

Appendix 9: Te Kowhai Airfield

1 Introduction

This appendix is referred to in the Residential, Village and Rural Zone building rules. The safe operation of aircraft using the Te Kowhai Aerodrome requires that each runway should be provided with take-off climb and approach surfaces such that aeroplanes taking off or landing have a clear obstacle free surface which to carry out the initial part of the climb or final part of the approach. The Civil Aviation Authority of New Zealand has adopted specifications defining the surfaces about and above an Aerodrome which there must be no obstacles. These surfaces are known as obstacle limitation surfaces and are defined in terms of distances from the runway and heights relative to the runways for protection of aircraft in the vicinity of the aerodrome.

The runway is on the following land: Lot 1 DP 434641, Section 8 SO 495676 (Certificates of Title 530701, 755892).

2 Runway and Associated Runway Strip

The runway and associated runway strip is defined as follows:

- (a) Runway: the runway is 923.8 metres long and 18 metres wide.
- (b) Runway strip: the runway is contained within the runway strip. The strip is 983.8 metres long and 60 metres wide.
- (c) The coordinates and elevations of the four corners of the strip in terms of Mount Eden Circuit New Zealand Geodetic Datum 2000 and Moturiki datum are as follows:

mN	mE	Elevation
703839.64	434543.48	25.2
703783.55	434564.78	25.2
704132.77	435484.50	26.6
704188.86	435463.20	26.6

3 Obstacle Limitation Surfaces

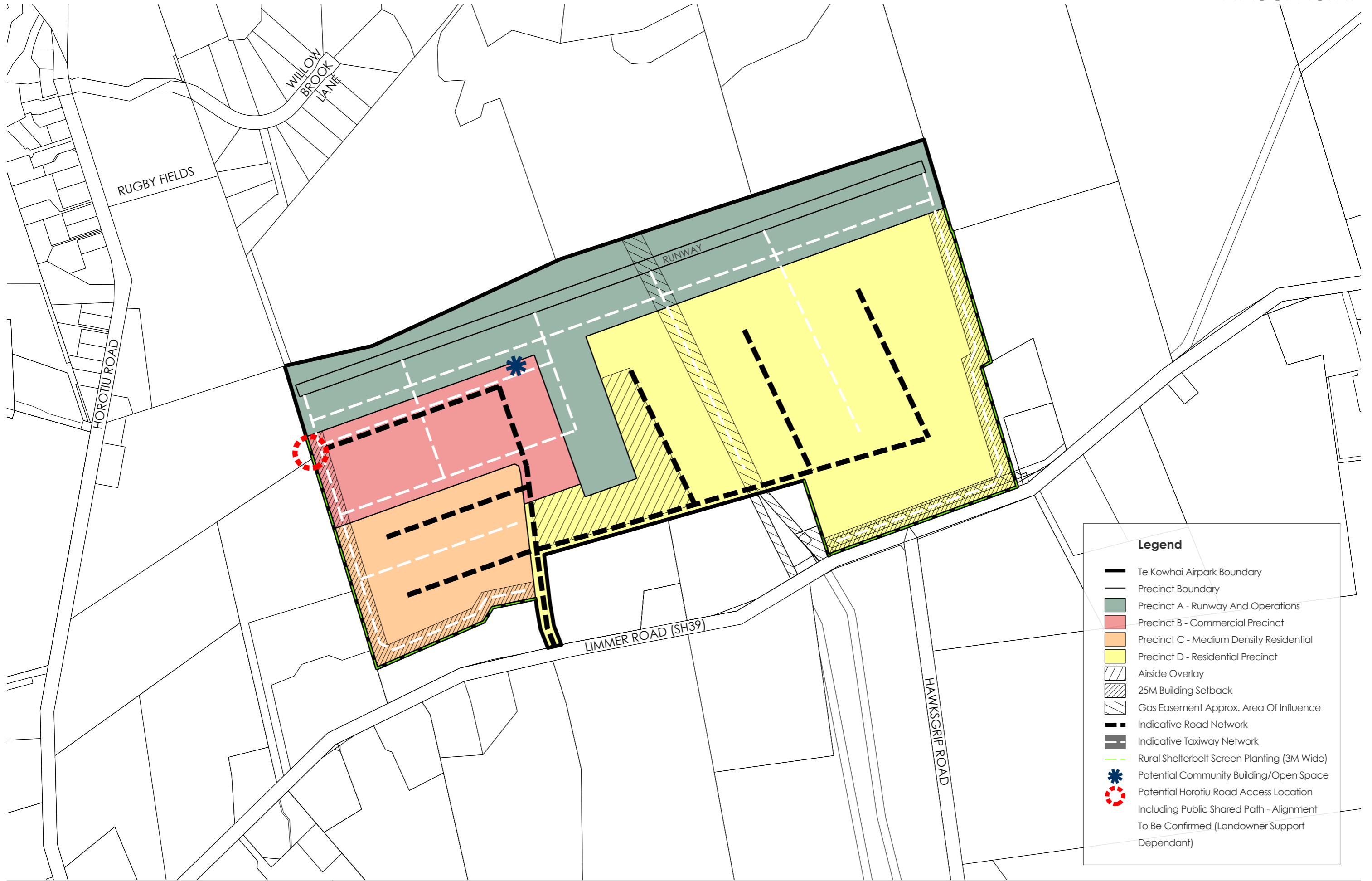
The obstacle limitation surfaces associated with this runway strip are defined as follows:

3.1 Approach Surfaces

There is an approach surface at both ends of the runway strip. Each approach surface is a truncated fan originating from a 60 metres wide base centred at the end of the runway strip. The approach surfaces extend either side of the extended centre line of the runway strip for a horizontal distance of 2500metres (2.5kilometres). Each approach surface rises upwards and outwards at a gradient of 1 vertical to 40 horizontal (1:40); the sides of the approach surfaces splay outwards at a rate of 1 vertical to 10 horizontal (1:10). The base of the western approach surface commences at a height of 25.2metres above Moturiki Datum and the base of the eastern approach surface commences at a height of 26.6metres above Moturiki Datum.

