

# URBAN DESIGN & LANDSCAPE ASSESSMENT

Wellington International Airport Ltd

## Notice of Requirement for Designation

### East Side Area



Applicant: Wellington International Airport Ltd

Address: Miramar, Wellington

By: Robin Simpson  
Urban Designer, Landscape Architect

Date: 26 April 2021

For: Wellington City Council

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## Assessment Summary

Wellington Airport, operated by Wellington International Airport Limited (WIAL), is significant regional infrastructure. This Notice of Requirement (NoR) is to designate an c.15.6 ha area currently occupied by the Miramar Golf Course and referred to as the East Side Area (ESA). This is to expand airport operations and enable WIAL to respond to projected future expansion and changes to aircraft. It is recommended that this NoR be considered at the same time as the Main Site NoR given continuity of the sites, shared activities and interdependent functions.

This is a separate Urban Design and Landscape assessment for effects of the NoR for the ESA. The overall context is covered in Part A of my Urban Design and Landscape assessment of the Main Area. The two assessments need to be read together to “complete the picture” for the overall proposal by the Airport.

The Wellington 2040 Masterplan, for which the NoR ESA is submitted essentially enables and expansion of airport activities and associated airside infrastructure closer to the residential communities to the east than it is currently. This has a significant negative effect through loss of residential amenity to the closest streets, Bunker Way, Raukawa Street and Kekerenga Street in Strathmore Park. The magnitude of effects diminishes with distance away from proposed the Airport boundary. Seatoun Heights for instance is considered to have a low level of effect to visual amenity.

Fundamentally, these public works extend available flat land through earthworks, to provide level land for taxiway and aircraft standing. Excavation into the hillslope to the southeast is required to achieve sufficient area. This requires significant earthworks and construction of a 30m high retaining wall. This would have significant negative visual, permanent landscape effects and diminish residential amenity during construction.

The replacement of the former golf course landscape with hardstand is both a visual and landscape character change. This has significant and negative visual effects on residential amenity of the closest neighbours in Bunker Way and Kekerenga Street. The landscape change is a good opportunity to reduce environmental effects by implementing low impact stormwater management technology.

I consider the negative effects of the earthworks are capable of being further reduced through site planning and further mitigated. The current proposal whilst it is an approach only, does not demonstrate this satisfactorily.

**The Urban Design and Landscape Effects on the closest residential area are likely to be significant and negative. Earthworks to extend the hardstand have an unacceptable negative visual and landscape effect. This could be further mitigated but this is not yet demonstrated.**

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## Part A Introduction

### 1. INTRODUCTION

#### 1.1. Author Introduction

My full name is Robin Simpson. I am an Urban Designer and Registered Landscape Architect practicing as Robin Simpson Design Limited.

I hold a Masters Degree in Design Studies (MDes.S) specialising in urban design from the Graduate School of Design, Harvard University, Cambridge Massachusetts and a Bachelors Degree in Landscape Architecture (BLArch. Hons 1) from the University of New South Wales, Sydney Australia.

My practice covers Urban Design and Landscape Architecture with particular focus on Infrastructure Development e.g. roads, cycleways, Urban Design for Transport, Land Development, Residential Masterplanning, assessment of visual effects and network functionality and design review. I have sat on urban design review panels for Wellington City Council, Christchurch City Council and Nelson City Council, and Tasman District Council.

I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note. I agree to comply with this code. This assessment is within my area of expertise, except where I state that I am relying on the evidence of another person. I have not omitted to consider material facts known to me that might detract from the opinions I express.

#### 1.2. Background

Wellington Airport, operated by Wellington International Airport Limited (WIAL), is significant regional infrastructure. WIAL have issued a Notice of Requirement (NoR) to WCC for a Designation for airport purposes over approximately 15.6 ha of the Miramar Golf Course. This is referred to as the East Side Area (ESA).

It is recommended that this NoR be considered at the same time as the Main Site NoR given continuity of the sites, shared activities and interdependent functions.

The airport purposes for which the NoR has been issued include;

- Aircraft taxiing,
- Freight reception, storage and transfer,
- Ground Services Equipment (GSE) storage,
- Access road.

The District Plan identifies the “Airport and Golf Course Recreation Precinct”. It separates this into two areas, the Airport area and the Golf Course Area. The proposed eastern extension is into the Golf Course Area with a small strip of land on the west side which overlaps into the Airport Precinct. This has a current zoning for recreation and open space.

WIAL’s intention is to expand spatially to the east into part of the current Miramar Golf Course, expand the existing terminal and add associated buildings as required to respond to changes in the aviation industry.

A WIAL Designation Planning<sup>1</sup> document prepared by Warren and Mahoney and 2040 The Master Plan<sup>2</sup> have been provided by WIAL to outline intentions and demonstrate how the above activities could be accommodated on the site. These are strategy documents and explain the spatial and functional premises on which the NoR is based.

The location of the Wellington Airport is unique as available space is constrained by topography, the coastal setting and established residential areas. Essentially the limited available flat land is proposed to be expanded through earthworks to the east and south.

