

**ROTORUA REGIONAL AIRPORT
DEVELOPMENT STRATEGY
DESIGNATIONS AND PLAN CHANGE**

**VOLUME ONE
OVERVIEW AND STATUTORY FORMS**

Prepared for

**Rotorua District Council
and Rotorua Regional Airport Limited**

By

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December 2005

**ROTORUA REGIONAL AIRPORT
DEVELOPMENT STRATEGY**

**VOLUME 1
OVERVIEW AND STATUTORY FORMS**

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1. INTRODUCTION

1.1 *Background*

Tourism is New Zealand's second largest industry contributing more than \$7.46b annually to the country's gross domestic product.¹ In 2003 the Tourism Research Council (TRCNZ) estimated the total tourist spend in the Rotorua region to be in excess of \$567m. Rotorua and Queenstown are the icons of the tourism industry and the major drawcard for tourists. The lack of airline capacity giving access to the two major icons is a real threat to the sustainability, growth and development of tourism at a national, regional and local level.

Since the early 1990's Rotorua Regional Airport Limited (RRAL) has been under increasing pressure from the tourism industry to increase main runway length to more adequately provide for jet services on the Rotorua / Christchurch / Queenstown tourism route. This pressure increased significantly following the progressive withdrawal of jet services on the Rotorua / Christchurch sector between October 2000 and June 2002. The cessation of Whisper jet services ended fifteen years of jet services in and out of Rotorua. This withdrawal in part occurred because the replacement 737-300's operated by Air New Zealand could not take off on the existing runway length of 1372m without incurring uneconomic weight restrictions. In order to address this problem RRAL completed a 240m runway extension as Stage 1 in March 2003.

As a result of the Stage 1 runway extension Air New Zealand recommenced jet services between Rotorua and Christchurch in December 2003 using a Boeing 737-300. Subsequently Qantas commenced jet services on the same sector from 1 April 2004. The frequency of jet services is subject to the tourist season demands.

Without these jet services the largest aircraft currently servicing Rotorua on a continuous basis would be the ATR 72, which has 66 seats. This aircraft accommodates only one coach load of tourists, whereas many tour groups are made up of two coach loads (80 – 90 passengers). While these groups can be accommodated on one jet aircraft, they require two ATR's to accommodate the same number, leaving part of the group to travel two to three hours later on another aircraft.

Even with the Stage 1 runway extension the airport's long-term future is far from secure because of changing aircraft types (eg. Air New Zealand's recent purchase of Airbus A320 aircraft which may ultimately replace the Boeing 737 300) and the entry of Pacific Blue into the New Zealand aviation market. Further, it is anticipated that Qantas and Pacific Blue will seek to operate B737-700 and B737-800 aircraft on the longer New Zealand domestic sectors.

¹ NZ Tourism Forecasts 2003 – 2009, Summary Document, September 2003, page 5.

The most critical sector for Rotorua Airport operations is the Christchurch to Rotorua segment, a distance of 700 kms. RRAL as a matter of policy has determined that its highest priority is to retain domestic jet services on the Queenstown – Christchurch – Rotorua – Christchurch sector. In order to obtain the maximum operational flexibility it has been determined that a minimum take off distance in both directions of 2007m should be adopted for long term planning purposes at Rotorua.

This design distance is achievable by providing for the following:

- A sealed main runway extension of 487m to the south comprising a 122m long sealed starter extension and a 365m main runway extension; and
- A 150m sealed main runway extension to the north, comprising a 130m starter extension to be used for take-off to the south and a 20m runway extension for landing from the south and take-off.²

How these extensions are accommodated within land owned by RDC and Transit New Zealand land to be designated for airport purposes is shown in Figure 1.1 – *Rotorua Airport – Proposed Plan of Development.*

Implementation of such extensions will create the opportunity to establish trans-Tasman services similar to those currently operating from Queenstown, Dunedin, Palmerston North and Hamilton. In order to compete for and secure these opportunities, the airport infrastructure requires significant upgrading and development. This includes the sealed runway, taxiway, aprons, terminal building, internal roading and parking. A significant component of this work is already completed or under construction.

Inclusive of the proposed runway extensions, the capital works at Rotorua Airport involve a total expenditure of up to \$25M. With this expenditure, the airport will be able to function as the Bay of Plenty Regional Airport, by being able to cater for trans-Tasman narrow body jets of the Airbus A320 and Boeing 737-800 type. Expenditure here will avoid the need to invest up to \$200M (plus or minus 30%) at a new greenfields airport site. It is highly unlikely that wide-bodied jets (B767 equivalent) will operate in the longer term on trans-Tasman sectors other than from the main ports of Auckland, Wellington and Christchurch. The aircraft of choice for provincial ports such as Rotorua will be the B737-800 and A320 (or equivalents) in the medium to long term (up to 20 years). Of these the 737-800 has the longer runway requirement and this aircraft is the design aircraft adopted for all of the proposed expansion works at Rotorua Airport. Airport authorities have a responsibility to protect opportunities for future growth and expansion of their existing airport facilities. In conjunction with each other, RRAL and Rotorua District Council (RDC) have identified a comprehensive development strategy which responds to the issues described above and outlined in Section 4 of Volume 2 – Assessment of Environmental Effects.

² The actual take off run available on runway 18 is 1982m and on runway 36 is 2109m. This variation is because of flight path obstacles.

