ABP ORAL HEARING METROLINK 314724

Good Morning Inspector

I am Brendan Heneghan. I am a retired solicitor having been a partner in a large Dublin law firm for almost 30 years. I have a strong family background in railways with both my late father and grandfather being senior management at the then CIE rail.

This oral submission specifically focuses on my submission referenced 27 and the TII response to it. I regard this response as inadequate as outlined below. I am also authorised by MetroSouthWest in the interest of avoiding duplication to cover the issue of bus connectivity raised in their submission referenced 189 .

I am concerned at the wholly unequal forces at this enquiry, with ranks of TII advisers and lawyers ranged against volunteers. The problem is compounded by the tendency to keep adding new documents every day. I count 153 submitted as far as 19 March. I am an experienced lawyer and this would be known in the business as a "document dump"; experience in deal making tells me that poor quality projects often feature document dumps late in the day. It is not clear in this case that a lot of this could not have been provided much earlier.

I want to address two principal issues

Firstly the poor connectivity to Luas at Charlemont

Secondly - Other connectivity at Charlemont , including future proposals clearly outlined in the current GDA Plan.

Having considered the responses, I am even more strongly of the view that

1 There is a very poor connection at Charlemont between Metrolink and Luas

2 many passengers on Metrolink (as posited in my written submission) will figure out that connection to Luas at another point is better and easier

3 It is suggested that a terminus at Charlemont is needed because more trams can run from there; no case is made that more Luas trams can in practice be run ex Charlemont than from points further north.

4 there is no material connectivity at Charlemont to buses or for bicycles or foot passengers. Where there is arguable connectivity it is very problematic. Car connectivity is however incorrectly dismissed as a problem.

5 it is inappropriate for proper planning to ignore three planned future Luas lines all converging on Charlemont resulting in a south city terminus there. This is outlined in the Greater Dublin Area Transport Plan 2022-2042, a document heavily influenced by TII and its affiliates.

I should note at the outset that I am very familiar with Charlemont Luas and the three unsatisfactory staircases currently there. They are very awkward to climb. The station is also very exposed to the elements in the colder months and in wet weather. In my written submission I noted that standing passengers were like drowned rats and could not use umbrellas on a windy day; this is based on personal experience.. I think I am more familiar with it than the people who wrote the rail order application.

I would like to consider the number of passengers projected to use Charlemont. Quite frankly it is very confusing. There are numerous figures bandied around for the passenger volume at Charlemont, largely during the hearing. A figure of 10 million per annum was suggested on day 2, but apparently that is boarding only (note 1). That is an average 27,397 per day boarding with 85% (about 23,000) accessing via the north entrance.

Written responses by TII note 1,800 and 2,300 passengers alighting and boarding (presumably hourly) in the AM peak and 1,229 and 2,276 alighting and boarding in the evening peak (see page 109 in TII response document part 1). It would seem the AM figures are stated the wrong way round in the response document.

A document dropped in on day 5 (note 1) has different figures again ranging from 29,537 to 44,272 boarding and alighting but for a 12 hour period.

A document dropped in on day 13 suggests that of passengers using Charlemont Metro in a 12 hour period, only 3,751 (about 300 an hour) will transfer to Luas to head south and slightly more 4,053 will transfer from Luas to head north on Metrolink. This represents just over 25% of passengers and begs the question as to why they bother going to Charlemont for this and where all the other passengers head.

These figures are inconsistent and I may try in questions (time permitting) to tease them out. But whatever figures we look at, they are big numbers. For the reasons of the otherwise poor connectivity noted below, I submit that most of these passengers will be from or to Luas.

The poor connection

I have two key concerns

1 excessive pressure on two Luas stairs respectively 2.4 and 2 metres wide to deal with all the Luas transfer passengers in both directions

2 that the southbound Luas platform which measures about 2.85 metres by 40 metres is inadequate to cope with the likely southbound traffic.

On all of the TII forecasts there will be a huge volume of passengers coming to and from the Luas to metro and they will all be funnelled into two Luas stairs. It seems bizarre to funnel so many passengers into such a limited infrastructure. Particularly if they are likely to be walking in different directions to and from the Luas. I do not accept that a 2.4 metre wide stair is properly "sized to accommodate the combined predicted passenger flows for Luas to Metro and Metro to Luas" (page 161 of response Part 1).

I believe the effectively usable area of the southbound platform probably accommodates at best 100 passengers. I think routinely this will be exceeded. There are already many passengers feeding into this platform from the north side of the Grand Canal (over 2,500 suggested in day 13 document). The use of this platform as a bridge as Fred and Frida did in my submission will complicate the issue.

I believe many trams arriving will be quite full. There will be jostling to get on the tram. If the tram is full passengers will be left to clutter the platform. Many passenger s will have to validate their cards.

I believe that people climbing the new stairs will clog the southbound platform at the end of the stairs. This happens all the time in the London Underground. I don't think it is correct to assert that "peak passenger demand profiles for each station have informed the layout and sizing of platforms and stations" (page 161 response document) when my criticism is aimed at Charlemont Luas.

Other issues of concern here include

The distance from Metrolink platform to Luas Charlemont

Lack of escalators

I don't agree that it was not possible to fit escalators linking ground level to the Luas, but the Bord has permitted development of the site in a way that makes this very difficult. Any sensible interconnection should have at least two escalators between ground level and Luas to match what emerges from the Metrolink (three per their response) . Escalators obviously also prevent two way traffic, bar the odd group of 15 year olds.