The functioning of the airport and its ability to respond to changing economic and demand scenarios is a major positive effect for the region and for New Zealand. The challenge is, whether the adverse effects of these activities can be minimised, mitigated or avoided.

The area is already modified by airport construction in the 1960’s and expansion in 1972. The landscape is particularly modified at the eastern end of Lyall Bay and on the South Coast. Landscape effects to the ESA are considered in this light.

### **1.3. Global Context**

The global context for the two NoRs is described in the report NoR Main Site, 1.2. The Notifications of Requirement are presented in an era of economic, cultural and environmental change which has potential to affect airport operations. It is not the scope of this review to speculate on these implications. However, in this context of uncertainty, compatibility of WIAL’s masterplan with achieving New Zealand’s and Wellington city’s climate change commitments needs to be demonstrated, and the requirement for “reasonable necessity” is highlighted.

### **1.4. Scope**

I have been requested to prepare an urban design and landscape assessment by Wellington City Council (WCC) to respond to the NoR East Side Area. This assessment will identify urban design and landscape effects. It will assess the effectiveness of any proposed conditions and recommend further conditions if required.

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<sup>1</sup> WIAL Designation Planning, 30<sup>th</sup> August 2018, Warren and Mahoney

<sup>2</sup> 2040 The Master Plan, January 2010, Wellington International Airport limited

I have also been requested to prepare an urban design and landscape assessment by Council for the NoR Main Area. While each is a separate assessment, the overall context is common and is covered in Part A of the assessment for the Main Area. The two assessments need to be read together to gain a complete picture for the overall proposal by the Airport.

The ESA application is to enable the expansion envisaged by the Wellington 2040 Masterplan. The full area for the Masterplan is covered by the NoR Main Site together with the NoR ESA.

## 2. PLANNING MECHANISM

### 2.1. Designation Mechanism

The land was purchased from the Miramar Golf Club in 2019. Unlike the Main Site, consideration of alternative uses of the site is relevant because without the designation, this site could continue to operate as a 19-hole golf course.

The current airport activities operate without this eastern expansion.

### 2.2 Designation Area

The designation areas overlap as shown in Figure 1 below<sup>3</sup>. The shape follows the ownership boundary and includes a vegetation buffer, relocated Airport access road and airside hardstand.



Figure 1 East Side Area Proposed Designation

<sup>3</sup> WIAL Notices of Requirement and District Plan Airport Precinct boundaries prepared by 4sight Planners April 2021

Expansion of the ESA designation would extend airport activities such as hardstand for taxiing, into an area currently used as a golf course. This currently serves as a spatial and visual buffer between airport activities and residential development to the east and south east. This is a significant change whose effects are discussed in Part B of my assessment.

I recommend the Main Area and East Side Areas are considered concurrently. This is because proposed activities of hardstand and aircraft operations including taxiing are continuous in both areas. Layout of the Terminal extension and the length of the extension to the south affect the number of earthworks required in the ESA. This is particularly relevant to the dimensions of the proposed cutting into the hillside slope to the southeast.

I consider the activities in both NoRs need to be considered as cumulative. There is an overall effect of the sum of all the airport activities. There is also a cumulative effect of having elements from both east side and the main site in the same view in some areas.



Figure 2 Part Airport Masterplan

Source WIAL

## 2.3 Process

### 2.3.1 Outline Plan Process

The designation seeks to allow the listed activities modified by conditions.<sup>4</sup> The list of conditions for the east side differs from that for the main site. Where activities are not covered by this list and specified criteria are not met, an Outline Plan is required to be prepared.

### 2.3.2 Submissions Process

<sup>4</sup> Land within the Designated Area may be used for the activities for the operation of Wellington Airport listed in Part 1 Form 18

As part of the application process The Notice of Requirements was processed on a notified basis. This attracted significant public interest reflected in the number of submissions. Whilst submissions covered multiple issues, the following were identified as submitting on specific landscape and urban design issues;

1	A Gibson
23	G and A Rota
72	D and B Dahya
92/93	Lynn Cadenhead (WCC Environmental Reference Group)
107	GOTB (Guardians of the Bays)
118	Heritage NZ
136	Jeffrey Weir
242	Robyn Moriarty
253	Sarah Free (WCC Councillor)
280	Tim Jones

In addition particular submissions noted the effects on residential amenity and adjacent communities;

20	A Thomas
36	A Koning
107	GOTB (Guardians of the Bays)
267	Strathmore Park Community Centre Trust

Mention has been made of some of the issues raised throughout this assessment.

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### 3. ASSESSMENT REFERENCES

This assessment uses the same references as the main site. These are;

#### Best Practice Urban Design

- The NZ UD Protocol identifies qualities of well-designed urban environments as; Context, Character, Choice, Connections, Creativity, Custodianship and Collaboration.
- Urban qualities assessed are; Context, Urban Structure, Urban Form, Connectivity, Environment, Resilience

#### The District Plan (WCC)

- Under a designation the requirements of the District Plan are no longer the mechanism with which to assess environmental effects

- Objectives and Policies of the *WCC District Plan* and *WCC Residential Design Guide* indicate the values and expectations for residential environments. Therefore, these form a “benchmark” from which to discuss urban effects
- WCC Suburban Centres Guide and the Kilbirnie Town Centre Plan indicate values and expectations for nearby activity centres and can usefully be used to assess effects.

