant, site layout, attenuation at source, operational control (hours and periods); • Noise Control along Pathway: Localised screening to plant items on site, enclosures, site buildings, site hoarding and noise barriers; and • Noise Control at Receiver: Noise Insulation (NI) and Temporary Rehousing (TRH). The impact assessment has identified that mitigation measures are required across the proposed Project to control construction noise impacts. The approach for mitigation will follow the construction noise control hierarchy as above and included within Chapter 13. Please refer to response item (5) above regarding specific noise mitigation measures, with details of noise barriers and screening in response item (18). Appendix A5.1 Outline CEMP provides further details on the noise and vibration mitigation measures proposed.

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20	Noise and Vibration Operational Impacts at Coke Oven Cottages	8	We note that the Railway Order provides little detail in relation noise and vibration impacts generated as a result of the additional train movements on the western railway line, and the implications of reducing the railway lines and re-aligning the rail lines to the rear of Coke Oven Cottages. The Railway Order does not indicate any additional mitigation / noise attenuation measures to be proposed to the rear of the Coke Oven Cottages. It is critical that appropriate noise mitigation measures are implemented both during construction, as highlighted above, as well as during the operational phase of the project. The overall project has the potential to result in a significant increase in the level of train traffic on the main line to the rear of the cottages, and it is incumbent, as this is a cumulative impact of the project, that adequate noise attenuation is provided to all of our clients.	As referenced in Chapter 13, no noise impact during operation of Metrolink is predicted on the Coke Oven Cottages due to their location at more than 300 m distance from Glasnevin Station and tunnel. The impact of train traffic on Irish Rail network - Midland Great Western Railway (MGWR) is out of the scope of the current project. Please refer to response items (5, 19) above regarding the noise mitigation measures during construction.
21	Lack of Appropriate Signage in the vicinity of Coke Oven Cottages	8	There is no specific reference or image of a vehicle on this "share with care" sign despite the fact that residential vehicles form part of the user group which will have to share the public space in the vicinity of the station. Our clients at Coke Oven Cottages are extremely concerned in terms of the lack of proposed signage in their vicinity. The residents currently have a right of way access to their homes via the towpath along the Royal Canal from a position to the immediate north of the Cross Guns Bridge. It is important that the applicants for the proposed Metrolink and users of the towpath are aware of this long established right of way since 1847. This needs to be appropriately expressed in the form of a series of signs along this stretch of towpath/greenway when travelling from the west and east at either end of this section of the pathway where vehicles have the ability to share the surface, but are also required approaching the cottages from both direction. This is required both during construction and the operational phase of the Proposed Development.	Please refer to Item 14 in relation to pedestrian movements during the operational phase. In line with the road user hierarchy identified in the Transport Strategy for the GDA, pedestrian and cyclist needs take priority, with public transport and commercial needs provision superseding private vehicles. Appropriate signage will be included. Current right of ways will not affected by the MetroLink scheme.
22	Lack of Appropriate Signage in the vicinity of Coke Oven Cottages	8	It is imperative that new users realise that there are residential vehicles using this part of the towpath and that this is a shared space particularly given the fact that the proposed Glasnevin Station will increase activity both at the station itself and along the towpath. It is our considered opinion that signage is a key aspect of the day to day management of this part of the towpath/greenway on which our clients are located going forward and is of particular importance in the vicinity of Coke Oven Cottages as a public safety alert mechanism well in advance of the approach to the residences given the range of users at this location and the high potential for conflicts between users. This is compounded by the proposed development.	Please refer to Item 14 in relation to pedestrian movements during the operational phase. Please refer to response item (21) above in relation to the road user hierarchy and issues of right of way at this location. Appropriate signage will provide in the vicinity of the towpath to indicate the shared provisions for general traffic, pedestrians and cyclists.
23	Lack of Appropriate Signage in the vicinity of Coke Oven Cottages	8 and 9	Alert signage which specifies that residential vehicles and maintenance vehicles use this area of the greenway should be placed at the entrance off Cross Guns Bridge (i.e. in the vicinity of the proposed Glasnevin Station) and on approach to Coke Oven Cottages; and from the west also at the tunnel at the 7th Lock signage. Our client contends that several signs are required, including wording which indicates a shared surface of car vehicles, pedestrians and cyclists. Our clients respectfully request An Bord Pleanála to take these suggestions onboard. Existing and new users of the towpath who may be accessing the proposed Metrolink Station need to be made aware that the towpath in the vicinity of Coke Oven Cottages is distinctive in that it is shared with residential vehicles, the provision of signage should play a key role as a public alert mechanism to ensure that all users at this location are catered for in the interests of public safety. This is particularly important due to the fact that the proposed greenway amenity along this part of the Royal Canal will continue to attract increased levels of recreational as well as commuter users wishing to access the new Metrolink. An accurate, clear, coherent signage strategy should have been treated as an integral part of the design process of the Metro link and any signage needs to be maintained.	Please refer to Item (14) in relation to pedestrian movements during the operational phase. Please refer to response item (22) in relation to the provision of signage.

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24	Lack of creosote surveys	9	Based on local knowledge it is our understanding that there is creosote soil/lining within the vicinity of the canal corridor that may be disturbed by the proposed development. This is not referenced in any of the documentation submitted with the Metrolink application. This has the potential to have a significant and materially negative impact on the sensitive environment of the canal. Our clients also raised this as an issue within the recent Part 8 application by Dublin City Council for the proposed Green Way. It is considered that full surveys are required in order to identify the location and a methodology for dealing with this as part of the construction process in order to ensure that no adverse environmental impacts occur during the construction phase of the proposed development. We respectfully submit that it is highly questionable that these works can be undertaken without having such negative impacts.	As presented in EIAR Chapter 20 (Soils & Geology) during the meeting with key stakeholders, Waterways Ireland informed TII that creosote application to railway sleepers occurred historically at a site to the south of the Grand Canal near the proposed Glasnevin Station (west of Shandon Gardens) resulting in contamination of the area and leakage into the canal. This information has been taken into account in the baseline (Section 20.3) and impact assessment (Section 20.4). Associated potential contamination source code C99C. Prior to construction insitu contamination levels will be ascertained and the resultant design and construction methodology developed to manage any potential environmental or health and safety risks. EIAR Appendix 5.1 Outline CEMP refers.	
25	5. Conclusions	9	We respectfully submit that there is inherent need to uphold reasonable and safe access to our clients' properties both during the construction and operational phases of the project. The current Railway Order lacks clarity in terms of the temporary access to be provided during the construction phase, and appears to have completely removed vehicular access following completion of works. This would appear to be a significant error on behalf of the applicant that is required to be amended as a matter of urgency. There is a need to ensure our clients have access, service access and delivery access to their properties at all times, and it is critical that this is dealt with as part of the Railway Order process.	Please refer to response items (3), (4), (6) and (14) above related to access during construction and operation.	
26	5. Conclusions	9	In addition, it is imperative, due to the increased number of users that the station will generate along this shared towpath that an improved signage and management system is put in place. This is to ensure public safety and accessibility for all users of this section of the Metrolink, the proposed Green Way and our clients' dwellings.	Please refer to response item (22) in relation to the provision of signage.	
27	5. Conclusions	9	It is also incumbent on the applicant and the Board to provide the highest quality noise attenuation barriers to be erected to the rear of their properties both during construction and operational phases of the Proposed Development so that the noise impacts are adequately mitigated to ensure that the noise impacts are minimal and are mitigated to an unacceptable level.	TII agree that noise impacts should be adequately mitigated to ensure that the noise impacts are minimal. TII would also highlight that prior to the use of noise barriers MetroLink will seek to eliminate or reduce noise at source so far as is reasonably practical as a priority with noise attenuation provided to reduce any residual impacts. Please refer to response items (5), (17) and (19) above related to noise impacts and the proposed mitigation measures.	
28	5. Conclusions	9	It is incumbent on the Metrolink project and An Bord Pleanála to review this prior to making a decision on the Metrolink proposals. Unfortunately, there is a complete lack of consideration of how this stretch of the canal will be managed for all users. A unified approach is important, the absence of an agreed strategy will inevitably lead to conflicts, and due to the narrowness of the roadway around the Cross Guns basin will inevitably lead to a traffic hazard as a greater number of people use the pathway.	TII disagree that there is a complete lack of consideration of how this stretch of the canal will be managed for all users. As noted, extensive discussions have been had with Waterways Ireland on the impacts on the canal and towpath. The access to Coke Oven Cottages is maintained and is shown in the relevant EIAR chapters and clarified within the responses above. There will not be excessive demand on the use of the tow path and the detailed design will ensure the safety and security of all users.	

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Organisation Name or Name of Submitter			Voice of Vision Impairment	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: VVI Submission on Metrolink.				
1	1. Introduction	1	We are Voice of Vision Impairment (VVI), which, as per the UN Convention on the Rights of People with Disabilities (CRPD), is Ireland's national representative organisation regarding issues and rights relating to visually impaired people. In Ireland, such representative organisations as VVI are also known as Disabled Persons Organisations (DPOs). Under Article 4 (3) of the CRPD, as clarified by General Comment No. 7, DPOs must be prioritised in consultations relating to disability, including as first port-of-call, as well as in terms of views and opinions. For more information, see: NDA Participation Matters (Sept. 2022) https://nda.ie/publications/participation-matters-guidelines-on-implementing-the-obligation-to-meaningfully-engage-with-disabled- people-in-public-decision-making 21.7.27 Legal Opinion on what is a DPO, commissioned by VVI https://vvi.ie/legal-opinion-for-vvi-as-a-dpo-for-all-dpos/	TII held a bi-lateral meeting with VVI in December 2022, following a wider meeting with the Luas User Group and some members of VVI. The aim was to talk through the Railway Order material in detail and to allow an opportunity to discuss key concerns and recommendations on the project itself, as well as to examine improved communication on image-focused material. TII recognises the difficulties and limitations associated with communicating large volume material – comprising images, technical drawings, maps etc - to those who are blind and vision impaired but continue to take advice on best practice from VVI and to try to develop effective narrative processes to enable full participation and engagement. Please refer to response item (2) below in relation to engagement that has been undertaken with VVI and the Luas User Group.
2	2. TII's Disablist Non-Consultation	1,2	Rather than TII 'closely consulting with and actively involving' DPOs such as VVI, as it is required to do under Article 4 (3) of the CRPD, meaningful consultation on this project (Metrolink) was totally absent. The Luas User Group was consulted in a tokenistic way, but this was even more meaningless for VVI's representative, since the MetroLink presentation were image focused, so it was impossible to get a handle on the internal layout of stations or entrances/exits from a streetscape perspective. In short, this plan cannot have been properly disability-proofed, since no effort was made to make sure it was disability-proofed.	TII has consulted extensively with the User Group on Metrolink and has held several presentations and engaged in fruitful discussion with the Group, enabling members to interrogate the project and to set out concerns and recommendations. Feedback has largely been taken on board in the design. However, for some issues, it is more appropriate that they be addressed at detailed design stage. Further to the ratification of the UNCRPD, TII reached out to registered Disabled Persons Organisations (DPOs), inviting expressions of interest to participate in stakeholder engagement on this and other projects. TII has held a series of meetings with VVI and continue to engage. TII has committed in these meetings to hold a series of in-depth, thematic workshop at detailed design stage, on the infrastructure design, on operational issues and on construction-related issues - topics broached at the User Group and VVI meetings but which require focused workshops at the appropriate stage, to ensure that the detail is right. TII is committed to a Universal Design approach and to co-creation where possible and where appropriate. Through discussion with VVI, TII are continuously working to develop effective communication, including improving communication on image-focused material for people who are blind or visually impaired. As outlined in EIAR Chapter 6 (MetroLink Operations and Maintenance) section 6.8.2 Access for All, the proposed Project has been designed on the principle of Access for All. The design has been developed to meet all legislative requirements relevant to accessibility including the Disability Act 2005 and in turn the Sectoral Plan for Accessible Transport under the Disability Act 2005 (DTTAS 2012).
3	3. The Non-Technical Summary	2	While quantity is not indicative of quality, the paucity of accessibility-specific planning in both respects is shockingly low in the Non-Technical Summary Document you have just shared with the LUG. Below are the 191 words, out of 37,000. It is as if the TII is operating like the State had never ratified the CRPD.	The Non-Technical Summary is a presentation of the EIAR in a concise and engaging manner which allows the public and key stakeholders to understand the proposed Project and the key environmental issues associated with it. This document summarises in non-technical language the EIAR, and therefore is not prepared to the same level of detail as the EIAR. Therefore the contents of the Non-Technical Summary are not exhaustive. EIAR Chapter 6 MetroLink Operations and Maintenance and Section 6.8.2 Access for All detail the many design and operational features included in the proposed Project to ensure accessibility for all. The Universal Design Principles adopted to make the proposed Project accessible for everyone to use, regardless of their age, gender, physical capabilities or cultural background, are detailed in Chapter 4 Description of the MetroLink Project. Please refer to response item 4 and 5 below in relation to consultation that has been undertaken.
4	3. The Non-Technical Summary	2	It is as if TII sees disability-proofing as a box-ticking exercise, with passing nods to requirements under statutory instruments and the odd EU Regulation, and nothing else.	TII is fully committed to Universal Design and to positive engagement with people with disabilities, including as set out in the United Nations Convention for the Rights of Persons with Disabilities. TII will continue to engage with VVI and to address all of the feedback recorded to date, as well as issues that arise via the proposed thematic workshops. EIAR Chapter 6 MetroLink Operations and Maintenance section 6.8.2 Access for All details the features included in the proposed Project to ensure accessibility for all.

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5	3. The Non-Technical Summary	2	While the LUG in no way comes close to satisfying Article 4 (3) of the CRPD, there isn't even a nod to the LUG in terms of consultation, according to the NTS.	The Non-Technical Summary is a presentation of the EIAR in a concise and engaging manner which allows the public and key stakeholders to understand the proposed Project and the key environmental issues associated with it. This document summarises in non-technical language the EIAR, and therefore is not prepared to the same level of detail as the EIAR. Therefore the contents of the Non-Technical Summary are not exhaustive. EIAR Chapter 6 MetroLink Operations and Maintenance and Section 6.8.2 Access for All details the many design and operational features included in the proposed Project to ensure accessibility for all. Appendix A8.18 (in relation to EIAR Chapter 8 Consultation), summarises the questions raised by stakeholders, including the National Disability Authority which requested 'Commitment in EIA Scoping Report that TII will have a sustained engagement process with a diverse set of users'. This led to the development of the Luas/MetroLink User Group, as identified in Appendix A8.18, with details of the impacts assessed in EIAR Chapter 10 (Human Health). Please refer to response item (2) above in relation to the engagement with the Luas User Group.	
6	3. The Non-Technical Summary	2	TII arranged a bilateral meeting with VVI in December, and the chief architect went through some of the plans, but it was impossible for us to get a handle, since we still had no text description of the drawing plans.	TII held a bi-lateral meeting with VVI in December 2022, following a wider meeting with the User Group and some members of VVI. The aim was to talk through the Railway Order material in detail and to allow an opportunity to discuss key concerns and recommendations on the project itself, as well as to examine improved communication on image-focused material. TII recognises the difficulties and limitations associated with communicating large volume material – comprising images, technical drawings, maps etc - to those who are blind and vision impaired but continue to take advice on best practice from VVI and to try to develop effective narrative processes to enable full participation and engagement.	
7	3. The Non-Technical Summary	2	TII promised to send us a textual description of two planning drawings (two types of Metrolink station envisaged), but this never happened.	TII remains committed to sending textual descriptions of the key planning drawings in advance of the Oral Hearing. TII has also committed to taking sample stations and honing the design in consultation with VVI - and other disability stakeholders - to ensure that universal design principles can be applied and embedded in the design.	
8	4.1 Shared Space	2,3	We are concerned that vulnerable pedestrians will have to share space with two-wheeled vehicles (including bicycles, eScooters, electric bikes, etc. Such shared space would be reckless planning, and extremely dangerous to our visually impaired members.	This is a valid concern and TII recognises that conflict can arise from poorly designed public space and that vulnerable walkers can be at risk from bikes, e-scooters and electric bikes etc. The Metrolink design seeks to make the layout its public spaces as intuitive as possible for all users, and to create identifiable and safe routes, through the use of landscape and differential paving and other devices. TII has committed to working with VVI and others on the detail of this, as part of the proposed thematic workshop process.	
9	4.2 External Environment	3	We are worried about other shared space features, such as toucan crossings, and we are also concerned that raised/table crossings will be used, which can cause some of our members to lose balance when they veer off course.	As detailed in Chapter 6 (MetroLink Operations and Maintenance) section 6.8.3 <i>Passenger Movement and Wayfinding</i> , the approaches to the station entrances are positioned to provide convenient access with minimal changes in level. Design features to facilitate safe access to the station entrance include signalised crossings, 'raised tables' within the roadway to reduce traffic speed at pedestrian crossings and dropped kerbs on pavements on both sides of the crossing to remove a trip hazard and aid wheelchair users or passengers with wheeled luggage. The detailed design of these crossings will be a feature of the proposed Thematic Workshops with VVI and the User Group, with the intention that a safe and effective solution can be found for all. TII have noted the concerns regarding raised tables and will engage with VVI and others on this particular design issue. Tactile paving surfaces will warn pedestrians with visual difficulties of the absence of a kerb and guide them in the direction of the crossing. Pedestrian routes will also be free of obstacles.	
10	4.3 Finding the Stations	3	We are concerned that there will be no differential surfacing or sloping used so that a visually impaired person cannot independently locate a Metrolink station.	The Metrolink design seeks to make the layout its public spaces as intuitive as possible for all users, and to create identifiable and safe routes, through the use of landscape, differential paving and other devices. TII has committed to working with VVI and others on the detail of this, as part of the proposed thematic workshop process. It is intended that the public spaces at the approaches to the stations will be clutter-free and clearly navigable for all users, allowing for safe and independent travel on Metrolink and adjacent public transport. Please refer to response Item 9 which details that differential surfacing (tactile paving) and dropped kerbs (sloping) will be used to assist with visually impaired persons, as detailed in Chapter 6 (MetroLink Operations and Maintenance) section 6.8.3.	

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11	4.4. Plazas	3	We are worried that there will not be segregation of cyclists from vulnerable pedestrians in the plazas of stations and that there will not be proper and safe wayfinding for visually impaired pedestrians (e.g., raised beds or differential surfacing).	Please refer to response Items 8 and 10. TII has committed to working with VVI and others on the detailed design of station plazas, to avoid conflict between vulnerable pedestrians and cyclists.
12	4.5 In-Station Wayfinding	3	We are concerned that the location of help-buttons will not be consistent in the stations, or that the operation of lifts will be accessible.	It is intended that the layout of the station platforms will be as uniform as possible and that Help Points and other necessary equipment and accessibility features will be consistent and easy to locate for those who are blind or vision impaired. It is intended that Help Points will also be provided at other locations throughout the station, such as at the entrance concourse and at mezzanine level or elsewhere as agreed with the User Group. As outlined in Chapter 6 (MetroLink Operations and Maintenance) all platforms incorporate lifts for access purposes. All platforms will also feature help points, which incorporate induction loops for people with hearing impairments. All passengers will be able to pass easily through the station entrance and via stairs, escalators or lifts and walkways to the platforms. These features have been designed sufficiently wide to be accessible for wheelchair users as well as accommodate other design parameters, such as emergency evacuation. This is detailed in section 6.8.3.2 of Chapter 6 (MetroLink Operations and Maintenance). Passenger lifts will be located as close as possible to the stairs and escalators. Audio and Braille guides will be available, as well as a tactile map of the system to ensure visually impaired users are able to locate these. The lifts are designed to carry either 13 or 33 passengers depending on lift size. Additional specifications for the lift design include features such as tactile floor numbers for those who are visually impaired, the position of the lift controls for easy reach and signalling and illumination levels. Passenger lifts will provide access to all levels within the station and to both the northbound and southbound platforms from street level. Hazard warning surfaces will also be present at this bottom of stairs for visually impaired users, as set out in section 6.8.3.2 Wayfinding within the Stations (Chapter 6 MetroLink Operations and Maintenance). As detailed in section 6.4 of EIAR Chapter 6, information will be communicated effectively to the passenger regardless of ambient conditions or the passenger’s sensory abilities (via different modes including pictorial, verbal and tactile).
13	4.5 In-Station Wayfinding	3	We are concerned that underfoot wayfinding for visually impaired people will not be intuitive.	Metrolink Station layouts have been designed to be as intuitive as possible, with uncomplicated pedestrian routes from street level to platform, avoiding dead-end or circuitous corridors. TII has committed to working with VVI and other users on the judicious use of tactile where appropriate. Please refer to response Item 9 which details that differential surfacing (tactile paving) and dropped kerbs (sloping) will be used to assist with visually impaired persons, as detailed in Chapter 6 (MetroLink Operations and Maintenance) section 6.8.3.
14	5.1 Dangerous Doors	3	We are concerned that our members are liable to be pinched or caught in the closing of metro doors if they are not fully on the metro in time. We have been assured that the mechanisms will be ok, but with no detail given	As detailed in Chapter 6 (MetroLink Operations and Maintenance), whilst the starting and stopping of trains, the operation of train doors, and handling of emergencies will all be fully automated and not require staff, staff will still be present for other activities, including assisting passengers. In case an obstruction is detected, the design of the front edge of the sliding door will prevent the doors from closing completely, avoiding entrapments. The system shall be designed in a way that prevents wheel chairs, elderly, vulnerable or child passengers from getting trapped (hands, feet) during operation. This system is widely used on similar metros throughout the world.

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15	5.2 Emergencies, and Stopping a Metro	4	We have not been given the delay time between stops and if this can be extended if there are any problems (since the Metro is driverless).	Dwell Time at Stations is the amount of time that a train stays in the station platforms so travellers can board and alight the train. The principal factors that influence the dwell time are: Doors opening and closing time, considering communication processes (activation for opening or closing, checking doors state, leaving order of the train, etc); number of travellers in each station and the time they require to enter or leave the train (also considering passengers of reduced mobility); trains features (seating arrangement, aisle width, space near doors, number and width of doors, etc.); stations design (location of platform accesses, platform width, position of the train stop, etc.); and the established operation intervals. All these factors considered, dwell time provides enough comfort for the service efficiency, quality and reliability. As detailed in section 6.6.3 of EIAR Chapter 6 (MetroLink Operations and Maintenance), passenger help points and emergency help points will be located in public areas for use by passengers to communicate with the Operational Control Centre through the MetroLink telephone system. This system will be linked with the CCTV system so that operators at the Operational Control Centre can view the scene, for example, if a person of reduced mobility or a visually impaired user requires additional time to board and alight the service.

Submission No.			312	
Organisation Name or Name of Submitter			Waterways Ireland	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Ref: Metrolink Railway Order 2022, 24 th November 2022				
1	Letter	1	Waterways Ireland owns and maintains the Royal Canal and its towpaths which cross the Metrolink proposal at the Phibsboro area as shown in the Railway Order application. Appropriate short term licensing and longer term property arrangements will be necessary to put in place. It should be noted that Waterways Ireland is a North South Body and as such any property disposals first require Departmental and North South Ministerial Council approvals. All proposed changes should account for the legal protections and the overall concept of the canal as a heritage structure.	Appropriate short term licensing and longer term property arrangements will be in place as necessary via an MoU in advance of the commencement of works. TII is aware of the requirement to notify the North South Ministerial Council of TII's Intention to acquire the lands concerned and are taking step to ensure the necessary approvals are in place. All proposals will have regard to the concept of the canal as a Heritage Structure.
2	Letter	1	The Royal Canal has a proposed designation as a Natural Heritage Area from the Wildlife Act and all proposals must address requirements from this. Canal water quality is measured against the Water Framework Directive standards and is to a very high standard, so no new stormwater discharges are permitted to its waterbody. The canal is an important habitat and all legal environmental procedures must be followed to ensure protection of its flora and fauna, in particular otters and other protected species, both at construction stage and in the permanent works.	EIAR Chapter 18, Hydrology, section 18.4.3.4.3 describes the Royal Canal in terms of its designation as a proposed Natural Heritage Area (pNHA) and acknowledges the requirement for the canal to achieve good "ecological potential". Based on this information, Table 18.15 of the same chapter has identified that the Royal Canal is considered of "very high importance" in this assessment. Construction of Glasnevin Station will temporarily effect the Royal Canal, with a working area to be created in the canal basin. A summary of the proposed mitigation measures associated with the Royal Canal works is provided in the the EIAR Chapter 31, Summaries of the Route Wide Mitigation & Monitoring Proposed, see tables: 31.10 - Biodiversity B3, B14 31.16 - Land take LT5 31.17 - Infrastructure & Utilities - IU4 31.20 - Archaeology & Cultural Heritage, CH73 More widely, mitigation measures will minimise impacts on the Royal Canal. The contractor will be required to operate in compliance with a project-specific detailed Construction Environmental Management Plan (CEMP), and all construction sites will be installed with water treatment systems and will be monitored weekly to ensure no impact to the surrounding hydrological environment. With mitigation in place, the residual impact on the Royal Canal will be Imperceptible to Not Significant. TII confirm that there will be no stormwater discharges to the Royal Canal during either the construction or operational phase. EIAR Chapter 15, Biodiversity provides details of the mitigation measures that will be implemented during construction and operation to minimise habitat loss, reduce the potential for impacts on vegetation, reduce the potential for impacts to water quality in receiving watercourses, protect groundwater quantity and quality, and to control and prevent the spread of non native invasive plant species. As otters are listed on Annex II and Annex IV of the EU Habitats Directive they are strictly protected under the Birds and Habitats Regulations. Based on the findings of the field surveys carried out, as there were no otter breeding or resting places, holt or couch sites present within the footprint of the proposed Project boundary, there will not be any loss of holt or couch sites as a result of construction works. As otters could potentially establish new holt or couch sites within the zone of influence of the proposed Project in the future, a pre-construction check of all suitable otter habitats will be required and carried out within 12 months of any construction works commencing. The presence of any new holt/couch sites will be managed in accordance with the Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes.