Use of stairs exclusively not appropriate

It is common that stairs (for example London Underground, New York Subway) indicate that people should keep left. However this is not generally obeyed and on a 2.4 metre wide stair conflict between ascending and descending passengers will be routine.

It is notable that when discussing the three escalators exiting the Metrolink station it is said that "the design has sufficient capacity to accommodate the pedestrian demand generated at the Charlemont Metrolink station"(page 161 of response). I don't dispute this for the metro station but funnelling all this traffic into one stairs is a problem.

Serious underprovision of lifts

There will be a single additional lift apparently accommodating 10. 10 capacity is likely reduced by wheelchairs and/or luggage. I do not agree that this is "again sized for the predicted passenger

flows, for persons of restricted mobility and so that people are not having to carry luggage of a size that should not be carried on the stairs" (page 161 of response), given that it is the end of a line coming from the airport.

No consideration of airport passengers with luggage

I believe there will be many more passengers on an airport line with luggage than TII envisage. I agree with TII that they should not be using the stairs. However they will, as lift provision is wholly inadequate. I think it is entirely foreseeable that persons with collectively two or more pieces of luggage may leave luggage at the top/foot of the stairs to allow a more able person carry it down.

The paving infrastructure in front of the Carrolls building

While this is vastly superior in capacity to the stairs, I think it is inadequate, a point which Dublin City Council have also raised (both in the context of Charlemont and Tara). TII themselves use words such as "unacceptable" in this connection (note 2)

Volumes of pedestrian traffic crossing from the northbound platform

I believe that a lot of people heading north by Luas will alight at Charlemont and cross the line to access the widermore direct stairs nearer the Metrolink. They will likely impede south bound trams from departing. I don't think any other Luas stop creates such a volume of passengers crossing the track. If the idea of trams terminating at Charlemont is pursued, there will likely be a lot of passengers waiting on that platform for the next city bound tram.

Other connection points

I would submit that both O'Connell St North and St Stephen's Green East, despite longer distances in the latter, offer simpler and better connectivity to Luas. It is clear that in the drive to promote Charlemont, no consideration has been given to ease of connection at those points. At both of these points a southbound Luas is likely to be less crowded (and therefore more accessible to get a seat) than at Charlemont. I accept they will take longer to get to Charlemont than a Metrolink, but perhaps not much of a difference.

In the case of O'Connell Street a good proportion of trams stop outside the proposed station and then head back south. This option will be available directly outside the station and these trams will likely be empty. I do believe that any well thought out proposal would try and link Metrolink O'Connell St to the Parnell Luas stop where all southbound trains depart. I do not agree that this is not "justified or feasible" (page 161 response).

In the case of St Stephen's Green, the response wholly fails to deal with my points that the length of the walk to the existing Luas stop has been overstated or my point that the existing spur track in front of "old Anglo Irish" where trains are occasionally parked is very close to Stephen's Green Metrolink, were it to be used.

Turning trams at Charlemont

In my submission I noted the announcement of a short delay to Luas departure from Charlemont which I attributed to a persistent problem with turning the Luas that finish at Charlemont back south. I also noted lots of people standing in the wind and rain on the platform, Notably the response document ignores this point entirely, The point seems to be made that only 24 trams an hour can run on Harcourt St whereas 30 trams an hour can run south of Charlemont, with the inference that 6 trams an hour go to Charlemont only.

A passenger demand of 300 per hour would hardly challenge the 10,000 capacity of 24 trams an hour.

There is currently no point to turn trams between Beechwood where there is a set of points to send northbound trams south and St Stephen's Green where there are points to reverse a tram both directions.

A proper planning application would deal with the installation of points to turn trams and the process for doing this. I believe it involves the driver walking from one end of the Luas to the other, which likely takes a minimum of 40 seconds, very difficult with a 30 an hour schedule.

If it is indeed correct as asserted by an observer , submission 10 (and not contradicted) that a tram has a capacity of 408, 24 trams an hour can accommodate almost 10,000 passengers, so I am sceptical about the assertion that 24 are not enough.

I don't really believe that TII has any serious intent of using the 24/30 difference in capacity and they are just saying this to bolster the weak Charlemont case.

Connectivity at Charlemont with other modes of transport

Buses

I should note my strong approval of TII securing that the scheme manages to connect with all of the city Bus Connect spines at a convenient point , bar perhaps the A spine. This is a feature not generally picked up.

I am assuming in this regard that BusConnects routes are all in place. It is not correct to infer in the TII response that there is meaningful bus connectivity at Charlemont. There is no convenient bus connectivity at Charlemont. The nearest services at Ranelagh Road (86, 87 and 88) will stop directly opposite St Stephen's Green East and also close to Tara. Exactly the same applies with the more frequent services (E spine) on Leeson St Upper. People will change at St Stephen's Green East.

It is suggested in the document submitted on day 13 (Figure 6 page 12) that 4,000 passengers will head in a 12 hour period to the bus numbers 86,87 and 88. As only 48 buses in total are scheduled to run in a 12 hour period (note 3), this requires an average of 83 passengers to board each bus at Ranelagh. That is over capacity. These routes all closely shadow the Luas south and most places would be much easier to reach by transferring to Luas. Further each of those routes also actually meet the Luas at various points south (note 4) and it would make more sense to transfer at those points.