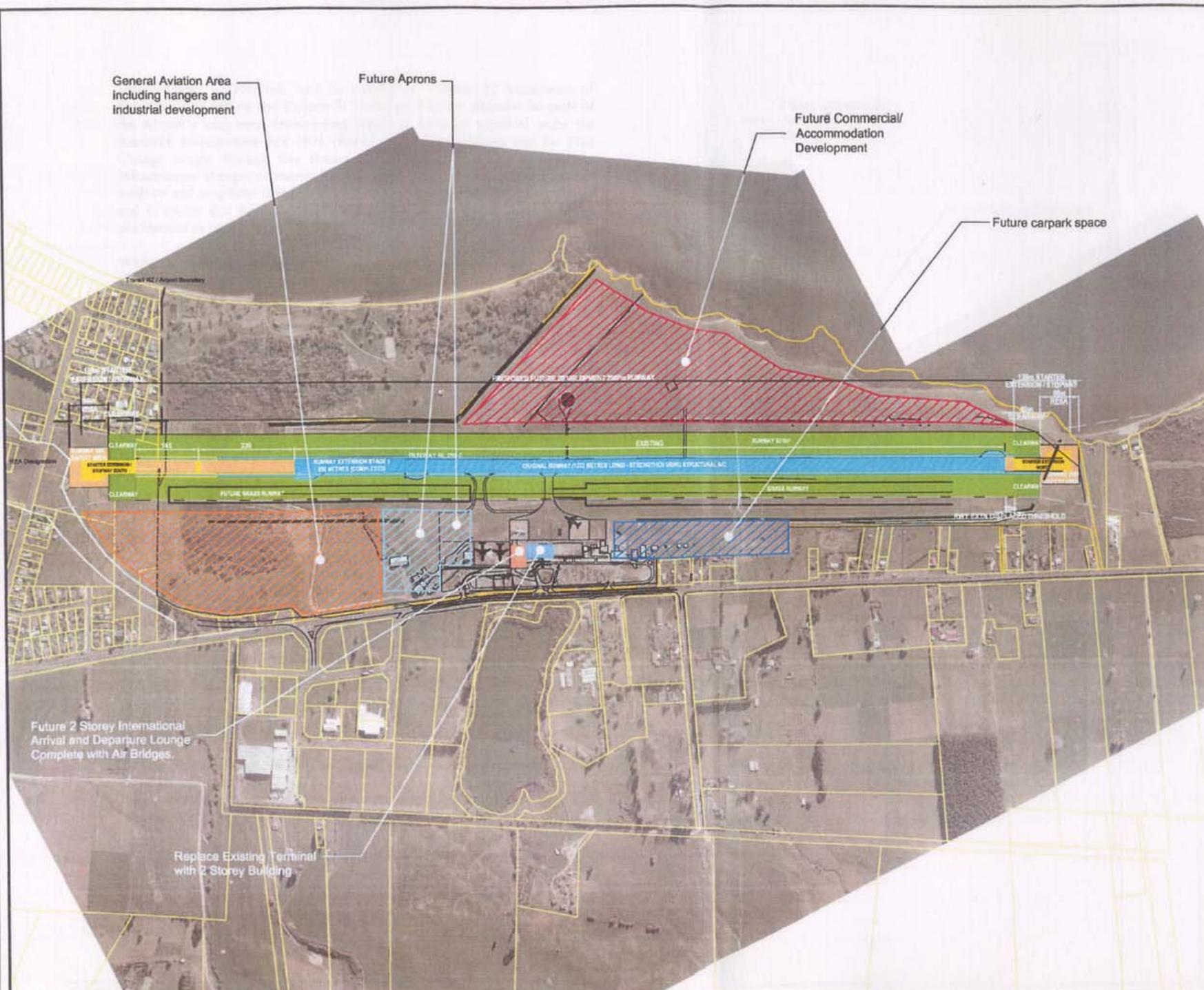


FIGURE 1.1

ROTORUA DISTRICT COUNCIL	
ROTORUA AIRPORT	
PROPOSED PLAN OF DEVELOPMENT	
DESTINATION ROTORUA DISTRICT COUNCIL	DRAWING No. 10146-031 01 01

This Volume 1: Overview, and its companion Volume 2: Assessment of Environmental Effects and Volume 3: Technical Reports: describe the parts of the Airport's long term development requiring statutory approval under the Resource Management Act 1991 (RMA). The Designations and the Plan Change sought through this documentation are provided to address the infrastructure changes necessary for RDC and RRAL to continue meeting the medium and long-term demands placed on the airport by the tourism industry and to ensure that Rotorua maintains its place as one of the leading tourist destinations in New Zealand.

While each volume may be read in isolation, RDC and RRAL recommend that all three volumes be read together for the reader to gain a complete understanding and more detailed description of the proposals.

1.2 RDC and RRAL Objectives & Expansion Programme

RRAL, is a wholly owned Council-controlled trading organisation³ in which the RDC is the sole shareholder.

RDC owns the land and infrastructure associated with the Airport and is responsible for all capital expenditure associated with the Airport, including its expansion.

RRAL leases the land and infrastructure from RDC and is responsible for the operation of the Airport.

RDC and RRAL therefore have a joint role in delivering Airport services and have adopted a joint approach in seeking designations and a plan change that will achieve commonly held objectives for the Airport.

During the lead up to notification of the notices of requirement, some work has been carried out jointly and some by either RDC or RRAL. The outcome of work (including any commissioned reports and the outcome of consultation) is adopted by RRAL when carried out by or for RDC and vice versa.

RRAL's Statement of Intent 2005 - 2008 defines RRAL's mission statement or vision as being:

“A user friendly, attractive airport “hub” which meets the regional need for domestic and trans-Tasman airline services and is a safe, commercially viable operation optimising the social and economic benefits to the community shareholder.”

In interpreting this vision RRAL's priorities are:

³ Pursuant to Part 5 Local Government Act 2002.

- (a) Firstly, the continuation of domestic jet services on the Rotorua / Christchurch / Queenstown route.⁴ This requires a departure-gate lounge to accommodate security screening and two asphalt aprons capable of carrying the additional weight of 737 300 aircraft.
- (b) Of equal importance but second priority is an upgrade of the terminal building to improve its internal and external appearance, passenger comfort, health and safety bringing it up to a standard expected of a major visitor destination and national tourist icon. The terminal is being extended to provide an indoor baggage claim area, departure gate lounge, additional toilets and an airport executive lounge.
- (c) The third priority is to encourage and facilitate the establishment of trans-Tasman services requiring a runway length of 2007m (ie. the existing 1622m runway plus a 365m extension at the south end and 20m at the north end). This, plus a starter extension of 130m at the north end and 122m at the south end, will allow the new generation Boeing 737-800 and Airbus A320 aircraft to operate direct to and from Australia, subject to the provision of new aprons. Plans for a trans Tasman arrivals hall and negotiations for the provision of border control services are to be progressed.
- (d) The fourth priority is to initiate the designation of flight paths and the airport itself and district plan changes to facilitate the development of the Stage II runway extension. RDC and RRAL deem it essential to protect the existing and future flight path requirements and achieve a 'state of readiness' to construct the additional runway length quickly when required.

From these priorities, RDC and RRAL have determined the following overall objectives for this Designation / Plan Change process:

1. To maintain and enhance operating capacity at the Airport, particularly for domestic services on the Rotorua / Christchurch / Queenstown route.
2. To enable sustainable future use of the Airport particularly to accommodate the establishment of trans-Tasman services at Rotorua Airport.
3. To meet international aviation standards and CAA rules in relation to protection of flight paths.
4. To meet international aviation standards and prospective CAA rules in relation to runway end safety areas.
5. To provide for integrated management of noise produced by aircraft using the Airport.

⁴ This objective has now been realised with Air New Zealand reinstating jet services on 1 December 2003 and Qantas commencing services on 1 April 2004 and the apron upgrading works have been completed

6. To provide the community with certainty as to height limits applicable to all properties.
7. To provide the community with certainty as to future noise effects from the Airport.

From an economic growth perspective RDC and RRAL believe that the ‘key’ issues are to achieve and accommodate passenger growth through domestic jet services on the Rotorua / Christchurch / Queenstown route and trans-Tasman services to the east coast cities of Australia. RDC and RRAL’s primary aim is to facilitate the introduction of these services as quickly and efficiently as possible.

A detailed description of the proposed airport works is set out in Section 4 of Volume 2.

1.3 Purpose of this Volume

Essentially the purpose of this Volume is to succinctly describe the intentions of RDC and RRAL as requiring authorities for seeking approval to two designations and for the plan change being initiated by RDC in its regulatory role.

In addition, this Volume contains the relevant statutory forms required for each of the designations and specific details of the plan change proposed to be made to the Operative Rotorua District Plan. (“ODP”).

1.4 Structure of this Volume

Volume 1 is divided into three sections:

- **Introduction** (Section 1): an overview of the background, reasoning and rationale for the proposed designations and plan change;
- **Nature of Designations** (Section 2): a description of the nature and extent of the designations and plan change; and
- **Designation Forms** (Section 3): the designations in their statutory format.

Note: The Plan Change documentation together with the requisite section 32 report is contained in a separately bound document prepared by RDC.

2. NATURE OF THE DESIGNATIONS AND PLAN CHANGES SOUGHT

2.1 *Nature of the Designations Sought*

In order to give effect to the priorities for the Airport, RDC and RRAL propose to seek two designations:

D1. Designation No.1: Rotorua Airport Designation

This designation authorising all current and proposed aviation related activities will be applied to all land required for the sustainable functioning of the airport. The current Airport Zone in the ODP will be retained as the underlying zone and will be extended as necessary to accommodate the future runway extension. The immediately adjacent Airport Protection Zone will be retained but modified slightly as described in Section 2.2 below.

This designation has been introduced to recognise an existing regionally significant and important physical resource.

RDC's particular objectives for the Airport Designation are:

1. To maintain and enhance operating capacity at the Airport, particularly for domestic services on the Rotorua / Christchurch / Queenstown route.
2. To enable growth of the Airport particularly to facilitate the establishment of trans-Tasman services at Rotorua Airport.
3. To meet international aviation standards and prospective CAA rules in relation to runway end safety areas.