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Ref: Metrolink Railway Order 2022, 24 th November 2022				
3	Letter	1	The Royal Canal is an important heritage asset in its entirety and there are also various locks, bridges and sections of canal channel that are listed on the Record of Protected Structures and have Associated protections through Planning legislation. All proposed changes should account for the legal protections and the overall concept of the canal as a heritage structure. Any proposed changes within the canal environs will also require further landscape character assessment.	TII are fully cognisant of the heritage value of the canal and its associated bridges, locks, lock gates etc. EIAR Chapter 26, Architectural Heritage details the mitigation that will be implemented where there are predicted effects on architectural heritage [ALG/MT: suggest specifying where that mitigation applies directly to the Royal Canal and the relevant sections of the EIAR Chapter]. A MetroLink Project Conservation Architect (PCA) has been engaged to oversee the implementation of the Project. With the assistance of Waterways Ireland the PCA has commenced undertaking Structural and Condition Surveys of heritage constraints within ownership of Waterways Ireland that will require removal to secure storage (followed by conservation and reinstatement) or protection in-situ. The PCA will also prepare draft specifications for these works in Consultation with Waterways Ireland and in accordance with Waterways Ireland Conservation and Heritage Guidelines. The PCA is also preparing a Conservation Strategy for Glasnevin Station works inclusive of the Royal Canal and this information will be shared and discussed with Waterways Ireland throughout the Railway Order and Construction phases. TII will also undertake archaeological test excavations and an underwater dive survey to further inform on the condition of the canal and all arising proposed works methodologies. A specialist Heritage sub-Contractor (inclusive of a suitably qualified architectural conservation specialist i.e. Conservation Engineer/Architect) will be appointed by the Mains Works Contractor to remove, store, conserve and reinstate impacted constraints as appropriate. The Mains Works Contractor's specialist will finalise all proposed specifications and works methodologies (at each appropriate phase of works and for each relevant activity) and submit to Waterways Ireland and the MetroLink PCA for review and direction. All works of dismantling, protection, transportation and reconstruction will be carried out by appropriately skilled and qualified craftspeople, under the supervision of the Main Works Contractor's Architectural Conservation Specialist. If following the draining of the canal basin the survey indicates that the canal walls are deemed to be susceptible to damage, the north wall will, in consultation with and direction from Waterways Ireland, be removed in whole or in part; this may extend to the entire wall of the canal basin or just the copings. Before removal or any other intervention the north and south walls shall be recorded by photography and a written description. At the appropriate stage of construction, the materials will be returned to site and the wall reconstructed. Any required conservation works to the south wall will be undertaken in situ to accommodate the necessary diversion of pedestrian/cycle way users from the northern tow path. Any damaged coursing exposed on draining of the canal will be made good,TII and the Main Works Contractor (supported by their relevant architectural conservation specialists) will consult with and take direction from Waterways Ireland on this issue. The form of the protection for the canal bed and repair/removal of canal walls is to be in accordance with method statements agreed with Waterways Ireland. Following the implementation of the above mitigation, the nature of any impact reduces to "not significant". The landscape character assessment for the works at the Royal Canal and Glasnevin Station is provided in EIAR Chapter 27, Landscape & Visual, sections 27.4.2.19 and 27.5.4.19. Overall, the potential effects on the landscape during the Operational Phase are assessed to be significant and positive.

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Ref: Metrolink Railway Order 2022, 24 th November 2022				
4	Letter	1	The Royal Canal and its towpaths are working assets open to daily public use. This is both in terms of navigation for boat and other water-based recreational uses, and for the towpaths which are pedestrian & cycle recreational corridors. All of these activities require to be adequately accommodated and maintained, both throughout the works and in the permanent arrangements.	EIAR Chapter 11, Population and Land Use details mitigation for severance during construction and operation of the proposed Project. It will be necessary to close the canal for a period during construction (see 'Duration of Canal Closure' below for further detail) of the proposed station at Glasnevin and to drain the canal basin temporarily to enable the northern side of the basin, with its towpath, to be separated from the canal by piling or by precast retaining units resting on the canal basin to allow for infilling the section between the temporary piling/precast units to provide a working platform for works to be carried out. During the works, the northern towpath will be closed to public access and an alternative access will be provided on the southern side of the canal which will also ensure there is no inadvertent impact on the proposed Royal Canal Way. This will be facilitated by the insertion of a cantilevered temporary pedestrian and cycle path along the southern tow path, and a temporary bridge over the canal, utilising the abutments of a former railway bridge adjacent to the sixth lock. The temporary bridge will accommodate pedestrians/cyclists, emergency vehicles and residential access to Coke Oven Cottages. Upon completion of the works in this area the canal basin will be drained again to facilitate the removal of the piling, following which the canal margin and towpaths will be reinstated and reopened to the public and the temporary bridge will be removed. These works will be carried out in consultation with Waterways Ireland. Alternative access arrangements (or diversions) will be put in place at the relevant locations and appropriate temporary signage will be put in place on roads, footpaths or cycleways that will be temporarily affected by the construction works. This signage will be monitored to ensure that it guides local residents, commercial activities and visitors to the temporary access arrangements put in place that will facilitate access to homes and businesses. <u>Duration of Canal Closure</u> The canal will be closed to boating activity -when building and removing the Coke Ovens Cottages Bailey Bridge, during the partial infilling of the canal, and while rebuilding the northern canal wall and undertaking any remedial measures to the south wall and the base. The timing and duration of the canal closure will comprise of two closures, each of three months duration, with the timing to be agreed with Waterways Ireland. Closure 1 - will comprise closing and draining the canal prior to commencing main works to carry out condition surveys, undertake planned works to the northern wall and any other works identified by aforementioned surveys, and inspect and remediate, if required the old railway abutments and south wall. Closure 2 - will again comprise of closing and draining the canal on completion of the main works to reinstate the north wall, remove the temporary southern pedestrian cycleway and the bailey bridge, remove the temporary retaining wall and fill, rebuild the wall and base if required, remediate and reinstate any additional measures identified during the survey or works, and reinstate any modifications to balance beams or other Waterways Ireland assets.
5	Letter	1	The Royal Canal is also a water corridor and as such can carry flooding risks if water movement is not suitably managed. All works must consider and take measures to minimise or eliminate these risks.	The proposed Glasnevin Station has been designed having regard to the flood risk assessment undertaken for this site, with sufficient capacity within the drainage system to accommodate predicted additional flow related to flood events. This has also been adjusted upwards to take account of climate change and the frequency and intensity of extreme rainfall, ref EIAR Appendix A18.5 Flood Risk Assessment, section 5.9. However, it should be noted that the Flood Risk Assessment undertaken for the project has not identified a potential for flood risk at this location arising from the canal. A review of historic data from The Office of Public Works (OPW, 2021) on-line mapping database www.floodinfo.ie was undertaken (May 2021) in order to obtain information on historical flooding events along and in the vicinity of the proposed metro route corridor and which has identified that no historic flooding has occurred here. Temporary measures for the diversion of water during the planned canal closures will be agreed with Waterways Ireland prior to the commencing of construction works. Calculations will determine if such temporary measures need to be continued throughout the construction phase to accommodate water flow arising from the partial infilling of the canal.

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6	Letter	2	Waterways Ireland have met with Transport Infrastructure Ireland and their consultants as part of design development but all future property, operational, environmental and legal issues for construction stage will have to be addressed in advance of any works taking place on Waterways Ireland property.	TII are in consultation with Waterways Ireland on the understanding that a legal agreement will be put in place by the parties to address all remaining issues of concern relating to property transfer, operational concerns, construction and environment issues. Both parties are committed to having the agreement in place in advance of commencement of Station construction works

Submission No.			313	
Organisation Name or Name of Submitter			Westward Group Ltd.	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Ref: Regarding the intended application by the National Roads Authority (operating as Transport Infrastructure Ireland) for the Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order (2022). Regarding Land Tag ML5D-U12 ML5D-U15 together with the remainder of the property at 24-27 Frederick St North.				
1	Point 1.	2	I request that prior to any work taking place, the contractor shall carry out a full dilapidation survey of all existing building at 24-27 Frederick St North. The report shall be circulated to all interested parties and agreed.	TII thank you for your comments and respond as follows. This referenced building is located within the Zone of influence of the Tunnelling operation and should the Railway Order be granted may be subject to further assessments for both settlement and vibration in advance of the commencement of the tunnelling operation in the vicinity of this reference property. Potential Settlement Impact: For the Railway Order, TII have undertaken a Phased Ground Movement Impact Assessment and the results of the assessments are included in the Railway Order documentation within Appendix A5.17 of the EIAR. While not directly assessed, this building is located between Building B-92 and B-93 which have been assessed, see EIAR Appendix A5.17 Building Damage Report, and Table 5-4. Both of these representative buildings have been assessed as having "very slight" impact occurring as a consequence of tunnelling. Buildings assessed as being below Slight do not need further assessment at this stage. However, in advance of construction commencement, a further assessment on impacted properties may be required as detailed in Appendix A5.17 and these will be undertaken by the contractor appointed by TII. Any further assessments will be based on updated design information together with any further details available of the impacted property. Any property condition surveys procured will be supplied to the building owner. TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans. These plans will help assure that the risks associated with tunnelling impacting any commercial property are appropriately managed and controlled. TII will provide details of any monitoring proposed by the contractor at detailed design stage. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced at least 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation.

Submission No.			313	
Organisation Name or Name of Submitter			Westward Group Ltd.	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Ref: Regarding the intended application by the National Roads Authority (operating as Transport Infrastructure Ireland) for the Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order (2022). Regarding Land Tag ML5D-U12 ML5D-U15 together with the remainder of the property at 24-27 Frederick St North.				
2	Point 2.	2	I request that movement monitors be fixed to the property at 24-27 Frederick st North. The works will require ongoing vibration monitoring to verify the works do not cause excessive vibrations which will lead to building damage.	Further to response item number (1) above, your request is noted and TII confirm that any monitoring for both settlement and vibration will be considered by the contractor for this property in advance of tunnelling construction activities taking place. Based upon the assessments completed as response item number (1) above, the movement monitoring design for the construction phase will be undertaken by the Contractor appointed by TII and they may need to install monitors to your property as part of that design. If required, TII will consult with each property owner impacted to make the necessary arrangements. Predicted Vibration Impact from Tunnelling Operation: For the Railway Order, TII have undertaken a Groundborne Noise and Vibration and Blasting Modelling Assessment, contained within EIAR Appendix A14.5, with section 14.4 AZ4 Northwood to Charlemont, presenting the predicted vibration levels during Tunnel Boring Machine (TBM) passage for various sensitive receptors. The predicted vibration presented in this section outline the VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) for TBM Passage during the day and night at 24-27 Frederick st North. The VDV values for this referenced building are 0.251ms-1.75 (VDV day) and 0.211ms-1.75 (VDV night). Both of these values are lower than the VDV Threshold Levels for human response of 1ms-1.75 (VDV day) and 0.5ms-1.75 (VDV night), meaning that no significant impact is expected on people within the building as a result of vibrations during TBM passage. Threshold levels for building damage are much higher than those for human response, and there are therefore no significant impacts expected for the building at this location. EIAR Appendix A5.1, Outline CEMP, outlines that the contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project which will be a live document. A full monitoring and auditing programme will form part of the CNVMP which will be agreed with the Local Authorities prior to the commencement of the Construction Phase. Table 6.2: Noise and Vibration Measures of the Outline CEMP outlines the monitoring programme requirements.
3	Point 3.	2	I request that the property owners are indemnified against any adverse impact on their property as a result of the proposed works or any ancillary works.	The Property Owner Protection Scheme (POPs) scheme can be availed of by private residential owners where properties lie within 30m of the tunnel or 50m of a cut and cover excavation (these distances are based on the ground movement zone of influence) and will provide for pre and post construction surveys and repair of damage attributable to MetroLink. The Property Owners’ Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor. To protect commercial properties, instead of a Property Owners Protection Scheme, TII contractors appointed to carry out the works will, with the agreement of the owners, commission chartered building surveyors to carry out a precondition survey of their commercial properties. In the event that it is determined that damage has occurred, TII’s contractor will be required to commission a follow up survey to confirm the extent of the damage and whether the damage has been caused by MetroLink works. Metrolink project insurances will be put in place in a manner similar to other large rail projects including Luas. Where property damage is confirmed to have been caused by MetroLink works, the property concerned will have access to those insurances.
4	Point 4.	2	The property at 24-27 Frederick St North comprises a substantial commercial building together with deep basement car parking and services area and it is critical that the entirety of the property including party wall must be protected and monitored as an entity.	Please refer to Items 1 and 2 above. TII will implement an appropriate monitoring regime to assure that your property is protected from impacts associated with MetroLink.

Submission No.			314		
Organisation Name or Name of Submitter			Will Phelan		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Submission by Niall Sudway MRICS, MSCSI, FCIARbM. MII, Sudway and Company Limited Chartered Surveyors on behalf of Will Phelan, 3 Harcourt Terrace Dublin 2 DO2RC79 Ref: ML6EU16					
1	Intro	1	With regards to the above matter I can confirm that I have been instructed to act on behalf of the above named party in relation to the above compulsory acquisition order as it effects their property . My client's property is part of a set piece regency terrace which was developed in the 1830's and is unique in that it is still largely intact and is therefore of significant architectural and historical significance. The property is also a protected structure under the current Dublin city Development plan.	TII acknowledge the architectural and historical significance of the property and recognize that the property is also designated as a protected structure. Hence the property has been included in the impact assessment and presented in the EIAR Chapter 26 (Architectural Heritage), Table 26.25: "BH-566 - 3 Harcourt Terrace - Three-storey, three-bay semi-detached house with rendered façade and with ionic pilasters at ground-floor level; single storey porch to side; RPS 3563 DCC; NIAH 50110465".	
2	Draft of Proposed Railway Order	1	My client was issued a letter dated the 20th of September 2022, which included several extracts from plans and a copy of the public advertisement placed in the Irish Independent on the 17th of September 2022, which proports to indicate they have applied for the relevant railway order. However, in their letter they refer to relevant extracts from the "draft of the proposed Railway order" In deed the booklet provided is called the Draft Railway order. In my view there should be no draft involved at this juncture either TII wish to apply for a railway order or they don't. If they wish to apply for a Railway Order to the Bord then both the Bord and Land owner should know exactly what is in the order and there should be no equivocation, which appears to be the case here were the documents are only draft. It begs the question of when will the final Order be submitted and will it be any different from the Draft Order. It is difficult to see how a land owner can make submissions or how the Bord can make decisions based on a draft.	TII confirm that a letter (CAP_ML_2442_98) was issued on 20th of September 2022 to Mr. William Phelan at 3 Harcourt Terrace with reference to 'Intended application by the National Roads Authority (operating as Transport Infrastructure Ireland) for the Railway (MetroLink–Estuary to Charlemont via Dublin Airport) Order [2022]'. Please note that the reference to a "draft Railway Order" is correct and that it reflects the fact that it is a description of what is proposed by TII for approval, with An Bord Pleanála as the statutory body with the power to grant the Railway Order, being the final decision maker. The "draft" railway Order will become a "Railway Order" only if and when An Bord Pleanála approve it and update to include any specific additional requirements that the Board identify as being required.	
3	Compulsory Purchase and Supporting Information	2	In respect of the draft Order I would point out that reference is consistently made to the schedules which are not attached. In particular in part three makes reference to several schedules which are meant to indicate the lands being acquired. Again without these schedules and plans it is not possible for us to properly identify the lands being acquired and the possible effects on our property .I would also draw the Bords attention to section 7.59 of the Non - Technical summary which states that there is are "limits of deviation during the construction phase . There is no such provision allowed in law. In fact schedule three of the 1966 Housing act states "the compulsory purchase order shall be in a prescribed form and shall describe by reference to a map the land to which it relates and shall incorporate, subject to the modifications here and after mentioned any necessary adaptations" Clearly the documentation provide to date does not meet this legal requirement.	Notification letter CAP_ML_2442_98 issued on 20th of September 2022 at 3 Harcourt Terrace includes relevant extracts from the Book of Reference to the plan, indicating the identity of the owners and of the occupiers of the lands described in the Plan. The unique land take referencing and numbering for 3 Harcourt Terrace is "ML6E-U19". The book of reference - third schedule (substratum land which may be acquired) for 3 Harcourt Terrace (ML6E-U19) is attached to the above mentioned notification letter. Relevant extracts of plans (including maps or drawings) which indicate the extent of the lands or land rights affected were also enclosed to the notification letter and include: • Individualised Property Details (Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-03765, ML6E-U19), which is the drawing marking out your property (only), which is extracted from the below property plan. • Property Details Hatch Street Lower to Grande Parade (Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-01097, ML-P 306 E-O), which shows the extent and types of land acquisition that TII proposes to acquire to facilitate the construction, operation, and maintenance of the MetroLink project along the section of the route close to your property. • Alignment Long Section 18 (Plan drawing no. ML-LN O-O18), which shows the indicative depth of the tunnel along the section of the route close to your property. • General Arrangement Hatch Street Lower to Grande Parade (Plan drawing no. ML-RO 306 E-O), which shows the general arrangement of the tunnel along the section of the route close to your property. The drawings in the third schedule show the lands to be acquired with different shading used for temporary, permanent and substratum acquisitions as outlined on the legand. There will be no compulsory acquisition outside the shaded area. The shaded areas include all of the area required to construct and operate MetroLink, allowing for any variation within the Limits of Deviation.	
4	Substratum Definition	2	The documentation supplied to date makes reference to acquiring substratum. There is no definition supplied as to what this is. Is it measured from the top or the bottom of the Tunnel? When they say the surface what do they mean, is it the floor of a basement and what consideration has been given to any structures with piled foundations or underground car parking? One can only presume that TII will attempt to rely on rule 17 as introduced by section 48 of the Planning and development (strategic infrastructure)Act 2006 which states "the value of any land 10 meters or more below the surface of that land shall be taken to be nil, unless it is shown to be of a greater value by the claimant". All the other rules for the assessment of compensation are based on the open market Value of the lands , which can be determined by an Arbitrator in default of agreement. It is simply not credible that legislation can be introduced where the state has in essence predetermined a nil Value to part of someone's property. In deed even in the case of a half road bed which is controlled by a local authority this is not the case. We would ask that the Bord should seek legal clarity from the Courts as to whether this legislation is Legal in the first instance.	The document Compulsory Purchase Order (CPO) Guidelines September 2022 (available at: https://www.metrolink.ie/media/0jlpbyso/metrolink_cpoguideline_final_september-2022.pdf) sets out details of substratum acquisition and how this is measured. To summarise substratum is defined as the layer of earth which is 9 meters below ground level.	

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Organisation Name or Name of Submitter			Will Phelan	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Submission by Niall Sudway MRICS, MSCSI, FCIARbM. MII, Sudway and Company Limited Chartered Surveyors on behalf of Will Phelan, 3 Harcourt Terrace Dublin 2 DO2RC79 Ref: ML6EU16				
5	Substratum Definition	3	The lack of detailed design drawings means that we have no indication of where the top of the Tunnel will be in relation to the underside of our basement floor level of our property or any foundations. This will have serious implications for the property in terms of risk from Vibration during the works and also when the Rail is operational, and also in relation the possible interpretation of rule 17, as referred to previously.	Relevant preliminary design drawings (alignment longitudinal section, general arrangement, property details) have been issued to 3 Harcourt Terrace property - please refer to Item no. 3 above. Please note that these drawings show that the top of the tunnel is over 17m below ground level at your property. It should also be noted that the tunnel as proposed is under the road and not directly under your building. The detailed design drawings will be prepared by a Design and Build Contractor after the Railway Order is granted by the Board. With regards to your concerns related to potential vibration impacts, EIAR Appendix A14.5, Groundborne Noise and Vibration and Blasting Modelling Results, 14.4 Section AZ4 Northwood to Charlemont, presents the predicted day and night VDV levels (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) for TBM passage during construction phase and for railway operation, with the results for 3 Harcourt Terrace summarised below: • The predicted day and night levels of groundborne vibration during TBM Passage are 0.256ms-1.75 (VDV day) and 0.215ms-1.75 (VDV night). Both of these values are lower than the VDV Threshold Levels presented in EIAR Chapter 14.2.1.2.3 Vibration from Construction Sources other than Blasting, meaning that no significant impact is expected on the property as a result of vibrations during TBM passage. • The predicted day and night levels of groundborne vibration during railway operation are 0.007ms-1.75 (VDV day) and 0.004ms-1.75 (VDV night). Both of these values are lower than the VDV Threshold Levels presented in EIAR Chapter 14.2.1.2.4 Vibration from Operation, meaning that no significant impact is expected on the property as a result of vibrations during railway operation.
6	Appropriate Assessment	3	We also note that the Historic nature of Harcourt Terrace doesn't feature anywhere in the non -Technical summary not even in section 10.17 of the non -Technical summary which purports to deal with Archaeology and Cultural Heritage. One can only conclude that it has not been considered in Til's deliberations in relation to possible effects on a architecturally significate part of Dublin.	The Non-Technical Summary document summarises in non-technical language the Environmental Impact Assessment Report (EIAR), including the likely significant effects identified, the mitigation and monitoring measures proposed, as well as any residual effects arising from MetroLink that have been identified during the Construction and Operational Phases to inform the planning consent process. The specific chapters of the EIAR present details on the impact assessment of the MetroLink Project on the receiving environment during the Construction Phase and Operational Phase. In this sense, the EIAR Chapter 26 (Architectural Heritage) describes and assesses the likely direct and indirect significant effects of the proposed Project on Architectural Heritage. The protected structure status of the building is known (see Table 26.25: Architectural Heritage Constraints from St Stephen's Green Station to Charlemont Station) hence your property has been subject to impact assessment and the results are presented in the Section 26.5.4.15 St Stephen's Green Station to Charlemont Station. According to the findings of impact assessment, no direct impacts on architectural heritage is predicted during Construction Phase in this section of the study area. Furthermore, no direct or indirect impacts on architectural heritage is predicted during Operational Phase.

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Organisation Name or Name of Submitter			Will Phelan	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Submission by Niall Sudway MRICS, MSCSI, FCIARbM. MII, Sudway and Company Limited Chartered Surveyors on behalf of Will Phelan, 3 Harcourt Terrace Dublin 2 DO2RC79 Ref: ML6EU16				
7	Appropriate Assessment	3	In relation to Section 10.12 Soils and Geology, in the non-technical summary. It is our view that it is far too vague, so as to be of little use when considering possible impacts on our property. We would like to put on record that there is a granite rock seam which runs through the lands adjacent to Harcourt Terrace and our property which will in our view constitute a risk of damage occurring to our property, especially during the works. This would appear not to have been considered. We also that there is a underground river called the river Steyne which flows below the Terrace, similarly, there has been no cognizance or consideration of this demonstrated within these proposals.	As stated above the Non-Technical Summary document summarises in non-technical language the Environmental Impact Assessment Report (EIAR), including the likely significant effects identified, the mitigation and monitoring measures proposed, as well as any residual effects arising from MetroLink that have been identified during the Construction and Operational Phases to inform the planning consent process. The local geological conditions were considered (including the presence of River Steyne/Stein) and presented in detail in the EIAR Chapter 20 (Soils and Geology of the EIAR). Furthermore, EIAR Appendix A 5.17, Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on property. The settlement contours calculated were used to undertake the buildings damage assessment and take account of the prevailing ground conditions. Properties along Harcourt Terrace have been assessed in the very slight damage category. The assessments include for property basements. Please refer to building B149 in table 5.2 of Appendix A5.17 and to section 4.3.2 for an explanation of the Building Damage Categorisation. Currently, your property is assessed at Damage category 2 or below. The damage categories are described in section 4.3.2 of the EIAR Appendix A 5.17, Building Damage Report. However, it is important to recognise that as your property is designated a 'special' building (designated protected structure) it will be further assessed (Phase 3) at the detailed design stage to verify the impacts. The Phase 3 assessment will take account of final design and construction methodology details. A detailed survey will be carried out as part of the Phase 3 assessment to provide the necessary additional information to inform this detailed analysis of how the individual elements of the building would be affected by the predicted ground movements. The method and extent of the detailed analysis will be determined on a case-by case basis and may include a more sophisticated semi-empirical or a detailed soil-structure interaction using finite element modelling methods. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements.
8	Appropriate Assessment	3	For the reason stated above we feel that the Bord should reject the draft order as submitted and also on the basis that the acquisition of our lands would constitute a breach of my Clients constitutional right to the quiet enjoyment of their property.	The proposed acquisition of substratum lands as described in the MetroLink Railway Order Application does not in our view breach the constitutional rights of the submitters client.
9	Conclusion	4	In conclusion we would request that in any decision the Bord makes they should direct that my Clients costs, incurred in dealing with this matter should be discharged by the TII.	TII do not consider this to be a reasonable condition to seek from ABP.