It is notable that the day 13 document forecasts more passengers transferring to buses at this point to progress south than transfer to Luas. This seems to be an admission that the connection is so

unsatisfactory that passengers would rather wait a long time for a bus than transfer to Luas. It is also noted that passengers alighting at Ranelagh and Beechwood having transferred from Metrolink total 131, possibly indicating it is much easier to walk there than brave the unsatisfactory connection.

In practice, I believe most of this 4,000 will head onto the Luas at Charlemont.

The day 13 document wholly ignores the O service (note 5), which in my view is the most likely mode of bus connectivity. I believe that a significant number of passengers will try and connect to Metrolink at Charlemont by using the very frequent O service running on Adelaide Road. This is very problematic as it will require passengers to use the Luas platform as an "effective bridge". This will mean that the south bound platform will be both a through way and a place for the many passengers to wait for the tram. I believe this presents a huge safety risk. It is completely ridiculous for TII to suggest (at point 4, page 161 of response) that passengers north of the canal will use the R138 (Leeson St Bridge) or Charlemont St which take about 8 minutes and 3 minutes longer respectively to cross the canal. It is also a serious omission that "the interaction of the Luas Green Line stop entrance with the cycle track is not part of the Metrolink Project" (page 161 Response) as it seems an obvious issue to consider.

Undoubtedly there will also be passengers on the numerous services on Rathmines Road who may walk to the Metrolink; however I suspect that there will be a better connectivity point (note 6).

Bicycles

I don't think there is adequate provision in the plans for bicycles to park at Charlemont. There seems to be a provision of 160 spaces with a suggested demand of 800.

Pedestrians

An analysis of the 2022 census shows that there is in fact limited local population. TII seem to be trying to infer in the day 13 document that over 6,000 passengers will walk in various directions from Metrolink (note 7). Many of the places to which they are projected to walk are on the north side of the canal and are in practice easier to access from St Stephen's Green Metrolink. I dispute TII's assertion that there will be a material volume of pedestrian connectivity. See schedules submitted with this document showing local area population.

Cars

TII are dismissive of the notion that there will not be substantial passenger drop offs at this point. The "kiss and ride" as described by ULSARA. I believe that if the Ranelagh Road axis is easily accessible, numerous southside airport passengers will be dropped off, particularly at the Dartmouth Road entrance. It is wrong for TII to suggest that because the lay by at Grand Parade is for mobility limited persons only, that it will only be used by such passengers.

I believe that relatively few MetroLink passengers will arrive at Charlemont by foot, bike, bus or car and the reality is that the vast majority will be transfers to and from Luas.

Future Luas lines

I referred in my submission to noticing posters from Dartmouth Heritage about a public meeting "No to South City Mega Terminus". It is clear from the Greater Dublin Area Transport Plan 2022-42 that it is envisaged that two Luas lines, albeit coming into operation after 2042, will converge at Charlemont. Further one of the options canvassed for a Lucan Luas line in a document "Luas Lucan Feasibility Study" (at page 11) prepared in August 2021 Luas Lucan Option 1 shows a line terminating at Charlemont. This is a statutory plan prepared under the Dublin Transport Act 2008. These lines would clearly deposit a lot of extra passengers at Charlemont, be it for Luas Green or Metrolink. I find it astounding that these are completely ignored in the Rail Order application and even more surprising that the experts failed to flag this on day 1 as an extra issue arising between November 2022 and now, that ought to be assessed. I think these are very material and should be taken into account in the context of proper planning and development at this location.

In conclusion I would say

1 that the Luas aspect of the Charlemont arrangement is manifestly not satisfactory. I have heard many other reasons as to why it is not suitable too. As the main point of coming to Charlemont is to connect to Luas, that station should be abandoned and improvement of Luas connectivity at either O'Connell Street or St Stephen's Green should be addressed.

2 that in reality there is little other connectivity at Charlemont

3 that the abandonment of Charlemont would lead to projected Luas lines being focussed on a more suitable City Centre terminal

4 that projections for likely use of the station are inaccurate and neither robust or conservative

Notes

Note 1 The document "Passengers at Charlemont Station, St Stephen's Green East and Tara Street Stations" introduced on day 5 says so

Note 2 Dublin City Council in its submission ref 71 at point 202 states that "As the last station on the proposed MetroLink line and a key interchange with the Luas Green line, this will be a very busy station with very high pedestrian footfall. Sufficient footpath widths need to be provided to accommodate the high volumes of pedestrians in particular along the route between the Metro station exit/entrance and the proposed Charlemont Luas station access lift and stairs on Grand Parade".