D2 Designation No.2: Rotorua Regional Airport Operation and Airport Approach and Take-Off Obstacle Limitation Surfaces Designation

This designation is to be held by RRAL and is divided into two parts.

Part A overlies the same area of land that is the subject of the proposed Rotorua Airport Designation, to be held by Rotorua District Council. The designation is intended to allow the continued operation of the Airport and extensions to it and all activities associated with its operation.

RRAL's particular objectives for Part A of the Airport Operation and Airport Approach and Take-Off Obstacle Limitation Surfaces Designation are:

1. To maintain and enhance operating capacity at the Airport, particularly for domestic services on the Rotorua / Christchurch / Queenstown route.
2. To enable growth of the Airport particularly to facilitate the establishment of trans-Tasman services at Rotorua Airport.
3. To meet international aviation standards and prospective CAA rules in relation to runway end safety areas.

Part B provides protected Obstacle Limitation Surfaces (OLS) for the northern and southern take off and approach paths for the proposed Stage II main runway extension as well as confirming airspace protection of the southern approach and take off paths for the recently completed 250m Stage I main runway extension.

RRAL's particular objectives for Part B of the Airport Operation and Airport Approach and Take-Off Obstacle Limitation Surfaces Designation are:

1. To maintain and enhance operating capacity at the Airport, particularly for domestic services on the Rotorua / Christchurch / Queenstown route.
2. To enable sustainable future use of the Airport particularly to accommodate the establishment of trans-Tasman services at Rotorua Airport.
3. To meet international aviation standards and CAA rules in relation to protection of flight paths.
4. To provide the community with certainty as to height limits applicable to all properties.

Copies of the statutory forms for the designations are contained in Section 3 of this Volume.

2.2 Nature of the Plan Change Sought

A number of complementary changes to the ODP are also proposed. They include:

- Rezoning as "Airport Zone" that part of the "Airport Protection Zone" required to accommodate the Stage II runway extension plus a 90 m runway end safety area (RESA) which will incorporate part of the proposed 122m starter extension. This Airport Zone extension will extend to the eastern side of Williton Road and Transit New Zealand's 'Eastern Arterial' designation. It will be overlaid by the Airport Designation and Part A of the Airport Operation and Airport Approach and Take-off Obstacle Limitation Surfaces Designation.
- A series of amendments to parts of the ODP to incorporate appropriate additions to the objectives and policies of the Plan to

recognise the importance of Rotorua Airport as a significant physical infrastructure resource in the District and the need to both manage the effects of aircraft noise and the effects that activities sensitive to aircraft noise could have on the future operation of the Airport.

- A series of modifications to sections of the ODP to incorporate and specifically refer to the proposed “Air Noise Area” (predicted future aircraft noise greater than Ldn 65 dBA), the “Inner Control Area” (predicted future aircraft noise between Ldn 60 dBA and Ldn 65 dBA) and the “Outer Control Area” (predicted future aircraft noise between Ldn 55 dBA and Ldn 60 dBA) and to establish applicable rules in general accordance with the requirements of NZS 6805:1992 *Airport Noise Management and Land Use Planning*, which both manage the effects of aircraft noise and also manage the effects that activities sensitive to aircraft noise could have on the future operation of the Airport. The Plan Change also proposes to establish a mitigation programme to provide for acoustic treatment by RDC of existing buildings occupied by activities sensitive to aircraft noise within the Air Noise Area and the Inner Control Area.
- The introduction of definitions relevant to the proposed controls on land use and aircraft noise
- A series of more minor amendments to introduce appropriate cross references and rules relating to the controls embodied in the Designations and to the Proposed Plan of Development for the Airport

All these elements are incorporated into one proposed Plan Change. The objectives of the Plan Change are:

1. To maintain and enhance operating capacity at the Airport, particularly for domestic services on the Rotorua / Christchurch / Queenstown route.
2. To enable growth of the Airport and particularly to facilitate the establishment of trans-Tasman services at Rotorua Airport.
3. To provide for integrated management of noise produced by aircraft using the Airport.
4. To provide the community with certainty as to future noise effects from the Airport.

2.3 Reasons for a Combined Designation & Plan Change Approach

In determining how to set about attaining the vision and associated objectives set out in Section 1.2, RDC and RRAL are well aware of the factors which contribute to increased airport usage and the need to have a clearly enunciated and sustainable strategy for future regional airport development. They are conscious of the need to promote and protect such a strategy in a manner

sensitive to the social, economic and environmental effects that such a strategy will have on the surrounding community.

A combination of the designation and plan change approach will allow the widest possible public scrutiny and acceptance while at the same time ensuring:

- (a) that all land directly affected by airport developments as contemplated by the Airport Plan of Development (Figure 1.1) is included within either RRAL (for operational matters) or RDC's designation (for land and infrastructure ownership matters) for the Airport;
- (b) that an airport purposes designation clearly identifies the types of activities appropriate to this regionally important airport;
- (c) the introduction of appropriate approach and take off path controls ensure that the ongoing growth and intrusion of obstacles (particularly trees) are fairly regulated without compromising the operational capability of the airport; and
- (d) the inclusion in the District Plan of appropriate environmental controls on airport activities (particularly aircraft noise) where none currently exist. Rotorua is the only major provincial airport in New Zealand that does not have aircraft noise and land use controls in accordance with NZS 6805, being the nationally recognised standard.

RDC and RRAL anticipate that the outcomes from the combined designation / plan change approach will provide certainty for the community and avoid as far as possible adverse effects such as:

- Ad hoc changes to established land use controls which could give rise to potential for intensification of, or changes to, activities sensitive to aircraft noise within the vicinity of the Airport;
- Effects arising from the actions of individuals as they establish and maintain land use activities on land adjacent to the Airport and then seek to protect their environment from change (such as changes in noise patterns) or seek to secure environmental improvements through restrictions on airport operations (reverse sensitivity issues); and
- Effects of airport activities on the adjacent community without appropriate and accepted environmental controls.

Airports and their various component facilities are not readily relocated or reconfigured due to operational requirements and often significant environmental constraints are imposed by existing land uses around the airport environs. It is therefore essential that the best possible and most practical airport development strategy is adopted and protected from the adverse effects

and influences of the actions of others, while at the same time affording the community the level of protection contemplated by the RMA.

It is also appropriate that RDC and RRAL adopt a long term view of the future of the Airport in order that the opportunities for enhancement and improvement of the facility and compatible activities, can be acted upon as demand requires in a manner that reflects and acknowledges its strategic importance as a key part of the district's and region's physical resources and infrastructure.

3. DESIGNATION FORMS

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NOTICE OF REQUIREMENT FOR DESIGNATION

ROTORUA REGIONAL AIRPORT DESIGNATION

ROTORUA DISTRICT COUNCIL - DESIGNATION NO.1

NOTICE OF REQUIREMENT BY LOCAL AUTHORITY FOR DESIGNATION

**SECTION 168A
RESOURCE MANAGEMENT ACT 1991**

TO: Rotorua District Council (in its capacity as a consent authority)

FROM: Rotorua District Council (in its capacity as the requiring authority with financial responsibility for the ownership of Rotorua Regional Airport)

Private Bag 3029
ROTORUA 3220

NOTICE: Rotorua District Council (“RDC”) gives notice of a requirement for a designation for airport purposes over land currently owned, or to be owned, by RDC as it relates to Rotorua Regional Airport (“Airport”).

RDC gives notice that it requires a new designation to be called **ROTORUA AIRPORT DESIGNATION** to protect the operational capability of the Airport and provide for associated Airport development.

1. **The site to which the requirement applies is as follows:**

The requirement applies to the whole of Rotorua Regional Airport and contains 103.43 hectares of land (more or less). The Airport has frontage to SH30 (Te Ngae Road) on its eastern side, Lake Rotorua on its western side, rural land to the north and residential land to the south. It is currently zoned both ‘Airport’ and ‘Airport Protection’ in the Operative District Plan (“ODP”).