Submission No.			315	
Organisation Name or Name of Submitter			Woodies DIY retail store, Seatown Road East, Swords, c/o Grafton Group PLC	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Submission to An Bord Pleanála, 64 Marlborough Street, Dublin 1, D01 V902 in relation to the Application for a Draft Railway Order for the MetroLink from Estuary to Charlemont, Dublin				
1	2.0 Context 2.0 Previous Public Consultation and Submission	3, 4, 5	As illustrated in figures 1 and 2 below the site will be directly impacted by the proposed acquisition of part of the site for a cut and cover tunnel. We made an objection to the potential CPO of lands on and adjoining the Woodies site during the previous consultation period in May 2019... little changes have been made to the draft Railway Order and therefore there will be major impacts on the successful operation of the retail store. We wish An Bord Pleanála to include this submission as part of our overall objection to the draft Railway Order.	The selection of this route leaves us with limited options to avoid CPO of your property. We have however kept the CPO of land to a minimum requirement at this location. Our planning to date has focused on maintaining access to your property and business.
2	3.0 Current Objection	7	We do not believe that these previous objections have been addressed at all and wish for these concerns to form part of this current objection. Only small changes have been made to the proposed extent of CPO lands, and no changes or consideration lent to amelioration have been made to the alignment of the route. We believe that the railway corridor approved on the central median of the R132, under the previous Railway Order for Metro North, should be implemented at this location. The basis of the current augmented objection is as follows: - The length of the construction period. - The negative impact on access to the Woodies store, including safety and the mixing of customer traffic with construction traffic. - The negative impact on car parking associated with the Woodies store. - The negative impact on the external garden centre. - The negative impacts on customer experience. - The need for permanent land take.	TII fully recognise your objections to the current proposals but have through options development and consultation sought the best possible solution for all stakeholders along the proposed alignment along the R132. Alternative considered to the Railway Order Route As part of the identification of the Emerging Preferred Route, Options 3, 5 and 7 presented alignments similar to that of Old Metro North. All options including these, were subject to a multi-criteria analysis on criteria of economy, integration, accessibility and social inclusion, and environment. Option 3 was discounted as it was considered to have significant disadvantages over the other options in the economic assessment. Option 5 was considered to be less favourable on integration with both land use policy and public transport integration. Option 7 had economic disadvantages when compared with other options, and also presented the slowest journey time of all ten route options. This assessment is presented in section 7.6.4.4 of Chapter 7 (Consideration of Alternatives). As such, these options were not deemed the preferred options. Following feedback received from stakeholders along the R132 during the Emerging Preferred Route consultation in 2018, objecting to an elevated structure in the median, TII considered a number of alternative options for the Preferred Route, including a cut section proposal in the median of the R132. However, following an options appraisal, the cut option in the median was not brought forward into the Preferred Route Consultation in 2019 and for the following reasons Permanent Impact: - Increase in permanent land take along the R132 corridor to facilitate the final road alignment past MetroLink structures and stations. - An increase in amenity loss on completion. - Permanent property land take requirements to deliver this option would impact on a greater number of residents. - Stations provided in the median at roundabouts would require additional land take to provide similar at grade access. - Stations in roundabouts would provide less opportunity for landscape upgrade. - Stations positioned in roundabouts would have less opportunity to achieve an open plaza design concept while ensuring that the station platforms are straight for passenger access operation and control. - Utility diversions to achieve a median delivered solution would increase. Temporary (Construction Phase) Impact: - Increase in traffic disruption during construction. - Increase in temporary land take required to facilitate access for construction. - Similar loss of amenity and green landscape during construction. - Temporary Property land take requirements to deliver this option would impact on a greater number of residents. - The duration of construction for a median option scheme was considered to be longer, impacting further on all receptors along the R132. A similar solution in the Median to the one considered in 2019 but aligned to Fingal County Councils R132 Connectivity Project, consented in 2022 would result in the relocation of the proposed stations away from the new junctions at Seatown and Malahide Roundabouts. For an alignment option in the Median, this change would result in similar impacts as described above together with the following permanent impacts: - An increase in land take to divert the R132 around these stations. - Less favourable pedestrian at grade access into the stations positioned in the Median.

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Organisation Name or Name of Submitter			Woodies DIY retail store, Seatown Road East, Swords, c/o Grafton Group PLC	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Submission to An Bord Pleanála, 64 Marlborough Street, Dublin 1, D01 V902 in relation to the Application for a Draft Railway Order for the MetroLink from Estuary to Charlemont, Dublin				
			Response (2) continued.	Impact on your Business. TII recognise that the proposals are likely to cause disruption to your business if not carefully considered and managed and will continue to work with you to minimise as much as possible any impact already recognised, with proposals for construction and operational mitigation measures outlined within the EIAR and also by communication and provision of regular factual information with your business. The specific issue of impact raised by you is dealt with in other responses (3) to (9) below. Programme The MetroLink Summary Programme is set out in appendix A5.2 to Chapter 5: MetroLink Construction Phase. The construction phase adjacent to Woodies is scheduled to be completed in 54 months, after which the area will be reinstated across the new structures and landscaped in accordance with the details set out within the Railway Order Plans\Drawings, or subject to further development and agreement with Residents and FCC. The Project Works will continue elsewhere along the alignment but within the confines of the completed open cut & cover structure next to Woodies with the main construction works between Estuary and Seatown Station completed after 66 months followed by Track and MEP progressing to the completion of the Project (108 months).
3	3.1 Length of Construction Period	8	The length of the construction period adjoining and on the Woodies site is of major concern. Whilst the EIAR describes the construction works as temporary works, table 5.12, page 69, Volume 2 indicates that the duration of works at the "Woodie's Satellite Site" will be 54 months i.e. 4 years and a half years. This length of construction is considerable. The impacts including traffic management, hoarding, visual impact, noise, dust, vibration etc., over a lengthy time period will have a considerable impact on the trading of the existing store. No explanation is given in the EIAR as to how this time period was calculated, and why it is such a lengthy period. It has been indicated in direct consultations with TII, and in other sections of the EIAR, that the time period for construction works at this location would be 18-24 months. However, this directly contradicts table 5.12 which provides the duration of works at each construction compound. Indeed, very little information is provided in the EIAR. (Section 5.7.10.1 of EIAR quoted in response.)	As detailed in Chapter 5 (MetroLink Construction Phase), section 5.2.2., the programme for the construction of the proposed Project has been optimised to minimise the duration of the Construction Phase, where possible, in order to lessen the duration of potential environmental impacts, while ensuring that the areas surrounding the works sites remain operational and functional. The EIAR Chapter 5: MetroLink Construction Phase Diagram 5.3 Summary Construction Programme provides an indicative duration for the works required at the Woodies Compound site that have both works within the site to be sequenced for construction of the MetroLink Elements within a confined location, resources used and external interdependencies of the site such as: - Utility diversions. - Traffic management (two phases are required for access each with a duration of between 18-24 months, total potential duration of up to 48 months). - Interconnecting structures beneath the R132 and Seatown Road. - Reinstatement of the sites and final agreed landscaping. These work elements needed to deliver the MetroLink are logically assembled in the most efficient and effective sequence to deliver the works and this determines the duration of the works as described.

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Organisation Name or Name of Submitter			Woodies DIY retail store, Seatown Road East, Swords, c/o Grafton Group PLC		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Submission to An Bord Pleanála, 64 Marlborough Street, Dublin 1, D01 V902 in relation to the Application for a Draft Railway Order for the MetroLink from Estuary to Charlemont, Dublin					
4	3.2 Impact on Access	8, 9	The proposal for a construction compound to the side and front of the store, including the proposed construction access will severely affect ease of access, and visibility of the store. The extent of disruption will affect the successful operation of the store. It is unclear why this compound is required as there is a large construction compound on the south of the Woodies site adjoining the proposed new station. Of further concern is that it appears the proposal is to use the existing store access as a shared access for Woodies customers and construction vehicles. Woodies have a number of issues with this proposal: - It is an unsafe solution as it will result in customers' cars mixing with HGVs. - No information has been provided as to the number of construction vehicles accessing and egressing the site on a daily basis during the 4.5 year construction period. - No information has been provided as to who will control the entrance. Presumably as it is subject to a CPO, it will be controlled by the contractor. This may result in customers having to queue to enter and leave the Woodies site, as construction traffic will be given priority. In addition, no information has been provided as to what other options has been considered to access the construction compound. Would it be possible to access the construction compound to the east of the Woodies entrance, for example, thereby negating the need to CPO the existing entrance and separate construction and customer traffic to some degree? Woodies cannot provide alternative access to their site. The location of the construction compound will impede any potential alternative access points. <i>EIAR (volume 3, Chapter 9) text in relation to construction traffic impacts stated in response.</i> There is no assessment as to how the restricted traffic flow and diversions will affect the Woodies access. There is no map showing where the restricted movements to and from the Seatown Road East arm on Seatown Junction are located. No information is provided as to the duration of such restrictions.	While acknowledging the impact the proposal might have on the operation of the business, TII have taken a considered approach to mitigate and minimise that impact. The land take around Woodies is the minimum land take required to both access and construct the below ground structures through this location. Temporary Land take is also needed to phase the traffic management required to construct the cut and cover structure under Seatown Road, whilst maintaining access along Seatown Road. Chapter 5: MetroLink Construction Phase, diagram 5.3 states the proposed temporary land take around Woodies will be for 4.5 years. TII will explore every opportunity with their appointed contractor to reduce this duration. The Scheme Traffic Management Plan is provided in Appendix A9.5 of the EIAR. Section 5.2 details the plans and assessment undertaken between Estuary and Seatown Station, and summarises the traffic impacts on various road users as a consequence of the proposed works at this location. Section 5.2.4 Construction Traffic Generation provides details of the anticipated daily HGV movements ranging between 100-400 per day (two movements is one HGV, so between 50 to 200 HGV's in the area per day) across the works area Estuary to Seatown, of which only a small but varied proportion would be using Woodies Compound at any given day. An alternative site entrance closer to the Seatown Junction was considered to access the Compound at Woodies, but it was considered to have had the potential to create traffic congestion issues as well as introducing additional pedestrian crossing points. Furthermore and as discussed in meetings with Woodies in June 2022, any alternative access would require a larger footprint area of the Carpark. The solution as presented in the EIAR is both the most practical in terms of overall safety for car users, customers, and pedestrians locally while also minimising the impact on land take. TII will discuss and agree with Woodies the process of logistic management to prioritise customers over construction traffic entering the site as well as the Traffic Marshalling arrangements to be deployed by the Contractor at this location to control the interface between HGV's and Cars entering the Carpark. The temporary traffic management (TTM) proposals around Woodies and at Seatown Road Junction for the Main Works are provided within the appendices of Appendix A9.5 of the EIAR, specifically sheets 472 to 474 within Appendix B. These are also shown on TTM Phase 1 - Figures 5.26 and TTM Phase 2 - 5.27 (Appendix A9.5), with local diversions outlined in Figure 5-28 of Appendix A9.5. Each TTM phase 1 & 2, during the mains works impacting Woodies is between 18 and 24 months.	
5	3.3 Impact on Car Parking	9, 10	The proposed draft Railway Order will result in the loss of approximately 70 no. car parking spaces (42% of the number of car parking spaces) because of the temporary (up to 4.5 years) and permanent CPO of lands. It is difficult to quantify the exact amount of car parking spaces that will be lost, as the CPO maps, for some inexpiable reason, have failed to delineate the number of car parking spaces within the acquired lands. Even if these (replacement) car parking spaces (on the FCC grounds) did become available, there would be a permanent loss of 24% of the car parking spaces available to Woodies. However, the loss of car parking spaces is accentuated by the permanent loss of the 50% of the (external) garden centre space rendering the remaining 50% unusable, requiring an alternative (external) garden centre in the main car park, which will require a further 600 sq. m, or an estimated 30 spaces. The total permanent loss of car parking spaces will be 56 or 33%, even if the spaces proposed on the FCC grounds materialise. A further concern is the proximity of the Seatown train station to the car park. There is likely to be some unofficial park and ride by rail passengers in the Woodies car park, creating additional pressure on customer spaces for the retail store.	67 Spaces have been counted as being lost temporarily due to TTM measures, see figures proposed around Woodies, figures 5.26 and 5.27 of Appendix A9.5. Permanent land take is shown to the west of the main Woodies building ML 1J-A8, A14 and A15 containing 26 carpark spaces. The permanent acquisition of the land parcels listed above is to provide the final landscape across the alignment as agreed with Fingal County Council as part of the consented R132 Connectivity Project and the creation of a linear park along the MetroLink alignment. As the Woodies Car Park is a privately operated car park, responsibility for the future management and control of the car park charging will be Woodies responsibility.	

Submission No.			315	
Organisation Name or Name of Submitter			Woodies DIY retail store, Seatown Road East, Swords, c/o Grafton Group PLC	
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Submission to An Bord Pleanála, 64 Marlborough Street, Dublin 1, D01 V902 in relation to the Application for a Draft Railway Order for the MetroLink from Estuary to Charlemont, Dublin				
6	3.4 Impact on the Garden Centre	10	...the location and extent of the external garden centre of the store will be severely curtailed to such a degree that it will have to be relocated on the site... ca. 50% of the external garden centre will be permanently acquired. This will affect the entire garden centre, meaning that a new location will have to be found on the remaining Woodies site, meaning the loss of additional car parking spaces, disruption to the business as part of relocation and construction process and impact on the customer experience. The garden centre is an important aspect of the overall business. The impact of its loss and relocation has not been assessed as part of the EIAR accompanying the application.	TII believe the actual impact on the garden centre will be significantly less then 50% as , whilst there is a significant impact on the West side of the Woodies building where a small section of the garden centre is located, there is limited impact on the north end where the majority of the garden centre is and therefore on balance of the total available space, the land take is considered to be less than 50%. See also response number (5) above.
7	3.5 Impact on Customer Experience	10	The customer experience of the current store will be severely impacted by the lengthy construction. The impacts including traffic management, conflict with construction traffic hoarding, visual impact, noise, dust, vibration etc., over a lengthy time period will have considerable negative effects on the existing store. The nature and scale of these impacts have not been assessed, or even acknowledged, in the EIAR, other than (EIAR Book 3 Chapter 11 Page 82 stated in response).	TII recognise that customer experience of the current store will be affected during the works and will work closely with woodies to ensure any disruption to customer experience is mitigated. The EIAR presents a comprehensive and detailed assessment of Traffic and Transport in Chapter 9, both airborne and ground borne noise and vibration are presented respectively in Chapter 13 and 14 and Air Quality in Chapter 16. The assessments included baseline surveys and predictive modelling in order to identify the potential impacts on all sensitive receptors along the proposed route during both the construction phase and the operational phase. Where necessary, mitigation measures are proposed in each of the Chapters to reduce any identified effects. TII is committed to ensuring that any form of disruption at Woodies is minimised throughout the construction stage. This will be done in the following ways: Airborne Noise and Vibration. Chapter 13 (Airborne noise & vibration) describes the likely noise impacts at this location during construction and following mitigation, no residual significant noise impacts are anticipated. Section 13.6 of this chapter describes the mitigation that will be implemented. Groundborne Noise and Vibration Construction: Chapter 14, Section 14.4.1.1 states that calculated groundborne vibration levels at Woodies during the construction phase concludes the values are well below the threshold level for significant effects on “occupants of residential buildings” and well below the threshold level for building damage. Please refer to Table 2.3 of Chapter 2 of the EIAR where the durations of effect utilised in the analysis throughout the EIAR are referenced. However, please note that the assessment in Chapter 13 has noise and vibration impacts over shorter durations to reflect the duration of the actual activity i.e. excessive noise effects resulting from the construction will not last for the construction duration, but will last as long as the "noisy activity" lasts. These durations are outlined in Chapter 13 of the EIAR. Air Quality Chapter 16 describes the likely effects related to air quality including dust and following mitigation, no significant impacts are expected at this location. Section 16.6 of this chapter describes mitigation for dust that will be implemented. Construction Phase Planning. Prior to commencing construction, the appointed contractor undertaking the construction of the works from Estuary to Seatown Station will be required to undertake noise & vibration monitoring at representative noise sensitive locations to evaluate and inform the control requirements and take specific noise abatement measures to control noise levels to the maximum level permissible under an Enforceable Railway Order, if granted by An Bord Pleanála. In order to manage and mitigate any environmental impacts as a consequence of the works, the Contractor will be required to set out their proposals to manage and mitigate these impacts in the Construction Environmental Management Plan (CEMP), an outline of which is included in EIAR Appendix A5.1, and for Fingal County Council approval. Key sections of the CEMP amongst others that will be approved by FCC include the: - Construction Noise and Vibration Management Plan (CNVMP). - Traffic Management Plan. - Air Quality Plan.

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Organisation Name or Name of Submitter			Woodies DIY retail store, Seatown Road East, Swords, c/o Grafton Group PLC	
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Submission to An Bord Pleanála, 64 Marlborough Street, Dublin 1, D01 V902 in relation to the Application for a Draft Railway Order for the MetroLink from Estuary to Charlemont, Dublin				
8	3.6 The Need for Permanent Land Take	11	It is not clear why the permanent acquisition of these lands (ML1J-A4, ML1J-A8, ML1J-A15) is required. Land parcels A4 and A15 are external to the proposed Meto tunnel corridor and are not even immediately adjoining the corridor. A15 is due to become car parking, which as discussed above, technically Woodies will not own, and will not have any control over the use of the car parking. Plot A8 is directly over the tunnel corridor. It is unclear why there is a need to permanently own these lands. Metrolink could instead require a wayleave over these lands and a legal agreement banning construction on these lands. This would enable Woodies to continue the use of these lands for car parking and the external garden centre, enabling Metrolink easy access to the tunnel corridor if, and when necessary. Instead, the CPO will result in an open area of lands directly adjoining the Woodies site, over which Woodies will have no control. There does not appear to be any intention to fence off or delineate these lands. The lands will not be overlooked and will result in increased security risks for the Woodies site, particularly its external garden centre.	TII only seek to permanently acquire lands that are required for the successful operation and maintenance of the MetroLink project. However, please note that some lands that are referenced as permanent land take such as those required to realign the car park, are not intended to be held by TII but would rather be returned to Woodies upon completion of the works. As part of the Railway Order process, TII must acquire lands where works are required (even for relining of car parks) since temporary Aquisition implies the lands will be returned to the owner as they were before the acquisition. See also response number (5) above.
9	5.0 Conclusions	11, 12	...little changes have been made to the draft Railway Order and therefore there will be major impacts on the successful operation of the retail store due to the fact (that) - the alignment is in the wrong location , - lack of information, and - the overall impact on the operation of the Woodies store. We request that An Bord Pleanála include the previous submission (objection from May 2019) as part of our overall objection to the draft Railway Order. The basis of the current augmented objection is as follows: - The length of the construction period. - The negative impact on access to the Woodies store. - The negative impact on car parking associated with the Woodies store. - The negative impact on the external garden centre. - The negative impacts on customer experience. - The need for permanent land take. We believe that the current proposal will have an unacceptable and unnecessary impact on the Woodies retail store, to the extent that the practicality of running a business at this location will be compromised for a number of years, or indeed permanently.	See response number (1) to (8) above.

Submission No.			316	
Organisation Name or Name of Submitter			WORK Residents Association / Michael Griffin (26 Osprey Avenue, Templeouge)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Case Reference NA29N.314724: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin.				
1	Letter - introduction	2	The following observation relates wholly to that portion of the proposed Metro Link beyond the station located at St. Stephen's Green East.	TII appreciates the submission. Please refer to the responses provided below to address your concerns.
2	Observations from WORK Residents' Association	2	WORK Residents' Association is fully supportive of the project from Estuary to St. Stephen's Green. We submit that An Bord Pleanála should refuse the authorisation of the section of Metro Link beyond the St. Stephen's Green station, other than to allow for a turning section similar in length to that which is currently proposed for Manders Terrace.	TII do not agree that the Project should not continue past St. Stephen's Green for the reasons set out below. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an interchange at St Stephen's Green Station. The section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. This is detailed in EIAR Chapter 7 (Consideration of Alternatives) section 7.7.8. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. The location of the interchange at Charlemont does not preclude onward extension south to areas such as Rathmines. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).

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Case Reference NA29N.314724: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin.					
3	Observations from WORK Residents' Association	2	Our reasons for this are as follows: (1) There has been a failure to consider an alternative location for the terminus in the Portobello / Rathmines area; (2) A terminus at Charlemont would present severe limitations for radial extensions towards many areas of south city; (3) Poor access to Charlemont from Rathmines / Portobello/ Harold's Cross (4) A terminus at Charlemont does nothing to relieve the continuation of the environmental damage caused by traffic gridlock and by a grossly inadequate public transport system for large areas of South West Dublin.	Please refer to response item (2) above in relation to the continuation of the Project to Charlemont. Responses to the individual items listed are provided below in items (4), (5), (8) and (9), respectively.	
4	Observations from WORK Residents' Association	2	1. Failure to consider an alternative location for the terminus. Under the BusConnects proposals Rathmines Road will carry 33 buses per hour at peak time in each direction. A terminus for Metro Link in the Rathmines Road / Portobello area would offer much greater bus connectivity and would connect areas of south west city that would be deprived of this connectivity by locating a terminus at Charlemont. A terminus at Rathmines / Portobello would better facilitate commuters on buses approaching the city via Kimmage Road Lower and Harold's Cross wishing to connect with MetroLink.	Please refer to response item (2) above in relation to continuation of the Project to Charlemont. It is also important to note that arising from the decision to postpone the future upgrade of the Green Line to metro services, it is being argued that Charlemont station effectively becomes a terminus station in the short to medium term. In this regard, it is true to say that the Metrolink trains will terminate and turn back at Charlemont station, however the public transport service offering for passengers does not terminate, it transfers from Metrolink to LUAS as part of the integrated transport network. Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. A location of a station at Rathmines/Portobello would not offer this high quality interchange opportunity. The terminus station for MetroLink is located at Estuary. At this location the high capacity public transport offering terminates and the public transport offering transfers to a completely different mode, i.e. Bus & Car . The environmental effect of the Metrolink terminus are accordingly assessed in the EIAR. Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a "system turn back location".	
5	Observations from WORK Residents' Association	2 and 3	2. Charlemont terminus - its limitations for radial extensions to other areas of the south city Bringing Metro Link into south inner city (St. Stephen's Green station) presents opportunities for NTA, TII and the Minister with responsibility for transport to consider a location for a terminus that would render optimum benefit to the commuters from many areas of south Dublin outside of the Grand Canal. The three options that have been put forward by various people including NTA Senior Executives, the Minister and many residents' representative groups, including WORK Residents' Association, centre around: (a) Continuing Metro Link towards South West City and Tallaght, (b) Continuing on the existing Luas line, (c) Routing south east towards UCD and Sandyford.	Please refer to response item (2) above in relation to continuation of the Project to Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.' Any future extensions to MetroLink will be subject to full optioneering, planning, design and appraisal and will require approval from An Bord Pleanála.	
6	2. Charlemont terminus - its limitations for radial extensions to other areas of the south city	3	WORK Residents' Association submits that locating the Metro Link terminus at Charlemont and boring a tunnel as far as Manders Terrace seriously compromises the ability for an extension at some future time to serve the many communities in Harold's Cross, Terenure, Kimmage, Crumlin, Perrystown, Greenhills, Willington, Orwell, Templeogue, Firhouse and Knocklyon.	Please refer to response item (2) and (4) above in relation to continuation of the Project to Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.' Any future extensions to MetroLink will be subject to full optioneering, planning, design and appraisal and will require approval from An Bord Pleanála.	

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7	2. Charlemont terminus its limitations for radial extensions to other areas of the south city	3	WORK Residents' Association submits that proper planning for a major infrastructural project such as Metro Link requires a proper evaluation of the options for extension. Locating a terminus at Charlemont predetermines the issue and would not be consistent with proper planning.	Please refer to response item (2) and (4) above in relation to continuation of the Project to Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any feasibility studies undertaken as part of future phases of the study will be subject to the planning, design and appraisal of the NTA.	
8	Observations from WORK Residents' Association	3	3. Poor access to Charlemont from Rathmines / Portobello/ Harold's Cross No provision has been made in the plans for how commuters will get from Rathmines Road, Portobello or Harold's Cross to the proposed terminus at Charlemont. We reference Rathmines Road and Harold's Cross specifically as they are the major BusConnects corridors from South West Dublin (City and County). As Metro Link will provide a welcome transport link to Dublin Airport many of the commuters getting on /off MetroLink will carry luggage. Locating a Metro link station near major Bus Corridors would facilitate these commuters. We note from the documentation submitted as part of the application that "<i>while provision has been made for 162 cycle parking spaces most of which will be around the southern entrance with the remainder integrated with the urban design along the internal roads towards the northern entrance.</i>" While provision for cycle parking is welcome at the proposed Metro Link terminus no such provision has been made to meet the needs of commuters to and from the airport who wish to access MetroLink.	Please refer to response item (2) and (4) above in relation to continuation of the Project to Charlemont. The location for interchange at Charlemont will serve a higher number of passengers (arriving from the airport) than other potential interchange points just with bus services. However, as previously noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. Any future extensions to MetroLink will be subject to full optioneering, planning, design and appraisal and will require approval from An Bord Pleanála. As detailed in Chapter 06 (MetroLink Operations and Maintenance), the Project has been designed to ensure maximum interchange with other modes of transport, specifically more sustainable modes such as public transport, walking and cycling, taking cognisance of both existing and future networks such as BusConnects to increase the catchment of passenger demand on MetroLink.	
9	Observations from WORK Residents' Association	3	4. A terminus at Charlemont does nothing to relieve the continuation of the environmental damage caused by traffic gridlock and by a grossly inadequate public transport system for large areas of South West Dublin A swathe of South West Dublin, i.e. between the Green Luas Line and the Red Luas Line with a population of over 350,000, has a large deficit of public transport. WORK Residents Association does not believe that the planned supply of public transport to 2042 by Bus Connects will meet the forecast demand. The traffic gridlock, morning and afternoon, in Willington, Kimmage, Harold's Cross, Donore and on many narrow streets of south city continues with increased carbon emissions. Only Metro Link can deliver capacity and speed for the commuters in this area of South West Dublin. WORK Residents Association notes that in the context of the preparation of the Greater Dublin Area Transport Plan 2022 - 2042 The National Transport Authority carried out a feasibility study "Metro to Knocklyon". Unfortunately, the study failed to adequately assess the issue. Locating the terminus of MetroLink at Charlemont would compound the difficulties which were not addressed in that feasibility study. While WORK Residents' Association appreciates that An Bord Pleanála cannot mandate the conduct of a feasibility study we ask that An Bord Pleanála would not compound the difficulties by granting approval for the application for a terminus at Charlemont. To grant approval would render the continuation of Metro Link to S.W. Dublin at some future date very difficult if not prohibitive.	Please refer to response item (2) and (4) above in relation to continuation of the Project to Charlemont. As noted, the selection of Charlemont Station does not preclude onward extensions to the south or south-west of the city. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." Any feasibility studies undertaken as part of future phases of the study will be subject to the planning, design and appraisal of the NTA.	