On page 37 of Appendix A9.2-B Traffic and Transport Assessment Charlemont Station TII accept that in 2050 Grand Parade West pedestrian comfort is considered "Unacceptable" and on page 45 "the future receiving environment will be able to accommodate the anticipated pedestrian flows in 2050, with the exception of Grand Parade West"

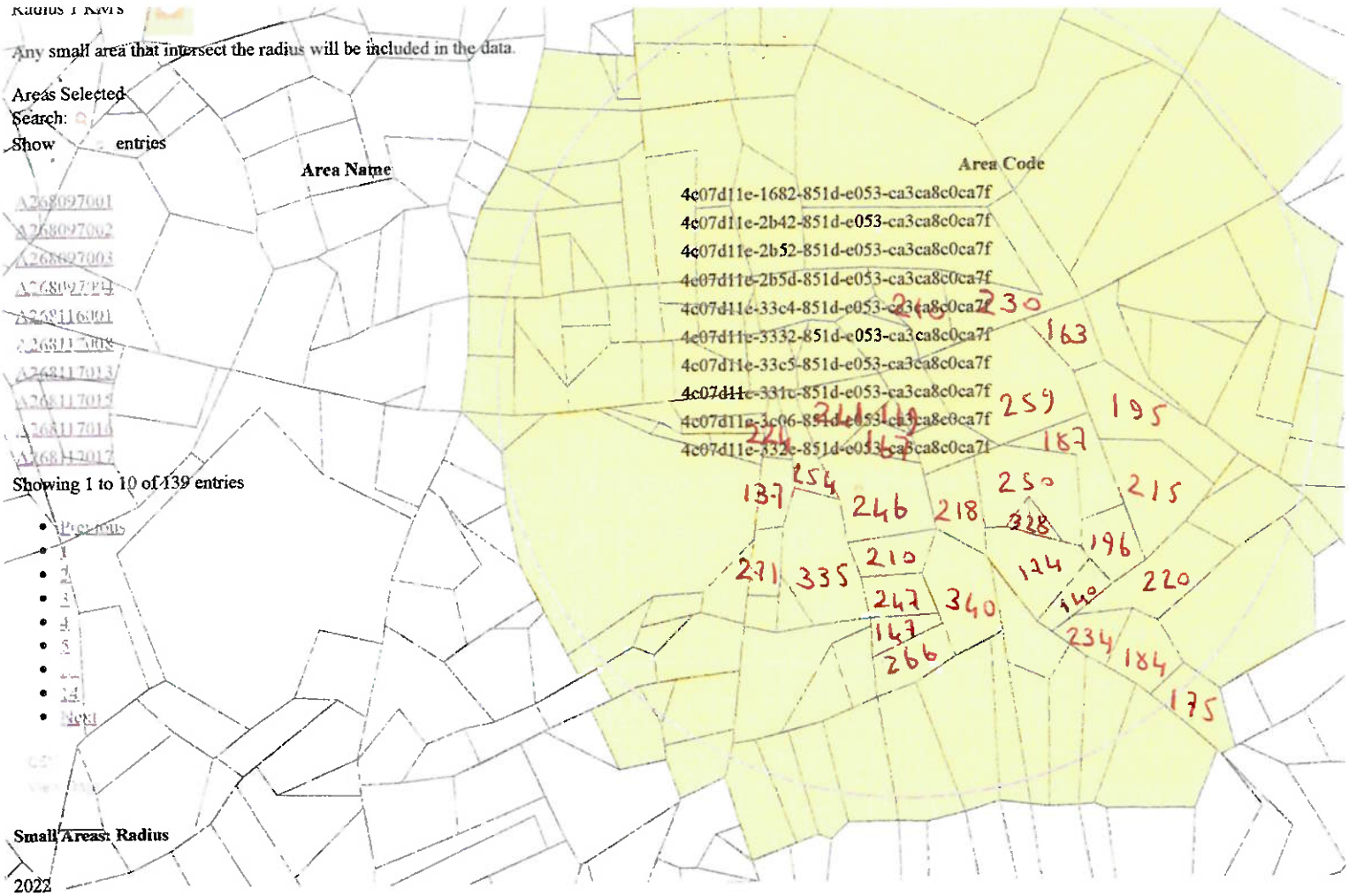
Note 3 The proposed frequency of the 86 to Ticknock is twice hourly and hourly at weekends. The proposed frequency of the 87 to Belarmine and 88 to Enniskerry is once hourly. Source Frequency Tables busconnects.ie

Note 4 The 86 bus meets the Luas at Stillorgan. The 87 and 88 buses meet the Luas at both Dundrum and Balally. Both closely shadow the Luas.

Note 5 The O is an orbital route running on the South Circular Road axis and the only point where it crosses Metrolink southside is at Adelaide Road. It has a proposed frequency of every 8 minutes.

Note 6 Under current plans the A Spine services will only intersect Metrolink at O'Connell St North. A planning application will be made shortly for the College Green Plaza, which if successful will require the A spine to be diverted. The only published contingency plan is to run those buses down St Stephen's Green East, providing direct access to Metrolink. TII must know where these buses are to be rerouted and should advise the Inspector.

Note 7 Figure 6 infers that 1360, 557 and 615 will walk to destinations at the other side of the canal. Many of these destinations would be reached by walking from Metrolink SSG. It infers that 1339, 690, 590 and 919 will walk to destinations south of the canal. As many of these destinations can be accessed by transferring to a bus at SSG, these figures are illusory.



Population Snapshot

This is a snapshot of population data for this area.

Males
15,470
Females
15,123 | Powered by Esri | © OpenStreetMap, © Tailte Éireann
Total Population
30,593

- Population Pyramid
- Table

SMALL AREAS
WITHIN WALKING DISTANCE

Radius 1 KM's

Any small area that intersect the radius will be included in the data.

Areas Selected

Search:

Show entries

Area Name	Area Code
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Showing 1 to 10 of 139 entries

- [illegible]

Small Areas: Radius

2022

Population Snapshot

This is a snapshot of population data for this area.