### **The Wellington Regional Policy Statement (RPS)**

- Provides guidance on the airport, regional infrastructure and environment.
- LGWM provides an outline for future transportation planning which the WIAL needs to consider, complement and enable.

### **NZ Govt Zero Carbon Act 2019<sup>5</sup>**

- Extent of current legislation – excludes aviation and shipping until 2024. Needs to be addressed by then and has the potential to effect aviation practice in NZ.

### **WCC Te Atakura – First to Zero 2019<sup>6</sup>**

- In June 2019, Wellington City Council adopted Te Atakura – First to Zero, which is a blueprint to manage effects of carbon economy.

### **NZTA / Aurecon / Kensington Swan, Guidelines for Landscape and Visual Assessment<sup>7</sup>**

- A guideline prepared to explain terms of visual and landscape effects is used to establish magnitude and significance.

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<sup>5</sup> Climate Change Response (Zero Carbon) Amendment Act 2019

<sup>6</sup> Te Atakura – First to Zero In June 2019, Wellington City Council adopted Te Atakura – First to Zero, which is a blueprint to make Wellington City a zero carbon capital (net zero emissions) by 2050.

<sup>7</sup> Guideline for Landscape and Visual Effects used in part by NZILA as best practice guideline and provided by WCC

## Part B

# Assessment against Urban Design Principles & Landscape Effects

*The Updated Wellington 2040 Masterplan (2020)*<sup>8</sup> and the background studies *WIAL Designation Planning (2018)*<sup>9</sup>, demonstrate how the activity growth could physically fit on the site and spatially fit in with the landuse and community context. These provide potential layouts, approximate areas for activities and a methodology for managing the bulk, height and arrangement of buildings in the main terminal extension area. These are not fixed proposals but indicate intentions and are used in this assessment to assess urban design and landscape effects.

## 2 URBAN STRUCTURE

### 4.1 City Structure

Wellington Airport has been an important part of and influence on the urban form of Wellington. For a full discussion on this, refer to the NoR Main Site Chapter 4. This discussion will focus on issues specific to the ESA.

Lying to the east of the ESA is the suburb of Strathmore Park. Beyond are other outer residential suburbs of Strathmore, Strathmore Heights and Seatoun Heights. The proposed works would not affect the overall city structure. The existing airport activities already share boundaries with residential areas.

## 3 BUILT FORM

### 5.1 Existing Residential Built Form

The built fabric of the residential areas which adjoin the proposed boundary at Strathmore Park are a mix of multi-storey and 2 storey houses with some streets such as Raukawa Street, smaller and single storey. WCC's Residential Design Guide.

Houses are generally built to accommodate slope and are positioned and oriented to make the most of elevated views. Orientation ranges from northwest to west to southwest and affects the focus of views and outlooks.

The houses are relatively diverse with a mix of eras, some new and of substantial size, some older and modest and some social housing in characteristic 1960's state-built houses. See Figure below.

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<sup>8</sup> 2040 The Masterplan Plan prepared for Wellington Airport in January 2010

<sup>9</sup> WIAL Designation Planning prepared by Warren and Mahoney 30 August 2018,



Figure 3 Range of Architectural Character in Strathmore Park.

View from Airport Carpark

Source AP

## 5.2 Proposed Airport Buildings

The proposed terminal extension is included in the Main Site NoR.

## 5.3 Ancillary Buildings

The designation has allowance for ancillary buildings. The only one identified for the east side is a General Services (GSE) building to a height of 15m. In plan this is sited against the south east retaining wall, but it is not visible in photomontages.

Although the effect of multiple ancillary buildings is more relevant to the West Side and South Coast Precincts, the potential effects need to be considered as these are allowed in the ESA designation. Conditions in the NoR seek a height limit of 15m.

The proposed conditions require a Design Statement indicating how ancillary buildings will be designed to integrate, an outcome which I support. However, I recommend that any Design Statement for development is prepared in response to a Design Guide for the Airport (which has not been proposed as a condition by WIAL). In concept, a Design Guide could incorporate the Design Statement intentions already expressed by the proposed condition. However, I believe it could also be informed by the background studies prepared by Warren and Mahoney on managing mass and bulk. (See Appendix A)

The conditions Table below, Table 1 includes responses to the proposed conditions and additional condition recommendations covering the areas discussed in this section.