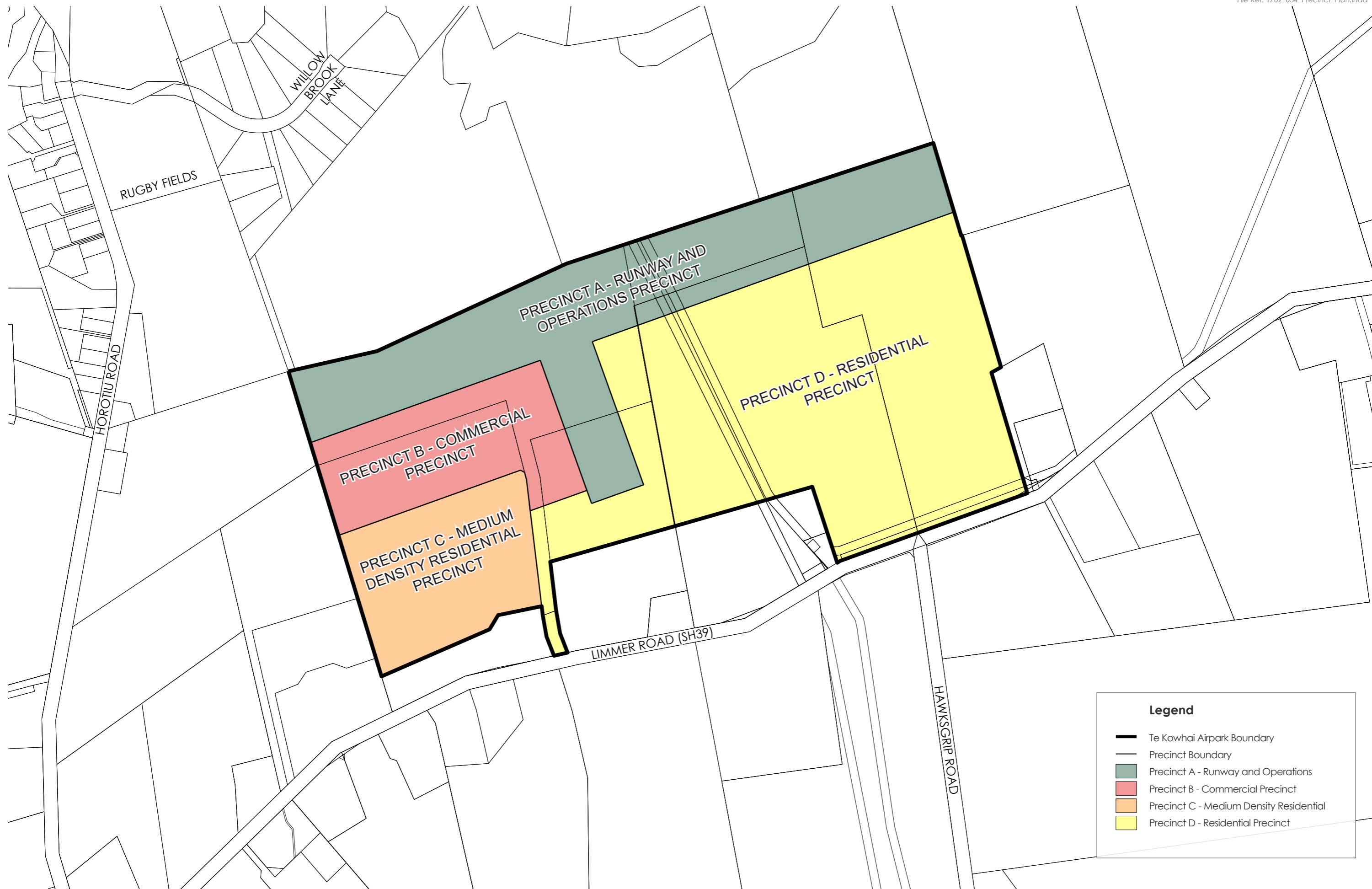
3.2 Transitional Side Surfaces

The transitional side surfaces rise upwards and sideways from the sides of the runway strip and each approach/take-off surface at a gradient of 1 vertical to 5 horizontal (1:5) to a height of 36.6metres above Moturiki Datum. The surface rises vertically from 36.6 metres to 71.6 metres above Moturiki Datum. This 'inner horizontal' surface at 71.6metres is 45 metres above aerodrome level and extends from the runway centre line and end of the runway strip out to a distance of 2500m.



Legend

- Te Kowhai Airpark Boundary
- Precinct Boundary
- Precinct A - Runway And Operations
- Precinct B - Commercial Precinct
- Precinct C - Medium Density Residential
- Precinct D - Residential Precinct
- Airside Overlay
- 25M Building Setback
- Gas Easement Approx. Area Of Influence
- Indicative Road Network
- Indicative Taxiway Network
- Rural Shelterbelt Screen Planting (3M Wide)
- Potential Community Building/Open Space
- Potential Horotiu Road Access Location Including Public Shared Path - Alignment To Be Confirmed (Landowner Support Dependant)



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