Submission No.			317	
Organisation Name or Name of Submitter			Wynn's Hotel	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
RE: SUBMISSION ON THE METROLINK ON BEHALF OF WYNN'S HOTEL, 35-39 ABBEY STREET LOWER, DUBLIN 1, D01 C9F8				
1	Introduction (paragraph 1)	3	Our client, Wynn's Hotel, welcomes the opportunity to make a submission on the Railway Order for the MetroLink line. Our client has a number of observations and concerns in relation to the Railway Order. As further detailed in the enclosed Memorandum by PUNCH Consulting Engineers dated the 12 th January 2023, our client requires further information and reassurance in regard to a number of technical queries to fully understand the potential impact on Wynn's Hotel. In particular these concerns relate to the potential impact on the structural integrity of the building and potential negative impacts on the building and its occupants during the construction and operational phase.	TII appreciates the submission and the sharing of the observer's concerns related to the potential impact on the building and its occupants. We have reviewed the submission and provided response for the observations/ concerns raised in detail below.
2	Introduction (paragraph 2)	3	Our client also wishes to request that an Oral Hearing is held in respect of the Railway Order application so that the points raised within this submission can be further clarified and addressed at the hearing for the benefit of all parties.	The purpose of the oral hearing will be to allow issues relevant to an application for approval be examined. The oral hearing can be attended by anyone, but only those that have made a written application may make an oral submission at the oral hearing.
3	Introduction (paragraph 3)	3	Our client has the benefit of an extant permission for additional floors (DCC Reg. Ref. 3131/28; ABP-303179-18) which our client intends to implement, we seek confirmation that the Railway Order will not prejudice this permission.	TII confirm that the Railway Order will not prejudice the additional floors as contained in DCC. Reg Ref. 3131/28; ABP-303179-18.
4	Site Location (paragraph 1)	5	The Metrolink line is proposed to run beneath Abbey Street and directly under Wynn's Hotel. It is acknowledged by the applicant & TII that the construction of the proposed Metrolink will have an impact on the subject site. However, our client has serious concerns in relation to the identified noise and associated disruption contained with the Railway Order documentation and the significant difficulties this would cause for the hotel operation and to the hotel structure itself. Wynns Hotel is a Protected Structure in the Dublin City Development Plan 2022-2028.	TII note the concerns related to potential noise impacts and associated disruption on your building and business operations in our response Item number (25) below.
5	Site Location (paragraph 2)	5	Our client has the benefit of an extant permission for additional two storey extension (please see Appendix 1 DCC Reg. Ref. 3131/18) which our client proposes to implement, we seek confirmation from the applicant, TII that the Railway Order will not prejudice the ability of our client to carry out this permission.	Refer to response Item number (3) above.
6	Site Location (paragraph 3)	5	The information and documentation submitted with the application is considered insufficient and inadequate to enable a proper assessment of the likely impacts to be carried out. Our client therefore requests a list of further information, data and analysis as set out by Punch Consulting Engineers to enable a proper assessment to be undertaken. It is respectfully submitted that such additional assessment be undertaken prior to the Board making any decision on the Railway Order application.	TII do not agree that the documentation submitted with the application is insufficient and have fully assessed the impacts and these are presented in the EIAR. Punch Engineering requests are dealt with below.
7	Engineering Considerations (paragraph 1&2)	5	A Memorandum has been prepared by PUNCH Consulting Engineers to accompany this submission, and is included in Appendix 2. The memo states: <i>"iii) TWHD primary concern is the effect the proposed works will have on the business operations of its company. The hotel is in existence over 170 years and its operations cannot be negatively impacted by the proposed Metrolink works. We would request immediate engagement with TII on all of these concerns.</i>	TII are available to engage further with Wynn's Hotel regarding your concerns regarding potential impacts of MetroLink Project on business operations.

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Organisation Name or Name of Submitter			Wynn's Hotel		
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8	Engineering Considerations (paragraph 3)	5	<i>iv) There are serious concerns based on information received that the building will be damaged by the proposed Metrolink works. The building is a protected structure and its structural integrity cannot be compromised by any works. We would request immediate engagement with TII on allay these concerns. "</i>	TII are available to engage further with Wynn's Hotel regarding concerns of potential impacts of MetroLink Project on building structure. The Building Damage assessment is referred to in response item number (19) below.	
9	Concluding Comments (paragraph 1)	5	Our client welcomes the opportunity to make a submission on the Metrolink Railway Order and the sustainable transport benefits which would be delivered. The proposed MetroLink alignment is running directly through our client's property and our client's concern relates to the impact the proposed MetroLink project will have on the operation of Wynn's hotel, and on the structure of the hotel itself, which is a Protected Structure in the current Dublin City Development Plan 2022-2028. Our client acknowledges that a scheme of this scale will result in impacts, however, these should be mitigated to the full extent possible and should be carefully managed to minimise the effects on our client's hotel.	TII note the concerns related to potential impacts of MetroLink project on your building and business operations. TII are fully committed to mitigating all impacts as far as reasonably possible, as has been included for this in the EIAR. Responses for the specific observations/ concerns raised in detail below.	
10	Concluding Comments (paragraph 3,4,5)	5	Our client reserves the right to elaborate further on these issues as necessary should the Board decide to hold an oral hearing or require any clarification and would welcome any responses from the applicant. We trust this submission will be taken into consideration in assessing the proposals. The assessment of compensation would not be limited to the content of this submission.	TII acknowledges the rights of the owner and refer also to response item numbers (2) and (8) above.	
11	APPENDIX 1: EXTANT PERMISSION DCC. REG. REF. 3131/18; ABP-303179-18	7	ABP issued decision to grant permission on 07 May 2019 for the following development, as set out in the statutory notices: <i>PROTECTED STRUCTURE: Permission for development of a two-storey roof extension at a 623 sq.m site. The proposed development will comprise the following: The removal of the existing lift overrun structure and lift motor room, water tanks, service plant, 5 no. non- original roof lights and 4 no. disused chimneys to the rear at roof level to facilitate the provision of a 2 no. storey extension at sixth and seventh floor levels, with 776 sq.m floor area with terrace areas of 92 sq.m. The proposed works will also include the raising of 5 no. chimneys by 450mm, general fire safety upgrades and the replacement of an external steel fire escape and open walkways to the rear serving first to fifth floor levels. The proposed extension comprises a part cantilevered structure with metal cladding on top of the existing 6 no. storeys over basement Protected Structure, bringing the total height to 27,9m above ground (excluding lift overrun), increasing the total gross internal floor area by 831 sq.m, bringing the total gross floor area to 4,049 sq.m. The proposal consists of the addition of 27 no. ensuite bedrooms, terraces at sixth and seventh floor levels, a covered walkway across an existing lightwell at sixth and seventh floors to provide safe access doors from bedrooms within the pitched roof enclosure. The proposed roof structure will also incorporate perforated metal panels to provide natural ventilation to the new consolidated and concealed plant areas at roof level. The proposed fire safety works comprise fire protection upgrades to the existing internal staircase including new glazed fire screens at second to fifth floor levels, the provision of an enclosed firefighting stairs with metal cladding from first floor to seventh floor levels and new external covered walkways at first to fifth floor levels replacing the existing external steel fire escape stairs and open walkways. The proposed scheme also includes a new ventilated lobby to a new fire-fighting lift within the existing lift shaft servicing basement to seventh floor levels, the reconfiguration of the east elevation window at each of the first to fifth floor levels facing Harcourt Court, the relocation of the existing fire exit from the dining room at ground floor, the provision of a new emergency escape stairs from basement to ground floor with a new exit door to the rear courtyard with associated minor alterations to the existing external wall. The proposed development also includes sundry minor internal partition alterations to facilitate the new firefighting lobby, a new bespoke platform lift to the main entrance and all ancillary site development works.</i>	Please refer to response item number (3) above.	

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12	APPENDIX 2: Introduction (paragraph 3)	9	It is essential that each of the points raised in this submission are addressed in full by TII. It is noted that the comments in this submission will expand following further engagement with TII. The hotel is over 170 years old and is a Protected Structure (NIAH 50010276) and is an iconic hotel in Dublin City Centre. It is vital to WHD that the building remains fully operational during the works and in its operational phase and cannot accept any interruption or damage to its business.	TII note the concerns and are available to engage further with Wynn's Hotel regarding the concerns raised on potential damage to your property and disruption to your business operations. Please also refer to response item number (19) below.	
13	APPENDIX 2: Introduction (paragraph 4)	9&10	The hotel was badly affected during construction works of the Luas Red Line in the early 2,000's and cannot suffer similar issues with the proposed Metrolink. Lack of clear communication when works would be undertaken by TII during construction of the Luas Red Line led to significant disruption for the hotel. Also the hotel did not have a specific point of contact in TII or with the Main Contractor during these works which further added to the disruption.	TII are fully cognisant of the importance of the Wynn's Hotel. Furthermore it is important to acknowledge issues that the observer has experienced in the past with regard to Luas Red Line. TII would ensure that consultation will continue throughout the construction phase to ensure that you are informed of progress on the construction of the proposed Project and to allow for you to raise queries or other communications with the project team. Further details on the proposals for external communications during the construction phase can be found in section 3.3.1 of Appendix A5.1 Outline CEMP.	
14	APPENDIX 2: Introduction (paragraph 5)	10	The hotel requests early engagement with TII on the items raised in this submission and request that An Bord Pleanála condition same in any grant of the Railway Order.	TII would welcome engagement with Wynn's Hotel to further explore your concerns presented in this submission.	
15	APPENDIX 2: Introduction (paragraph 6)	10	WHD suffered substantial financial losses during construction works of the Luas Red Line and request details from TII for proposed compensation procedures. WHD noted there were no procedures in place during construction of the Luas Red Line to compensate businesses for losses and cannot accept the same with the proposed Metrolink.	While there will be some disruption to business premises during the construction of MetroLink, TII do not have a compensation policy in place to compensate businesses for such disruption. It is envisioned that all businesses in the locality of MetroLink will benefit significantly once MetroLink is operational.	
16	APPENDIX 2: Introduction (paragraph 7)	10	We wish to confirm our client requests an Oral Hearing is held in respect of the Railway Order application and again the justification for this is outlined further in this submission.	Please refer to response item number (2) above.	
17	APPENDIX 2: Technical Observations (paragraph 1)	10	The following is a preliminary list of technical queries which we require to be fully assessed and resolved to our client’s satisfaction prior to the proposed Oral Hearing. We request ABP condition in any grant of the Railway Order early engagement from TII with WHD to work through this technical list.	We have reviewed the submission and provided response for the observations/ concerns raised in detail below. TII are happy to engage further regarding your observations and concerns raised in this submission.	

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18	APPENDIX 2: Technical Observations (Query A)	10&11	a. What is the Tunnel detail design procurement approach i.e. client design or contractor design? In responding to this item , we ask that Til to consider the following along with any other items they consider relevant: i) A detailed design programme for the tunnel under Wynns Hotel Dublin is required?	The works will be procured as a design and build contract. TII's contractor will develop the design to detailed design and retain responsibility for the efficacy of the design. The detailed design and construction programme will be provided once developed by the TII Contractor and TII will continue to update all stakeholders on the timings of tunnelling impacting their property. Details of communications regarding tunnel boring are contained in section 3.3.1 of Appendix A5.1 Outline CEMP. Notwithstanding the statement above on the construction programme, following the granting of the Railway Order (RO) it is anticipated that the tunnel through Dublin (AZ4) will be provided along the following estimated timeline: • Contract Award: RO + 3 months. • Tunnel Design Complete: RO + 21 months. • Tunnelling commences Northwood to Charlemont: RO + 30 months. • Tunnel from O’Connell Street to Tara Street: RO + 60 months. • Tunnel completed into Tara Street: RO + 63 months.
			ii) If the tunnel design is by the main contractor, TII to confirm how soon after the grant of the Railway Order a Main Contractor be appointed	Please refer to response item number (18), first paragraph above.
			iii) TII to confirm estimated construction programme from when WHD are likely to experience noise and vibration from the proposed Construction Works	It is anticipated that noise and vibration impacts may be discernible for approximately 2 weeks as the TBM approaches and passes beyond the hotel.
			iv) TII to confirm what information WHD will receive prior to the Oral Hearing	There are no plans to issue any further information prior to the Oral Hearing apart from any clarifications issued herewith. As stated above TII are happy to meet and discuss these issues.
			v) Assuming the detailed design is by the Main Contractor, TII to confirm the extent to which the Main Contractor will be required to engage with WHD during the detailed design process? WHD would request a sole point of contact from the main contractor for the full duration of works	The main contractor will be responsible for all design and construction. However, all designated designs will be independently checked and TII will accept the design. TII will provide the assurance to WHD that the design and modelling, together with proposed instrumentation and monitoring is fit for purpose and will not result in impacts greater than that assessed in the EIAR. This is detailed in section 1.1 of Appendix A5.1 Outline CEMP. If monitoring is to be installed on or in your properties, then the methodology and timing of the installations will be agreed with WHD together with any ongoing maintenance of the monitoring. The Contractor and TII will provide updates as required during the construction process. Details of the plans for external communications during the construction phase are presented in section 3.3.1 of Appendix A5.1 Outline CEMP. Additionally, condition surveys will be coordinated with Wynn's Hotel including any close out condition surveys and the identification of any remedial measures needed. If required by WHD TII will issue the Phase 3 Assessment details. Details of the condition surveys can be found in section 6.2 (Table 6.2) of Appendix A5.1 Outline CEMP. A sole point of contact from the main contractor (and TII) will be provided for the full duration of works. As stated in section 3.3.1 of Appendix A5.1 Outline CEMP, the contractor(s) will be responsible for putting in place a Stakeholder Communications Plan which will be developed under the consent of a designated Public Liaison Officer appointed by TII. This plan will provide a two-way mechanism for members of the public to communicate with a designated member of the contractor(s) staff and for the contractor(s) to communicate important information on various aspects of the proposed Project to the general public.

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19	APPENDIX 2: Technical Observations (Query B)	11	b. Confirmation that a full copy of the detail design and construction package will be issued by TII in relation to Wynn's Hotel Dublin. In responding to this item , we ask that TII to consider the following along with any other items they consider relevant: i) We expect to see a full copy of the detailed design and construction package which allows for an independent assessment to be carried out by WHD as they wish. We request confirmation of timelines from TII for this but note this needs to allow sufficient time for our client to fully review the proposals.	TII would welcome a meeting with WHD to further explore the details presented here and to collate the relevant information to educate the further assessment. TII will issue WHD with the detailed Phase 3 assessment if required. The assessment will be independently checked (CAT 3) and assured by TII, in line with best practice. With regard to timings please refer to response item number (19) above.	
			ii) It is vital for WHD that the building is not damaged during these works and the extent of building damage suggested by TII in the railway order is not acceptable.	MetroLink tunnel going under these properties has been assessed at the depth and on the alignment proposed and TII are satisfied that the assessed movements will not lead to structural damage to these properties. EIAR Appendix A 5.17, Building Damage Report, covers the assessed impacts of construction generated ground movements and settlement on properties. Table 5-2 of this report shows that the WHD building has been assessed as falling within the "Slight damage" category currently, an explanation for which can be found in Table 4-4 of the aforementioned report. TII does recognise the importance of your buildings and hence they are designated as special buildings which will move forward to further assessment at the detailed design phase. The Phase 3 assessment will take account of final design and construction methodology details proposed by the appointed contractor. The buildings will be subject to detailed assessment, including a detailed survey carried out to provide the necessary additional information to inform this detailed analysis of how the individual elements of the building would be affected by the predicted ground movements. Details of the Phase 3 Assessment can be found in section 4.5. of Appendix A5.17 Building Damage Report. The method and extent of the detailed analysis will be determined on a case-by case basis and may include a more sophisticated semi-empirical or a detailed soil-structure interaction using finite element modelling methods. Details of the Phase 3 Assessment can be found in section 4.5. of Appendix A5.17 Building Damage Report. It is likely that the Phase 3 assessment will yield further improvement to the damage category determined by the Phase 2b assessment. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements.	
			iii) The efficient running of the business operations in the hotel is of paramount importance to WHD. Whilst some disruption in terms of noise and vibration is likely, these levels cannot be such that they affect the company's daily operations. We would request that TII provide detailed reassurances on these matters.	Noise and vibration impacts from the advancement of the TBM beneath this location will occur for a very short period of days. Unfortunately, no effective mitigation methods are available to reduce ground-borne noise or vibration from TBMs at source. The impact on your commercial activity due to Groundborne Noise and Vibration as a result of tunnelling activities following mitigation will be negative, slight and short term. To mitigate impacts, advance public consultation and stakeholder engagement will take place which will greatly reduce the significant of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated Noise and Vibration levels (Table 11.70, Chapter 11 Population and Land Use).	
20	APPENDIX 2: Technical Observations (Query C)	11	c) Confirmation by TII of the Identity of the Civil and Structural Design Firm for the Metrolink tunnel beneath Wynn's Hotel Dublin?	The detailed design is yet to be undertaken and the Contractor is planned to be procured within the timeline described in response item number (18) above. The preliminary design has been undertaken by a Joint Venture of Jacobs and IDOM and is the design assessed under the EIAR supporting the Railway Order..	
21	APPENDIX 2: Technical Observations (Query D)	11	d) Confirmation of the Identity of the Geotechnical Design Firm for the Metrolink tunnel beneath Wynn's Hotel Dublin?	Please refer response item number (20) above.	

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22	APPENDIX 2: Technical Observations (Query E)	11	e) Confirmation of the Technical Design Checking Process for the Metrolink tunnel beneath Wynn's Hotel Dublin In responding to this item, we ask that TII to consider the following along with any other items they consider relevant: i) Category 3 independent checking is expected as a minimum checking process. We ask TII to confirm checking process and we request An Bord Pleanála to condition same in any grant of the Railway Order	The design checking process is to be developed by TII and will incorporate a CAT 3 checking process, in line with best practice.
23	APPENDIX 2: Technical Observations (Query F)	12	f. Details and frequency of proposed condition surveys for Wynn's Hotel Dublin by TII, both in advance of and during the construction works as well as during the tunnel operational phase. In responding to this item , we ask that Til to consider the following along with any other items they consider relevant: i) In the Damage Assessment Report of Building document on https://www.metrolinkro.ie/, it places WHD (B-241) in Damage Category B (Refer to Appendix A) . This cannot be accepted by WHD and will likely negatively impact the building's basement, frame and facades which in turn affects the operations of the business. ii) Visual condition surveys of the building are expected prior to and during construction works. There must be photographic condition surveys carried out by professional independent parties procured by TII/Main Contractor to ensure any potential damage to the building is accurately recorded. iii) It is expected that the condition surveys continue post construction and through the tunnel operational stages and request frequency of these surveys to be confirmed by TII iv) We request this information from TII as soon as possible to ensure the integrity of the building is maintained during all phases of the works. v) We request TII to confirm when guidelines regarding the process for remediation will be released, should remediation be required. It is our understanding these guidelines are under development by TII based on information from https://www.metrolinkro.ie/ . We reiterate that damage to the building cannot be accepted but we need to understand the guidelines nonetheless.	Condition surveys are best undertaken just prior to works that could give rise to damage. Normally this would mean that the pre-construction condition survey would be undertaken circa three months prior to the TBM approaching the hotel. Impacts of the tunnel works would be noticed very soon after TBM passage and it would normally be the case that any residual movements would terminate with a few months of the TBM passing. TII's monitoring will be used to verify that movement has ceased and hence trigger the close out construction condition survey. The operation of the MetroLink would not impact on the structure and no further condition surveys are deemed necessary. TII would respond to the points raised as follows: Response to point i): Slight damage is predicted at the Wynn's Hotel building (B-241) following the Refined Phase 2a Damage Assessment. This category of damage is not considered structural damage and an explanation for typical damage and likely forms of repair can be found in Table 4-4 of the Building Damage Report (EIAR Appendix A 5.17). In this case, typical damage and likely forms of repair would be limited to "Cracks easily filled. Redecoration probably required. Several slight fractures inside building. Exterior cracks visible some repointing may be required for weather tightness. Doors and windows may stick slightly". Response to point ii): TII note and agree, and further comment below. As detailed in section 6.2. of Appendix A5.1 Outline CEMP, photographic records will form part of the pre and post-construction condition surveys. Ground Movement Impact Assessment Please refer to response item number (19) above. Monitoring Plans TII will procure its contractors to develop Instrumentation and Monitoring Plans in tandem with Monitoring Action Plans, As indicated in section 1.1. of Appendix A5.1 Outline CEMP. These plans will help assure that the risks associated with tunnelling are appropriately managed and controlled for this property. TII will provide details of any monitoring proposed by the contractor at detailed design stage and agree the methodology of installation to the Wynn Hotel. TII will provide advance notice of any attendance that the monitoring contractor may require. With regard to the timing of monitoring specific to ground movement TII will ensure that it is commenced 3 months prior to the construction activities that would give rise to the settlement. However, as these construction activities may complete years prior to the MetroLink operational phase the termination of monitoring will be linked to a determination that settlement has effectively ceased, allowing a removal of the instrumentation. Response to point iii): Condition surveys will continue until the effect of the construction has ceased, long term impacts during the operational phase are not anticipated. (EIAR Ch5, Section 5.4.11.4, Section 5.4.11.1 & 5.4.11.2- Ch26, Section 26.3.4). Response to point iv): TII agree that the surveys and assessment are to be undertaken in time such that the integrity of the building is maintained. This is TII's stated position. (EIAR Ch5, Section 5.4.11.4, Section 5.4.11.1 & 5.4.11.2- Ch26, Section 26.3.4). Response to point v): Regarding remediation please note that TII do not intend to put in place a Property Owners Protection Scheme for Commercial Properties along the MetroLink route. To protect commercial properties, TII contractors appointed to carry out the works will, with the agreement of the owners of such properties, commission chartered building surveyors to carry out a precondition survey of commercial properties. In the event that it is determined that damage has occurred. TII's contractor will be required to commission a follow up survey to confirm the extent of the damage and confirm if the damage has been caused by MetroLink works. Where property damage is confirmed to have been caused by MetroLink works the property concerned will have recourse to MetroLink project insurances.

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24	APPENDIX 2: Technical Observations (Query G)	12	g. Vertical settlement of the existing structure at The Wynns Hotel Dublin from the proposed works. In responding to this item , we ask that TII to consider the following along with any other items they consider relevant: i) The predicted settlement is a concern from available information on https://www.metrolinkro.ie/. The settlement contours on Figure 20.16, sheet 26 of 30 (Refer to Appendix B), suggest settlement of 40-45mm in the calculated settlement trough. We request details from TII on how they established this deflection data. The building is a Protected Structure and over 170 years and TII must recognise this. ii) There appears to be no evidence of undertakings on https://www.metrolinkro.ie/ to confirm the quality of the rock at the tunnel level beneath WHD. We request that geophysical surveys are carried out by TII on the rock at tunnel level from the existing basement. 2d Resistivity and Seismic Refraction surveys are suggested to determine the rock mass characteristics. iii) It appears that the tunnel will be formed in limestone rock with gravel and made ground layers above the rock. If a dense rock with little fractures is encountered during this testing, this is favourable in terms of boring. If the rock is heavily fractured together with the crown of the tunnel close to the gravel layers, this increases risk of settlement. We ask TII to comment on the rock/soil characteristics below the hotel.	Further to response item numbers (19) and (23) above, TII would respond to these points as follows: i) The EIAR Chapter 5 Appendix 5.17 describes the industry standard three-phased ground movement impact assessment process that is undertaken on tunnelling and underground projects around the world, that includes Channel Tunnel Rail Link (CTRL), Dublin Port Tunnel, Crossrail and High Speed 2, and how it has been applied to the MetroLink project. Section 1.3 of this document clearly describes the ground movement assessment methodology. TII do recognise that this building is a Protected Structure and have therefore designated it as a "Special" structure. This designation requires TII (through its contractor) to undertake a further Phase 3 assessment to assure that the predicted impacts are correct. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. ii) Ground investigation has been undertaken for the scheme and documented in EIAR Chapter 20. This information has been used to educate the movements assessments undertaken to date (Phase 2a). For the Phase 3 assessment the Contractor will verify to data collated to date and ascertain if further is required to undertake the refined analysis. As detailed in Appendix A5.1 Outline CEMP section 6.8, mitigation measures which may be undertaken prior to and during the Construction Phase include geophysical surveys (including Ground Penetrating Radar (GPR)). iii) The ground investigation data has been used to describe the geology which is included in Chapter 20. Specific to the tunnelling is discussed in EIAR Appendix 5.13 and the section specific to your hotel is contained in section 3.6.7 of this document. The same data has been used to assess the impact of the tunnel construction on the buildings above and referenced in Appendix 5.17. The data is included within table 5-1 of this appendix. The data used for the Phase 2a assessment is described as moderately conservative. Please note also that the TBM will be designed for both full face rock and mixed face conditions with the slurry pressure equipped to deal with the prevailing conditions.

