

## APPI I – Mercer Airport

### 1. Introduction

This appendix is referred to in the ANOC - Airport noise and obstacle controls chapter. The safe operation of aircraft using the Mercer Airport requires that each runway should be provided with a take-off climb and approach surfaces such that aircraft taking off or landing have a clear obstacle free surface on which to carry out the initial part of the climb or the 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 384812 and Lot 2 DP 384812.

### 2. Runway and associated runway strip

The runway and associated runway strip is defined as follows:

- (1) Runway – the runway is 1190 metres long and 23 metres wide.
- (2) Runway strip – the runway is contained within the runway strip. The strip is 1310 metres long and 80 metres wide.
- (3) The coordinates and elevations of the four corners of the strip in terms of Mount Eden Circuit New Zealand Geodetic Datum 2000 (Horizontal) and Moturiki Datum (Vertical) are as follows:

mN	mE	Elevation
757880.434	431169.034	2.1
757806.489	431138.502	1.6
757380.478	432379.878	2.0
757306.533	432349.346	4.8

### 3. Obstacle Limitation Surface

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

#### *Approach surfaces*

There is an approach surface at both ends of the runway strip. Each approach surface is a truncated fan originating from an 80 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 3000 metres (3.5 kilometres). Each approach surface rises upwards and outwards at a gradient of 1 vertical to 40 horizontal (1:40). The base of the western approach surface commences at a height of 2.0 metres above Moturiki Datum and the base of the eastern approach surface commences at a height of 2.0 metres above Moturiki Datum. The sides of the approach surfaces splay outwards at a rate of 1 vertical to 10 horizontal (1:10).

#### *Transitional side surfaces*

The transitional side surfaces rise upwards and outwards from the sides of each approach

surface at a gradient of 1 vertical to 5 horizontal (1:5) to a height of 47 metres above Moturiki Datum.

*Horizontal Surface*

The horizontal surface is above the main runway with an elevation of 47m above Moturiki Datum. The outer limits are at a locus of 2500 metres, measured from the periphery of the main strip.

*Conical Surface*

The conical surface slopes upwards and outwards from the periphery of the horizontal surface at a gradient of 1 vertical to 20 horizontal (1 in 20) to an elevation of 152m above Moturiki Datum.