

Appendix A WIAL1 – Requiring Authority Decision Version

Wellington Airport Obstacle Limitation Surfaces	
Designation unique identifier	WIAL1
Designation purpose	Specification for obstacle limitation surfaces
Site identifier	Airspace and vicinity of Wellington International Airport
Lapse date	Given effect to
Designation hierarchy under section 177 of the Resource Management Act	Primary and secondary
Conditions	Yes, see Conditions 1
Additional information	Rollover designation, formerly designation G2. Rollover Conditions, Conditions 1 formerly Appendix F.

Conditions 1: Wellington International Airport (Obstacle Limitation Surfaces) Conditions

Overview

Civil Aviation Regulations require an airport operator to provide obstacle limitation surfaces around the airport to ensure the safe and efficient operation of aircraft approaching and departing the airport. This is done by means of height controls based on a series of geometric surfaces projecting up from the edges of the runway strip which surround the runways, the intention being to prevent objects such as structures and trees from penetrating these surfaces which are important for the operational safety and efficiency of aircraft.

The Obstacle Limitation Surfaces contained in this designation protects Wellington International Airport from possible intrusion of over-height obstacles into the necessary approach and take-off areas required for the safe operation of the airport by all types of aircraft in use, or expected to be in use, at the airport.

The obstacle limitation surfaces in this designation are based on combinations of various Civil Aviation Authority (CAR 139-6) and ICAO Annex 14 obstacle limitation surfaces.

For the purposes of this designation:

- The Airport Reference Point level described in this designation is set at an elevation of 11.986 metres.
- Objects (as referred to throughout this designation) include, but are not limited to, vegetation (including trees), structures (including buildings masts and poles), cranes, construction machinery or other equipment that might penetrate the Obstacle Limitation Surfaces on a temporary or permanent basis.
- Any point where two Obstacle Limitation Surfaces overlap and are at differing elevations, the lower of the two shall apply.
- The designation restrictions do not apply to objects located beneath the Obstacle Limitation Surfaces identified in the District Plan's online interactive Planning Maps and described in this designation.
- The runway strip is a rectangular surface extending 60m beyond the runway and 140m metres either side of the runway centreline.
- The runway clearways are measured from the runway thresholds and extend for a length of 379m on Runway 34 and 355m on Runway 16.
- Runway 34 refers to the runway when approaching over Cook Strait and departing over Evans Bay. Runway 16 refers to the runway when approaching over Evans Bay or departing over Cook Strait.

The airspace height restrictions applying to the Obstacle Limitation Surfaces to which this designation applies are defined and explained below and illustrated on the attached Maps.

1. Take-off and Approach Surfaces

a. Specifications

- i. There is a Take-off and Approach surface at each end of the runway clearways. These differ in detail, but both are protected by a slope extending upward and outward from each end of the runway.
- ii. The combined Take-off and Approach Surfaces rise at a gradient of 2% (1 in 50) from the outer edge of their respective clearways, over a horizontal distance of 15,000m and continues along the extended runway centreline. The rate of lateral divergence from the inner edge is 15% (1 in 6.6) on each side of the fan. The elevation of the respective clearways are as follows:
 - Runway 34 Clearway Outer Edge: RL16.72
 - Runway 16 Clearway Outer Edge: RL11.08

b. Conditions

- i. With the exception of the properties identified in Figure 1 below, any new object or extension to an existing object that penetrate the Take-off and Approach Surfaces shall not exceed a height of 8m above existing ground level except where the new object or extension is shielded by an existing immovable object, or the penetration is a temporary short term penetration (e.g. construction machinery or equipment) and that penetration has been approved by Wellington International Airport Limited.
- ii. With respect to the properties shown in Figure 1 below, new objects or extensions of objects that penetrate the take-off and approach surfaces shall not exceed the height limits specified in Figure 1, except where the new object or extension is shielded by an existing immovable object or the penetration is a temporary short term penetration (e.g. construction machinery or equipment) of these surfaces and that penetration has been approved by Wellington International Airport Limited.