Urban Effect	Condition	Comment	Additional UD Condition
	<p>3 a) A maximum building/structure height of 30 metres (above existing ground level) in the Terminal Precinct, and 18 metres (above existing ground level) in other Precincts, except that:</p> <p>i. Buildings or structures used for hangars shall not exceed a height of 20 m.</p> <p>ii. Buildings or structures located within 8m of the Golf Course Recreation Area shall not exceed a height limit of 15m. iii. Buildings or structures within 5m of any adjoining Residential zone shall not exceed a height limit of 4m.</p>	<p>30m height not demonstrated to be required and increases magnitude of visual effects</p> <p>18m height high negative impact at west side area, ESA, South Coast Precinct and Lyall by Parade</p>	Retain 25m maximum height in terminal area
		18m height high negative impact at west side area, ESA, South Coast Precinct and Lyall by Parade	Achieve heights allowable under District Plan of 12m outside terminal area and within 20m of boundaries adjacent to residential areas and Lyall Bay and South Coast.
Built Form and Building height	3) ii Buildings or structures located within 8 m of the Golf Course Recreation Area shall not exceed a height of 15 m.	15m height to accommodate GSE building enables other buildings of this height	
Building Integration and Design	3 b), c), d), f),	Accepted considerations to consider form, colour and texture, visually break up building mass, include planting where appropriate, integrate lighting are all supported	<p>Written design statement needs to be accompanied by drawings or models depicting design.</p> <p>Recommend preparation of a Design Guide including these conditions and incorporating methods of managing mass and bulk through proportions. Include guidelines for both Terminal Area and ancillary buildings</p>
Building Integration and Design	3 e), That any signage proposed will be integrated with the building form and surrounding architectural and landscape design;	Accept integration of signs. No commercial signs in ESA appropriate given visibility from Residential areas	No commercial signs in ESA

Table 1 Response to Conditions - Built Form

## 6 URBAN CHARACTER

The ESA area is discussed in the Main Site NoR generally, to gain an overall picture of effects. This assessment will discuss effects on character for the east side specifically. Maintaining the residential amenity of the suburb is considered important in the District Plan (4.2.4). The effects on character, visual amenity, noise environment and connectivity have been addressed under separate headings.

## 6.1 Effects on Character of East Side Area

### Existing urban character

This area itself is part of the golf course with tree studded undulating greens. This adjoins the residential area of Strathmore Park on the east and southeast sides. Miramar Golf Course forms a buffer between the presence of airport activities and the residences. A vegetated slope terminates the golf course to the south and forms a ridge which together with the small hill (opposite the entry to the council's wastewater treatment plan), flanks the current Airport Road.

The Golf Course is a private recreational and significant open space amenity. The area has generous open space along South coast ridges with historic lookouts and informal walking tracks.

### Effects on Character

The change from the green undulating landscape and trees of a golf course to industrial hardstand of a taxiway is a major character change. I assess this change as having a moderate to high negative effect particularly to Bunker Way, Raukawa Street and at a higher level Kekerenga Street in Strathmore Park. While the terminal and some hardstand currently exist in their view, this change from a recreational to an industrial landscape with airport activities and a proposed airport road is considered to dominate. I assess this change as high negative impact.

A proposed GSE building up to 15m high introduces a scale and type of building alien to the existing precinct.

Extension of the hardstand and increased area of flat ground are proposed in the Masterplan and enabled by the designation conditions. This creates a cutting up to 30m high and 500m long. What appears to be a natural landform will change to a constructed edge.

### Assessment

Significant negative effect of change of activities  
 High negative effect, of permanent landform change to southern hillslope  
 Moderate negative effect of 15m GSE building as substantially larger than any other (residential) buildings

### Recommendation

Further design inquiry to reduce height of wall, provide a mix of growing and constructed elements, provide construction of permanent enduring, low maintenance materials.  
 Demonstration of reasonable need

## 7 STREETScape

### 7.1 Existing Street Patterns

Broadway links the area to the village of Strathmore to the east and the city to the west. The gateway role of the Broadway/Calabar Road intersection, functions for both the villages and the Airport.

The golf course is accessed from a shared entry off the airport access road and through Bunker Way. It is a parklike space with no streets. It is separated from the airport by the existing airport access road. Residential streets of Strathmore Park follow the topography.

### 7.2 Airport Road

The Masterplan proposes a new Airport Road further to the east and Strathmore Park. Continued Public access is anticipated by Council. It is an opportunity for a well-designed roadway with good pedestrian and cycle facilities. The relocated road is closer to the residences in Strathmore Park particularly Bunker Way, Raukawa Street and Kekerenga Drive. This will bring the effects of traffic noise, light and movement, but can be designed to be an attractive roadway.

<u>Assessment</u>	Effects of traffic noise and movement diminish residential amenity Light spill from streetlights can be mitigated to minor level
<u>Recommendation</u>	Design road with good pedestrian and cycle facilities Mitigate visual effects of road with tree planting to east side to screen lights Support existing condition to Avoid glare and minimise light spill Add condition to limit height of any streetlights to 8m Add condition to demonstrate consideration of visual effect of airside wall

## 8 CONNECTIVITY

### 8.1 Transport

Transport systems are unchanged by the proposal although any consequent congestion will affect road users. Public transport occurs with a bus route along Broadway.

Design for Calabar Road and Broadway Gateway needs to address LGWM and proposed mass transit – which has a potential benefit to the surrounding residents.

## 8.2 Walking and Cycling

Informal walkways occur along the hillslopes to the south east. Connected walkways and a viewing platform across the hillside to the east is a positive contribution. Cycle and footpath Amenity to Council standards is anticipated to be associated with any new Airport Road.