The extent of the proposed Rotorua Airport designation is shown on Figure 3 attached. It comprises the same area of land that is the subject of Part A of the proposed Airport Operation And Airport Approach And Take-Off Obstacle Limitation Surfaces Designation, to be held by Rotorua Regional Airport Limited. The land is legally described as Pt. Lot 1 DPS 49938, Pts. Owhata 4A1B, 4A1A, Pt. Lots 40 & 41 DP 33114, Lots 7, 8, 26 – 31, and 102 DP 36536.

2. **The nature of the proposed designation is:**

The designation applies a requirement across the whole of the Airport in a manner allowing the continued operation and future development of the Airport and all activities associated with its operation as an important physical infrastructure resource to the Rotorua community and the wider regional and national community.

Existing and future Airport development includes existing and future runway extensions, and provision of all infrastructure associated with the Airport including buildings, drainage navigational aids and lighting, within the areas shown on Figure 4 Rotorua Airport – Proposed Plan of Development.

Ancillary aviation related uses of the buildings are for recreation, visitor accommodation, conference and function purposes. Erosion, silting and flood management systems are provided for within the designation.

3. **The nature of the proposed restrictions that would apply are:**

The designation will recognise the current and long-term use of this land for airport related purposes only.

4. **The effects that the public work will have on the environment and the ways in which any adverse effects will be mitigated are:**

The area occupied by the present Airport is zoned 'Airport' in the ODP. All current activities at the Airport are permitted. The Airport will be expanded into an area currently zoned 'Airport Protection' in the ODP.

A detailed Assessment of Environmental Effects ("AEE") accompanying, and forming part of, this Notice of Requirement contains a comprehensive evaluation of the effects of this designation and associated airport expansion. The AEE also, where appropriate, recommends mitigation measures including the introduction of air noise boundary controls to address the effects of airport operations on the surrounding environment.

5. **Alternative sites, routes and methods have been considered to the following extent:**

An extensive consideration of alternative sites, routes and methods has been undertaken over a period of ten years as detailed in the attached AEE (Volume 2) and supporting technical documentation (Volume 3).

On balance RDC believes that short to medium term development of the Airport is in the regional interest and consistent with the needs of Rotorua's tourism industry. It has investigated all reasonable alternatives pursuant to the requirements of the RMA.

6. **The proposed designation is reasonably necessary for achieving the objectives of the requiring authority because:**

The objectives of RDC are:

- To maintain and enhance operating capacity at the Airport, particularly to maintain capacity for domestic services on the Rotorua / Christchurch / Queenstown route.
- To enable sustainable future use of the Airport particularly to accommodate the establishment of trans-Tasman services at Rotorua Airport.
- To meet international aviation standards and prospective CAA rules in relation to runway end safety areas.

The proposed designation is reasonably necessary for achieving those objectives because:

- It provides certainty for the long-term use and management of the Airport.
- The ability to construct a longer runway enables the sustainable future use of the Airport by improving on the existing capacity for domestic services and accommodating the establishment of trans-Tasman services.
- Ensures compliance with international aviation standards and prospective CAA rules in relation to runway end safety areas.

7. **The following resource consents are needed for the proposed activity:**

A resource consent application will be made to Environment Bay of Plenty (EBOP) for earthworks associated with the runway extension at a later date. No other consents are required.

8. **The following consultation has been undertaken with parties that are likely to be affected:**

As further described in section 11 of the AEE, consultation with the Civil Aviation Authority, Rotorua District Council, Rotorua Regional Airport Limited, Iwi and Airways Corporation of New Zealand continues on an ongoing basis.

Discussions and consultation with the affected community have been carried out since November 2003 and have resulted in significant community interest in the Airport expansion issues. Section 11 of the attached AEE sets out a summary of the outcome of community consultation.

9. **RDC attaches the following information required to be included in this notice by the district plan, regional plan, or any regulations made under the Resource Management Act 1991.**

An Assessment of Effects on the Environment (AEE) and the Technical Reports prepared to support the AEE are included in Volumes 2 and 3 attached to this Notice of Requirement. No other additional information is required by the Rotorua District Council.

10. **Extended lapse period sought**

Pursuant to Section 184(1)(c) of the RMA, RDC seeks an extended lapse period of 15 years for the implementation of the proposed designation.

It is noted that the designation will substantially be given effect to immediately on confirmation (under section 184(1)(a)) as it encompasses existing Airport buildings, runways and other components of the Airport Infrastructure). However out of an abundance of caution, a lapse period of fifteen years is

sought in the event this is necessary to enable the runway extension to be constructed within a period when demand is expected to require that facility.

Rotorua District Council
By its Chief Executive Officer:

.....
Date: 15 December 2005

Address for Service on the Requiring Authority:

ZoMac Planning Solutions Ltd
P O Box 103
WHANGAPARAOA 1463

Telephone: 09 428 2101
Facsimile: 09 428 2102

General Aviation Area including hangers and industrial development

Future Aprons

Future Commercial/ Accommodation Development

Future carpark space

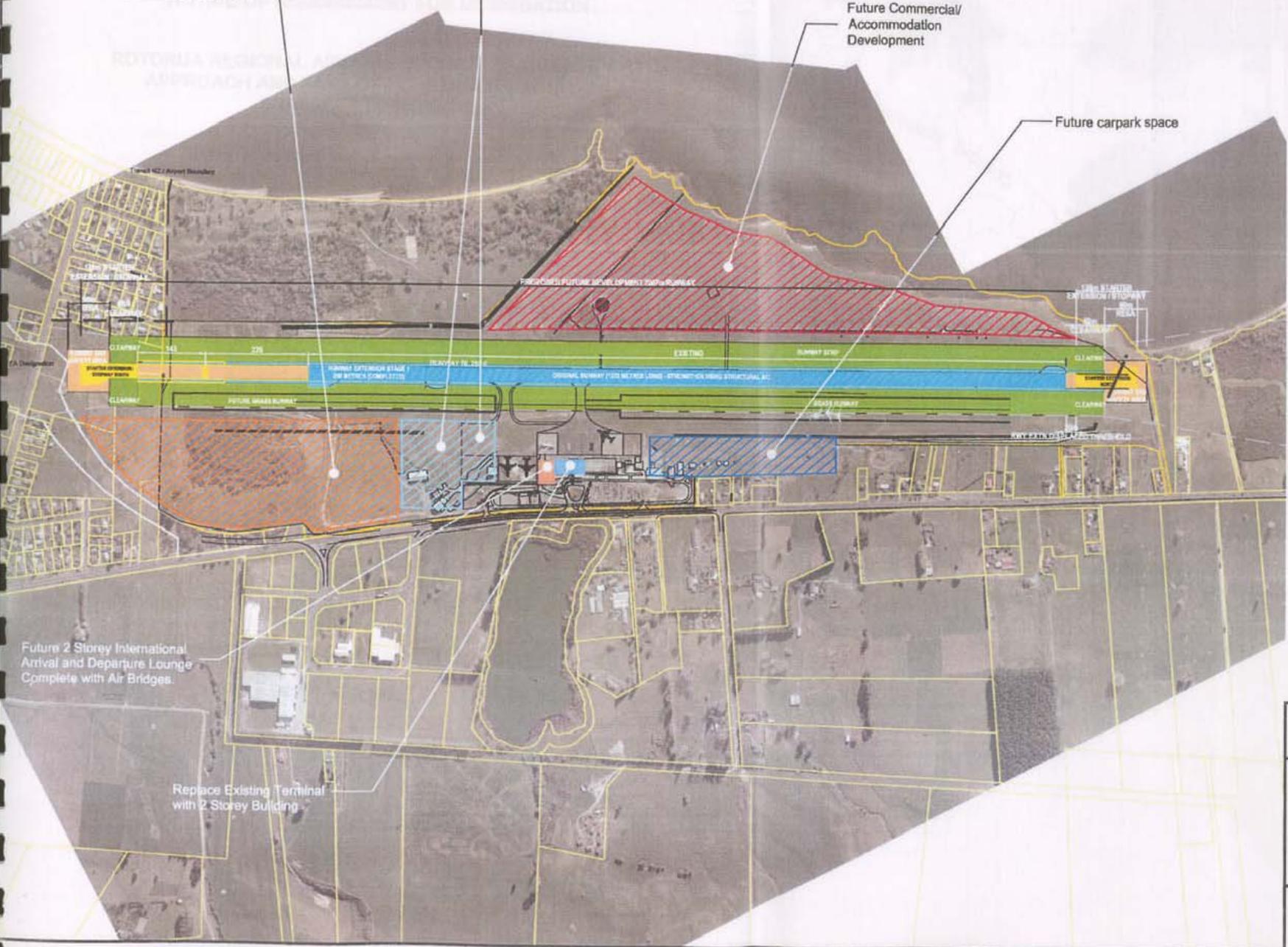


FIGURE 4

ROTORUA DISTRICT COUNCIL

ROTORUA AIRPORT

PROPOSED PLAN OF DEVELOPMENT



DRAWING No.
10146-031
 01 01

NOTICE OF REQUIREMENT FOR DESIGNATION

**ROTORUA REGIONAL AIRPORT OPERATION AND AIRPORT
APPROACH AND TAKE-OFF OBSTACLE LIMITATION
SURFACES DESIGNATION**

ROTORUA REGIONAL AIRPORT LIMITED - DESIGNATION NO.2

**NOTICE OF REQUIRING AUTHORITY'S REQUIREMENT FOR
DESIGNATION**

**SECTION 168
RESOURCE MANAGEMENT ACT 1991**

TO: Rotorua District Council

FROM: Rotorua Regional Airport Limited (a requiring authority in respect of the operation of Rotorua Regional Airport)
P O Box 7221
Te Ngae
ROTORUA

NOTICE: Rotorua Regional Airport Limited ("RRAL") gives notice of a requirement for a designation in respect of:

Part A all operational aspects of the Rotorua Regional Airport ("Airport") including expansions to the existing Airport; and

Part B airspace protection in the vicinity of the Airport, by defining essential obstacle limitation surfaces ("OLS") for the protection of aircraft flight paths. (Figures 1 and 2 **attached** (which form part of the Requirement) show these surfaces in plan view).

Both Parts being for the safe and efficient operation of Rotorua Regional Airport

The designation is to be called **THE AIRPORT OPERATION AND AIRPORT APPROACH AND TAKE-OFF OBSTACLE LIMITATION SURFACES DESIGNATION.**

This Notice gives details in respect of Parts A and B separately but forms one requirement.

PART A – AIRPORT OPERATION

A1 The site to which the requirement applies is as follows:

The requirement applies to the whole of Rotorua Regional Airport and extensions to it and contains 103.43 hectares of land (more or less). The Airport has frontage to SH30 (Te Ngae Road) on its eastern side, Lake Rotorua on its western side, rural land to the north and residential land to the south. It is currently zoned both 'Airport' and 'Airport Protection' in the Operative District Plan ("ODP").

The extent of Part A of the proposed Airport Operation And Airport Approach And Take-Off Obstacle Limitation Surfaces Designation is shown on Figure 3

attached to the Rotorua Airport Designation. It overlies the same area of land that is the subject of the proposed Rotorua Airport Designation, to be held by Rotorua District Council. The land is legally described as Pt. Lot 1 DPS 49938, Pts. Owhata 4A1B, 4A1A, Pt. Lots 40 & 41 DP 33114, Lots 7, 8, 26 – 31, and 102 DP 36536.

A2. The nature of the proposed designation is:

The designation applies a requirement across the whole of the Airport in a manner allowing the continued operation of the Airport and extensions to it and all activities associated with its operation as an important physical infrastructure resource to the Rotorua community and the wider regional and national community.

Existing and future airport operations include existing and future aircraft operations: domestic jet aircraft traffic, rotary wing aircraft operations, aircraft servicing, fuel storage and general aviation activities together with associated activities, including navigational aids and lighting, within the areas shown on Figure 4 Rotorua Airport – Proposed Plan of Development.

The grassed areas are managed and maintained to avoid aggregation of birds and to satisfy airport operational requirements.

A3. The nature of the proposed restrictions that would apply are:

The designation will recognise the current and long-term use of this land for airport operation related purposes only.

A4. The effects that the public work will have on the environment and the ways in which any adverse effects will be mitigated are:

The area occupied by the present Airport is zoned ‘Airport’ in the ODP. All current activities at the Airport are permitted. The Airport will be expanded into an area currently zoned ‘Airport Protection’ in the ODP.

A detailed Assessment of Environmental Effects (“AEE”) accompanying, and forming part of, this Notice of Requirement contains a comprehensive evaluation of the effects of this designation and associated airport expansion. The AEE also, where appropriate, recommends mitigation measures including the introduction of air noise boundary controls to address the effects of airport operations on the surrounding environment.

A5. Alternative sites, routes and methods have been considered to the following extent:

An extensive consideration of alternative sites, routes and methods has been undertaken over a period of ten years as detailed in the attached AEE (Volume 2) and supporting technical documentation (Volume 3).

On balance RRAL believes that preserving the operational capacity of the Airport by short to medium term development of the airport facilities is in the regional interest and consistent with the needs of Rotorua's tourism industry. It has investigated all reasonable alternatives pursuant to the requirements of the RMA in conjunction with the Rotorua District Council.

A6. The proposed designation is reasonably necessary for achieving the objectives of the requiring authority because:

The objectives of RRAL are:

- To maintain and enhance operating capacity at the Airport, particularly to maintain capacity for domestic services on the Rotorua / Christchurch / Queenstown route.
- To enable sustainable future use of the Airport particularly to accommodate the establishment of trans-Tasman services at Rotorua Airport.
- To meet international aviation standards and prospective CAA rules in relation to runway end safety areas.

The proposed designation is reasonably necessary for achieving those objectives because:

- It provides certainty for RRAL for the long-term operation and management of the Airport.
- The ability to operate on a longer runway enables the sustainable future use of the Airport by improving on the existing capacity for domestic services and accommodating the establishment of trans-Tasman services.
- Ensures compliance with international aviation standards and prospective CAA rules in relation to runway end safety areas.

A7. The following resource consents are needed for the proposed activity:

No other consents are required.

A8. The following consultation has been undertaken with parties that are likely to be affected:

As further described in section 11 of the AEE, consultation with the Civil Aviation Authority, Rotorua District Council, Iwi and Airways Corporation of New Zealand continues on an ongoing basis.

Discussion and consultation with the affected community has been carried out since November 2003 and has resulted in significant community interest in the Airport expansion issues. Section 11 of the attached AEE sets out a summary of the outcome of community consultation.

- A9. **RRAL attaches the following information required to be included in this notice by the district plan, regional plan, or any regulations made under the Resource Management Act 1991.**

An Assessment of Effects on the Environment (AEE) and the Technical Reports prepared to support the AEE are included in Volumes 2 and 3 attached to this Notice of Requirement. No other additional information is required by the Rotorua District Council.

PART B – AIRPORT APPROACH AND TAKE-OFF OBSTACLE LIMITATION SURFACES DESIGNATION

- B1. **The site to which the requirement applies is as follows:**

Airspace above Rotorua Airport and part of the surrounding Rotorua District (as more particularly detailed in Figures 1 and 2, attached).