2. Transitional Surfaces

a. Specifications

- i. The Transitional Surfaces provide for a situation where an approaching aircraft is either off centreline or where it has executed a missed approach and allows for an area free of obstacles to protect aircraft in the final phase of the approach to land manoeuvre or when overflying the runway from an aborted landing.
- ii. These extend upwards and outwards from the sides of the runway strip at a gradient of 14.3% (1 in 7) to a height of 45 metres above the Airport Reference Point level, where it intersects with the Inner Horizontal Surface.
- iii. The Transitional Surfaces extend at the same heights beyond each end of the runway strip to intercept the Take-off and Approach Surfaces.

b. Condition

- i. Any new object or extension to an existing object that penetrates a Transitional Surface shall not exceed a height of 8m above existing ground level (as of 15 June 2022), except where the new object or extension is shielded by an existing immovable object or the penetration is a temporary short term penetration (e.g. construction machinery or equipment) of this surface and that penetration has been approved by Wellington International Airport Limited.

3. Inner Horizontal Surface

a. Specification

- i. The Inner Horizontal Surface is a horizontal plane located at a height of 45 metres above the Airport Reference Point and enclosed within a 4000 metre radius drawn from the periphery of the runway strip.

b. Condition

- i. Any new object or extension to an existing object that penetrates the Inner Horizontal Surface shall not exceed a height of 8 metres above existing ground level (as of 15th June 2022), except where the new object or extension is shielded by an existing immovable object or the penetration is a temporary short term penetration (e.g. construction machinery or equipment) of this surface and that penetration has been approved by Wellington International Airport Limited.

4. Conical Surface

a. Specification

- i. The Conical Surface extends from the periphery of the Inner Horizontal Surface upwards and outward at a slope of 5.0% (1 in 20) to a height of 150m above the Airport Reference Point level.

b. Conditions

- i. Any new object or extension to an existing object that penetrates the conical surface shall not exceed a height of 8 metres above existing ground level (as of 15th June 2022) except where the new object or extension is shielded by an existing immovable object or the penetration is a temporary short term penetration (e.g. construction machinery or equipment) of this surface and that has been approved by Wellington International Airport Limited.

5. Outer Horizontal Surface

a. Specification

- i. The Outer Horizontal Surface is a plane surface at a height of 150m above the Airport Reference Point level, enclosed within a 15,000m radius drawn from the mid-point between the runway thresholds on the runway centreline.

b. Condition

- i. Any new object or extension to an existing object that penetrates the Outer Horizontal Surface shall not exceed a height of 30m above existing ground level (as of 15th June 2022) except where the new object or extension is shielded by an existing object, the penetration is a temporary short term penetration (e.g. construction machinery or equipment) of these surfaces and that penetration has been approved by Wellington International Airport Limited or Wellington International Airport has determined that such objects and structures will not affect aircraft operations within this area.

6. Other Conditions

- a. If at any time the Civil Aviation Authority of New Zealand makes substantive changes to the obstacle limitation surfaces requirements that affects Wellington International Airport, including the lowering of the height of the applicable obstacle limitation surfaces, WIAL shall as soon as reasonably practicable, consider whether the Designation should be amended, and if so give notice of its requirement to alter the Designation pursuant to Section 181 of the RMA.
- b. The Requiring Authority shall prepare a report on an annual basis to include details of any requests received for written consent under s176(1)(b) of the RMA and processed by WIAL during the preceding 12 months. The reporting shall include but not be limited to:
 - i. The number of requests for written consent under s176(1)(b) of the RMA;
 - ii. The OLS surface to which the requests relate;
 - iii. The length of time to provide each s176 written consent.

The Report shall be made available to the Wellington City Council upon request and posted in an appropriate location on WIAL's Wellington Airport website.

- c. WIAL shall consider on an annual basis whether WIAL1 should be altered pursuant to Section 181 of the RMA to exclude areas from the OLS that are adequately shielded by terrain taking into account:
 - i. Any technology advances such that applying an additional shielding criteria to the OLS becomes a reasonably practicable prospect; and

- ii. the monitoring of written consents provided for by condition 6 b. demonstrates that there is a disproportionate adverse effect on the surrounding community in obtaining written consents under Section 176 of the RMA.