Urban Effect	Condition or Criteria	Comment	Additional UD Condition
Transport amenities		Support proposed mitigation of addition of walkways & viewing platforms in excavated hillslope in ESA	
			Add condition for walk and cycle amenity to new airport road
		Need to liaise with LGWM	
		Integrated design for Calabar/Broadway gateway	

Table 2    Response to Conditions – Walking and Cycling

## 9 COMMUNITY

The main issue in the east is loss of residential amenity for the community particularly those immediately adjacent; Bunker Way, Raukawa Street and Kekerenga Street. This is due to airport activities moving closer to residences, loss of the buffer provided by the golf course and visible change to landscape character.

A general review of submissions indicated multiple submissions made reference to the effect on the local community of Strathmore Park, including increased noise and unattractive views in opposition to the proposal.

### 9.1 Adjacent Communities

#### Existing urban character

This is an area of mixed community with areas of social housing, some older established community and newer residents with apparent significant investment in new houses close to the golf course. Strathmore and a prestigious private school, Scots College is on the west side of Strathmore park.

#### Effects on Character

The residential areas in close proximity, or immediately adjacent to the airport, are the most sensitive to environmental effects.

The negative effects will mostly be regarding noise from increased aircraft movements (see assessments by others) and the source of noise being much closer to the community. Effects of noise are indicated in WIAL's Noise Assessment (Marshall Day) to increase over time. Effects of mitigation are likely to be limited.

Other Effects are considered to result from proposed change from golf course to hardstand, change of activity from passive recreation to taxiing aircraft and the loss of residential amenity. Diminishing quality of residential amenity through increased noise and light has a negative effect on the resilience of the community,

#### Assessment

- High significant negative Effects of aircraft noise and movement
- Moderate negative Effects of increased light
- Change of character from recreational to industrial hardstand

#### Recommendations

- Mitigate effect of noise
- Mitigate effect of lighting
- Curb intensification of further residential development within ANB without special building requirements
- Expand "Quieter Homes" program to houses affected by increase noise

Noise effects are assessed by others and mentioned here in the effect on residential amenity. Expansion to the east side increases noise effect on Strathmore Park's western most streets, significantly. Any increase in hours of operation, including through exclusions of holidays from the conditions, will increase the negative effect on residential amenity.

## **9.2 Recreation Areas**

The proposal directly affects the recreational amenity of the Miramar Golf Course. This currently operates as an 18-hole course, but advice has been given that it can continue operating as a 9-hole course. The golf course environment is already subject to the effects of aircraft noise and views of the airport as direct neighbours.

An airside wall is proposed as part of the works. The wall and airport access road will form part of the golf course edge so its design, character and integration in the landscape will determine the quality of this edge. This has potential to be a positive and attractive edge.

#### Assessment

- Significant change to private facility that has public benefit
- Low/moderate

#### Recommendation

- Consider design of airside wall

## 10 REGIONAL POLICY STATEMENT

The Assessment against urban Design Principles is based on a broad interpretation of the areas raised in the NZ Urban Design Protocol of principles which make up good urban design and communities. *The Regional Policy Statement in Policy 53: Achieving the region's urban design principles – consideration* also refers to the seven design qualities described in the New Zealand Urban Design Protocol and notes that particular regard should be given to these in consideration of Notices of Requirement and selected other applications.

### 10.1 RPS Urban Design Principles

The assessments are discussed more fully under headings in this report, and can be summarised as below;

UD Principal	Topics of Particular Relevance	General Assessment against RPS
Context	Planning in time of change Regional Infrastructure Constrained flat land Adjacent communities	Further information needed Positive contribution East side and Earthworks significant negative effect Negative Effect ESA on Strathmore Park
Character	Industrial character of Airport Building Quality  Scale  Signage	Neutral, negative effect ESA Positive Terminal Expansion, Design Guide Required, Neutral ancillary buildings Neutral Terminal Expansion Negative ancillary buildings Negative effect large, moving, commercial signs
Choice	Residential amenity to adjacent communities  Coordinating LGWM for transport choices Expansion providing employment choices	Significant negative effect Strathmore Park and eastern suburbs  Further information needed. Opportunity for positive effect Moderative Positive effect
Connections	Regional Infrastructure Integrated Transport Strategy Airport Road Walking and Cycling Facilities	Positive effect. Coordination LGWM needed Coordination LGWM needed Moderate negative effect on east. Potential for positive Moderate Positive effect on east.
Creativity	Built Form  Expanded Terminal Building Gateway Design Quality streetscape design Airside wall design	Ancillary buildings negative but can be mitigated Design Guide Required Positive Terminal Expansion, Design Guide Required Opportunity for coordinate design positive effect Opportunity for positive effect Opportunity for positive effect
Custodianship	Earthworks Natural landform Stormwater management Resilience	Significant negative ESA 500m long retaining, cutting Significant negative ESA cutting into SE hillside Moderate negative effect capable of being mitigated Neutral
Collaboration	Gateways Rongotai, & Broadway/Calabar Road Residential Adjacent edges Transport Systems	Opportunity for positive effect with multiple parties Negative effect Strathmore Park Further information needed. Opportunity for positive effect with multiple stakeholders

Table 3 Assessments against Regional Urban Design Principles

## 11 VISUAL EFFECTS

### 11.1 Visual simulations

Boffa Miskell visual simulations<sup>10 11</sup> provide material with which to assess the visual impact. The series of photomontages does not separate the Main Site and ESA applications, depicting both proposals together. These are also referred to in the *Landscape and Visual Assessment* appended to the NoR<sup>12</sup>. The Viewpoints are depicted on Figure 6 Viewport Location Map (*December 2019*)<sup>13</sup> and Figure 1 Viewport Location Map *Additional material* (*October 2020*). (See Appendices 2, 3). Approximate distances from the elements under discussion are read from these figures. These are approximate only and included for information.