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25	APPENDIX 2: Technical Observations (Query H)	13	h. Noise Impacts under the existing structure at Wynn’s Hotel Dublin from the proposed works. In responding to this item, we ask that TII to consider the following along with any other items they consider relevant: i) There is a concern in relation to the identified noise and associated disruption contained within https://www.metrolinkro.ie/. A "Very High Adverse (significant)" residual impact is identified in the documentation. This is not acceptable to WHD and will be detrimental to our client's daily business operations. TII should assess this further and mitigate this impact. ii) Whilst this impact is noted as being "short term", there is no clarity or estimate provided beyond this in relation to the duration of these works and associated negative impacts. We request TII to confirm duration of the proposed works and associated impacts on our client's building. iii) Table 14.3: Groundborne Noise from Underground Sources - Threshold of Significant Effects on Non-Residential Buildings (Refer to Appendix C) states a threshold of 45dB for commercial buildings. The calculated noise levels from works under the hotel are 50dB and in excess in the threshold. iv) There is a concern with the noise levels during the operational phase of the Metrolink. TII to confirm these levels directly under the building. Disruption to the hotel due to noise cannot be accepted by WHD. v) In the event the hotel experience noise disturbance during the construction phase which results in WHD incurring losses. We will require confirmation from Metrolink or the contractor that WHD will be reimbursed.	Possible impacts on Wynn's Hotel building could arise from noise and vibration from TBM passage during construction phase and noise and vibration due to trains traffic during operation phase. i) According to Appendix 14.5 Groundborne Noise and Vibration and Blasting Modelling Results, the values of noise due to TBM passage for 35-39 Abbey Street Lower Dublin 1 is 50 dB compared to the threshold value of 45 dB, resulting a significant impact on the buildings occupants. Unfortunately, there are no effective methods are available to reduce ground borne noise or vibration from TBMs at source. The principal mitigation measures aimed at minimising impacts are as follows: • Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects, as building occupants would be prepared for the passage of the TBM and resultant elevated noise and vibration levels. • TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6). According to Appendix 14.5 Groundborne Noise and Vibration and Blasting Modelling Results, the value of vibration during TBM Passage is 0.273 ms-1.75 which is below the threshold value of 1.0 ms-1.75 for TBM passage. As a result no significant impact is expected on this building. ii) Unfortunately, there are no effective methods available to reduce groundborne noise or vibration from TBMs at source, but noting that the duration of this impact will be in the order of up to two weeks as the TBM passes. TII will liaise with Wynn’s Hotel to ensure the timing of these impacts are known. iii)Please see answer to response item number (25), paragraph i) above. iv) According to Appendix 14.5 Groundborne Noise and Vibration and Blasting Modelling Results, the value of noise during operation is 35 dB compared to the threshold value of 40 dB. The vibration levels for operation are also below the threshold values. As a result, no significant impact is expected on this building as a result of Metrolink operation. v) While there will be some disruption to business premises during the construction of MetroLink, TII do not have a compensation policy in place to compensate businesses for such disruption. It is envisioned that all businesses in the locality of MetroLink will benefit significantly once MetroLink is operational.	
26	APPENDIX 2: Technical Observations (Query I)	14	i) TII to confirm that the tunnel can be constructed in the proposed position/depth considering the depth of the existing rock and gravels and formation level of the single basement level at Wynn’s Hotel Dublin?	TII confirm that the tunnel can be constructed at the depth and alignment shown and that the assessment described above has taken into account the presence of a basement.	
27	APPENDIX 2: Technical Observations (Query J)	14	j) TII to confirm that the permissible vertical deviation for the tunnel as outlined in Section 6(d)ii of the Draft Railway Order of 5m upwards has been fully considered on the proposed tunnel under the hotel? In responding to this item, we ask that TII to consider the following along with any other items they consider relevant: i) It appears that the tunnel will be formed in limestone rock with gravel and made ground layers above the rock based on information in https://www.metrolinkro.ie/ ii) Should the tunnel deviate 5m upwards, it will likely formed in the gravels. Tunnelling in gravel strata increases the risk of greater settlements in the building when compared to tunnelling in rock. Tunnelling in the gravels likely results in greater damage to the building. We ask TII to comment on the proposed tunnel level on relation to the rock and gravel strata.	The design includes for a limit of deviation which is required to allow for unforeseen obstructions and construction tolerances which may necessitate a change to the alignment. In the highly unlikely event that this were to occur, any resulting environmental impacts will comply with the limits set by the enforceable Railway Order. TII has carried out a comprehensive set of ground investigations in accordance with relevant guidelines and best practice. It has a high confidence that MetroLink can be constructed along the proposed alignment without requiring vertical or horizontal adjustment. However, in order to guard against rare and undetectable subterranean conditions that might interfere with construction, the Railway Order provides for limits of deviation (as have other railway authorisations since at least the 1840s). The impacts of potential changes within the Limits of Deviation are considered in the Wider Effects Report (Appendix A5.19).	

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28	APPENDIX 2: Technical Observations (Query K)	14	k) TII to confirm the calculated loads used in the tunnel design from the existing building at Wynn’s Hotel Dublin?	TII confirm that the tunnel is to be designed to cater for all existing buildings above the tunnel.
29	APPENDIX 2: Technical Observations (Query L)	14&15	l) The hotel structure has been designed for a number of additional floors and the client intends to extend the height of the building in the future accordingly. Planning Permission for these works was obtained in 2018, Planning Reference 3131/18. TII to confirm that the loadings for the additional floors will be included in design of the tunnel.	Please refer to response item number (3) above.
30	APPENDIX 2: Technical Observations (Query M)	15	m. TII will need to provide full details of the constraints the tunnel will impose on the future development potential/value of the site. This will need to set out the engagement process which the client/site owner will need to undertake for the preparation of any future planning applications. In responding to this item , we ask that TII to consider the following along with any other items they consider relevant: i) As outlined above Planning Permission has been granted for additional floors, Planning Reference 3131/18. We note our client's intention to proceed with these works. ii) TII to confirm if the Luas located outside the front of the building impacts on the design of the tunnel at this location?	MetroLink will be a catalyst for and provide opportunity for future development and regeneration. While the MetroLink Railway Order does not include for future neighbouring or overhead development, the tunnels and stations are designed to support appropriate future imposed loads. TII will be required to make submissions in relation to planning applications for proposed future developments on or adjacent to MetroLink and there will necessarily be some engineering constraints (such as permissible loadings) required. However MetroLink is committed to engaging with known development proposals and new development proposals as they emerge with the intent of facilitating such developments as they emerge to the maximum extent consistent with the safe operation of the proposed Project. Again in common with other existing rail and tunnel projects, following grant of the Railway Order and development of detailed design, TII will produce “Guidance Note for Developers” that will be the subject of bye-laws following the grant of Railway Order and which is designed to facilitate future adjacent or over-site development while protecting the integrity and safety of the MetroLink works and operations. Therefore at this stage TII is dealing with known development proposals on a case by case basis, TII will work with parties in the future to assist with the wider development of sites over and above stations and tunnels. In this context TII has successfully engaged with a number of developers over the last two years to accommodate development over and in proximity to the alignment and there have been no material restrictions on development subject to the implementation of agreed design and mitigation measures and it is not anticipated that MetroLink will have a material impact on the development potential of sites above and in proximity to the alignment in future. 1. With regard to point i) please refer to response item number (3) above. 2. With regard to point ii) there is no impact on the tunnel design by the Luas.

Submission No.			317		
Organisation Name or Name of Submitter			Wynn's Hotel		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
RE: SUBMISSION ON THE METROLINK ON BEHALF OF WYNN'S HOTEL, 35-39 ABBEY STREET LOWER, DUBLIN 1, D01 C9F8					
31	APPENDIX 2: Technical Observations (Query N)	15	n. Written confirmation from TII of any anticipated negative impacts on the hotel building and its occupants at Wynn's Hotel Dublin during the construction phase? In responding to this item, we ask that TII to consider the following along with any other items they consider relevant: i) PUNCH request TII to issue details and timelines of any negative impacts for WHD on the normal execution of their business operations during construction phase of the works.	TII confirm that there will be a temporary but very high adverse (significant) impact for groundborne noise at 35-39 Abbey Street during TBM works. Where eligibility is established, there will be an opportunity to apply the TII Airborne Noise and Groundborne Noise Mitigation Policy (EIAR Appendix A14.6). Additionally, advance public consultation and stakeholder engagement will be carried out and TII will continue to communicate timelines and construction details as the project progresses. TII are happy to discuss the application of the TII Airborne Noise and Groundborne Noise Mitigation Policy further. The impact on your commercial activity due to Groundborne Noise and Vibration as a result of tunnelling activities following mitigation will be negative, slight and short term to medium term (Table 11.70, Chapter 11 Population and Land Use). Currently, a detailed timeline for TBM passage is not available as the appointed contractor(s) will prepare the programme for the TBM once they have been appointed. TII will continue to communicate with landowners as the project progresses. Plans for communications regarding tunnel boring are detailed in section 3.3.1 of Appendix A5.1 Outline CEMP. The EIAR fully details all impacts on the hotel and its operation during construction phase of the MetroLink. Please refer to, inter alia, EIAR Appendix 5.17 for Ground movement impacts, EIAR Chapter 11 Population and Land Use, EIAR Chapter 13 Airbourne Noise and Vibration and Chapter 14 for Groundborne Noise and Vibration. For timelines of impacts please refer to response item number (18) above.	
32	APPENDIX 2: Technical Observations (Query O)	15	o. Written confirmation from TII of any anticipated negative impacts on the building and its occupants at Wynn's Hotel Dublin during the operational phase? In responding to this item , we ask that TII to consider the following along with any other items they consider relevant: i) PUNCH request TII to issue details and timelines of any negative impacts for WHD on the normal execution of their business operations during the operational phase of the works.	No significant noise and vibration effects are predicted during the operational phase at 35-39 Abbey Street (Section 14.5.2, Chapter 14 Groundborne Noise and Vibration). Business operations of Wynn's Hotel Dublin will not be negatively affected during the operational phase (Section 11.7.2, Chapter 11 Population and Land Use). The EIAR fully details all impacts on the hotel and its operation during operational phase of the MetroLink. Please refer to, inter alia, EIAR Chapter 11 Population and Land Use, EIAR Chapter 13 Airbourne Noise and Vibration and Chapter 14 for Groundborne Noise and Vibration. With regard to timelines, the operational impacts will commence once operations commence, which is anticipated to open 10 years after the granting of the Railway Order. Once operational, demand will vary through the day and week, with different service levels provided to meet varying demand. Services will operate between 05:30 and 00:30 every day. Service frequency is reduced on weekends and public holidays to reflect lower demand during these periods.	
33	APPENDIX 2: Technical Observations (Query P)	16	p. Confirmation that that the structural integrity of the building at Wynn's Hotel Dublin will not be affected in any way by the proposed works during the construction and operational phase. In responding to this item, we ask that TII to consider the following along with any other items they consider relevant: i) In the Damage Assessment Report of Building document on https://www.metrolinkro.ie/, it places the Wynn's Hotel Dublin (B-241) in Damage Category B . We note that the building is a protected structure and because of this, a Phase 3 assessment will be undertaken. This Phase 3 assessment, as we understand it, will be a detailed assessment of the Ground Movement Response for the hotel specifically. We request timelines of when this will be carried out by TII and specific details of the process? ii) WHD will not accept building damage and the integrity of the building cannot be compromised in any way. The superstructure and facades cannot be damaged. Should remediation be required to the superstructure, the work practices and daily operations of the company will be hugely affected.	As previously outlined in response item numbers (19) and (23) above, TII confirm that structural damage will not occur. As evidenced in Appendix 5.17 impacts are assessed as "Slight". Response to point i): Slight damage (Damage Category 2) is predicted at the Wynn's Hotel building following the Refined Phase 2a Damage Assessment. The building is designated as special building which will move forward to further assessment at the detailed design phase. The Phase 3 assessment will take account of final design and construction methodology details. Further detail on the Phase 3 Assessment can be found in EIAR Appendix A 5.17, Building Damage Report. Response to point ii): TII commit to undertaking the condition surveys pre and post construction and will remediate damage caused and ensure that functionality is not compromised. (Appendix A5.1 Outline CEMP, section 6.2).	

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Organisation Name or Name of Submitter			Wynn's Hotel	
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RE: SUBMISSION ON THE METROLINK ON BEHALF OF WYNN’S HOTEL, 35-39 ABBEY STREET LOWER, DUBLIN 1, D01 C9F8				
34	APPENDIX 2: Conclusions (i)	16	i) The project is of both Local and National significance and accordingly warrants an Oral Hearing. Accordingly, our client wishes to request that an Oral Hearing is held in respect of the Railway Order application, so that the points raised within this submission can be further clarified and addressed in detail at the hearing for the benefit of all parties.	Please refer to response item number (2) above.
35	APPENDIX 2: Conclusions (ii)	16	ii) We wish to develop and resolve each of the observations made in this submission in advance of any future Oral Hearing and request immediate engagement with TII accordingly. We request that ABP condition same in any grant of the Railway Order.	TII note WHD request for early engagement with TII and are happy to engage further regarding your observations and concerns.
36	APPENDIX 2: Conclusions (iii)	16&17	iii) WHD primary concern is the effect the proposed works will have on the business operations of its company. The hotel has operated successfully for over 170 years and its operations cannot be negatively impacted by the proposed Metrolink works, either in the construction or the operational phase. We would request immediate engagement with TII to allay these concerns.	TII note WHD request for early engagement with TII and are happy to engage further regarding your concerns regarding potential impacts of MetroLink Project on buildings structure and business operations.
37	APPENDIX 2: Conclusions (iv)	17	iv) There are serious concerns based on information received that the building will be damaged by the proposed Metrolink works. The building is a protected structure and its structural integrity cannot be compromised by any works. We would request immediate engagement with TII to allay these concerns.	TII appreciates the submission. We have reviewed the submission and provided responses for the observations/ concerns raised in detail above. TII are happy to engage further with WHD regarding the observations and concerns raised in this submission and can confirm that structural integrity will not be compromised by MetroLink.

Submission No.			318	
Organisation Name or Name of Submitter			Yu Miao Yang YMY Ltd.	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Subject: Metrolink: Railway order observations/objections (8 Blessington Street, Dublin 7 - Substratum land reference ML5C-U47)				
1	Proposed acquisition of substratum land	2	1. Your plans indicated "proposed acquisition of substratum land". Ref ML5C-U47 i) No indication of how Metrolink intends to monitor, communicate to owners and ensure there is no structural damage/impact from the proposed works.	TII acknowledge receipt of your observation/objections and in response please refer to items number (1) to (13) below. TII confirm that acquisition of substratum land beneath your property is required to enable the construction of the Metrolink tunnel. For the avoidance of doubt, TII are not proposing permanent or temporary land take at your property or to relocate your property (the unique land take referencing and numbering is "ML5C-U47"). Substratum land take is shown on the Property Drawings submitted with the RO application and on Figure 21.1 of EIAR Chapter 21 (Land Take). 8 Blessington Street building has been identified as a 'special' building (designated protected structure, RPS 774 DCC) and will be subject to a detailed settlement assessment (Phase-3 assessment) at the detailed design stage to verify the impacts and, if necessary, appropriate control measures will be implemented to protect the building. The Phase 3 assessment process is detailed in Section 4.5 of Building Damage Report (Appendix 5.17 of the EIAR). A programme of ground movement monitoring will be implemented, with the monitoring locations informed by the Phase 3 analysis to be undertaken during the detailed design stage. The movement monitoring design will be undertaken by the Contractor and they may need to install monitors to your property as part of that design. Property Owner Protection Scheme (POPs) scheme can be availed of by private residential owners where properties lie within 30m of the tunnel or 50m of a cut and cover excavation (these distances are based on the ground movement zone of influence) and will provide for pre and post construction surveys and repair of damage attributable to MetroLink. To protect commercial properties, instead of a Property Owners Protection Scheme, TII contractors appointed to carry out the works will, with the agreement of the owners, commission chartered building surveyors to carry out a precondition survey of their commercial properties. In the event that it is determined that damage has occurred, TII's contractor will be required to commission a follow up survey to confirm the extent of the damage and whether the damage has been caused by MetroLink works. Metrolink project insurances will be put in place in a manner similar to other large rail projects including Luas. Where property damage is confirmed to have been caused by MetroLink works, the property concerned will have access to those insurances
2	Proposed acquisition of substratum land	2	II) what is the insurance/compensation should damage occur?	Please refer to response (1) above.
3	Environmental Impact Assessment Report	2	i) How the access to the property will be impacted if at all?	Impacts on access to this property as a consequence of the Project will be limited. Blessington Street will not be subject to any diversions or closures as a consequence of MetroLink. The nearest Temporary Traffic Management measures occurring local will be during Phase 2 and 3 (approximately years 2 to 6) of the station construction at Mater Station where general traffic will not be permitted to access Eccles Street from Berkeley Road. Suitable diversions have been outlined in Figure 7-33 of EIAR Appendix A9.5 and are unlikely to have adverse impact to the access of this property. Full details are available throughout Section 7.7 of EIAR Appendix A9.5.
4	Environmental Impact Assessment Report	2	ii) Which roads will be closed when?	Please refer to response Item number (3) above.

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5	Environmental Impact Assessment Report	2	iii) How the works underneath the street and around the area will impact the structural integrity of the property and what insurance we have if the house suffers damage due to the works relating to Metrolink.	EIAR Chapter 26 (Architectural Heritage) describes and assesses the likely direct and indirect significant effects of the proposed MetroLink project on Architectural Heritage. The protected structure status of 8 Blessington Street building is known (see Table 26.19: Architectural Heritage Constraints between Mater Station and O'Connell Station, BH-130) hence your property has been subject to impact assessment and the results are presented in the Section 26.5.4.9 Mater Station to O'Connell Station. According to the findings of impact assessment, there will be no direct or indirect impacts during Construction or Operational Phase in this section of the study area. TII have assessed the potential impact of MetroLink construction beneath existing buildings, to ensure impacts are mitigated wherever possible and that buildings are not damaged. This includes construction generated ground movements leading to settlement and possible building and property movement. The assessment of the effects of ground movements and potential impacts on existing buildings is detailed in Appendix A5.17 of the EIAR (Building Damage Report) and summarised in Section 5.4.11 of EIAR Chapter 5 (MetroLink Construction Phase). Table 5.2 of Appendix A5.17 provides a list of the assessment results of representative buildings along Blessington Street. Building reference B-96 is a representative building in close proximity to the reference building indicating 'very slight impact' anticipated from the tunnelling operation, indicating a damage category 2 or below. The damage categories are described in section 4.3.2 of the EIAR Appendix A 5.17, Building Damage Report. As mentioned to response item number (1) above, your building has been identified as a 'special' building and will be subject to a detailed settlement assessment (Phase-3 assessment). The Phase 3 assessment will take account of final design and construction methodology details. For the Phase 3 assessment, each building will be subject to detailed settlement assessment on an individual basis. A detailed survey will be carried out as part of the Phase 3 assessment to provide the necessary additional information to inform this detailed analysis of how the individual elements of the building would be affected by the predicted ground movements. The method and extent of the detailed analysis will be determined on a case-by case basis and may include a more sophisticated semi-empirical or a detailed soil-structure interaction using finite element modelling methods. It is likely that the Phase 3 assessment will yield further improvement to the damage category determined by the Phase 2b assessment. The results of this refined assessment typically show that earlier assessments are conservative and overestimate the likely impact of construction generated ground movements. (Refer to Appendix A5.17 of the EIAR, Building Damage Report). TII acknowledge the importance of this protected structure and will implement an appropriate monitoring regime to assure that your property is protected from impacts associated with MetroLink. Condition survey data gathered pre and post construction, and possibly during construction, will be used to assist the property owner and TII in the swift and accurate verification of any property damage claims which may be received from property owners.

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Organisation Name or Name of Submitter			Yu Miao Yang YMY Ltd.	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Subject: Metrolink: Railway order observations/objections (8 Blessington Street, Dublin 7 - Substratum land reference ML5C-U47)				
6	Environmental Impact Assessment Report	2	iv) what is the nearest location to 8 Blessington Street where the construction will physically break ground and where buildings will be demolished?	8 Blessington Street is located in the area between Mater Station and O'Connell Street Station (between Chainage 15+900 and Chainage 16+000) within AZ4 Northwood to Charlemont Section of the proposed MetroLink Project. Works proposed in Area AZ4 will include the underground tunnelling from Northwood to Charlemont, the construction of nine underground stations, one interchange station at Glasnevin, an intervention shaft at Albert College Park and intervention tunnel at Charlemont. The construction of the tunnel will be by a TBM that will be launched from Northwood Portal and will tunnel southwards to a point approximately 400m south of Charlemont Station where the shell of the TBM will remain permanently in the ground. From there an intervention tunnel will connect the end of the tunnel to Charlemont to provide an emergency exit. Between Mater Station and O'Connell Street Station, the tunnel also includes a section that will run beneath Blessington Street. Construction Compounds will be required to support the enabling works and main civil engineering works. AZ4 section requires ten construction compounds, including Mater Station Main Compound and O'Connell Street Station Main Compound. The two main compounds are located at approximately 250m (Mater Station Main Compound) and 650m (O'Connell Street Station) away from 8 Blessington Street. The Mater Station construction site will be situated at the Four Masters Park to the north-west of St Joseph's Church on Berkeley Street. No demolition of existing properties is required at Mater Station construction site. However, there are several items that will need to be removed and securely stored for future reinstatement including the existing railings, the Four Masters Memorial Cross and the Healing Hands sculpture. These items are of protected status and are detailed further in EIAR Chapter 26 (Architectural Heritage). The main O'Connell Street Station construction site will be on the western side of O'Connell Street Upper. A number of existing buildings and structures would require demolition to facilitate the development, however, others would be subject to conservation, refurbishment and adaptive reuse. A summary of properties to be demolished, maintained and supported is provided in Section 5.10.8 O'Connell Street Station of EIAR Chapter 5 (MetroLink Construction Phase). Further details are provided in EIAR Chapter 4 (Description of the MetroLink Project), Section 4.17 and EIAR Chapter 5 (MetroLink Construction Phase), Section 5.10 AZ4 Northwood to Charlemont.
7	Environmental Impact Assessment Report	2	v) there is reference of surveyors going in prior to work starting. Will the assessment of the potential structural impact be shared with the owners before and after the works?	Please refer to response (1) that explains the processs for surveys for residential and commerical properties. The assessment will be shared with the owner.
8	Environmental Impact Assessment Report	2	vi) What steps is Metrolink/company doing the works, taking to ensure there is no structural impact on the Georgian terrace that runs the length of Blessington Street?	Please refer to response Item numbers (1) and (5) above.

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Organisation Name or Name of Submitter			Yu Miao Yang YMY Ltd.	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Subject: Metrolink: Railway order observations/objections (8 Blessington Street, Dublin 7 - Substratum land reference ML5C-U47)				
9	Environmental Impact Assessment Report	2	vii) What above surface structures (e.g. ventilation shafts etc) will be left long term post the Metrolink's construction?	There are no surface structures proposed on Blessington Street. The EIAR Chapter 4 (Description of the MetroLink Project) provides a detailed description of the MetroLink Project, and all of the infrastructure and systems required to deliver the MetroLink Project. The station design concept and typology is presented in the Section 4.9 of the EIAR Chapter 4. Metrolink City tunnel will run beneath Blessington Street in the area between Mater Station and O'Connell Street Station. Given the location of the stations along the alignment and the spatial constraints at street level for each station, both Mater and O'Connell Street Stations will be developed as underground stations meaning that they will be fully below ground with a roof slab over the top to enclosed the station fully. The following station surface features will be located at ground level at each underground station: - Main station entrance with canopy, escalators and stairs; - Ventilation and air intake grills; - Firefighting lifts (Intervention Shaft) one at each end of the station; - Passenger lifts; and - Emergency exits, one at each end of the station end with a 'pop up' opening at ground level. The key features of the closest stations to 8 Blessington Street are detailed in Section 4.17.8 Mater Station and 4.17.9 O'Connell Street Station of the EIAR. The tunnel fit out is presented in the Section 4.10 of the EIAR Chapter 4 and station design concept and typology is presented in the Section 4.9 of the EIAR Chapter 4. Ventilation shafts, as detailed in EIAR Chapter 4 (Description of the MetroLink Project), are required for underground stations, Dublin Airport North Portal, Dublin Airport South Portal, tunnelled sections, Albert College Park Shaft, Charlemont Intervention Tunnel, Airport intervention tunnel and Airport ventilation tunnel. This will include the installation of fans.

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Organisation Name or Name of Submitter			Yu Miao Yang YMY Ltd.	
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Subject: Metrolink: Railway order observations/objections (8 Blessington Street, Dublin 7 - Substratum land reference ML5C-U47)				
10	Environmental Impact Assessment Report	2	viii) What type of disturbance in the form of vibration and noise will be coming from underground during the construction and also when the trains are up and running?	Appendix 14.5 Groundborne Noise and Vibration Blasting Modelling Results presents predicted groundborne noise and vibration levels during the construction and operation phase of the project for 8 Blessington Street property. Construction Phase Groundborne Noise and Vibration 1. The predicted level of groundborne noise during TBM passage is 48 dB LASmax, which is above the 45 dB LASmax threshold. This will result in a significant impact on the occupants of the building while the TBM passes underground, which is anticipated to take up to two weeks. Unfortunately, there are no effective methods available to reduce groundborne noise from TBMs at source. The principal mitigation measures aimed at minimising impacts are as follows: • Advance public consultation and stakeholder engagement can greatly reduce the significance of groundborne noise effects during construction, as building occupants would be prepared for the passage of the TBM and resultant elevated noise levels. • TII will accept and consider applications for additional measures on a case-by case basis, in accordance with its Noise and Vibration Mitigation Policy (see Appendix A14.6). 2. The predicted levels of groundborne vibration - VDV (Vibration Dose Value is a parameter that combines the magnitude of vibration and the time for which it occurs) during TBM passage are 0.255 ms-1.75 (VDV day) and 0.214 ms-1.75 (VDV night). Both of these values are lower than the VDV Threshold Levels for human response of 1ms-1.75 (VDV day) and 0.5ms-1.75 (VDV night), meaning that no significant impact is expected on people within the building as a result of vibrations during TBM passage. Threshold levels for building damage are much higher than those for human response, and there are therefore no significant impacts expected for the building at this location. Operational Phase Groundborne Noise and Vibration 1. The predicted level of groundborne noise during the railway operation is 34 dB LASmax, which is below the 40 dB LASmax threshold, resulting in a not significant impact on the occupants of the building. 2. The predicted levels of groundborne vibration during the railway operation are 0.008 ms-1.75 (VDV day) and 0.004 ms-1.75 (VDV night), much lower than the VDV Threshold Level for these buildings of 0.8 ms-1.75 (VDV day) and 0.4ms-1.75 (VDV night), resulting in a not significant impact on the building.
11	Environmental Impact Assessment Report	2	ix) Enabling works survey: Will the findings of that be shared with people whose property the construction may impact?	TII confirm that further surveys will be undertaken by the Contractor during Enabling Works in order to confirm and update the findings of surveys completed for the EIAR. Further survey requirements to be undertaken during Enabling Works include further biodiversity surveys, contamination investigations, groundwater monitoring, noise and vibration monitoring and ground movement monitoring. These surveys will confirm and update the findings of surveys completed for the EIAR. In addition, they will provide further detail to allow for the most effective implementation of the mitigation and monitoring required by the RO. (Refer to Chapter 5, Construction, of the EIAR, Section 5.4). Please refer to response (1) regards property surveys.