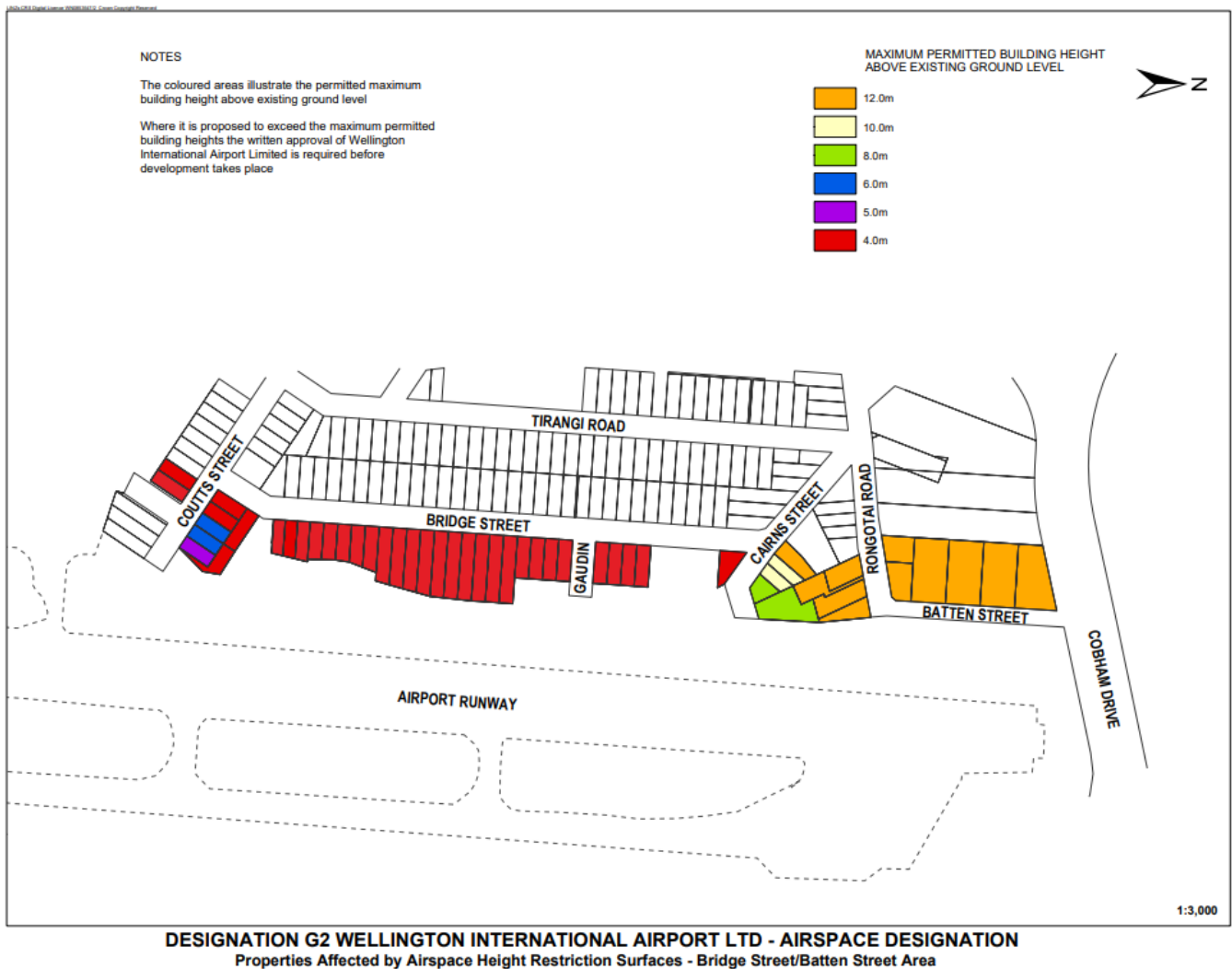