### 11.2 Views

#### 11.2.1 Distant Views

##### From East

Distant views from the east such as from Seatoun Heights diminish the visibility of the east extension due to distance. The retaining wall and any visible hardstand is seen as a small element within an overall view of the extended terminal building.

Viewpoint 4      VS N4A View from Wilberforce St, Seatoun Heights      c.1500m

##### From West

The range of Hills to the west forms the edge of the visual catchment. Residences from Melrose, Hataitai and Roseneath look east to the Airport. As with distant views from the east, the distance makes the elements of the retaining wall and any hardstand small and of similar character to the terminal expansion appearing part of an already modified environment.

Viewpoint 6      VS 6A View from Hornsey Rd, Melrose      c.2000m

##### Assessment

- Low -moderate, neutral effect of ESA retaining wall when viewed from a distance; because increases area of industrial view, but this is small proportion of overall view and key elements of the view remain, effect is obscured partly by terminal from west

<sup>10</sup> Wellington International Airport: *Visual Effects of Designation Outcomes*, prepared by Frank Boffa in Association with Boffa Miskell Ltd, Dec 2019

<sup>11</sup> Wellington International Airport: *Additional Material: Visual Effects of Designation Outcomes for Wellington International Airport*, Boffa Miskell Oct 2020

<sup>12</sup> Landscape and Visual Assessment prepared by Frank Boffa Appendix F NoR

<sup>13</sup> See *Additional Material* above

- Low, neutral effect of surface change to hardstand as this is hardly visible depending on elevation and angle
- More information on ground levels, height of retaining wall, and height of 15m GSE building needed on montage to assess accurately

### 11.2.2 Midrange Views

Views from middle distance can be seen by evaluating VS N5-A (a distant view) and VS N10A (a closer view) from Lyall Bay Beach. Site visits indicate similar effect from elevated sites near Wexford Road. The retaining wall is visible in Midrange views from west and northwest as a small element due to distance though larger than in distant views. The hardstand surface appears represented as sloping up, which needs to be confirmed. It is difficult to assess until levels depicted on montage confirmed.

The graphic depiction of the retaining wall shows the Boffa Miskell suggested mitigation of coloured screens similar to those used on the airport parking building. I consider this “graphic”<sup>14</sup> approach to have been very effective for integrating this particular building into its environment. However, for the proposed wall, the “graphic” nature of the way the photomontages are constructed may make it appear more integrated than is possible to achieve. Further information required.

Viewpoint 5      *VS N5-A: View from Maranui Surf Club, Lyall Bay*      c.1500m

### Assessment

- Moderate, negative effect – because; replaces, vegetation and natural landform with an industrial view, but this is minor proportion of the overall view, effect is obscured partly by terminal from west. Further information required on ancillary buildings
- Low effect of hardstand- because; replaces grass and trees recreational landscape to industrial, but hardly visible. This may vary with elevation.
- Some cumulative effect when considered with main site change as seen together these increase the expanse of a continuous, modified environment

### 11.2.3 Close Range Views

There will be some residents on the hillslopes of Strathmore Park who would see a significant visual change from parklike recreational character to the industrial character of hardstand with aircraft movements.

The close range and midrange views from some residences on the hillslopes of Strathmore Park in Bunker Way and Raukawa Street, would see a significant visual change from the green golf course to industrial hardstand of taxiway. While the terminal and some hardstand currently exist in their view, this visual change to an industrial landscape is considered to dominate the view rather than be included within in it. I assess this change as high negative impact.

<sup>14</sup> The term “graphic” is used as an architectural description (to be referenced)



### 11.3 Visual Amenity

The RMA 7(c) in “other matters” notes that particular regard must be given to amenity values. Visual amenity is discussed here as people’s enjoyment and appreciation of pleasantness and coherence of a place, area, outlook or view.

The key visual effects are identified as the permanent change from open space to hardstand on ESA replacing an apparent natural surface with a constructed one, the permanent change to landform with the proposed cutting and the appearance and scale of industrial buildings (the GSE) adjacent to the wall. No buildings other than GSE building are proposed in the Masterplan and within 8m residential boundaries in the conditions. However these are permitted if required by WIAL and so need to be considered. VS 2-1A View Looking South from Bunker Way, Strathmore appears to show a low level GSE which blends into hard surface as a minor component. However GSE is proposed to 15m height.

