Before an Independent Hearing Panel Appointed by Wellington City Council

In the Matter	of the Resource Management Act 1991
And	
In the Matter	of a Notice of Requirement to designate land for Airport Purposes known as the Main Site NOR
And	
In the Matter	of a Notice of Requirement to designate land for Airport Purposes known as the East Side Area NOR.

Summary Statement of Evidence of **Philip Robins** for Wellington International Airport Ltd

Dated: 17 May 2021

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INTRODUCTION

Qualifications and Experience

1. My name is Philip Norman Robins.

2. My qualifications and experience are provided in my statement of evidence dated 4 May 2021.

SCOPE OF EVIDENCE

3. My evidence broadly deals with the likely earthworks and retaining wall options and the viability of the proposed earthworks and retaining wall options for the hillslopes to the south-east of the existing airfield known as the East Side Area (ESA).

EXECUTIVE SUMMARY

4. Historical investigations undertaken by Beca suggest that the south end of the golf course is underlain by fill of varying thicknesses, and colluvium, underlain by *in-situ* greywacke. Investigations have not been performed across the remainder of the site, but it is expected that the remainder of the site will also be underlain by fill over Holocene sands, colluvium, and/or greywacke. The thickness of these deposits and depth to greywacke will be variable and cannot be determined without location-specific geotechnical investigation.

5. Expansion of Wellington International Airport to the east may necessitate relatively high cut slopes (likely some 30 to 50 metres high) in order to create sufficient ground that is level with the existing taxiway. Where cut is required, WIAL will need to maintain the stability of the cut slope and to avoid or mitigate potential impacts to residential properties upslope. WIAL will also need to ensure that there is no risk of slope debris reaching the taxiway or other airport infrastructure.

6. Geotechnical investigations will be carried out prior to undertaking detailed design of any cut slopes, stabilising measures and/or retaining walls. A site-specific assessment considering impacts of the proposed cut-profile on the

overall stability of the slope will be required prior to selection of any slope stabilisation measures or retaining structures as part of detailed design. A range of possible retaining options that might be considered, depending on the nature of the ground, were outlined in my evidence.

7. Options to stabilise the cut rock slopes can be developed following a geotechnical investigation and comprehensive rock face mapping exercise and may include:

   (a) Graduated slope cut face angles dependent on the strength of the greywacke (steeper in stronger less fractured rock and “laid back” in weaker more closely fractured rock or soil),

   (b) Rock bolting or anchors, combined with face protection such as shotcrete, or wire mesh.

8. In my opinion, earthworks (which will be undertaken in stages) can be managed and engineering solutions to develop the site are feasible. These engineering solutions are likely to consist of a combination of benched natural cut slopes, rock stabilisation (rock bolting or anchors), mechanically stabilised earth (MSE) walls, and concrete retaining walls.

9. Further in my opinion the ESA site is not at risk of significant geotechnical or natural hazards and any risks can be appropriately management through the detailed design of the development including full geotechnical investigations.

10. Follow preparation of my evidence expert conferencing took place in person on Monday 10 May 2021 at Wellington City Council (WCC). The conference was attended by John Davies (WCC) and Philip Robins.

11. In our conference we discussed the WCC’s proposed draft earthwork conditions and issued a Joint Witness Statement, dated 17 May 2021.

Philip Robins
17 May 2021

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