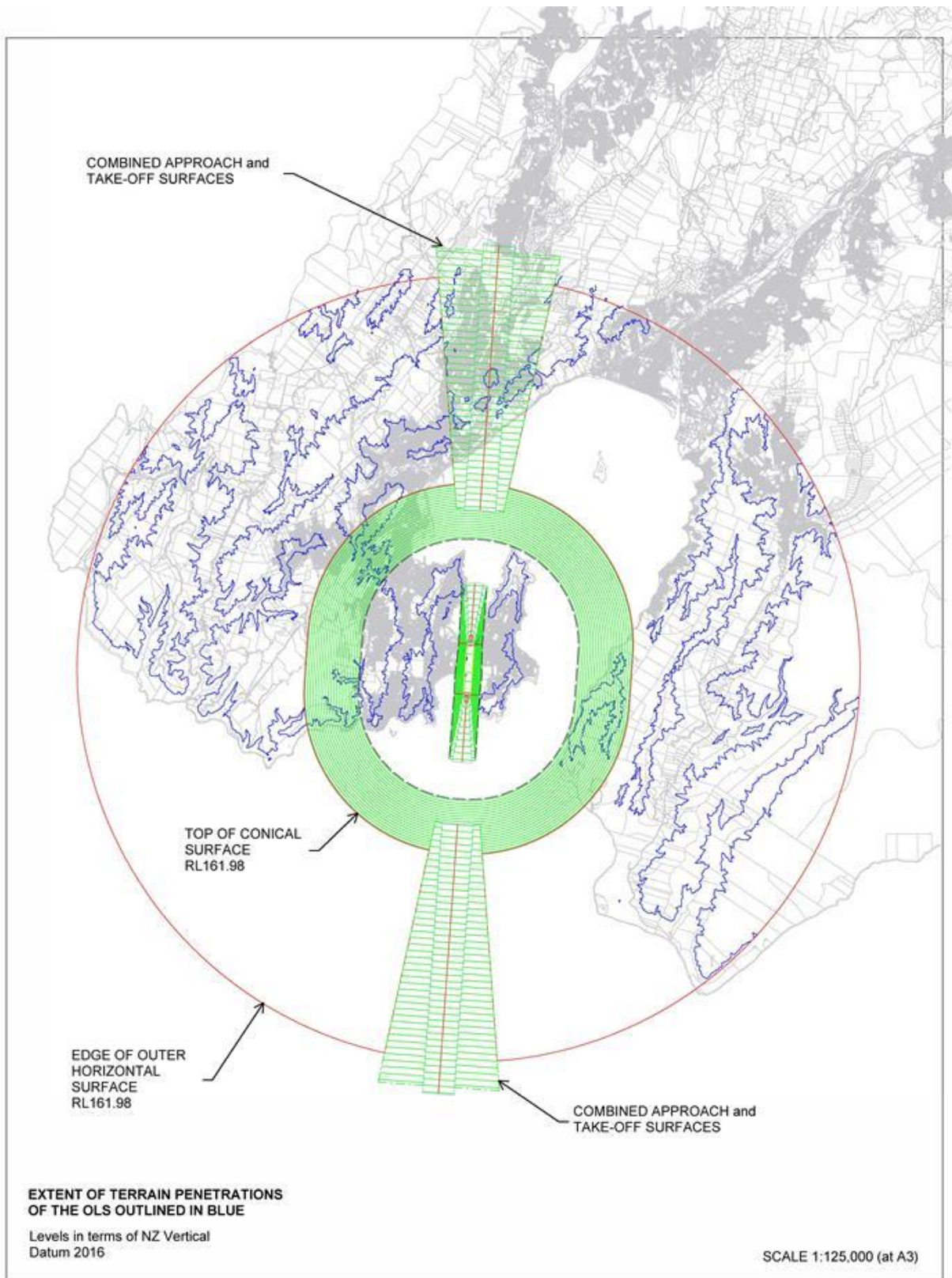