Viewpoint 7	VS 7A View looking south from 17 Bunker Way - Level 2 Deck (Existing and Proposed Views) within 500m	
	VS 7B: View looking north from 17 Bunker Way - Level 2 Deck (Existing and Proposed Views) within 500m	
Viewpoint 8	VS 8A: View looking south from 50c Raukawa St - Deck (Existing and Proposed Views)	c.500m
	VS 8B: View looking north from 50c Raukawa St - Deck (Existing and Proposed Views)	c.500m

#### Assessment

- High/ very high, significant negative effect of hardstand with aircraft activity to Bunker Way and Raukawa Street - due to change to character, high magnitude of change, close distance, leading to dominant character
- High/ very high, significant negative effect of retaining wall to Bunker Way and Raukawa Street - due to loss of natural character, change to character, high magnitude of change, close distance leading to domination of industrial component of the view
- High/ very high, significant loss of visual amenity due to aircraft movement close to houses
- Moderate effect of GSE building to 15m– effect amplified given it is proposed as only building.

#### Recommendation

- Design Guide for ancillary buildings needed
- Accept condition on consideration of articulation of buildings, add condition for sustainable techniques and materials
- Accept 4m height condition by residential boundaries
- Support proposed mitigation of relocation of trees where possible. Tree planting/tree relocation on Strathmore side of Airport Road recommended
- Add condition - limit height street light poles to 8m.

## 11.4 Lighting

See technical lighting assessment by others.

Lighting has the potential to negatively impact the quality of residential amenity in the surrounding residential area. Negative effects increase adjacent to or close to designation boundaries. Negative effects of the designation which diminish residents' enjoyment and wellbeing, can be due to the following effects which are quantified and assessed by others;

- Hours of site lighting,
- Light spill into residential areas,
- Glare of moving vehicles within the site,
- Hours of operation and movement of vehicles, and
- Reflectivity of building surfaces.

Conditions recommended in the NoR are for lux level of no more than 8 lux at residence's windows. This is accepted. I also recommended that a limitation of 9m be put on the height of luminaires on buildings and poles within 20m distance from boundaries. This enables the amount of light to be achieved for purpose, while minimising the negative effects on the residential area through both reduced light levels and reduced visual prominence of light sources.

### Assessment

The impact of lighting from midrange views are moderated by distance and assessed as minor. Tall lights would be visible at night in midrange views at e.g., Wilberforce Road and Wexford Place.

The effects at close range are greater in magnitude due to close range.

- Low- Moderate negative effect closer to residents because; from west is in background of terminal, extends breadth of industrial lighting; from bunker way adds new ancillary buildings in area of no lighting, part obscured by in-between buildings depending on location
- Low- Moderate negative effect from distant views because; extends existing airport lighting, in-between landform and structures obscure majority of hardstand, ancillary buildings visible highlighting need for management of light spill
- Low negative effect of streetlighting from new Airport Access Road from distant views– in-between landform and structures obscures from some locations, in others these are distant
- Low- Moderate negative effect of movement of cars due to proximity – adds moving lights in area of no lighting on golf course, change from dark area to lit surfaces, in area of no lighting, part obscured by in-between buildings depending on location reduces effect.

Viewpoint 5	<i>VS N5B View from Maranui Surf Club (Night)</i>	c.1500m
Viewpoint 4	<i>VS N4B View from Wilberforce St, Seatoun Heights (Night)</i>	within 1500m
Viewpoint 10	<i>VS N10B View from Lyall Bay Beach East (Night)</i>	c.700m
Viewpoint 2	<i>VS N2B: View from Bunker Way, Strathmore (Night)</i>	within 500m

### Recommendation

- Accept condition proposed to limit light level to 8lux at residential windows
- Accept condition proposed lighting to extended hardstand to east - to avoid glare and light spill
- Streetlighting on new Airport Road – poles to be limited in height to 8m, avoid glare and meet District Plan expectations, consider temperature
- Boundary of airside lighting, limit height of luminaires to 9m to reduce light spill.

Urban Effect	Condition or Criteria	Comment	Additional UD Condition
External Lighting	20. AS 4282 Control of Obtrusive Effects of Outdoor Lighting which restricts to 2 lux during curfew hours	Accepted	
	21. The lighting of publicly accessible pedestrian and vehicle movement areas shall comply with: AS/NZS 1158.3.1:2005 Part 3.1 Pedestrian Area (Category P) Lighting	More reduction of negative effect required	
	District Plan requirements i.e., max 8 lux,	Accepted	Achieve District Plan and AS 4282 during curfew hours
		Further condition required to limit height of edge of apron lighting in ESA	Limit height of pole lights to 9m within 20m of residential and coastal edges
			Consider reflectivity of walls through colour & material palette to reduce glare of walls. Include in Design Guide.

Table 4                      Response to Conditions - Lighting

## 11.5                      Signage

Signage is an important aspect to address on the main site given high public exposure of parts of the airport generating pressure for advertising. Conditions on signage proposed are supported.

The singular proposal for a building in the east side limits the on-building signage but off-building signage remains relevant. Proximity to residential area makes any commercial signage inappropriate.

Additional conditions required for;

- No commercial signs in east side area
- LED signs – required to be changeable with a period of adjustment for brightness
- Changeable signs – rotational change can command attention and requires restriction on use.