The height restrictions used in this notice are based on Civil Aviation Authority (“CAA”) Rule Part 139.51 and the associated Advisory Circular AC 139-06A “Aerodrome Design – Aeroplanes above 5,700kg” specifications for OLS applicable to code 4C aircraft operating from an instrument non-precision runway.¹ All elevations are provided in metres above mean sea level (“AMSL”) unless otherwise stated.

It is proposed to extend the existing sealed runway (1622m long x 30m wide) by a total of 487m to the south, including a 122m starter extension to be used only for takeoff to the north and 145m of sealed runway to be used only for landing from the north and take-off. In addition it is proposed to extend the existing sealed runway by a total of 150m to the north, including a 130m starter extension to be used only for takeoff to the south and 20m of sealed runway to be used only for landing from the south and take-off.

For the purpose of determining the scope and extent of the airspace controls an overall runway length of 2259m including starter extensions has been adopted. The runway identification is 18/36, runway 18 being for takeoffs to the south and landings from the north, and runway 36 the opposite. A grass runway running parallel to the main runway and 833m x 50m has the same identification.

- B2. **The nature of the proposed designation is:**

B2.1 General

CAA rule Part 139.51 requires an airport operator to provide OLS around the airport to ensure the safe operation of aircraft approaching and departing the airport. This is done by means of height controls based on a series of

¹ The CAA uses a coding system that defines the airport operational requirements for aircraft based on their size and takeoff performance. Under this system the Boeing 737 and Airbus A320 are defined as code 4C aircraft

geometric surfaces projecting up from the edges of the strip which surrounds the sealed runway, the intention being to prevent structures and trees from penetrating these surfaces in areas critical to operational safety and efficiency.

CAA Advisory Circular AC 139-06A provides details on the extent of the OLS. The surfaces adopted for Rotorua Regional Airport are for an instrument non-precision runway able to accommodate aircraft up to Code 4C in size.

Figures 1 and 2 and the following description are a part of this Notice of Requirement. This requirement protects Rotorua 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 in recognition of its role as an integral part of the national aviation infrastructure.

A ‘user-friendly’ explanatory guide as to how these height controls work in practice is attached at the end of this Notice of Requirement.

B2.2 Height Restrictions

Height restrictions will apply to objects including buildings, structures, masts, poles and trees under the OLS as described below.

(a) Runway, strip and OLS inner edges

The main runway is to be extended to the north by a total of 150m, which includes a 130m starter extension and 20m of sealed runway that is only available for takeoff on runway 18, landing on runway 36 and take-off.

The main runway is also to be extended to the south by a total of 487m, which includes a 122m starter extension and 365m of sealed runway that is only available for takeoff on runway 36, landing on runway 18 and take-off.

The runway will be contained within a rectangular strip with edges 75m either side of and parallel to the runway centreline. For the purpose of this NOR, the strip ends are co-incident with the OLS inner edge locations at each end of the runway.

The take-off and approach OLS commence from an “inner edge” that crosses the runway centreline at right angles at the following survey locations:²

	Northing m	easting m	AMSL m
North end inner edge	662193.69	287211.57	284.81
South end inner edge	660415.16	286383.14	286.00

² Survey co-ordinates are referenced to the Bay of Plenty (49) circuit.

(b) Northern Take-off OLS

There are two northern takeoff paths and two corresponding takeoff OLS.

Both takeoff OLS commence at the north end inner edge location. The surface edges commence at each end of the inner edge, located 90m either side to the runway centreline and rise at a gradient of 2.0% (1:50) over a horizontal distance of 15,000m.

(i) Turning Take-off (refer to figure 1 path 7a)

The surface edges diverge from each end of the inner edge at a rate of 12.5% (1:8) to a final width of 1800m (900m either side of the surface centreline).

The surface centreline follows the extended runway centreline north to a point 1,716m from the inner edge. At this point the surface steps down 4.6m in height and its centreline commences a left turn of radius 1,620m through an arc of 80 degrees. The surface centreline then steps up 4.6m and continues straight for a further 11,022m to a total distance of 15,000m from the inner edge measured along the surface centreline.

(ii) Straight-ahead Take-off (refer to figure 1 path 8a)

The surface edges diverge from each end of the inner edge at a rate of 12.5% (1:8) to a final width of 1200m (600m either side of the surface centreline). The surface centreline follows the extended runway centreline over its full 15,000m length.

(c) Northern Approach OLS

There are two northern approach paths and two corresponding approach OLS.

Both approach OLS commence at the north end inner edge location. The surface edges commence at each end of the inner edge, located 75m either side of the runway centreline.

(i) Straight-in Approach (refer to figure 1 path 10a)

The straight-in approach surface from the north commences at the inner edge and rises at a gradient of 2.0% (1:50) over a horizontal distance of 15,000m.

The surface edges diverge from each end of the inner edge at a rate of 15.0% (1:6.6) to a final width of 4650m (2325m either side of centreline).

The surface centreline follows the extended runway centreline over its full 15,000m length.

(ii) Curved Approach (refer to figure 1 path 9a)

The curved approach surface from the north commences at the inner edge and rises at a gradient of 2.5% (1:40) over a horizontal distance of 3,243m, extending to the edge of the lakeshore. The surface edges diverge from each end of the inner edge at a rate of 10% (1:10) to a final width of 799m.

The surface centreline follows the extended runway centreline to a point 1,716m from the inner edge. At this point the surface centreline commences a left turn of radius 1,067m through an arc of 82 degrees at which point the surface ends.

(d) Southern Take-off OLS (refer to figure 1 path 2b)

The southern take-off OLS commences at the south end inner edge and rises at a gradient of 2.0% (1:50) over a horizontal distance of 15,000m. The surface edges commence at each end of the inner edge, located 90m either side of the runway centreline.

The surface edges diverge from each end of the inner edge at a rate of 12.5% (1:8) to a final width of 1800m (900m either side of the surface centreline).

The surface centreline follows the extended runway centreline south to a point 946m from the inner edge. At this point the surface steps down 4.6m in height and its centreline commences a right turn of radius 2,480m through an arc of 185 degrees. The surface centreline then steps up 4.6m and continues straight for a further 6046m to a total distance of 15,000m from the inner edge measured along the surface centreline.

(e) Southern Approach OLS

There are two southern approach paths and two corresponding approach OLS.

Both approach OLS commence at the south end inner edge. The surface edges commence at each end of the inner edge, located 75m either side to the runway centreline.

(i) Straight-in Approach (refer to figure 1 path 4b)

The straight-in approach surface from the south commences at the inner edge and rises at a gradient of 2.0% (1:50) over a horizontal distance of 15,000m.

The surface edges diverge from each end of the inner edge at a rate of 15.0% (1:6.6) to a final width of 4650m (2325m either side of centreline).

The surface centreline follows the runway extended centreline to a point 1,318m from the inner edge. At this point the surface skews 14°59' to the

west of the extended runway centreline (effectively a clockwise rotation of 14°59') and continues straight for a further 13,682m.

(ii) Curved Approach (refer to figure 1 path 6b)

The curved approach surface from the south commences at the inner edge and rises at a gradient of 2.5% (1:40) over a horizontal distance of 9,109m, extending to the edge of the lake shore. The surface edges diverge from each end of the inner edge at a rate of 10% (1:10) to a final width of 1,972m.

The surface centreline follows the extended runway centreline to a point 1,318m from the inner edge. At this point the surface centreline commences a right turn of radius 2,480m through an arc of 180 degrees.

(f) Transitional Side Surface (refer to figure 2)

The transitional side surface extends from the side of the strip upwards and outwards at a gradient of 1:7 until it reaches the inner horizontal surface. North of the inner edge location, the transitional side surface extends to meet the outer edge of the straight-in approach path 10a OLS such that the outer edge of the side surface meets the outer edge of path 10a OLS 2,250m from the inner edge, measured along the centreline of path 10a.