Figure 1: Designation WIAL1 Properties affected by specific height restrictions.

Note:

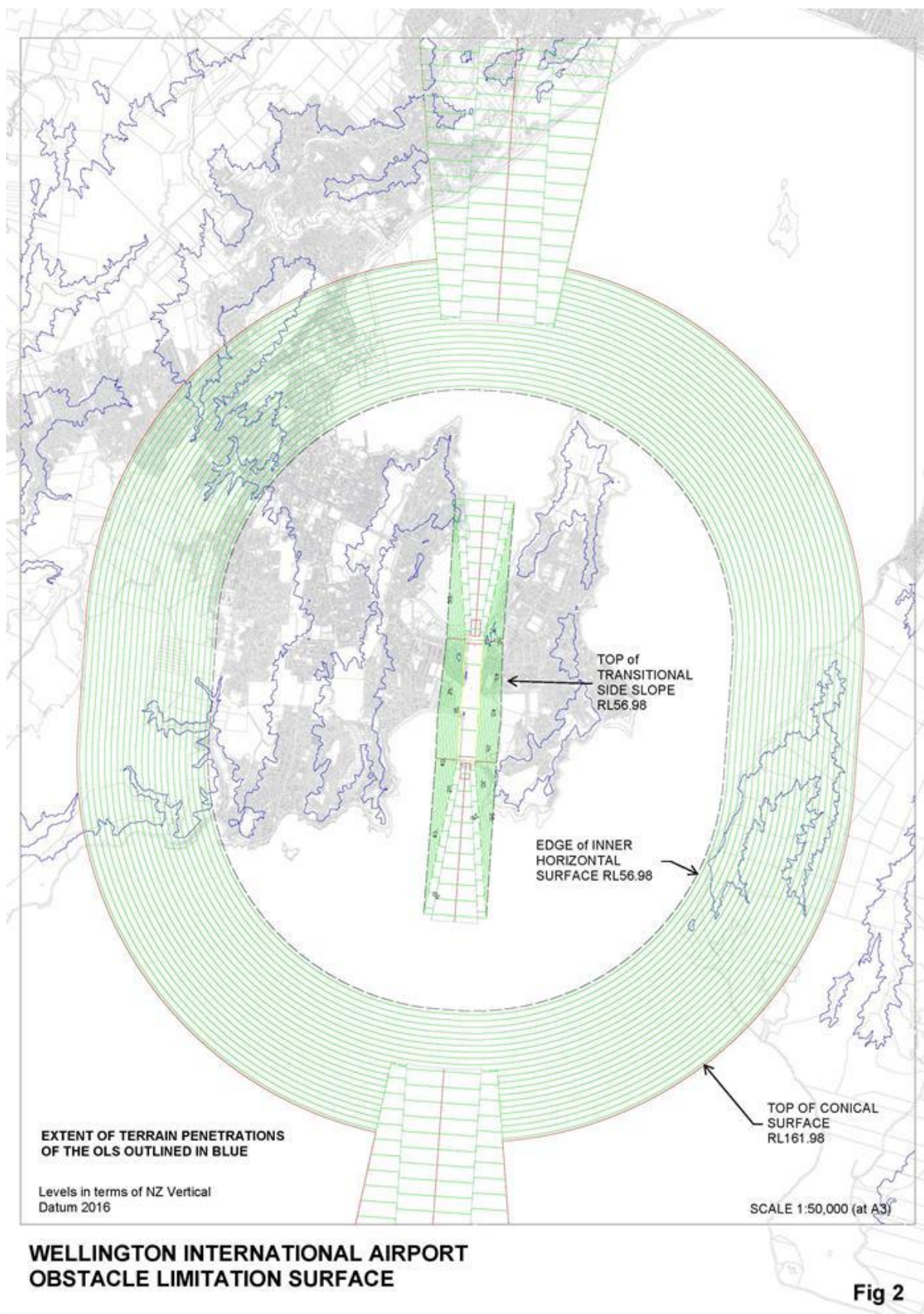
WIAL may request an aeronautical study to inform its decision regarding whether to provide approval for any breach of the conditions pursuant to Section 176 of the RMA.