Males

[illegible],470

[illegible]ales

15,123 | Powered by [illegible] | © [illegible], © Tailte Éireann

Total Population

30,593

- [illegible]

3,520
RATHMINES EAST "A"
RATHMINES EAST A
RANELAGH
DONNYBROOK
CLONSKEAGH
GRAND PARADE
CHARLEMONT PL
DARTMOUTH SQUARE
DARTMOUTH RD
LEESON PARK
UPPER LEESON ST
BURLINGTON RD
WATERLOO LANE
WATERLOO ROAD
HEYTESBURY LANE
WELLINGTON RD
WELLINGTON LANE
SUSSEX RD
CHELMSFORD RD
SALLYMOUNT AVE
BLOOMFIELD AVE
MOREHAMPTON TER
MOREHAMPTON ROAD
CHARLESTON RD
CHARLESTON AVE
OAKLEY ROAD
RUGBY RD
BELGRAVE SQUARE
BEECHWOOD AVE
ANNESLEY
FERNVALE
LARCH GRO
CARLISLE AVE
SANDFORD
COWPER ROAD
PALMERSTON GDNS
GLENMALURE PARK
Hospitals
Convent
Coll
College
Sch
Monastery
1033
163
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250
226
187
195
218
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328
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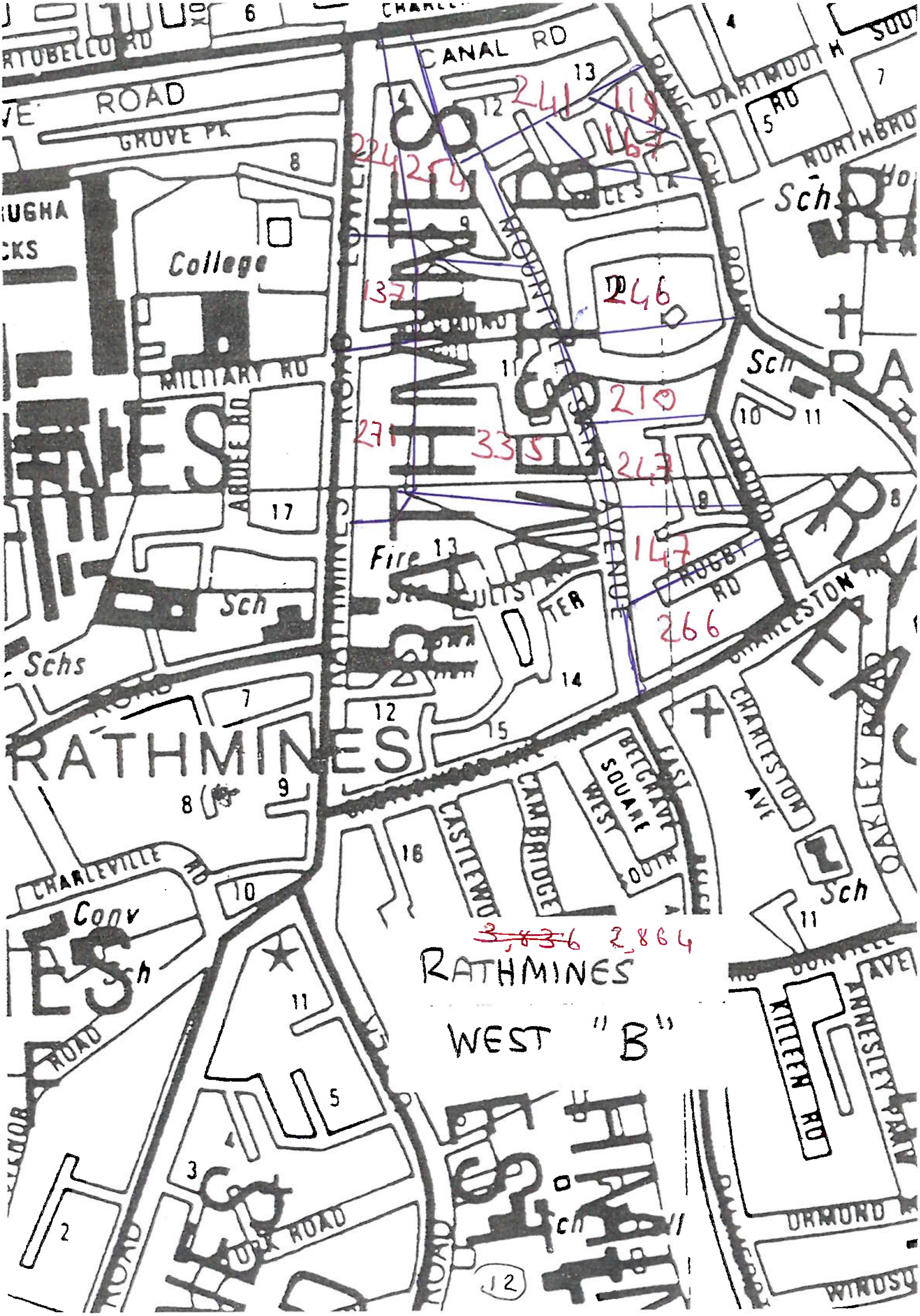

