

<b>Submission No.</b>			<b>130</b>	
<b>Organisation Name or Name of Submitter</b>			<b>Irish Life Assurance plc. (4 Earlsfort Terrace) - represented by Waterman Moylan</b>	
<b>Item No.</b>	<b>Section Ref.</b>	<b>Page No.</b>	<b>Observation Statement</b>	<b>TII Response</b>
<b>Re: Railway (Metrolink-Estuary to Charlemont via Dublin Airport) Order 2022, 4 Earlsfort Terrace Dublin 2 (Formerly known as Dolman House)</b>				
1	Submission 1	3	<p>The route selection, including horizontal alignment, vertical alignment and depth of MetroLink below ground in the area between Chainage 18+800 and Chainage 18+900, should be reviewed by NTA / TII to satisfy themselves and to ensure that (a) MetroLink does not cause structural damage to the foundation system supporting our client's building.</p> <p>(b) MetroLink does not cause structural damage to our client's building at the basement level, any damage would result in the ingress of water into the basement.</p> <p>(c) MetroLink does not cause damage to the cladding; glazing and fragile finishes of our client's building.</p> <p>(d) MetroLink provides the necessary vertical and/or horizontal clearance between the existing basements and the tunnels.</p>	TII appreciates the submission. A Phase 2 Settlement Analysis has been done for the MetroLink alignment and this assessment identified that your building is outside the ground movement contours and will not there be impacted by ground movement.
2	Submission 2	3	<p>a) Metrolink has assessed the "Groundborne Noise from Tunnel Boring Machine" and presents its findings on drawing no. ML1-JAI-EIA-ROUT-XX-DR-Y-14009 (a copy is attached to this submission). This drawing indicates MetroLink will generate an additional 45db directly under the location of our client's building which is unacceptable.</p>	<p>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. The prediction of groundborne noise during TBM passage for the 4 Earlsfort Terrace building is 46 dB LASmax, which is slightly above the 45 dB LASmax threshold, resulting a significant impact on the building for the limited duration of TBM passage (less than 2 weeks). This level of noise will be noticeable for the short duration of time when the TBM is underneath the building but will not cause any structural damage to the building.</p> <p>The principal mitigation measures referenced in EIA Appendix 5.1 aimed at minimising impacts are as follows:</p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- 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 EIA Appendix A14.6, Airborne Noise &amp; Groundborne Noise Mitigation Policy).</li> </ul>
3	Submission 3	4	<p>a) Metrolink has assessed the "Groundborne Noise from Operation" and presented its findings on drawing no. ML1-JAI-EIA-ROUT-XX-DR-Y-14041 (a copy is attached to this submission). This drawing indicates MetroLink will be generating an additional 25db directly under the location of our Clients building which is unacceptable.</p>	<p>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 4 Earlsfort Terrace building, the prediction of groundborne noise and vibration during railway operation are as follows:</p> <ul style="list-style-type: none"> <li>- The predicted level of groundborne noise during the railway operation for 4 Earlsfort Terrace building is 24 dB LASmax, which is below the 40 dB LASmax threshold.</li> <li>- The predicted level of groundborne vibration during the railway operation for 4 Earlsfort Terrace building is 0.003 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 of 0.8 ms-1.75.</li> </ul> <p>As a result, we consider that no significant impact is expected on the building as a result of Metrolink operation.</p>
4	Summary	4	<p>In summary, our client requests that the route of the proposed MetroLink tunnels are diverted away from their current proposed location to either below the public carriageway or buildings that will not be damaged or compromised by the presence of the tunnels located under.</p>	<p>This building is not on the alignment, nor impacted by ground movement. TII do not propose to alter the alignment.</p>