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Organisation Name or Name of Submitter			Yu Miao Yang YMY Ltd.	
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Subject: Metrolink: Railway order observations/objections (8 Blessington Street, Dublin 7 - Substratum land reference ML5C-U47)				
12	Environmental Impact Assessment Report	2	x) Drilling and blasting: Mater station. Has there been an assessment made on the structural effects of blasting intended for the station?	Yes the impact from proposed blasting operations during the construction phase at Mater Station have been assessed in the EIAR. Further details and examples of impacts are provided below. EIAR Chapter 5 (MetroLink Construction Phase), Appendix 5.20 Blasting Strategy Report covers the building and structural assessments undertaken to identify all affected buildings and structural assets within the zone of influence (ZOI) of the station works (including Mater Station), to classify them according to their probable reaction and tolerance to vibrations and set them appropriate Peak particle velocity (PPV) limits. Furthermore, the assessment also identified buildings or assets of architectural heritage interest. The blasting strategy also includes identification of possible blasting patterns at each construction site (including Mater Construction Site) to ensure the specified PPV limits set at each station location are not exceeded. The blasting patterns have been identified following the blast pattern design and considerations of receptors around each station construction site. Proposed blasting patterns at the Mater Construction Site are presented in Table 4-4 of EIAR Appendix 5.20 The blasting patterns have been summarised in Table 5-1 and further defined in the Appendix A of the Blasting Strategy Report. EIAR Chapter 14 (Ground-borne Noise and Vibration) covers the impacts assessment of groundborne noise and vibration. Contours of peak particle velocity and air overpressure have been generated and are presented in Figures 14.4 and 14.5 (Sheet 6 of 7 for Mater Station) of EIAR Chapter 14. Predicted blasting vibration and air overpressure levels compared to the threshold values for various receptors within proximity of blasting activity at Mater Station area are given in Table 14.34 and Table 14.35 of EIAR Chapter 14. The full results of vibration blasting modelling, including for various sensitive receptors within the area of Mater Station are shown in EIAR Appendix A14.5, Section 14.4. Where thresholds levels are exceeded, mitigation measures will be implemented to reduce the risk to the building from blasting as outlined in Chapter 14, section 14.5.1.2, Appendix A5.20 (Blasting Strategy Report) and in Section 6.12 of the outline CEMP (EIAR Appendix A5.1). Mitigation will include preparation of site specific blast designs that take account of sensitive receptors, including minimisation of the maximum instantaneous charge weight, or if necessary, alternative methods to blasting being employed. With the implementation of mitigation measures, vibration from blasting will be sufficiently reduced such that the residual vibration will not cause damage to buildings.
13	Dublin Conservation	3	Blessington Street, Dublin 7 is a row of protected Georgian terraces. What are the protection measures that Dublin City Council Conservation have put on to the Metrolink construction?	TII welcome your query and recognise the architectural importance of Blessington Street with fifty-seven protected structures in Blessington Street listed in the Table 26.19: Architectural Heritage Constraints between Mater Station and O'Connell Station of the EIAR Chapter 26 (Architectural Heritage). The results of predicted impacts show that there will be no direct or indirect impacts during Construction or the Operational Phase in this area. Please refer to EIAR Chapter 26, Section 26.5.4.9 Mater Station to O'Connell Station and response item numbers (5) and (10) above. No specific mitigation measures are required to be implemented during construction in relation to Blessington Street's architectural heritage, as presented in EIAR Chapter 26, Table 26.66: Proposed Mitigation. However, general measures are required to be implemented during construction to protect architectural heritage and these measures are presented in Section 26.7 Mitigation Measures and Residual Impacts of the EIAR Chapter 26 and Section 6.8 Archaeology, Architectural and Cultural Heritage of the EIAR Appendix 5.1 Outline CEMP.

Submission No.			319	
Organisation Name or Name of Submitter			Yvonne Allen	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022 Case Reference Number NA29N.314724 21 st November 2022				
1	Letter	1	1. The station box at Charlemont, as constructed in 2021/22 by the Developer Hines, does not have the benefit of planning permission and has not been part of the EIA undertaken for this project. Processing the current Railway Order application, which is reliant on these preliminary and now constructed works, is legally unsafe and contravenes the provisions of the EIA Directive.	The MetroLink enabling works constructed as part of the Hines development was included in the planning application for the Hines Development and has the benefit of planning permission which was granted in April 2019.
2	Letter	1	2. The station box at Charlemont will result in only one possible future tie in with the Luas Green Line to the south, which would result in an option that was previously dismissed as part of the Tie-In study from March 2017. No alternatives to the station box at Charlemont were considered as it had been fixed through the design of the overhead Hines Grand Parade commercial development. The implications of this new alignment are very significant on our wider community as it will involve top-down construction that will only be possible when many houses on Manders Terrace, Oakley Road and Charleston Road are demolished.	The station box at Charlemont allows for a future tie into the Luas Green Line should it be determined in the future that through running metro services to Sandyford is the required solution to address the public transport needs to the south of the city. It is incorrect to say that the current proposal is based on an option that was previously dismissed as part of the March 2017 Green Line tie in study. The station design is in affect a modification to the preferred Green Line Tie Option 4B which was modified as result of the postponement of the upgrade of the Green Line to metro standard. The station box location was not fixed by the Charlemont Development. The preferred route for MetroLink was published in March 2019 following a comprehensive route options study. The preferred route was based on the emerging preferred route for the scheme which included a station at Charlemont. The Charlemont Metro Enabling Works were constructed to enable the Charlemont Development to proceed whilst simultaneously ensuring there was an option available to construct a station at Charlemont that avoided unnecessary demolition, took advantage of an available site, provided infrastructure that is integrated with planned development rather than necessitating later changes and retrospective adjustments to a new development or even possible demolition of the new development, whilst providing protected provision for the future extension of the scheme south, if required. It is also important to recognise that the station location at Charlemont is influenced by available vacant land and thus avoids unnecessary demolition. The submission seeks to portray the construction of the Metro Enabling Works as prejudicial to future decisions on proper planning and sustainable development of the area. It implies that the counterfactual would have had no effect on such decisions. That is not the case. There was a planning conflict between the EPR and the Grand Parade Development at the time the latter development was proposed. There was no resolution to that conflict that was free of implications for future decisions on the proper planning and sustainable development of the area. The Board could have refused permission for the Grand Parade Development, inevitably creating a underutilised and potentially vacant and idle site in a commercial hub location. The Board could have granted permission with no provision to facilitate a station at this location, resulting in a requirement for the railway order to provide for the demolition of a new office building. The Board's actual decision was reasonable and lawful in seeking to minimise the prejudice to an important office development and a critical piece of national infrastructure. It was also not particularly restrictive of future decisions in relation to the proper planning and sustainable development of the area. Of the three options open at the date of the Grand Parade planning application, two remain open: the Board can still require changes to the station design that require the demolition of the commercial building and it can grant an order that avoids demolition by using the Metro Enabling Works. It is agreed that the short-term implications for local residents will be significant as the scheme progresses through the construction stage, however the EIAR assesses the environmental impacts of the construction phase and commits to the implementation of appropriate mitigation measures that reduce the environmental impacts to not significant. The same is true of the operations phase for the project. TII will work closely with local residents to ensure the required mitigation measures are put in place. If in the future, the metro was extended south, this does not mean that inevitably open cut construction will be required or demolition of property will be necessary. In designing an extension, the promoter will seek to reduce the requirement for demolition by looking for tunnel launch sites at the southern extent of the scheme and, if one can be identified, driving the Tunnel Boring Machine northwards ultimately connecting into the existing tunnel. In that case, even if the new alignment were under the properties identified in the submission, the tunnel underneath them would be constructed by the Tunnel Boring Machine without the need for above ground works.

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3	Letter	2	3. The Environmental Impact Assessment is inadequate in relation the description of development, alternatives, transport assessment, noise and the cumulative effects of the development on the Charlemont-Dartmouth Community. For a project of this size, scale, investment to date, it is inadequate to propose a Railway Order with so many important studies and analysis missing.	TII do not agree that the Environmental Impact Assessment is deficient, inadequate or missing information. The Railway Order application comprises a very detailed environmental impact assessment that has identified and assessed the potential environmental impacts of MetroLink and proposed mitigations for these impacts where necessary. TII would also draw attention to the detailed project description, construction phase description and operational phase description provided in EIAR Chapters 4 and 5 and 6, and EIAR Chapter 7 and associated appendices that present details of alternatives considered. EIAR Chapter 9 and appendices provides a detailed analysis of transport and traffic effects, and EIAR Chapters 13 Airborne Noise & Vibration, and 14 Groundborne Noise & Vibration provide a detailed assessment of potential noise and vibration effects, while Chapter 29 outlines the assessment of interactions between various environmental aspects, and Chapter 30 covers the cumulative impacts with other projects. This assessment is carried out for the full length of the alignment including relative to potential significant effects on the Charlemont-Dartmouth Community.
4	Letter	2	4. Charlemont is the incorrect strategic location for a Terminus hub and spoke system as it is too far out along the Luas Green Line spoke and would prejudice future options for integration of networks and services.	TII do not agree that Charlemont is the incorrect location for an interchange with the Luas Green Line or that it prejudices future options for integration with the wider transport network for the reasons set out below. The Board is required to have regard to the likely consequences for proper planning and sustainable development in the area in which it is proposed to carry out railway works (section 43(1) of the 2001 Act) and as such the following matters are relevant. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the current Transport Strategy for Greater Dublin Area (2022-2042). The Transport Strategies were prepared by the National Transport Authority, scrutinised by the Joint Oireachtas Committee on Transport and approved by the Minister for Transport. It notes in section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." The Transport Strategy is "a consideration material to the proper planning and sustainable development of the area or areas in question." Development Plans are required to be consistent with the Transport Strategy. The Dublin City Development Plan 2022-2028 envisages this station at Charlemont in policy SMT22 "To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained: ... MetroLink from Charlemont to Swords". Accordingly, the location of the Charlemont station was a strategic decision made at the highest levels of transport and land use planning and such is fully consistent with the proper planning and sustainable development of the area. The current Transport Strategy considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all any of the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage.

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			Response (4) continued	The detailed analysis done for the Railway Order application further confirms that the section of MetroLink route between St Stephen's Green and Charlemont Stations contributes significantly to the overall benefits of the scheme. It serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Further information is available in Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus Location. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ratio (BCR).
5	Letter	2	St. Stephens Green is the most appropriate location as it provides for interchange with bus, Luas and future DART underground. The project incorrectly dismisses St. Stephens Green West as an appropriate terminal station. It only considers St. Stephens Green East and Charlemont. Furthermore, no comprehensive study or investigation has been completed by NTA/TII as part of the entire Metrolink project on the optimal location for a city-centre terminus.	TII do not agree that St Stephen's Green is the most appropriate interchange location for the reasons set out by response (4) above. It is not correct to say that the Project "only considers St. Stephens Green East and Charlemont." A number of route options were considered in the process of identifying the Emerging Preferred Route (EPR). These route options included potential station locations on St. Stephen's Green West. St. Stephen's Green West was ruled out as the alignment between the proposed Tara Station and a station on St Stephen's Green West would result in an undesirable horizontal reverse curve and an alignment greater than a 1000m long that would necessitate an intermediate intervention shaft located somewhere between these stations to comply with the MetroLink Fire Strategy. Further, as a potential station location, St Stephen's Green West itself is a very constrained location due to the presence of buildings, Luas and St Stephen's Green Park. Maintaining the Luas operational during station construction would be complex and challenging with significant disruption expected, whilst the impacts on St Stephen's Green Park would be greater for a station in this location compared to the proposed location on St Stephen's Green East. This would be the result of; the likely need to place more of the station in the Park compared to the proposed station on St Stephen's Green East; it would impact an area of the Park that has greater amenity value than St Stephen's Green East due to the nearby Park entrance adjacent to the southern end of Grafton Street, and there would be a risk of impacting the existing Park lake. In summary, an alignment that links the proposed Tara, St Stephen's Green East and Charlemont stations is a more direct and economic alignment, does not require additional intervention infrastructure, avoids a complex engineering interface with the Luas Green Line, impacts the Park less and has less potential for disruption during the construction phase. As outlined by EIAR Chapter 3, Background to the MetroLink Project, one of the key objectives of the Project is the integration of it with the wider transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more liveable and sustainable city. This submission argues that Charlemont station effectively becomes a terminus station in the short to medium term. In this regard, it is true to say that the Metrolink trains will terminate and turn back at Charlemont station, however the public transport service offering for passengers does not terminate, it transfers from Metrolink to LUAS as part of the integrated transport network.

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			Response (5) continued	The terminus station for MetroLink is located at Estuary where all of the activities normally associated with a terminus (train sideways, car parking) take place. At this location the high capacity public transport offering terminates and the public transport offering transfers to a completely different mode, i.e. Bus and car . The environmental effect of the Metrolink terminus are accordingly assessed in the EIAR. Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a “system turn back location”. Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. The associated environmental impacts for the turnback and station at Charlemont have been fully assessed in the EIAR. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services, as outlined above. The section of the line between St Stephen's Green and Charlemont generates considerable benefits for the scheme in terms of increased patronage. Operationally, the Station will see people moving quickly in and out of the area, noting that it will act as an interchange, and has been deliberately designed with minimum set down space or room for taxis so that it does not encourage the Station to be used as a terminus. All operational environmental impacts are mitigated so they are not significant, while the impact on amenity will be permanent and positive. The proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) in which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.	

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6	Letter	2	5. Expensive Duplication of Rail infrastructure: - The inclusion of an expensive and costly section between St. Stephens Green and Charlemont is strategically weak and duplicates the existing Luas Green Line services. NTA's cost estimate for this 1km section at €650M is an expensive duplication and significant investment that deprives other parts of Dublin that are in immediate need of rail infrastructure to support urgently required housing and urban development.	The Board is not responsible for any decisions in relation to the funding the Project. It is solely responsible for assessing whether the Project is consistent with proper planning and sustainable development and that its effects on the environment are acceptable. The responsibility for funding the Project lies with the NTA, the Government and ultimately the Oireachtas. It has received all necessary approvals, including under the Public Spending Code for the making of a Railway Order. It will undergo further scrutiny and approvals, including under the Public Spending Code, before it is funded. It is not appropriate for the Board to make findings in relation to value-for-money that are outside its statutory functions and would cut across those arrangements. Members of the public are entitled to make representations to their TDs in relation to the value-for-money of any element of the Project. TII do not agree with this statement for the reasons set out by response (4) above, noting that infrastructure is not being duplicated given the capacity of the Luas south from St. Stephen's Green is restricted due to on-street running. There is a limit to the potential of the Luas to provide additional capacity in the on-street non-segregated section of the Luas Green Line from Charlemont northwards through the city centre. The nature of this route and the fact that it currently crosses several road junctions (Adelaide Road, Harcourt Street / Hatch Street upper and Harcourt Street / St Stephen's Green south) limit the service to a maximum of 24 trams per hour per direction. The projected demand for this section would require a higher frequency of up to 30 trams per hour and this demand cannot be met with on-street systems (Luas / bus). The interchange between Luas and MetroLink proposed at Charlemont will provide the necessary capacity to address the demand on this corridor and reduce overall travel time for passengers There is also high passenger demand forecast for a Metrolink station at Charlemont, including from the Ranelagh area, which would be lost if St. Stephen's Green was the MetroLink southern interchange station. The additional fare revenues collected by the Charlemont Station interchange increase the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR). Further, to ensure that public investment delivers value for money, the Public Spending Code sets out requirements for the evaluation, planning and management of public investment. The preparation of a Business Case is a key element of meeting these requirements. The Public Spending Code requires that both the Preliminary Business Case and Final Business Case for public investment projects are published. In July 2022, the Government granted Approval in Principle to the NTA to enable the submission of a railway order application by TII to An Bord Pleanála in respect of the MetroLink project (Decision Gate 1). This approval was granted after the Preliminary Business Case (PBC) had undergone significant scrutiny and challenge by bodies that are independent of TII, including DoT and DPER review (including independent review by JASPERS and the Major Projects Advisory Group (MPAG)) of the PBC around timeline, costs and benefits that were updated to inform the Government decision.

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7	Letter	2	6. The development would result in noise and disturbance during the construction and operational phases and would result in a loss of amenities for the area.	The EIAR presents a comprehensive and detailed assessment of both groundborne and airborne noise and vibration in Chapter 13 and 14 of the EIAR. The assessments include for predictive modelling in order to identify the potential impacts on all sensitive receptors during both the construction phase and the operational phase. Noise and disturbance during construction: No profound impacts have been identified for residents and mitigation measures proposed will be effective at reducing the impacts on these properties and in general terms impacts will be associated with the construction phase only. Significant mitigation is proposed to include 4m high noise barriers and further proposed mitigation in line with the Airborne and Groundborne Noise Mitigation Policy. On the implementation of these measures the residual impacts are predicted to be moderate. However, as outlined in Transport Infrastructure Ireland (TII) Airborne and Groundborne Noise Mitigation Policy (Appendix A14.6) there is a process in place whereby further mitigation measures can be implemented at individual properties should this be merited. Noise and disturbance during operation: No residual noise impacts are identified at this location during operation. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and results in a not significant to slight impact when added to the prevailing noise environment. Loss of amenity during construction: EIAR Chapter 11, Population & Land Use provides an assessment of effects on community amenity during construction and operation, which relates to the interaction of impacts on air quality; visual amenity; traffic and transport; and noise and vibration. At this location during construction as outlined in Section 11.5.2 of Chapter 11, no impacts are identified on the retail sector or community and social infrastructure (e.g. schools or hospitals). Any severance/disruption to transport will be limited by site mitigation measures such as alternative routes reducing impacts to not significant. Loss of amenity during operation: No significant residual negative impacts are anticipated on the Population and Land Use from the operation of the proposed Project, following the incorporation of the mitigation measures into the design of the proposed Project and implementation on an ongoing basis throughout the lifecycle. The residual effects that will arise during operation will be permanent and positive as detailed in EIAR Chapter 11, section 11.1.1. The zoning under the Dublin City Development Plan 2022 - 2027 for the residential properties in question is "Z2 Residential Neighbourhoods (Conservation Areas)" with an objective to "protect them from unsuitable new developments or works that would have a negative impact on the amenity or architectural quality of the area (See Table 3.11 of the submitted Planning Report). As outlined in Section 4.5.18.6 of the Planning Report, the element of the Project within the Z2 zoning area will affect a below ground area only and as such will not compromise the land use objective for the lands overhead. The majority of the proposed Charlemont Station and all above ground elements are located within the lands zoned Z5 with the objective "To provide for the creation and protection of enterprise and facilitate opportunities for employment creation". The Station has been designed so that it is integrated with the proposed redevelopment of this site by a third party development, and as such, demonstrates that the proposed Project is consistent with the zoning objective. The MetroLink station design does not result in any segregation of the area, with no surface barriers or walls proposed. See below in relation to the submission that the Traffic Study for Charlemont is inadequate because it omitted the impact of airport users from south Dublin travelling to this location.

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8	Letter	2	The Traffic Study for the local Charlemont area is wholly inadequate as it omitted the modelling of the impact of Airport users coming to the only Dublin South Metrolink station at Charlemont. The Traffic Study uses a strategic, generalised regional model that does not take local factors into account. Extract from observation 7) - The EIA did not properly assess the impact of additional local traffic volumes, rather they used a generalised regional model that does not take local factors into account. A key local factor at a Terminus station in Charlemont that runs to the Airport is the huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with baggage for onward destination to the airport. Grand Parade and the residential area around Charlemont-Dartmouth cannot sustain the significant additional traffic volumes associated with this development.	The MetroLink forms part of an integrated public transport network. The system is designed in an integrated manner so that people travelling from the area south of Dublin to access locations north of Charlemont, such as Dublin Airport, Mater, Swords etc. will utilise public transport to interchange with the MetroLink, or will walk or cycle to access their local station. The system is not designed to encourage people to drive to stations within the City and TII actively discourage people from doing so other than the Park & Ride station at Estuary. TII therefore do not agree with the observation that there will be a “huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with luggage for onward destination to the airport” as this is not borne out by our transport analysis. The Transport Assessment for MetroLink includes for people travelling to/from Dublin Airport from all areas within the extents of the GDA area, therefore it is incorrect to say "The Traffic Study for the local Charlemont area is wholly inadequate as it omitted the modelling of the impact of Airport users coming to the only Dublin South Metrolink station at Charlemont". The NTA's Eastern regional Model (ERM) incorporates a wide range of data sources, including demographic data, land use data, transportation network data, and travel survey data. The system is designed to model a variety of transportation modes, including private vehicles, public transit, walking, and cycling, and to simulate the interactions between these modes. The ERM model has been validated and calibrated using a range of localised data sources to ensure that the model can accurately represent the transport network, these include public transport and vehicle counts from the canal cordon counts. The outputs from the model have been combined with local survey data to undertake the more localised modelling, such as the pedestrian impact assessments, or the local traffic signals. This does not support the observations made “The Traffic Study uses a strategic, generalised regional model that does not take local factors into account.” or “The EIA did not properly assess the impact of additional local traffic volumes, rather they used a generalised regional model that does not take local factors into account.” Regards the observation there will be a "huge volume of anticipated airport users from Dublin South and greater Dublin/Leinster that will come to Charlemont via car or taxi with luggage for onward destination to the airport. Grand Parade and the residential area around Charlemont-Dartmouth cannot sustain the significant additional traffic volumes associated with this development", this is covered by response (9) below.

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9	Letter	2	7. The development would have an adverse impact upon traffic during the construction and operational phase, and it has not been properly designed and there is poor integration with other modes of transport. Pedestrian movements in and around the station would be difficult. Grand Parade is an already heavily congested orbital route.	The MetroLink is designed to form part of an integrated public transport network with Charlemont selected as the preferred interchange location in order to maximise the potential interchange with the existing Luas Green Line. In overall terms, Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Construction Phase: EIAR Appendix A9.5 Scheme Traffic Management Plan presents the analysis undertaken to assess the impact of the traffic management measures on the local road network surrounding the proposed Charlemont Station during the construction phase. At the local level the following parameters have been used to assess impacts on general traffic and on pedestrians: • Increase in walking distance/quality of service for pedestrians (through removal of footpath, reduction of quality of service, removal of a pedestrian crossing or relocation of crossing by more than 100m); • Increase in driver delays at junctions; • Changes in traffic flows on surrounding streets; and, • Additional distance travelled due to diversions. The analysis undertaken at this location indicates that the increased volume of traffic on Grand Parade and Northbrook Road does not translate into any significant increase in driver delay. The largest increase in driver delay of 12 seconds is registered on the westbound approach on Grand Parade to the Ranelagh Road signalised junction. During the construction phase, pedestrians will experience a reduction in quality of pedestrian infrastructure and space. The construction site boundary will encroach upon footways in the local area, including the northern side of Dartmouth Road, and the southern side of Grand Parade. However, a temporary signalised crossing will be provided west of the Luas to maintain pedestrian access to and from the Stop. Whilst there are partial closures on Dartmouth Road and Grand Parade, pedestrian movements will be maintained on appropriately sized footways through the area. Operational Phase: A microsimulation VisWalk model has been developed for the immediate area surrounding Charlemont Station during the operational phase. The model covers the full extent of the publicly accessible station area, including the immediate vicinity of the station entrance at street level, the Luas stop and nearby junctions at Charlemont Bridge. In order to accommodate the forecast demand from the proposed Charlemont Station, a new staircase with 2.4m stair width is proposed at the south east corner of Charlemont Luas stop. An elevator will also be provided at this location. Both are sized for MetroLink to Luas, and Luas to MetroLink passenger numbers. In addition, it is proposed that the pedestrian crossing on R111 Grand Parade will be repositioned to the front of the building being developed by Hines. With this infrastructure in place, the model indicates that the R111 Grand Parade will have an acceptable level of service overall, with some reductions in service seen at the pedestrian crossing where pedestrians are required to wait for a green phase at the signals. Overall, it is considered that the model displays an acceptable level of network performance. The proposed pedestrian crossing on Grand Parade will have minimal impact on the traffic flow along Grand Parade and can be programmed to operate in sync with the existing signalised junction at Grand Parade /Charlemont Street to maintain the flow of traffic movements. When the Project is operational, car mode share will decrease, with a reduction of up to approximately 830 car tips to and from the zones surrounding Charlemont Station over the 12hr period in 2065. In overall terms, the Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips, increases in public transport usages and will facilitate walking and cycling to the station, without significantly impacting on the operation of the road network in the area. Furthermore, TII have deliberately designed the Station with minimum set down space (with the exception of a drop-off on Grand Parade for persons of restricted mobility only) or room for taxi ranks so that it does not encourage the Station to be used as a terminus.

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10	Letter	2	8. The development will have an adverse impact upon property values, particularly during the construction phase. For many houses in the area there will be a long term and permanent adverse impact upon property values from noise of the operating rail infrastructure, vents, operational noise and signals, escalators, and large traffic volumes - vehicular and pedestrian using the station 19 hours per day. The adverse impact also extends to the loss of amenity for the wider community changing a residential neighbourhood into a noisy, busy, congested major transport hub.	Response (7) above outlines the predicted environmental impacts with regards to noise and vibration, and amenity, while responses (8) and (9) summarise the assessed traffic and pedestrian impacts. TII would note that as explained by response (9) above that in overall terms Charlemont Station will provide for improvements to the public transport network resulting in decreases in private car usage/trips. TII do not agree that the development will have a long term and permanent negative affect. In fact there is evidence to suggest that property values will in fact increase in close proximity to public transport infrastructure and that local residents will greatly benefit from having a world class metro system providing access to the city centre, airport and north city at their door step. The benefits of the project for all communities along the MetroLink route are described in Chapter 3: Background to the MetroLink Project, section 3.4 MetroLink Response to Challenges.
11	Letter	3	9. A better alternative would be to connect Tara Street Station to St. Stephen's Green instead of Charlemont. This would provide a terminus hub, which was the original proposal.	TII do not agree that a better alternative would be to connect Tara Street Station to St. Stephen's Green instead of Charlemont for the reasons explained by response (4) above.