CANAL RD
ROAD
GROVE PK
College
MILITARY RD
RATHMINES
Fire
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Schs
CHARLEVILLE RD
Conv
RUGBY RD
CHARLESTON
CHARLESTON AVE
OAKLEY ROAD
CASTLEWOOD
CAMBRIDGE
BELGRAVE SQUARE
KILLEEN RD
ORMOND
241
119
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254
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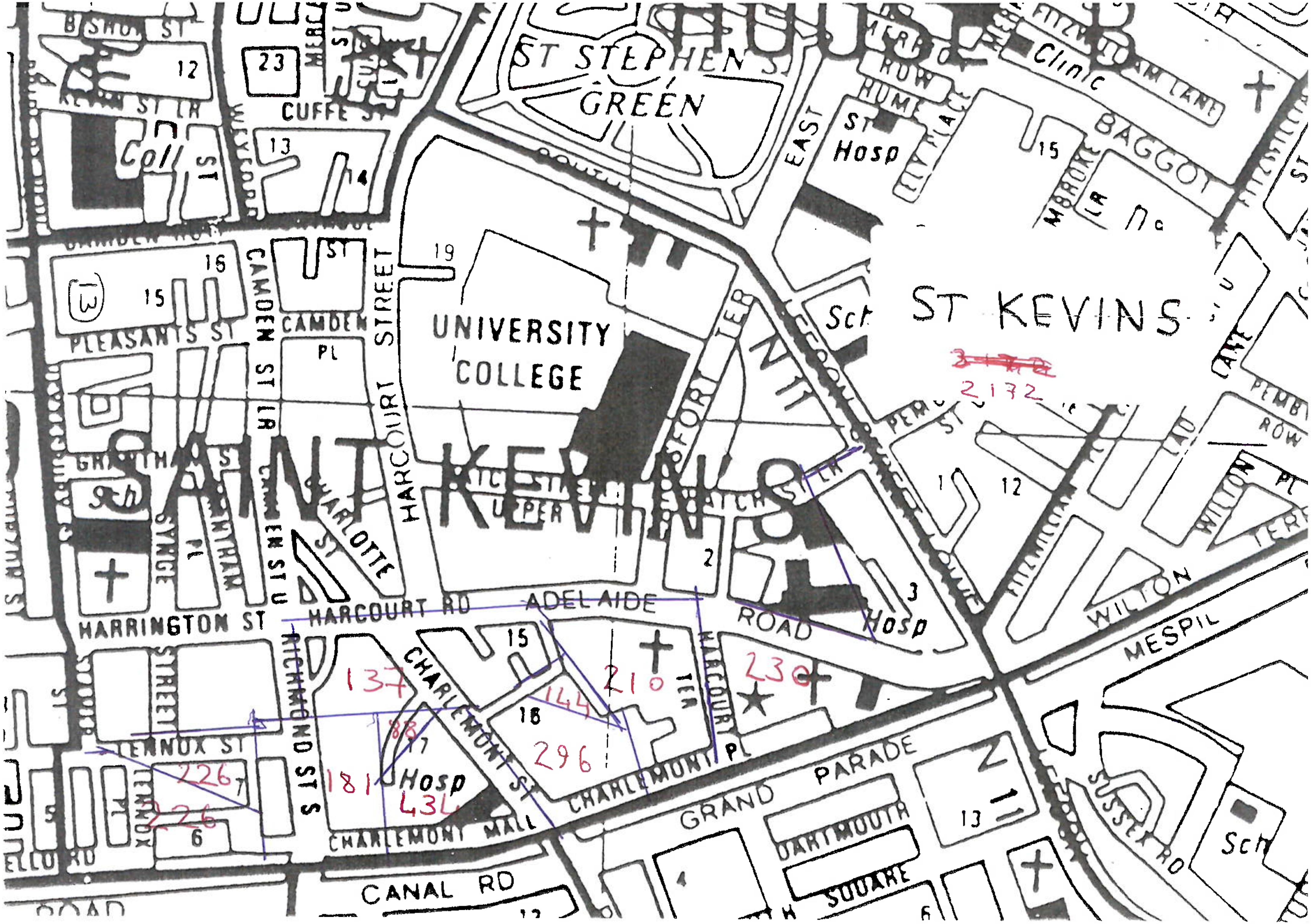
247
147
266
~~3,836~~ 2,864
RATHMINES
WEST "B"



ST KEVINS
2172
SAINT KEVINS
ST STEPHEN'S GREEN
UNIVERSITY COLLEGE
HARCOURT STREET
CAMDEN ST LR
CAMDEN ST U
CAMDEN PL
CUFFE ST
PLEASANTS ST
SYNGE PL
CHARLOTTE ST
HARCOURT RD
HARRINGTON ST
RICHMOND ST S
ADELAIDE ROAD
HARCOURT TER
CHARLEMONT ST
CHARLEMONT MALL
CHARLEMONT PL
LENNOX ST
GRAND PARADE
DARTMOUTH SQUARE
CANAL RD
MESPIL
WILTON
SUSSEX RD
BAGGOT
EAST
Hosp
Clinic
Coll
Sch
137
144
210
230
296
88
181
434
226

