

WRAL – Waikato Regional Airport Ltd

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Designation unique identifier	WRAL-I
Designation purpose	Refer below
Site identifier	Refer planning maps
Lapse date	-
Designation hierarchy under section 177 of the Resource Management Act	-
Conditions	Refer below
Additional information	n/a

The safe operation of aircraft using the Hamilton Airport requires that there be obstacle-free air space around the airport. International specifications defining surfaces above which there must be no obstacle have been adopted by the Civil Aviation Authority of New Zealand. These surfaces are known as Obstacle Limitation Surfaces and are defined in terms of distances from the runways and heights relative to the runways.

The planned 2984 metre long main runway and the subsidiary runway and their associated runway strips are defined as follows:

(1) Main Runway

The Proposed Main Runway, once extended, is 2984 metres long (including 188m long starter extensions at each end) and 46m wide.

(2) Main Runway Strip

The Proposed Main Runway is contained within the main strip. The main strip is 2728m long by 300m wide. The coordinates and elevations of the four corners of the main strip, in terms of the Geodetic Datum 2000 - Mt Eden Circuit and the Moturiki Datum, are as follows:

mN	mE	Elevation
689584.61	449606.95	49.85
689500.00	449894.77	49.85
692201.79	450376.50	56.50
692117.17	450664.31	56.50

(3) Existing Subsidiary Runway Strip

The existing Subsidiary Runway Strip is 748m long and 120m wide. The coordinates and elevations of the corners of the subsidiary strip, in terms of the Geodetic Datum 2000 - Mt Eden Circuit and the Moturiki Datum, are as follows:

mN	mE	Elevation
690896.36	449420.14	51.30
690778.96	449445.88	51.30
690951.26	450141.22	52.00
691069.02	450117.51	52.00

(4) Proposed Realigned Subsidiary Runway Strip

It is proposed to realign the existing Subsidiary Runway Strip. The length of the realigned strip will be 720m and the width will remain at 120m. The coordinates and elevations of the realigned subsidiary strip, in terms of the Geodetic Datum 2000 – Mt Eden and the Moturiki Datum, are as follows:

mN	mN	Elevation
690896.36	449420.14	51.30
690778.96	449445.88	51.30
690951.26	450141.22	52.00
691069.02	450117.51	52.00

(5) Horizontal Surface

The horizontal surface is above the main runway with an elevation of 95m Moturiki Datum. The outer limits are at a locus of 4000 metres, measured from the periphery of the main strip.

(6) 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 202m above Moturiki Datum.

(7) Main Strip Takeoff and Approach Surface

There is a combined Takeoff and Approach Surface at both ends of the main strip. Each takeoff and approach surface rises upwards and outwards from the ends of the main strip at a gradient of 1 vertical to 62.5 horizontal (1 in 62.5), commencing at 56.50m above Moturiki Datum at the northern end and 49.85m above Moturiki Datum at the southern end. The takeoff and approach surface extends for a horizontal distance of 15,000m (15km). Each side of the takeoff and approach surface diverges from the extended line of each edge of the main strip at a rate of 15% of the distance from the end of the main strip.

(8) Subsidiary Strip Takeoff and Approach Surface

There is a combined Takeoff and Approach Surface at both ends of the Subsidiary Strip. Each takeoff and approach surface rises upward and outwards from the ends of the subsidiary strip at a gradient of 1 vertical to 20 horizontal (1 in 20) to where it intercepts the horizontal surface. The sides of the takeoff and approach surface diverge from the extended line of each edge of the subsidiary strip at a rate of 10% of the distance from the end of the subsidiary strip.

(9) Transitional Side Surfaces

These rise upwards and outwards from the sides of both the main and the subsidiary strips and the edges of each takeoff and approach surface to intercept the horizontal surface. The transitional slope for the main strip is 1 vertical to 7 horizontal (1 in 7) and the transitional slope for the subsidiary strip is 1 vertical to 5 horizontal (1 in 5). All of the above surfaces are illustrated in the planning maps.

The horizontal, conical, main runway approach surface at the northern end of the main runway and the subsidiary strip approach surface at the eastern end of the subsidiary strip extend into Waikato District. In order to ensure safe and unrestricted operation of aircraft using the airport, no building, object, structure or tree is to extend through or above these surfaces.