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Our Ref. YC/LT. Letter Re: MetroLink - Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, County Dublin. 24/11/2022				
1	Letter	1	I fully support the project from the Estuary to St. Stephen's Green. I believe it is badly needed and long overdue. I do not, however, support extending Metrolink to Charlemont and believe that the terminus should be at St. Stephen's Green instead.	Thank you for taking the time to make this submission and endorsing the need for the MetroLink Project. Regards your observation that the terminus should be at St Stephen's Green, TII have undertaken considerable analysis, as set out by EIAR Chapter 7, Consideration of Alternatives, section 7.7.8 and Appendix A7.9 that concluded that Charlemont was a better interchange location than St. Stephen's Green for the following reasons. The connection from St Stephens Green to Charlemont / Ranelagh is supported by the previous Transport Strategy for Greater Dublin Area (2016-2035) and the current Transport Strategy for Greater Dublin Area (2022-2042). The latter considers a range of options for the onward extension of MetroLink to meet the demand for travel over the period of the strategy. This includes consideration of the need for the upgrade of the Luas Green Line to metro with a metro extension to Dublin south west, south or south east. Whilst the strategy envisages that further extensions will be delivered after 2042, MetroLink which terminates at Charlemont allows for the possible extension of the metro in all the above directions. The proximity of the metro to the Luas line at Charlemont provides for a positive customer experience for all users with short interchange distance and due to the proximity, clear wayfinding and high visibility of the interchange. The interchange arrangements at Charlemont provide for significantly better interchange arrangements compared to an alternative interchange at St Stephen's Green Station. Passengers wishing to interchange between Luas and metro at an alternative St Stephen's Green terminus would face a 500m-walk along a route either through St Stephen's Green park or along the footpath north of the park, which adds significantly to the time for interchange and therefore the overall journey time for passengers and a less positive customer experience for all interchange users. This passenger experience would be reduced further for those with mobility or visual impairments as well as those travelling to/from the airport with luggage. Please also refer to Chapter 7: Consideration of the Alternatives, section 7.7.8 MetroLink Southern Terminus, table 7-16. The section of MetroLink route between St Stephen's Green and Charlemont Stations serves a significant area of the south city of Dublin and offers enhanced access from the local area to the city centre and a direct connection to Dublin Airport. It serves key trip attractors including residential areas and offices / workplace locations, with high passenger boarding and alighting figures in the peak hours. During the morning peak, at Charlemont station the flows include 1,800 passengers alighting, 2,300 boarding and 1,229 passengers alighting, 2,276 boarding during the evening peak. The passenger numbers contribute significantly to the overall benefits of the scheme and the effect of these benefits outweigh the additional costs that are associated with the delivery and operation of the section from St Stephen's Green to Charlemont station. Please refer to Table 7-16 in Chapter 7 section 7.7.8 which looks at the southern terminus location and passenger interchange data. The location of the interchange at Charlemont does not preclude onward extension south. An interchange at Charlemont is supported by policy including the Dublin City Development Plan 2022 - 2028 and the Transport Strategy for the Greater Dublin Area. As noted by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise." By extending MetroLink to Charlemont it provides for future proofing of the Green Line, bypassing the capacity constrained Luas on-street running section, and ensures potential future connectivity options are enabled, either to the Green Line or for extensions of the metro. The Charlemont Station interchange provides for increased passenger utilisation of the MetroLink system, thereby increasing the benefits delivered by the Project, reflected by an improved Project Benefit Cost Ration (BCR).

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Organisation Name or Name of Submitter			Cllr. Yvonne Collins	
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2	Letter	1	I believe that the terminus should be at a city centre location to maximise the possibility, in the future, of creating an integrated hub to allow for interchanges between the Metro, buses and the Luas, and to cater for a possible underground system. Charlemont, by contrast, is a residential area with relatively limited potential to extend public transport links throughout the city and particularly to areas like Dublin Southwest. I would like the Railway Order to be amended to authorise building the Metro to St. Stephen's Green only and then, whilst these works are being carried out, to direct that an independent monitoring group including independent Consultants, the NTA, Community representatives, and elected representatives, be constituted to carry out feasibility studies to determine the optimum onward route for the Metro.	The rationale for locating the southern MetroLink interchange at Charlemont rather than St Stephen's Green is covered by response (1) above, including the future potential to extend public transport beyond Charlemont, noting that TII have assessed that Charlemont Station better provides for this than St Stephen's Green. As outlined by EIAR Chapter 3, Background to the MetroLink Project, one of the key objectives of the Project is the integration of it with the wider transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more livable and sustainable city. Arising from the decision to postpone the future upgrade of the Green Line to metro services, it is being argued that Charlemont station effectively becomes a terminus station in the short to medium term. In this regard, it is true to say that the Metrolink trains will terminate and turn back at Charlemont station, however the public transport service offering for passengers does not terminate, it transfers from Metrolink to LUAS as part of the integrated transport network. The terminus station for MetroLink is located at Estuary where all of the activities normally associated with a terminus (train sideways, car parking etc.) take place. At this location the high capacity public transport offering terminates and the public transport offering transfers to a completely different mode, i.e. Bus and car. The environmental effects of the MetroLink terminus are accordingly assessed in the EIAR. Charlemont Station does not have the associated infrastructure and services associated with a terminus location and in fact has more in common with a "system turn back location". Charlemont Station is located within an area of high public transport accessibility, linking with the Luas Green Line which offers reasonably similar levels of services and frequency for journeys to and from the south of Dublin. As such, public transport service offering is not considered to terminate, but transfers onto the similar service offered by the Luas Green Line, forming part of a transport corridor running from Cherrywood to Estuary. The associated environmental impacts for the turnback tunnel and station at Charlemont have been fully assessed in the EIAR, each respectively referenced section 5.5.3 Tunnel and 5.10.13 Charlemont Station in EIAR Chapter 5: MetroLink Construction Phase. Charlemont station itself was chosen on the basis of its interchange potential with Luas, as well as local bus services, as outlined above. The section of the line between St Stephen's Green and Charlemont generates considerable benefits for the scheme in terms of increased patronage. Whether acting as a terminus station for some passengers or as an interchange station with Luas or bus services for others, the environmental impacts the station has on its local environment, in terms of passenger demand, airborne noise. vibration and other environmental effects do not increase. The proposed route alignment from Estuary to Charlemont is consistent and compliant with the GDA Transport Strategy 2022-2042 (published in January 2023) in which states that the south city terminus at Charlemont offers the optimal location for interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.

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3	Letter	1	In this regard, we badly need an upgraded public transport infrastructure in Dublin Southwest. The area has had a substantial increase in population over the last few years and, given both the amount of ongoing building works and planning permissions granted recently both under the Strategic Housing Development (SHD) process and otherwise, this increase in population is set to continue. We don't have the benefit of a nearby Dart or of either of the Luas lines and I believe the demand for public transport is far more than a bus system alone can cope with. I would like to see Metrolink extended to Dublin Southwest to serve areas including Rathfarnham, Templeogue, Knocklyon, Ballycullen and Firhouse, with the best route to be decided on completion of the appropriate studies, before planning is submitted.	The proposed MetroLink alignment has not been extended south of Charlemont for the reasons set out by the GDA strategy, section 12.3.10, "The challenges associated with the upgrading of the Luas Green Line to a metro standard of service have led to the emergence of an alternative proposal which seeks to meet travel demand from south of Sandyford along a new light rail corridor which serves UCD post-2042. As such, the upgrading of the Green Line to metro standard is not being pursued as part of this strategy. Instead, for this strategy period, the capacity and frequency on the current Green Line from Sandyford northwards to the city centre will be incrementally increased through the provision of additional tram fleet and services and associated turnback arrangements to meet forecast passenger demand." Further information on the challenges associated with connecting to the existing Luas Green Line can be found in the TII published report: "Constructability Report - Green Line Closure, April 2019, ref https://www.metrolink.ie/media/ox0p3cjb/constructabilityreportgreenlineclosure.pdf". This showed that construction works to connect the metro from Charlemont to the Green Line would incur line closures over a period of up to 3-4 years, depending on construction methodology. For this reason it has been necessary to determine the most appropriate interchange and termination location for MetroLink. As noted above and by the GDA Transport Strategy 2022-2042, section 12.3.2, "Charlemont offers the optimal location for the primary interchange with the Green Line in response to growing demand in the longer term and is an appropriate location to facilitate any potential future metro extensions to serve the south west, south or south east of the city region should sufficient demand arise.' This is also reflected by EIAR Chapter 7, section 7.7.8 MetroLink Southern Terminus Location that explains the rationale for selecting Charlemont as the optimum location for interchange with the Green Line. As noted by the GDA Strategy the selection of Charlemont does not preclude any future connections to the west or south of the city.
4	Letter	1	I would like to support the very thorough and detailed submission made by the Metro Southwest Group (MSWG) and urge you to please carry out further and more extensive research before committing to the current proposed course of action. It is essential to have a proper public transport infrastructure if we want people to leave their cars at home and thereby reduce traffic congestion and pollution. There is an opportunity here to vastly improve this area of the city by facilitating a proper public transport infrastructure which will improve the lives of our residents, and the environment, for many years to come.	TII consider the MetroLink Railway Order application and the accompanying EIAR presents a comprehensive and detailed assessment of all possible impacts that may arise from the construction and operation of Metrolink, including the proposed preferred location for a southern interchange at Charlemont. The assessments include for predictive modelling in order to identify the potential impacts on all sensitive receptors during both the construction phase and the operational phase. Where necessary, mitigation measures are proposed to reduce any identified effects. TII agree that it is essential to have a "a proper public transport infrastructure if we want people to leave their cars at home and thereby reduce traffic congestion and pollution". EIAR Chapter 3, Background to the MetroLink Project, explains how the proposed Project will provide significant benefits not only to those who choose to use it, but also to other transport network users, by generating a modal shift from private car use, thereby reducing the demand for road space and creating the opportunity for the road transport system to achieve optimum levels of efficiency and effectiveness. Also as outlined in Chapter 3, the proposed Project is part of an integrated transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2021 and make Dublin a more livable and sustainable city. Whilst MetroLink is a standalone project that is not dependent on any other projects for its delivery or effective operation, it is nonetheless a critical part of the proposed integrated transport network for the Greater Dublin Area.

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Re: ABP-314724-22 MetroLink Railway Order 2022				
1	Letter	1	Fingal County Council acknowledges the significant contribution that MetroLink will make towards increased transportation network capacity and allow more services to operate across the region, facilitating Fingal's vision for compact growth, sustainable mobility, serving key destinations, and facilitating opportunities along the route for high-density residential, commercial and other development, including mixed-use and employment generating activities.	TII wish to thank you for your submission and statement of support for the delivery of MetroLink.
2	6. Protected Structures, Architectural Conservation Areas etc.	17	The last RPS entry in the above table of RPS No. 953 Santry Lodge, Old Ballymun Road, Santry, Dublin 9 is a new addition to the Record of Protected Structures that was adopted on the 13 February 2023 after a review of the Record went on public display from 11 November to 23 December 2022 proposing new additions and amendments. It is the Protected Structure that will be most affected by the proposal. It was highlighted in consultations on the proposed route of the MetroLink that Santry Lodge as a former 18th century Royal Charter School was a significant historic structure and that it had been a listed building in the past within Dublin County Development Plans prior to the creation of the current three local authorities within County Dublin. It was indicated by the Council that the buiding and its setting should be avoided. In the recent review of the Record of Protected Structures research demonstrated that the building is of Special Cultural, Historical and Architectural Interest that make it of National Significance.	At the time of the Railway Order application, Santry Lodge, its gate lodge and gateway were not designated as a Protected Structure and not included in the NIAH, nor are the grounds of Santry Lodge included in the NIAH garden survey. It is acknowledged that the Board must have regard to the status of this sensitive receptor as at the date of its decision on the Railway Order application. Notwithstanding the lack of statutory protection at the time of the Railway Order application, the EIAR has treated Santry Lodge as a significant structure and has been assessed as level 2 as if it were included in the NIAH at Regional Status (section 26.4.3.2.3 of Chapter 26 (Architectural Heritage). This indicates a medium sensitivity rating. Given that Santry Lodge is now given 'National' status in the NIAH, Santry Lodge would move to Level 1 in the assessment, which indicates a 'High' sensitivity rating. Therefore, on this basis, the significance of the impact would increase from 'Significant' (as stated in Table 26.39 of the EIAR Chapter 26) to 'Profound'. As a result, the mitigation would increase to record to English Heritage Level 3, as opposed to Level 2. All potential significant impacts on Santry Lodge have been identified, described and assessed in Chapter 26 of the EIAR with proposed mitigation measures described in Section 26.7.1, Table 26.66. It is also important to note that the proposed design has been developed to avoid any direct impacts on Santry Lodge itself and while it is acknowledged that the alignment traverses the curtilage of this structure, it is unavoidable in the context of crossing the M50 Motorway at this location. The additional information provided after the submission of the Railway Order will be analysed in advance of the Oral Hearing.
3	6. Protected Structures, Architectural Conservation Areas etc.	17	The proposed route of the MetroLink does avoid the historic building of the Former Charter School but will alter and impact the overall site of Santry Lodge. A large section of the grounds between the building now known as Santry Lodge and the Old Ballymun Road is to be developed for both the metro track and a new access road, the gate lodge is to be demolished, with the gates and gate piers to be moved.	Please refer to Response (2) above in relation to the assessment of impacts on Santry Lodge.
4	6. Protected Structures, Architectural Conservation Areas etc.	17	Attenuation tanks, a pumping station and a relocated telecommunications mast are being inserted within the area between the new access road and the metro track. Tunnel walls are being built on either side of the track line as it descends below ground.	Please refer to Response (2) above in relation to the assessment of Santry Lodge. The telecommunications mast is to be relocated into an area close to the existing location and the other noted works are esential infrastructure associated with the MetroLink development.
5	6. Protected Structures, Architectural Conservation Areas etc.	17	There is a considerable loss of trees and planting within the area.	Please refer to Response (2) above in relation to the assessment of Santry Lodge. An Arboricultural Impact Assessment (AIA) is presented in EIAR Appendix A27.3, which assesses the loss of trees and green spaces at each station, including Northwood Station and Portal. The AIA identifies approximately 33 trees that will be lost at this property. As noted, in Chapter 27 The Landscape (Section 27.6.2) the requirement to fell trees is mitigated through the landscape design development for the proposed Project. Section 10 of this report identifies the loss of trees in this area. Additional mitigation measures include the retention of good quality trees where possible, the further development of landscape plans to enhance tree and hedgerow planing to offset the effects of net loss. However, Table 27.13 of the chapter identifies a a residaul effect of short term significant negative on the landscape and Table 27.14 of the EIAR idenitifies a moderate negative short term impact during the construction phase on the visual amenity due to the effects of the proposals. In the longer term as the planted vegetation re-establishes the impacts on the landscape (moderate impact) and visual (slight negative) will reduce as reflected in Table 27.15 and 27.16 for the operational phase.

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6	6. Protected Structures, Architectural Conservation Areas etc.	17	All of these works are within the area identified as the curtilage of the newly adopted Protected Structure. The cumulative impact of all of these proposed works within the historic setting of the Former Charter School will likely alter it to its detriment. It is therefore submitted that the proposed route and its associated design be re-examined and redesigned at this location to ensure a more sensitive handling of the historic site, not just the retention of a specific building.	Please refer to Response (2) above in relation to the assessment of Santry Lodge and Response (7) regarding potential for realignment of the route. The proposed Project incorporates landscape proposals to mitigate impacts of the route through this area.	
7	6. Protected Structures, Architectural Conservation Areas etc.	17	It would be preferable for the route to be amended so that it does not enter the overall site at all or that it follows/runs as close as possible to the line of the M50 Junction 4 Exit Road and R108 leading into Ballymun, in the lands to the rear of Santry Lodge.	Please refer to Response (2) above in relation to the assessment of Santry Lodge. Option consideration for the route alignment across the M50 and the Northwood station location were first considered in the Preferred Route Design Development Report as part of the Preferred Route consultation in 2019 (see https://www.metrolink.ie/en/news/published-reports/preferred-route-design-development-2019/). The M50 crossing and associated Northwood station location is further considered in EIAR Chapter 07 (Consideration of Alternatives), with the preferred location for the station at Northwood selected to incorporate the station at a skew angle under the R108, south of the retail park. The alignment across the M50 was established to provide appropriate clearance to the M50 slip roads whilst providing an acceptable gradient to the Northwood station. Moving the alignment closer to the M50 junction, as suggested, is not possible as it would require a more elevated crossing of the M50 and the resulting increased gradient to Northwood station would then become incompatible with the metro design standards.	
8	7. Architectural Conservation Areas	17	There is one ACA located close to the proposed route, namely the Swords - Church Road Historic Ecclesiastical Core ACA. This ACA was proposed and adopted by a Councillor's Motion during the recent review of the Fingal Development Plan and would not have existed during the initial assessments of the proposed route. The boundary for this ACA does not adjoin the proposed route but is to west of Swords Main Street.	As stated in Chapter 26 (Architectural Heritage), in accordance with guidance and best practice, the study area is defined as the area within 100m of the Project Boundary within undeveloped areas and within 50m in urban and parkland areas and it also includes an area 50m on either side of the tunnel. Whilst the Church Road Historic Ecclesiastical Core ACA was not identified in the initial assessments, it falls outside of the study area and therefore will not be significantly impacted by the proposed Project.	
9	14. Planning authority view on conditions which should be attached in te event of the Board deciding to make a railway order.	19	The Planning Authority recommends that certain conditions be attached should An Bord Pleanála be mindful to grant permission for this development. [Appendix 2 conditions set out below in items 10 to 44].	Please refer to Responses (10) and (12) to (44) in relation to the requested conditions.	
10	15. Planning authority view on community gain conditions which may be appropriate.	19	Fingal County Council recommends that community gain conditions be imposed in order to support sport, recreation, leisure and community development initiatives. Such conditions should be in the form of direct provision of specific projects and an annual levy towards their on-going maintenance, or, alternatively, a once-off direct capital contribution towards provision of specific projects and an annual levy towards their ongoing maintenance. A committee comprised of members of the local community, Fingal County Council and the applicant would decide on the nature and extent of the specific community gain projects to be developed.	TII will work with all established Community Groups through the local community liasion offices along the route to identify projects at local level that would involve the Community in the delivery of MetroLink and its legacy. Such projects could include: - A local school learning programme. - Enhancement of community amenity within agreed funding limits. - Engagement with final landscape and finishing options. However, TII's position is that it is not appropriate to impose significant standalone community gain conditions, given that they will be paid out of public funds to communities that will already enjoy the significant benefits of the operational MetroLink project.	
11	Conclusion	20	In conclusion, Fingal County Council welcomes the application for a Railway Order, the consultation stages to date and is confident of the significant benefits it will bring to Fingal and the wider Dublin Region. Fingal County Council acknowledge the MetroLink team's meaningful and constructive engagement with our professional and technical staff over recent months.	Please refer to Response (1). As detailed in Chapter 8 (Consultation), the MetroLink Project Team has at all times endeavoured to ensure the widest possible access for the public, stakeholders and landowners to information about the Project at all stages of its pre-planning development.	

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12	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	22	The following conditions are recommended in the event of a grant of permission being issued: 1. The development shall be carried out in its entirety in accordance with the plans, particulars, specifications, and information lodged with the application, save as may be required by the other conditions attached hereto. REASON: To ensure that the development shall be in accordance with the permission and that effective control be maintained.	TII agree to this condition, subject to the following. The Outline Construction Environmental Management Plan (CEMP) (included as EIAR Appendix A5.1) describes a range of construction sequences, methodologies and plant and equipment which are likely to be used in the construction of the proposed Project. It is however possible that subsequent design and build contractor(s) propose alternative sequencing and / or methodologies to the benefit of MetroLink and the wider community. The use of alternatives is not precluded so long as the overarching environmental impact of the work is not greater than that assessed and it is accepted by TII. Contractor(s) would need to demonstrate to TII that no material change occurs with any such proposal. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.
13	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	22	2. The following conditions shall be applied in respect of landscaping: (a) Prior to the commencement of construction works on site, a meeting with the Site Foremen, the appointed Arborist and the Parks Officer from the Parks & Green Infrastructure Division shall take place on site to discuss tree protection measures with details of the arrangements for the implementation, supervision and monitoring of works.	EIAR Appendix A5.1 Outline CEMP identifies the minimum requirements with regards to the appropriate mitigation, monitoring, inspection and reporting mechanisms that need to be implemented throughout construction. Compliance with the CEMP does not absolve the contractor(s), and their subcontractor(s), from compliance with all legislation and byelaws relating to their construction activities. For the duration of the contract(s), the environmental performance of the contractor(s) will be monitored through site inspections and audits by the Environmental Manager. The programme for monitoring, inspections and audits will be specified in the contract and it is likely to be a combination of internal inspections and independent external audits that may be either random or routine. The results of all environmental monitoring activities will be reviewed by the Environmental Manager on an ongoing basis to enable trends or exceedance of criteria to be identified and corrective actions to be implemented as necessary. The contractor(s) will be required to inform TII of any continuous exceedances of criteria. Detailed monitoring plans will be prepared by the contractor(s), such as an Ecology and Landscape Management Plan, Further details on the documents to be provided by the contractor(s) are contained in Appendix A5.1 Outline CEMP. Please also refer to Response (17) below in relation to tree protection measures during construction. TII are willing to work closely with FCC personnel to ensure tree protection measures are installed consistent with the consented Railway Order.
14	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	22	(b) All measures outlined in the Arboricultural Method Statement by Dr Philip Blackstock, the Project Consultant Arborist shall be adhered to.	Please refer to Response (12) above in relation to the adherence of specifications in the Railway Order.
15	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	22	(c) A tree and hedgerow bond of an appropriate amount shall be lodged with the Council prior to the commencement of development in order to ensure that the trees and hedgerows along the route of the proposed underground service are protected and maintained in good condition throughout the course of development. This bond shall be held by Fingal County Council for a period of two years post construction which may be extended in the event of a possible construction related defects.	TII has no issue with this condition being applied. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.
16	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	22	(d) For the tree and hedgerow bond to be released, a post construction report on the condition of the trees and hedgerows to be retained shall be undertaken by the project Arborist and all recommendations made within this report shall be carried out. On completion of this, the report and a Certificate of Effective Completion signed by the the project Arborist shall be provided to the Planning Authority.	TII has no issue with this condition being applied. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.

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17	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	22	(e) Any trees that require removal to facilitate the development shall be replaced. Full details of all proposed tree planting shall be submitted to and agreed in writing with the Planning Authority prior to commissioning of the proposed development. This shall include planting and maintenance specifications, including cross-section drawings, use of guards or other protective measures and confirmation of location, species and sizes, nursery stock type. All tree planting shall be carried out in accordance with the agreed plans. Any trees that are found to be dead, dying, severely damaged or diseased within five years of the completion of the development, shall be replaced in the next planting season by specimens of similar size and species in the first suitable planting season. REASON: In the interests of visual amenity.	As noted in Response (5), EIAR Appendix A27.3 presents an Arboricultural Impact Assessment, which assesses the proposed tree loss at each station. In EIAR Chapter 27 (The Landscape), it is noted that the inclusion of measures to avoid, reduce and offset significant adverse landscape and visual effects forms an inherent part of the brief and design thinking in the Project. The proposals include for example, the provision of tree and woodland planting which effectively replaces trees unavoidably lost as a result of the alignment, design and construction of the proposed Project. This forms part of the embedded primary mitigation included within the landscape design. However, in most circumstances the designed planting as proposed is more appropriately scaled to the pertaining landscape context and is invariably more biodiverse than the baseline planting lost. These aspects of the proposed Project go beyond the requirements of mitigation and are in effect enhancements of the baseline. Secondary measures will include specific proposals to ensure the effective retention of existing mature trees, where such is included within the proposed Project. These would normally contain specific measures relating to the protection and maintenance of tree root zones during construction (robust protective fencing, supplementary watering etc), which may need to be specific to individual trees and relate to the characteristics of the relevent tree species. However, they also generally require designed features incorporated within adjacent proposed hard landscape works area to ensure protection and continued development of tree root systems. Details of the proposed maintenance and management strategy for all planting will be set out, including the proposed initial period of establishment for which the contractor will be responsible. This will also include appropriate parameters for monitoring performance in terms of expected growth and/or rates of cover over the initial establishment period, details of the maintenance operations proposed over the period for each type of planting proposed and a schedule of suggested maintenance operations required in the first 5 years after handover to the maintaining authority. TII will work collaborativety with FCC sharing plans and method statements for FCC comment in advance of the commencement of construction	
18	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	22	3. Prior to commencement of development, a detailed Construction Management Plan and a Construction Traffic Management Plan shall be agreed in writing with the Planning Authority. This shall address, inter alia:	EIAR Appendix A5.1 presents the Outline Construction Environmental Management Plan, which provides a framework for how contractor(s) working for TII will manage and where practicable minimise potential negative environmental effects during the Project's construction phase. It is intended that this Outline CEMP will be a 'live' document, which will be subject to amendment including the revision and addition of content throughout the works. It will be expanded and updated prior to the commencement of any construction activities on site, including incorporating the requirements of conditions attached to statutory consents granted in respect of the proposed Project. The detailed CEMP will also build upon and further develop the Scheme Traffic Management Plan, and Construction Mobility Management Plan, along with other documents produced for the EIAR. Prior to implementation, all traffic management measures will be agreed with the relevant local authority in line with the T2 approval process, and where relevant, consultation with An Garda Síochána and other statutory stakeholders will be undertaken on proposed traffic management. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.	
19	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	22	(a) All details regarding safety issues including the appropriate signage and traffic management (as required).	Please refer to Response (18) in relation to approval of traffic management measures. Where diversions or closures are required for any mode of transport, appropriate signage will be provided to ensure continued access and movement on the network. Temporary TM signage will be agreed with the Local Authority in advance of work commencing in accordance with the T2 procees. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.	