BOARDINGS

Route	DART		Rosslare – Belfast Line		Maynooth (Sligo) Line					
Station	North Bound	South Bound	North Bound	South Bound	North Bound	South Bound	2022	2021	2019	2018
Pearse	4280	4446	2222	371	1298	43	**12660**	**7799**	**15247**	**1560**
Tara Street	2314	3384	678	293	283	53	**7005**	**4315**	**9274**	**9639**
Connolly	2763	2918	4873	589	4231	49	**15423**	**9724**	**17823**	**1886**
Clontarf Rd	338	1077					**1415**	**869**	**2172**	**2115**
Killester	374	1837					**2211**	**1210**	**2665**	**2341**
Harmonstwn	190	833					**1023**	**716**	**1406**	**1609**
Raheny	300	1314					**1614**	**1097**	**2207**	**2417**
Kilbarrack	216	1119					**1335**	**1023**	**1663**	**1694**
Howth Junc Donaghmede	520	884	2	54			**1460**	**1059**	**1727**	**1886**
Bayside	129	652					**781**	**924**	**1329**	**1799**
Sutton	84	827					**911**	**623**	**931**	**1004**
Howth	0	1250					**1250**	**1233**	**1379**	**1805**
Clongriffin	127	1042	3	169			**1341**	**727**	**1640**	**1570**
Portmarnock	75	1004	4	232			**1315**	**678**	**2121**	**1400**
Malahide	0	1895	581	833			**3309**	**2141**	**3456**	**3950**
Donabate			275	903			**1178**	**991**	**1663**	**1644**
Rush & Lusk			142	834			**976**	**662**	**1176**	**1077**
Skerries			219	1110			**1329**	**845**	**1628**	**1710**
Balbriggan			168	1950			**2118**	**1542**	**2180**	**2200**
Gormanston			10	76			**86**	**45**	**87**	**80**

BOARDINGS

[illegible]	Heuston		Cork Commuter & Regional		Regional					
	North Bound	South Bound	West Bound	East Bound	North Bound	South Bound	2022	2021	2019	2018
Grand Canal Dock	0	393					**393**	**131**	**560**	**395**
Pearse	24	802					**826**	**368**	**502**	**469**
Tara Street	36	279					**315**	**93**	**402**	**253**
Connolly	119	481					**600**	**293**	**751**	**558**
Drumcondra	177	318					**495**	**273**	**559**	**459**
Heuston	0	10108					**10108**	**5703**	**11365**	**1150**
Parkwest & CityOrchard	414	151					**565**	**307**	**651**	**495**
Clonsaikin / Portohill	168	77					**245**	**137**	**282**	**212**
Adamstown	487	49					**536**	**203**	**261**	**334**
Hazelhatch & Celoridge	702	155					**857**	**405**	**969**	**769**
Sallins Naas	1402	237					**1639**	**915**	**2276**	**208**
Newbridge	1153	369					**1522**	**827**	**1538**	**153**
Kildare	641	391					**1032**	**570**	**956**	**898**
Athy	396	165					**561**	**419**	**519**	**526**
Carlow	726	192					**918**	**557**	**790**	**853**
M'asterevin	169	18					**187**	**120**	**156**	**149**
P'tarlington	576	365					**941**	**555**	**634**	**695**
Portlaoise	914	198					**1112**	**772**	**1127**	**100**

Appendix A. Boarding and Alighting Passengers

Scenario A 2035 Northbound Direction											
Station	AM			LT			SR			PM	
Station	Boarding	Alighting	Load	Boarding	Alighting	Load	Boarding	Alighting	Load	Boarding	Alighting
Charlemont	1742	0	1742	902	0	902	1026	0	1026	2294	0
St Stephen's Green	647	11	2378	666	4	1564	916	2	1940	2201	1
Tara	1461	180	3659	930	78	2416	1165	80	3024	2472	329
O'Connell Street	1000	37	4621	594	14	2997	721	15	3731	1330	43
Mater	375	136	4860	252	55	3194	270	72	3929	457	173
Glasnevin	678	212	5327	158	94	3259	142	136	3934	319	744
Griffith Park	62	260	5129	36	60	3235	88	68	3954	145	236
Collins Avenue	221	661	4689	126	202	3160	290	266	3977	480	902
Ballymun	237	481	4445	115	278	2996	84	471	3590	126	1548
Northwood	110	209	4347	40	88	2948	31	123	3499	70	324
Dardistown and M50	0	0	4347	0	0	2948	0	0	3499	0	0
Dublin Airport	61	3287	1121	101	1994	1056	165	1866	1798	534	1663
Fosterstown	22	328	815	15	235	835	20	460	1358	51	1126
Swords Central	21	310	526	24	267	591	36	411	983	144	1074
Seatown	4	378	151	13	197	407	37	240	781	185	640
Estuary Park-and-Ride	0	151	0	0	407	0	0	781	0	0	2006
Southbound Direction											
Estuary Park-and-Ride	2433	0	2433	433	0	433	537	0	537	603	0
Seatown	969	166	3236	170	10	593	159	42	654	288	47
Swords Central	1276	160	4352	292	16	870	217	26	845	302	33
Fosterstown	1959	53	6259	313	15	1167	208	21	1032	315	27
Dublin Airport	1842	771	7330	2294	75	3387	2641	78	3595	2542	147
Dardistown and M50	0	0	7330	0	0	3387	0	0	3595	0	0
Northwood	578	86	7822	119	40	3465	84	49	3629	161	79
Ballymun	1885	161	9546	411	101	3776	282	129	3783	392	211
Collins Avenue	1128	718	9956	246	249	3772	237	206	3814	394	223
Griffith Park	292	235	10013	61	60	3773	79	46	3847	149	67
Glasnevin	1176	319	10870	133	138	3768	95	147	3796	204	469
Mater	274	544	10601	73	254	3587	51	217	3630	163	226
O'Connell Street	86	1452	9235	19	623	2983	18	683	2965	56	668
Tara	193	3841	5587	52	1344	1691	48	1383	1629	107	1525
St Stephen's Green	1	2981	2607	2	664	1028	3	595	1037	8	657
Charlemont	0	2607	0	0	1028	0	0	1037	0	0	1304
Scenario A 2050 Northbound Direction											
Station	AM			LT			SR			PM	
Station	Boarding	Alighting	Load	Boarding	Alighting	Load	Boarding	Alighting	Load	Boarding	Alighting