(g) Inner Horizontal Surface (refer to figure 1)

The inner horizontal plane is located at a height of 330m above mean sea level (45m above the runway reference height) and extends out to a distance of 4000m measured from the periphery of the runway strip.

(h) Conical Surface (refer to figure 1)

The conical surface slopes upward and outward from the periphery of the inner horizontal surface rising at a gradient of 5.0% (1:20) to a height of 435m AMSL (150m above the runway reference height).

Note: The inner horizontal and conical surfaces are penetrated by terrain and existing trees and structures predominantly to the south and east of the runway. RRAL, at its discretion, may permit further penetration of the surfaces by trees and structures in this area.

B3. The nature of the proposed restrictions that would apply are:

No object, including any building, structure, mast, pole or tree, shall penetrate any of the approach surfaces, horizontal surfaces and the surrounding conical surfaces or the transitional surfaces shown in Figures 1 and 2, **except with the prior approval of Rotorua Regional Airport Limited.**

B4. The effects that the public work will have on the environment, and the ways in which any adverse effects will be mitigated are:

No physical works are proposed but restrictions on land use activities underneath the OLS will apply. The reasons for restrictions are explained in B5 below, in the attached explanatory guide and in section 9 of the AEE.

B5. Alternative sites, routes and methods have been considered to the following extent:

Alternatives are considered in detail at section 3 of the Assessment of Environmental Effects.

CAA Advisory Circular AC139-06A details the OLS that are required to be adopted by an airport authority. The surfaces are designed to provide sufficient airspace in the vicinity of an airport for the safe operation of aircraft during take-off and landing manoeuvres. The approach and take-off OLS are requirements for obstacle height restrictions; they do not define the height of the aircraft above the ground during normal aircraft operations.

Airspace designation is essential for the safe operation of the airport. Section 168 of the RMA gives requiring authorities power to impose restrictions on “airspace” which is not specifically identified as a function of territorial authorities in respect of district plans, although control of effects of any land use could give rise to an airspace restriction.

Airport OLS controls, as prescribed by the CAA based on requirements of the International Civil Aviation Organisation (“ICAO”) are used universally for all airports in New Zealand. AC 139-06A states that “*obstacle limitation surfaces are necessary to enable aircraft to maintain a satisfactory level of safety while manoeuvring at low altitude in the vicinity of the aerodrome.*” This is achieved by adopting appropriate internationally recognised standards to control and protect the airspace required for aircraft operations. The standards define OLS, based on AC139-06A, Chapter 4 standards for a Code 4C instrument non-precision runway.

There are no alternative flight paths available. Flight paths around the airport, on which the OLS are based, are constrained by the terrain. ICAO and CAA requirements dictate, for safety reasons, that aircraft flight paths must be reasonably aligned with the runway direction while the aircraft is close to the ground during takeoff and landing. When the aircraft has sufficient height turns may be performed, but the radius of turn and consequently the size of the flight path area is constrained by aircraft and bank angle limitations.

It has been determined that, consistent with practice at other New Zealand airports, an airspace designation is the most effective means of ensuring the OLS remain free of obstacles.

The airspace designation places restrictions on land up to 6,100m from the runway and in particular land close to the end of the runways under aircraft approach and take-off paths. Designation of these controls provides RRAL with certainty of management of the airspace in the vicinity of the airport which zoning or other techniques do not. It is important for these technical controls to be administered by airport management as the airport administrators have an in-depth understanding of aircraft operations, flight paths, circling patterns and any impact on these which may occur through the erection of structures within the airport's sphere of influence. Penetration of OLS minimises the volume of airspace available for aircraft manoeuvring in the proximity of an airport. The surface dimensions are designed to enable the aircraft to maintain a satisfactory level of safety under a variety of operational manoeuvres such as missed approach, circling, approach and take-off.

B6. The proposed designation is reasonably necessary for achieving the objectives of the requiring authority because:

The objectives of the requiring authority are:

- To maintain and enhance operating capacity at the Airport, particularly to maintain capacity for domestic services on the Rotorua / Christchurch / Queenstown route.
- To enable sustainable future use of the Airport particularly to accommodate the establishment of trans-Tasman services at Rotorua Airport.
- To meet international aviation standards and CAA rules in relation to protection of flightpaths.
- To provide the community with certainty as to height limits applicable to all properties.

The proposed designation is reasonably necessary for achieving those objectives because:

- It is the most effective method of achieving the safety obligations placed on the Airport by CAA rules, thereby maintaining the Airport's operating capacity;
- It provides certainty for the long-term management of the Airport;
- It provides the most effective method of controlling obstacle heights around the Airport thereby assuring the safe operation of aircraft using the Airport for the long-term;
- It provides the community with clear indications of the height limits applicable to all properties.

B7. The following resource consents are needed for the proposed activity:

None.

B8. The following consultation has been undertaken with parties that are likely to be affected:

As further described in section 11 of the Assessment of Environmental Effects, consultation with the CAA, Rotorua District Council, Iwi and the Airways Corporation of New Zealand continues on an ongoing basis.

Discussions and consultation with the affected community have been carried out since November 2003 and have resulted in significant community interest in the Airport expansion issues.

B9. RRAL attaches the following information required to be included in this notice by the district plan, regional plan, or any regulations made under the Resource Management Act 1991.

An explanatory statement and figures are attached. Additional information including an Assessment of Effects on the Environment (AEE) and the Technical Reports prepared to support the AEE are included in Volumes 2 and 3 are attached and form part of this Notice of Requirement.

A&B10. Extended lapse period sought

Pursuant to Section 184(1)(c) of the RMA, RDC seeks an extended lapse period of 15 years for the implementation of the proposed designation.

It is noted that the designation will substantially be given effect to immediately on confirmation (under section 184(1)(a)) as it encompasses existing Airport buildings, runways and other components of the Airport Infrastructure). However out of an abundance of caution, a lapse period of fifteen years is sought in the event this is necessary to enable the runway extension to be constructed and operated within a period when demand is expected to require that facility.