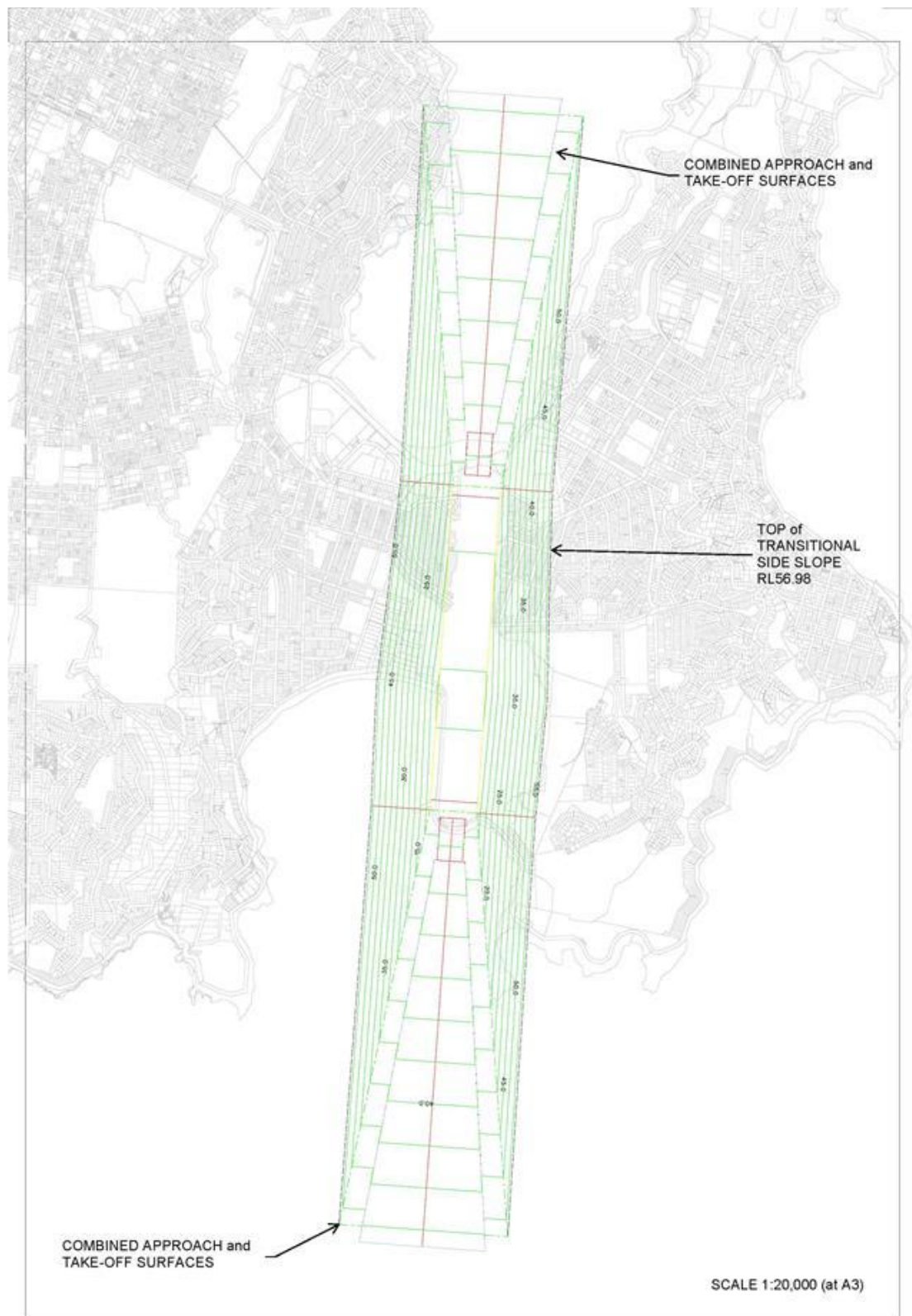
WIAL has developed a geographic information system (GIS) tool, which is available on the District Plan's online interactive Planning Maps to assist in the identification of whether an object or structure would be subject to an Obstacle Limitation Surface as identified in this designation and to provide guidance setting out the process for obtaining an approval for any breach of the conditions pursuant to Section 176 of the RMA.



**WELLINGTON INTERNATIONAL AIRPORT
OBSTACLE LIMITATION SURFACE**

Fig 1





**WELLINGTON INTERNATIONAL AIRPORT
OBSTACLE LIMITATION SURFACE**

Fig 3