Table 2.3: Cycling provisions required as per National Cycle Manual Recommendations

	Opening Year		Opening Year + 5 Years ~7% Growth	
Station	**12hr Boarding**	**2.5% Requirement**	**12hr Boarding**	**2.5% Requirement**
Estuary P&R	115*	3	123*	3
Seatown	4,355	109	4660	116
Swords Central	5,520	138	5907	148
Fosterstown	6,772	169	7246	181
Dublin Airport	26,255	656	28093	702
Dardistown	-	-	-	-
Northwood	2,838	71	3037	76
Ballymun	8,400	210	8988	225
Collins Avenue	7,606	190	8138	203
Griffith Park	2,232	56	2389	60
Glasnevin	6,810	170	7287	182
Mater	4,757	119	5090	127
O'Connell Street	9,578	239	10249	256
Tara Street	16,126	403	17254	431
St Stephen's Green	11,321	283	12113	303
Charlemont	14,870	372	15910	398

*Estuary boarding numbers do not include those utilising the Park and Ride or the bus network to access

2.9.1.2 Proposed Cycle Spaces per Station

The proposed Project provides an amount of cycle parking that meets Opening Year (plus a margin) at all stations where there is sufficient space to appropriately accommodate this requirement. There are a number of stations where the potential cycle demand estimated exceeds the cycle parking provision provided. The proposed cycle parking provisions at each station are presented in Table 2.4. Assessment of the Projects proposed cycle provisions against the National Cycle Manual's standard of provisions for 2.5% of 12hr boarders (presented in Table 2.3) indicates that all stations in the Outer Dublin and Outer City locations (as far as Griffith Park, inclusive) will have sufficient provisions in line with the National Cycle Manual requirements. From Glasnevin southbound and all City Centre stations, the proposed cycle provisions do not meet the requirements of the National Cycle Manual.

The provisions may be facilitated directly at the station or integrated into the existing or new urban realm of surrounding developments in line with the objectives set out in Dublin City Development Plan. Bike sharing will make up a proportion of the potential demand, either through fixed docked services such as Dublin Bikes, or non-docked services such as Bleeper bikes.

Similarly, as new innovators are brought forward, some of the demand may also be met by other micro-mobility solutions. Further refinement of the numbers will be required to take into account the dynamic profile of the provisions

been based on the results from an earlier opening year and a review has been undertaken to understand the impact of a 2035 Opening Year on this potential demand.

Table 2.2 presents the potential demand for cycle parking in the vicinity of each of the stations in 2035, and in the Opening Year + 5 Years (2040), by presenting the volume of passengers that meet the proposed criteria within the methodology. There is a 7% increase in potential cycle demand between the Opening Year and Opening Year + 5 Years.

Table 2.2: Potential Demand for Cycle Parking in Vicinity of Stations

Station	Location	Boarding or Alighting Numbers Analysed	Potential Cycle Demand	
			Opening Year	Opening Year + 5 Years
Estuary*	Outer Dublin	Boarding	-	-
Seatown	Outer Dublin	Boarding	**765**	**819**
Swords	Outer Dublin	Boarding	**1233**	**1320**
Fosterstown	Outer Dublin	Boarding	**788**	**843**
Dublin Airport**	Outer Dublin	Boarding	-	-
Northwood	Outer City	Boarding	**686**	**734**
Ballymun	Outer City	Boarding	**973**	**1042**
Collins Avenue	Outer City	Boarding	**1157**	**1238**
Griffith Park	Outer City	Boarding	**411**	**440**
Glasnevin – Metro+Rail	Outer City	Boarding	**496**	**531**
Mater	City Centre	Alighting	**164**	**175**
O'Connell Street	City Centre	Alighting	**236**	**253**
Tara Street	City Centre	Alighting	**973**	**1041**
SSG	City Centre	Alighting	**871**	**932**
Charlemont	City Centre	Alighting	**808**	**865**

162

*Cycling demand not calculated for Estuary Station as majority of boarding passengers are utilising Park and Ride facility.

**Cycling demand not calculated for Dublin Airport due to nature of travel to/from airports.

Large numbers can also be seen at Collins Avenue station as a result of the presence of Dublin City University in the 10-15 minute walking catchment, the station's key attractor in the area, which attracts a large volume of people during the AM peak period.

Table 2.3 presents the 12hr boarding and alighting numbers for the Opening Year and the Opening Year + 5 Years and using the National Cycle Manual's recommendation of provisions accommodating for 2.5% of daily boarders, presents the number of cycle parking spaces required to accommodate 2.5.% of this demand.