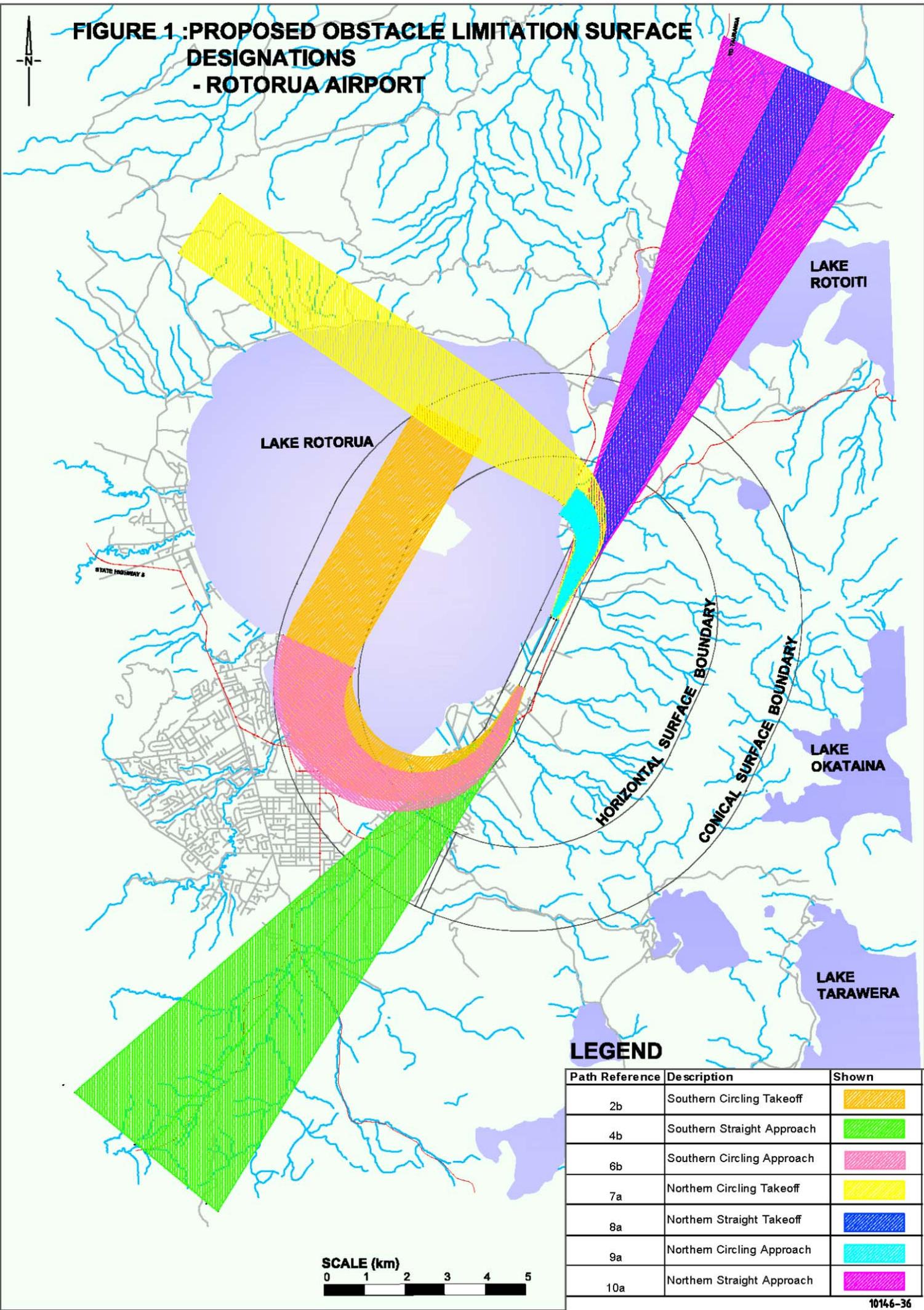
Rotorua Regional Airport Limited
By its Chief Executive Officer:

Date: 15 December 2005

Address for Service on the Requiring Authority:
ZoMac Planning Solutions Ltd
P O Box 103
WHANGAPARAOA 1463

Telephone: 09 428 2101
Facsimile: 09 428 2102

**FIGURE 1 :PROPOSED OBSTACLE LIMITATION SURFACE DESIGNATIONS
- ROTORUA AIRPORT**

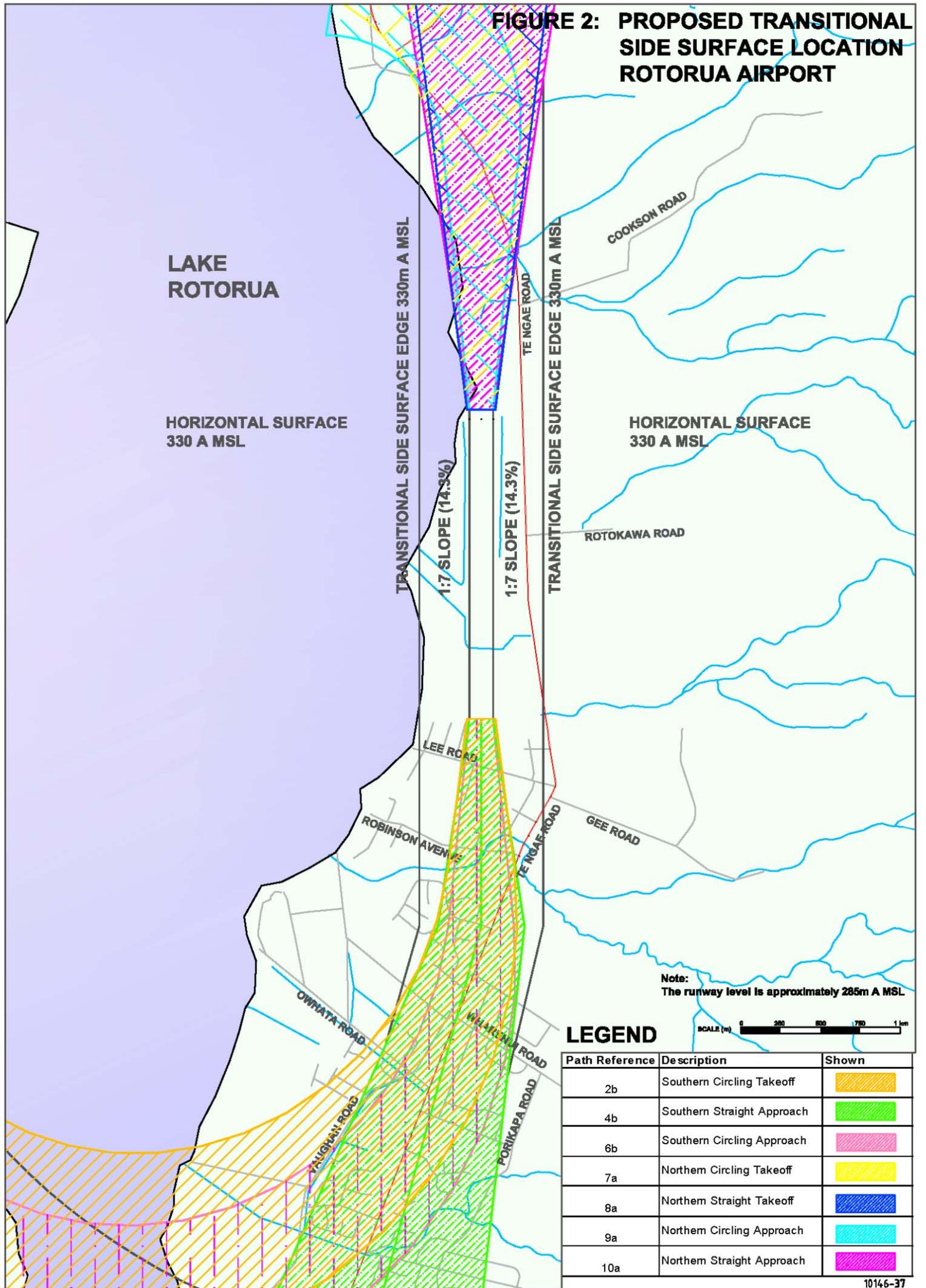


LEGEND

Path Reference	Description	Shown
2b	Southern Circling Takeoff	
4b	Southern Straight Approach	
6b	Southern Circling Approach	
7a	Northern Circling Takeoff	
8a	Northern Straight Takeoff	
9a	Northern Circling Approach	
10a	Northern Straight Approach	



FIGURE 2: PROPOSED TRANSITIONAL SIDE SURFACE LOCATION ROTORUA AIRPORT



LAKE ROTORUA

HORIZONTAL SURFACE 330 A MSL

TRANSITIONAL SIDE SURFACE EDGE 330m A MSL

1:7 SLOPE (14.3%)

1:7 SLOPE (14.3%)

TRANSITIONAL SIDE SURFACE EDGE 330m A MSL

COOKSON ROAD

TE NGAE ROAD

HORIZONTAL SURFACE 330 A MSL

ROKAWA ROAD

LEE ROAD

ROBINSON AVENUE

GEE ROAD

TE NGAE ROAD

OWATA ROAD

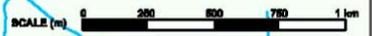
VAUGHAN ROAD

WAIKAWA ROAD

PORIKAPA ROAD

Note: The runway level is approximately 285m A MSL

LEGEND



Path Reference	Description	Shown
2b	Southern Circling Takeoff	
4b	Southern Straight Approach	
6b	Southern Circling Approach	
7a	Northern Circling Takeoff	
8a	Northern Straight Takeoff	
9a	Northern Circling Approach	
10a	Northern Straight Approach	