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AN BORD PLEANÁLA

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LTR DATED _____ FROM *Hines Real Estate Ireland*
LDG- _____
ABP- _____

Summary Presentation on the Proposed MetroLink Route and its Potential Effect on AerCap House

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Hines Real Estate Submission



Section 2.1 MetroLink Building Damage Assessment of Cadenza Building

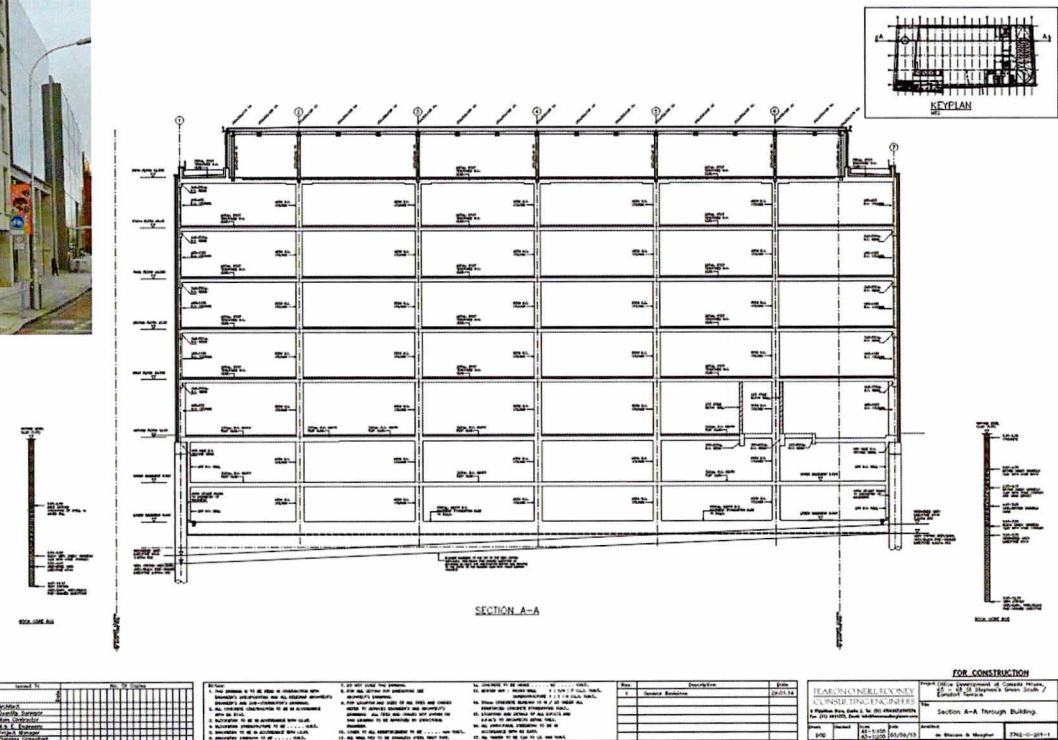
The proximity of the proposed tunnel to the existing structure has not been correctly assessed or considered by the Jacob/IDOM team. I have reviewed the Building Damage Report ("the BDR") produced by Jacob/IDOM, which was included in Appendix A5.17 of the Environmental Impact Assessment Report ("the EIAR"), and I believe the building that has been assessed (reference AB-37 in the EIAR, table 5.4) incorrectly describes the property as a five-storey building and with no reference to a basement. This description does not correctly represent AerCap House, which is a six-storey building with a two-storey basement structure. The description describes one of the buildings on the site that was demolished (Canada House) prior to the construction of AerCap House.

The Building (AB-37) described in the BDR is a five-storey building. It is clearly incorrect and does not correspond with AerCap House, which has been constructed on this plot. The findings of the BDR concerning the Building Damage Categorisation are incorrect as the data used was not checked or verified.

The empirical degree of damage thresholds in TII risk classification table in the BDR are for masonry structures and do not take account of the main characteristics of the AerCap building, including the basement waterproofing system and façade construction.

Therefore, the expected Category of Damage present by Jacob/IDOM cannot be relied upon, which, if followed, would result in damage to our Client's building.

Section 2.1 MetroLink Building Damage Assessment of AerCap House



Section 2.2 MetroLink Settlement Assessment at AerCap House

The magnitude of the subsidence/settlement under AerCap House is not uniform and varies from 0mm to 10mm. The maximum subsidence/settlement is experienced directly under one of the main stair cores, which provides stability to the building.

The settlement contours presented by Jacob / IDOM indicate that differential settlement/distortion of AerCap House is going to occur, resulting in the following damage:

- The basement uses a whitetank waterproofing system, which relies on the watertightness of the reinforced concrete basement floor slab and walls. Therefore, even minor cracking could lead to groundwater ingress;
- The internal reinforced concrete frame uses post-tensioned reinforced concrete floor slabs, which would be more sensitive to differential settlement than conventional RC slabs;
- The tunnel passes under one of the main structural cores for the building, and this incorporates a complex transfer structure at the ground-floor level to accommodate a shift in the position of the core for the upper floors of the building;
- The building has a modern stone and glass façade, which would be more sensitive to distortion due to differential settlement along the perimeter secant pile wall than a masonry or blockwork structure.

AerCap House cannot accommodate movement of this magnitude without damage to the structure, waterproofing and facades being caused.

[illegible]

Based on the overlay, it is clear that the substructure to the basement is located at the top of the exclusion zone as presented DOC ML1-JAI-GEO-ROUT XX-RP-Y-00034.



Section 2.4 Damage to AerCap Substructure in the Exclusion Zone

We understand that AerCap House could not have been developed in its current form had the Metrolink Tunnel been previously constructed, as there are substructure elements required to extend into the exclusion zone, which could cause damage to the Metrolink Tunnel.

As the Metrolink Tunnel is a significant piece of infrastructure and has been designed to resist significant earth pressures, it is equally likely that such a significant piece of structure could cause damage to the existing substructure elements of AerCap House that are currently in place and providing support to AerCap House.

Section 2.5 Mitigation Measures to Protect AerCap House

Based on our findings, we believe that if the Metrolink Tunnel is to pass under AerCap House, we require a detailed Phase 3 assessment using the correct building geometry and structural form to be completed and independently verified, ensuring the maximum damage caused to AerCap House is limited to 0.1mm cracking.

The proposed tunnel elevation may require to be lowered more than the current LOD downwards, i.e. more than the 10.0m indicated in the Wider Effects Report submitted as part of the application, considering the proximity and sensitivity of AerCap House.

Based on our findings, we believe that :

- a) The Route of the Metrolink Tunnel should be diverted to avoid clashing with the existing substructure of AerCap House and damaging the existing building or
- b) The elevation of the Metrolink Tunnel should be lowered to the extent necessary to ensure that no damage will be caused to any part of AerCap House.

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