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20	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	22	(b) All HGV activity associated with the works shall have suitable access to the sites that will avoid the potential for queuing of HGV's on the public road.	The haul routes for construction traffic have been determined based on a review of all potential road crossings/access points for traffic to and from the construction sites/compounds and based on the identification of those road crossings/access points with the potential capacity to accept the expected number of vehicle movements. Appropriate entry to and egress from the specific construction sites has been considered as part of the construction site location and will be further developed then managed by the contractor to ensure safe access to the site is provided. Regional roads, primary roads and sections of the M50 Motorway will be used wherever practical in order to reduce traffic impacts to local roads with reduced capacity. Haul routes to and from the construction compounds are illustrated in Figure 5.2 in EIAR Chapter 5 (MetroLink Construction Phase) of the EIAR. Haul routes have been discussed further in the Scheme Traffic Management Plan (STMP) in Appendix A9.5 of the EIAR and EIAR Chapter 9 (Traffic & Transport). TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.	
21	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	22	(c) Measures to mitigate the impact of the proposed works on the public road network. All works shall be carried out at the expense of the developer and to the specifications and conditions of the Planning Authority.	As detailed in EIAR Appendix A9.5 Scheme Traffic Management Plan, the traffic management plans for the construction of the MetroLink have been developed to minimise the impact of the Project on road users, and to maintain access to businesses and premises. The temporary traffic management plans have been developed following a hierarchical approach, in line with the road user hierarchy identified in the GDA Transport Strategy. As such, pedestrian and cyclist needs are given priority over public transport, commercial needs provision, and private vehicles. Temporary works impacting the public highway will be undertaken in accordance with the Department of Transport Traffic Management Design Guidance and associated documents with works agreed with the Planning Authority. It is agreed all works of this nature are carried out at TII's expense. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.	
22	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	22	(d) Restricted working hours shall be applied through the road opening licence process where deemed necessary.	The terms of works for any roadworks are a matter for the relevant roads authority under Section 101D of the Road Traffic Act 1961. The proposed condition would simply duplicate that, but TII can accept it. TII are happy to engage further with FCC on the requested condition in advance of the Oral hearing. The proposed standard working hours for the construction phase are set out in EIAR Chapter 5 (MetroLink Construction Phase), which also sets out the activities which may require additional working hours. Standard working hours are from 07:00 to 19:00 on weekdays (excluding Bank and Public Holidays) and from 07:00 to 13:00 on Saturdays. This includes standard delivery hours to the construction sites. The standard hours also include a half hour to prepare site at each end of the day. Proposed working hours for each site will be outlined in the Construction Environmental Management Plan, in addition to procedures to extend working hours, should this be required. Any restrictions to working hours associated with major events in the area of works will be agreed with the Local Authorities. The appointed contractor(s) will require staff and sub-contractors to adhere to these standards working hours for each site, insofar as reasonably practicable, unless otherwise permitted by the relevant Local Authority.	
23	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	23	(e) All relevant road opening licences setting out construction working hours, lane closures, road closures etc. shall be obtained within the appropriate time periods prior to the commencement of construction works for the proposed development.	Please refer to response item (22).	

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24	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	23	(f) Where works are required on the property of third party the applicant shall submit written evidence that it has all the legal consent/rights of way to undertake the works. REASON: In the interest of orderly development	The local authority's functions do not include the protection of third party rights. TII's rights of access to third party properties are provided for in the Transport (Railway Infrastructure) Act 2001 with appropriate guarantees for fair procedures and due process for any affected third parties, including requirements for notice, the right to make submissions on the proposed acquisitions. Ultimately, the protection of third party property rights is a matter for An Bord Pleanála in considering whether the public interest in the project merits the proposed interference with those rights, subject to compensation. The proposed condition introduces an administrative burden without enhancing the protection of third party rights. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.	
25	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	23	4. Prior to the commencement of the development, a detailed construction and demolition Resource Waste Management Plan shall be submitted to, and agreed in writing with the Planning Authority. This shall be prepared in accordance with Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction and Demolition Projects 2021. This Plan shall include details of the various waste streams and expected tonnages which will be generated during site clearance, demolition and construction phases and any proposed exportation or importation of soil and stone material including destination/source locations, quantities and if any material will be assessed under By-Product notification. The RWMP shall also include specific proposals as to how the RWMP will be measured and monitored for effectiveness. All records (including for waste and all resources) pursuant to the agreed RWMP shall be made available for inspection at the site office at all times. REASON: In the interests of orderly development.	TII do not believe it is necessary to impose this condition as EIAR Chapter 24 presents an assessment of Resource and Waste Management during the Project. Mitigation measures will aim to minimise the impact to the environment of the proposed Project through good material resource efficiency practices. All materials consumed and waste generated by the proposed Project will be managed in accordance with circular economy principles and the waste hierarchy, with prevention, reuse, recycling and other recovery methods favoured over disposal. As detailed in EIAR Appendix A5.1 Outline Construction Environmental Management Plan, the contractor(s) will be required to develop a Construction and Demolition Waste Management Plan. This will be in accordance with the Best Practice Guidelines on the Preparation of Resource and Waste Management Plans for Construction and Demolition Projects (EPA, 2021), among other guidance documentation of relevance. The Construction and Demolition Waste Management Plan will identify how waste arisings are to be controlled and managed during the course of the proposed Project, in particular how waste prevention principles will be applied and how on-site waste will be minimised. The plan will include the roles and responsibilities with regards to waste management; an analysis of the likely waste arisings; specific waste management objectives for the proposed Project; methods proposed for recycling or reuse of waste; material handling procedures; procedures for keeping records of all waste and materials which are removed from site; and, proposals for training of the workforce in waste management procedures and requirements. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.	
26	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	23	5. Where the Developer proposes to connect to a public water/waste network operated by Irish Water, the Developer shall sign a connection agreement with Irish Water, prior to the commencement of the development. REASON: In the interest of proper planning and the sustainable development of the area.	As detailed in EIAR Chapter 18 (Hydrology), all water arising from the construction phase will ultimately be discharged to public foul sewer post treatment under formal consent by Irish Water. No surface water will be discharged to a storm water drainage system or open watercourses during the construction phase. Therefore, water discharges from the construction areas will be released to sewers following effective treatment and attenuation and on the basis of a temporary permit/consent as issued by the relevant Local Authorities, including Irish Water, prior to the commencement of construction works. However, TII can agree to the condition where it is found necessary to discharge to the public water/waste water network. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.	

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27	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	23	6. No additional development shall take place above roof parapet level, including air handling equipment, storage tanks, ducts or other external plant, telecommunication aerials, antennas or equipment, unless authorised by a further grant of planning permission. REASON: To protect the visual amenities of the area.	TII can agree to this condition.
28	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	23	7. The following shall be complied with in full: (a) During the construction phase no heavy construction equipment/machinery (to include pneumatic drills, construction vehicles, generators, etc) shall be operated on or adjacent to the construction site before 8.00am or after 7.00pm, Monday to Friday, and before 8.00am and after 1.00pm on Saturdays. No activities shall take place in site on Sundays or Bank Holidays. No activity, which would reasonably be expected to cause annoyance to residents in the vicinity, shall take place on site between the hours of 7.00pm and 8.00am. No deliveries of materials, plant or machinery shall take place before 8.00am in the morning or after 7.00pm in the evening.	TII do not agree to this condition. Please refer to Response (22) above in relation to the proposed working hours. As noted, activities which may require additional working hours are detailed in EIAR Chapter 5 (MetroLink Construction Phase). These include: tunnelling, excavation in rock, large concrete pours, dewatering excavation, track bed and track laying, mechanical electrical and plumbing fit out at stations, utilities and roadworks, and special/abnormal deliveries. An inability to carry these out outside working hours will prejudice the safe and efficient delivery of the project and result in longer construction periods that have not been assessed in the EIAR. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.
29	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	23	(b) If there is any occasion when works must be carried on outside daytime hours, the Environmental Health Department of Fingal County Council, local residents and businesses in areas which are likely to be affected by noise from the proposed works should be notified in advance e.g. in letter or leaflet or advertisement form, of: * Name, address and telephone number of the company carrying out works * Nature of and reason for works * Likely duration and times of work	TII do not believe it is necessary to impose this condition because as detailed in EIAR Chapter 5 (MetroLink Construction Phase), abnormal deliveries are to be agreed with An Garda Síochána and the Local Authority, such as FCC. Deliveries required for large concrete pours, roadworks and works done during weekend possessions are to be defined with the Local Authority. The contractor(s) will be responsible for putting in place a Stakeholder Communications Plan which will be developed under the consent of a designated Public Liaison Officer (or equivalent officer) appointed by TII. This plan will provide a two-way mechanism for members of the public to communicate with a designated member of the contractor(s)’s staff and for the contractor(s) to communicate important information on various aspects of the proposed Project to the general public. The principal component of a Stakeholder Communications Plan will include: • Procedures to inform members of the community directly affected by the Construction Phase on schedules for any activity of a particularly disruptive nature which is likely to impinge on their person or property e.g. blasting, demolition, pile driving and any mitigating actions that are being taken (shielding, restriction on work hours) to minimise such disruption. • For the tunnel boring, TII will establish a website to provide information on the forecast and actual passage of the tunnel boring machine. The contractor(s) will distribute leaflets to properties and affected parties, giving such notice along the tunnelling alignment, along with details of the first point of contact for any queries. • The contractor(s) will coordinate preconstruction defect surveys for identified properties, liaising (in conjunction with the employer) with the building surveyor employed to carry out the surveys and maintaining a dialogue with the relevant property owners throughout the duration of the works. • Details of contact names and number for any complaints that may arise during works. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.

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30	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	23	(c) All construction work carried out on site shall have regard to B.S,522 8: 2009+A1:2014 Noise and vibration control on construction and open sites to minimise noise from construction operations. All equipment used on site shall be fitted with effective silencers and/or sealed acoustic covers. Noise attenuation measures such as shrouding and/or the use of acoustic enclosures shall be implemented for noisy construction activities. The mitigation measures outlined in 6.7 of the CEMP shall be adhered to in full.	TII do not believe it is necessary to impose this condition because as detailed in EIAR Chapter 13 (Airborne Noise and Vibration) and Chapter 14 (Groundborne Noise and Vibration) outline the baseline and expected noise and vibration levels and proposed mitigation measures required to mitigate impacts. In addition, the contractor(s) will prepare a Construction Noise and Vibration Management Plan (CNVMP) for the proposed Project which will be a live document. There are no statutory standards in Ireland relating to noise and vibration limit values for construction works, however the contractor(s) will adhere to best practice noise measures for construction activities, including the (BS) 5228 (2009 +A1 2014) Code of Practice for noise and vibration control of construction and open sites, and other identified best practice guidance. EIAR Appendix A5.1, Outline CEMP, details the proposed mitigation measures for noise and vibration, including the selection of plant equipment. The potential for any item of plant to result in exceedance of construction noise thresholds will be assessed prior to the item being brought onto the site. The least noisy item of plant will be selected wherever practicable (e.g plant items with sound attenuation incorporated). Noise control equipment such as shrouds, hoods, jackets and doors will be used, ensuring they are closed to minimise noise levels, in addition to acoustic barriers and screening at construction sites. The Outline CEMP identifies the minimum requirements with regards to the appropriate mitigation, monitoring, inspection and reporting mechanisms that need to be implemented throughout construction. Compliance with this document does not absolve the contractor(s) or their sub-contractor(s) from compliance with all legislation and byelaws relating to their construction activities. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.

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31	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	24	(d) During the construction phase all necessary steps shall be taken to contain dust and airborne pollutants arising from the site and to prevent nuisance to persons in the locality. This shall include i) covering skips, ii) covering slack heaps, iii) netting of scaffolding, iv) regular road and pavement damping and sweeping, v) use of water spray to suppress dust, vi) proper paved or hard stand access for trucks and vehicles to and from the site to prevent dirt and dust from the site being carried from the site on to public roads etc. Where dust levels become excessive, steps shall be taken by the contractor to review the works and implement further mitigation measures.	TII do not believe the suggested condition is required as the impact on dust and air quality has been assessed and presented in EIAR Chapter 16 (Air Quality) and Chapter 17 (Climate). Before commencing relevant works, a detailed Dust Management Plan will be prepared by the contractor(s) and submitted for approval to the relevant planning authority. The Plan will be based on the draft Dust Management Plan (in EIAR Appendix A16.4) and must include all appropriate dust and emissions mitigation measures including for asbestos and aspergillus, applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. In order to ensure that no dust nuisance occurs, a series of measures will be implemented by the contractor(s), as detailed in Appendix A16.4 of the EIAR. The measures to be implemented will include: • Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; • Any blasting will be completed by specialised contractor(s) with a specific Blasting Dust Management Plan; • Liaison with local authorities and community groups; • Hoarding will be provided around the construction compounds; and • Methods of collecting rainwater and recycling for general site use will be adopted where practical. Requirements for dewatering installations at deep station and tunnel portals can also provide a valuable source of water for general site use. Strict dust prevention will be in place at all times, to minimise any potential emissions. These procedures will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations. Mitigation measures are required for the control of dust with respect of HGV moments on site and deliveries to/from the site: * HGV traffic leaving site will pass through a wheel wash; * Public roads outside the site will be regularly inspected for cleanliness and cleaned as necessary. If public roads are deemed to require additional cleaning where possible a suction device for road cleaning will be utilised which can access spaces around cars and other street furniture more effectively; and * During movement of materials both on and off-site, trucks will be stringently covered with tarpaulin at all times. Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for dust emissions. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.

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32	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	24	(e) All site activities during the construction and operational phases shall be carried out in such a manner to ensure that air emissions and/or odours do not result in significant impairment of, or significant interference with amenities or the environment beyond the site boundary. The mitigation measures in 6.12 of the CEMP shall be adhered to in full.	TII do not believe it is necessary to impose this condition because as detailed in EIAR Chapter 16 (Air Quality), before commencing relevant works, an Air Quality Management Plan shall be prepared and submitted for approval to the relevant planning authority. The Plan must include appropriate dust and emissions mitigation measures including for asbestos and aspergillus, applicable to the circumstances of the relevant site, based on the local authority requirements and industry best practices. The Plan will be developed by the contractor and for each worksite shall include: * An inventory and timetable of activities which may give raise to emissions or dust; * Alert levels; * Alert system to be used (including notification process); * Details of control measures; * Details of dust monitoring arrangements, including the location of sensitive receptors, monitoring locations, and monitoring equipment to be used; and, * Details of the air quality reporting requirements. Overall, the assessed residual impacts on air quality and emissions during both the construction and operational phases are not significant. Additionally, TII are obliged to ensure that the mitgation measures in the EIAR are adhered to in full. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.	
33	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	24	(f) The cumulative noise contribution from the development once it is in operation shall not cause significant impairment of, or significant interference with amenities or the environment beyond the site boundary. Once the site is operational, the cumulative noise emissions from te site shall not exceed 55 db (A) LAeq 30 minutes between the hours of 0800-2200 and 45db(A) LAeq 15 minutes at all other times - as measured 1 metre from the nearest noise sensitive location. Clearly audible and impulsive tones at noise sensitive locations during evening and night shall be avoided irrespective of the noise level. REASON: In the interest of public health.	TII do not believe it is necessary to impose this condition as detailed in EIAR Chapter 13 (Airborne Noise and Vibration) and Chapter 14 (Groundborne Noise and Vibration), the assessment indicates that there will be no significant impacts on noise and vibration levels during the operational phase. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.	
34	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	24	8. All necessary measures shall be taken by the applicant/developer to prevent the spillage or deposit of any materials including clay rubble or other debris on adjoining roads during the course of development. In the event of any such spillage or deposit, immediate steps shall be taken to remove the material from the road surface at the applicant/developers own expense. The applicant/developer shall be responsible for the full cost of repair in respect of any damage caused to the adjoining public road arising from the construction work and shall either make good any damage upon issue of such a requirement by the Council. REASON: To protect the amenities of the area.	TII do not believe the condition is necessary for the reasons set out below. TII are happy to engage further with FCC on the requested condition in advance of the Oral hearing. Please refer to Response (31) in relation to the management of dust and debris on the road network. With regard to management of waste materials and dust on construction sites, as detailed in EIAR Chapter 24 (Resource and Waste Management), a number of waste management practices wil be implemented by the Contractor(s) in order to manage waste arisings in an orderly fashion to minimise the impact in so far as is practicable. These include: * A regular programme of site tidying will be established to ensure a safe and orderly site; * Debris netting will be erected to prevent materials being scattered by the wind; * In the event of any litter or debris escaping the site, it will be collected immediately and removed to storage on site, and subsequently recovered/disposed of in the normal manner; * Waste receptacles such as skips will be secured so as to minmise impact from fly-tipping; and, * Waste will be collected in a timely fashion so as to prevent overly large volumes of waste accumulating.	

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35	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	24	9. All public services to the proposed development including electrical, telephone cables and equipment shall be located underground throughout the entire site where possible. REASON: In the interest of visual amenity.	TII do not believe this condition is necessary as the design calls for all public services to be located beneath ground, and as such there is no need for this condition. TII are happy to engage further with FCC on the requested condition in advance of the Oral hearing. As detailed in EIAR Chapter 27 (The Landscape), the design rationale and detail employed across the proposed Project seeks to mitigate potential negative effects on the landscape character and visual amenity of the area by incorporating measures such as: * The insertion, positioning and detail of the various elements of the proposed Project, in order to create a unified and harmonious whole for each Local Landscape Character Area; and to assist in appropriate visual assimilation within the fabric of the respective subject sites; and * Rationalisation of all services elements and any potential visual clutter and its incorporation underground, in ducts (as far as is practicable), in order to reduce visual clutter and to prevent/reduce the potential for disruption of surface finishes in the future. The provision/location of temporary service connections to support construction sites will be agreed with the utility providers. These shorter term requirements may thus be a mixture of overground or underground connections to suit availability or location of supply and the need to avoid construction works.
36	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	24	10. The following shall be complied with in respect of surface water management: (a) No surface water/ rainwater shall discharge into the foul water system, under any circumstances. (b) The surface water drainage arrangements shall be in compliance with the Greater Dublin Regional Code of Practice for Drainage Works Version 6.0 FCC April 2006. REASON: In the interests of public health.	TII do not believe it is necessary to impose this condition for the reasons set out below. TII are happy to engage further with FCC on the requested condition in advance of the Oral hearing. Please refer to Response (26) above in relation to surface water management during construction. During operation: a) Surface water / rainwater will not be discharged into the foul water system. EIAR Chapter 18 (Hydrology), section 18.5.4.1 Overall Design Criteria, sets out the principles of the track and surface water drainage systems. b) Surface water drainage arrangements during operation have taken cognisance of the Greater Dublin Regional Code of practice (as noted in EIAR Chapter 18 (Hydrology), section 18.4.8).
37	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	24	11. The following requirements shall be complied with: (i) The Developer shall engage the services of a suitable qualified, experienced and licence eligible archaeologist to carry out archaeological monitoring of all groundworks at the site. No sub-surface work shall be undertaken in the absense of the archaeologist without his/her express consent.	TII will agree to this condition. TII are happy to engage further with FCC on the requested condition in advance of the Oral hearing. Chapter 25 of the EIAR presents an assessment of the impact of the Project on archaeology and cultural heritage. As detailed, all archaeological investigations, including test excavations, preservation by record (excavation) and archaeological monitoring, will be undertaken by a suitably qualified archaeologist in accordance with Section 26 (2) Excavation Licence of the National Monuments Act 1930 (as amended).
38	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	25	(ii) The archaeologist shall notify the Department of Culture, Heritage and the Gaeltacht in writing at least four weeks prior to the commencement of site preparations.	TII do not believe the suggested condition is necessary as presented in Appendix A5.1 Outline Construction Environmental Management Plan, Table 6.8, appropriate consultation will be undertaken with the Department of Culture, Heritage and the Gaeltacht prior to the commencement of works. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.

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39	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	25	(iii) Where archaeological material is shown to be present, avoidance, preservation in situ, or preservation by record (excavation) may be required. Works may be halted pending receipt of advice from the National Monuments Service, Department of Culture, Heritage and the Gaeltacht which will advise the Applicant/Developer with regard to these matters.	TII do not believe the condition is necessary for the reasons set out below. TII are happy to engage further with FCC on the requested condition in advance of the Oral hearing. Please refer to Response (38) above in relation to consultation with the Department of Culture, Heritage and the Gaeltacht. All archaeological consultants appointed by the proposed Project shall comply with the Code of Practice and shall liaise directly with the TII Project Archaeologist in relation to all archaeological requirements. Mitigation measures will seek to preserve in situ any achaeological or cultural heritage constraints which may be impacted by the proposed Project. Where this is not possible, a hierarchical range of mitigation measures will be implemented in advance of and during construction phase which will aim to ameliorate all impacts. Mitigation measures which may be undertaken prior to and during the Construction Phase include: * Full measured, written, drawn and photographic surveys; * Detailed construction methodology (demolition, removal, storage, relocation/reinstatement, rebuilding, repair and rehabilitation of archaeological and cultural heritage monuments; appropriate screening; monitoring of vibration); * Dive, underwater and wade surveys (including metal detection); * Geophysical surveys (including Ground Penetrating Radar (GPR)); * Archaeological test excavations; * Archaeological monitoring; and, * Preservation by record (archaeological excavation). Where a constraint has been subject to extensive archaeological test excavations either as a component of Old Metro North works or the proposed Project, no further test excavations will be proposed. Where extensive test excavations have taken place and no sub-surface archaeological stratigraphy has been identified, or where a constraint has been fully preserved by record within the proposed Project boundary, no further mitigation measures will be proposed.
40	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	25	(iv) On completion of monitoring of groundworks, the archaeologist shall submit a written report to the Planning Authority and to the Department of Culture, Heritage and the Gaeltacht for consideration. REASON: To ensure the continued preservation (either in situ or by record) of places, caves sites, features or other objects of archaeological interest.	TII do not believe this condition is necessary because as detailed in EIAR Chapter 25 (Archaeology and Cultural Heritage), in order to fulfil licence conditions, a preliminary report and a final report on the archaeological findings are required. Details of the reporting requirements are contained within the Draft MetroLink Cultural Heritage Strategy (2021) provided in EIAR Appendix A25.1 and further detail as to the content required for each report will be outlined in the individual contract documentation, as produced by the TII Project Archaeologist. All reports will be produced in accordance with government guidelines. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.
41	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	25	12. Prior to commencement of development the developer shall pay to the planning authority a financial contribution towards expenditure that was and/or that is proposed to be incurred by the planning authority in respect of public infrastructure and facilities benefiting development in the area of the Authority, as provided for in the Contribution Scheme for Fingal County made by the Council. The phasing of payments shall be agreed in writing with the planning authority prior to the commencement of development. REASON: It is considered reasonable that the payment of a contribution be required in respect of the public infrastructure and facilities benefiting development in the area of the Planning Authority and which is provided, or which is intended to be provided by, or on behalf of the Local Authority.	MetroLink is outside the scope of the local authority's development contribution scheme. There is no explicit provision for development contribution conditions in the Transport (Railway Infrastructure) Act 2001. TII's position is that this condition should not be imposed. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.

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42	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	25	13. Prior to commencement of development, a community liaison committee shall be established to liaise between the applicant and the local community. The membership of this committee shall reflect membership of the local communities of Swords and Santry and shall include representatives from Fingal County Council and the applicant. Full details of the committee shall be agreed between the planning authorities and the applicant prior to the commencement of development. The committee and the applicant will decide on the nature and extent of specific community gain projects to be developed with by the applicant either in the form of direct provision of specific projects and an annual levy towards their on-going maintenance, or alternatively, a once-off direct capital contribution towards provision of specific projects and an annual levy towards their ongoing maintenance. Fingal County Council shall have responsibility for the administration of a community gain fund account and the amount of contribution and the arrangements for payment shall be agreed between the developer and the planning authority or, in default of agreement shall be referred to the Board for determination. REASON: To provide for the allocation of reources from the community gain fund in accordance with the requirements of the local community and to provide for appropriate ongoing review of operations at the site in conjunction with the local community.	Please refer to Response (10) in relation to the establishment of community liaison groups, community gain and the annual levy. As noted in EIAR Appendix A5.1. Outline Construction Environmental Management Plan, TII and the contractor(s) will take all reasonable steps to engage with stakeholders in the local community, especially those who may be affected by the construction works including residents, businesses, community resources and specific vulnerable groups. The contractor(s) will be responsible for putting in place a Stakeholder Communications Plan which will be developed under the consent of a designated Public Liaison Officer appointed by TII. This will provide a two-way mechanism for members of the public to communicate with a designated member of the contracting team. TII and its appointed contractor(s) will ensure that local authorities and all relevant stakeholders affected by the proposed works will be informed in advance of works taking place. TII will control the community gain fund if one comes into effect. TII are happy to engage further with FCC on the requested condition in advance of the Oral Hearing.	
43	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	25	14. A community gain fund shall be established to benefit the community in the general catchment area. Details of the management and operation of the community gain fund, which shall be lodged in a spacial community fund account, shall be submitted to, and agreed in writing with the Planning Authority prior to the commencement of development. In default of agreement, the details shall be determined by An Bord Pleanála. REASON: It is considered reasonable that the operators of the facility should contribute towards the cost of environmental, recreational or community facilities which will be of benefit to the community in the area.	Please refer to Response (10) in relation to the establishment of a special community fund.	
44	Appendix 2: Example of SID Conditions to be attached to Grant of Permission	26	15. At the detail design stage and prior to commencement of the development, details of the proposed public spaces in front and around the proposed Stations including the final geometry and layout as well as details of materials, finishes, fixed furniture, bicycle parking, lighting, wayfinding, boundaries, paving and any ancillary structures should be provided for consideration and agreement with the Local Authority. Particular attention to be paid to the design of the approach the Stations including the treatment of the exclusion zones around the structures supporting the overhead canopy as well as the overall functionality of the public spaces that are well connected to the surrounding context.	TII do not believe the condition is necessary. However, TII confirm that all designs to be finalised in the detailed design stage will be provided to the local authority for consideration. TII will consult extensively with FCC during future design stages to ensure that public spaces, material finishes, and urban realm features are acceptable to FCC.	