### Recommendation

- Limit all commercial signs in east side area
- Accept Condition H Signage in Terminal Precinct
- Add further conditions H(f)ii add 20m South Coast Road

- H(e) wording is unclear and needs to be improved.

Urban Effect	Condition	Comment	Additional UD Condition
On site Signage	Signs associated with airport operations	Accepted	
	District Plan requirements i.e., max 8 lux at residential windows	Accepted	
Off-site signage	District Plan requirements	Accepted with additional restrictions	Restriction of and moving (changing) signs as well as flashing
			Condition on height of signs above ground needs tighter wording

Table 5 Response to Conditions - Signage

## 12 ENVIRONMENT

### 12.1 Environmental Quality

#### 12.1.1 Landform and earthworks

Overall earthworks propose broad estimate of 600,000m<sup>3</sup><sup>16</sup>. The effects of this are assessed by others but are included as having a significant landscape effect. I accept the benefits of certainty for both WIAL and the public as justification for the application. However the permanence and magnitude of the negative effects of earthworks for the ESA retaining wall together with the loss of the South Coast Hill (see assessment Main Area) are such that staging is recommended to ensure public works with high negative impact are not undertaken prior to being a necessity.

#### Cutting in ESA

- Significant negative permanent landscape change
- Significant negative visual effects of earthworks cutting into south east hillside (ESA) requiring a 30m high and 500m long retaining wall
- Proposal to mitigate through built screen – negative effects of short lifespan screen proposed
- Current proposal unacceptable and lacks information on levels etc in order to be assessed
- I consider this capable of being reduced and mitigated but the current proposal does not satisfactorily demonstrate this.

#### Assessment

- Visual effect high, negative and of permanent nature
- Further information required to ensure feasibility of mitigation proposals

#### Recommendation

<sup>16</sup> Geotech Report accompanying NoR

- Listing of “all earthworks”<sup>17</sup> as an allowable activity be removed from list
- Allowable slope of 45 degrees reduced to 32 degrees as sought by WCC
- Explore solutions with increase of planting as a component to cutting
- Explore adjustment of site plan to reduce height and volume of cutting required
- Explore Staging to ensure certainty for necessity of potentially significant cutting/retaining
- Proposed conditions inadequate to manage effects successfully
- Support condition requiring Submission of an Earthworks and Construction Management Plan.

### 12.1.2 Water

#### Stormwater

The increase of hardstand in the ESA has the greatest effect. This area has the greatest degree of surface and earthworks change. A substantial increase in hardstand is proposed for manoeuvring aircraft. This will have the effect of reducing permeability and increasing volume and speed of surface runoff which is a substantial negative landscape effect. Stormwater neutrality is proposed in Kauri St designation and is recommended to extend to the ESA and Main Area works.

This is a good Opportunity for leading edge management such as applied in Melbourne Airport extensions.

Urban Effect	Condition	Comment	Additional UD Condition
Surface runoff/ Detention		Stormwater neutrality should be achieved in ESA and construction areas of Main Area	Example of condition used in Kauri Street is recommended: 22. To avoid impact on the downstream network, capacity storm water neutrality is required for all events up to the 10% AEP event (1 in 10-year event). The site may therefore require a storm water detention system or systems; to be confirmed in detailed design.
		As a tool to achieve stormwater neutrality, apply Low impact stormwater technology	Implement low impact stormwater methodology

Table 6 Response to Conditions - Environmental Quality- Water

### 12.1.3 Vegetation

The most significant changes are the loss of greensward and trees in the golf course and the Loss of vegetated on the southeast Hillside due to the significant proposed cutting.

Points of note;

- Remediation and increased buffer planting to ESA supported.
- Pohutukawa in Golf course to be relocated if possible

<sup>17</sup> Part A Form 18 Notice

- New planting is considered to be part of the mitigating moves to provide screening and reduce the perceived scale of the large buildings. This is supported and accepted as suitable mitigation.
- Support relocation condition for Tirangi St using possible Golf Course Pohutukawa
- Restoration planting to east slopes supported to improve quality of existing vegetation
- Visual screen to east side will have limited effect.

### Assessment

- Loss of vegetation of Golf Course trees in grass in ESA has moderate negative effect
- Loss of local vegetation on Strathmore Park Hillside has moderate negative effect but is mitigated by proposed buffer planting
- Change to overall vegetated appearance of Rongotai Ridge needs to be carefully considered for effect on gateway. Potential for positive outcome or high negative effect. Some building potential

### Recommendation

- Avoid extent of cutting into ESA hillslope
- Explore planted and built components to accommodate 30m high cutting
- Relocate Pohutukawa and other trees of merit and known capability for transplantation in good condition from Golf Course if possible

## 13 TRAFFIC

ESA will not affect impacts of overall Airport expansion. This is discussed in NoR Main Site 12.

Extension to the east requires a new Airport access road. The location of this is determined by the farthest extent of hardstand projected to be required. This introduces a lit road with moving vehicles into the foreground views of residents in Bunker Way, Raukawa Street and Kekerenga Street. This is a significant change.

Loss of amenity for these residents will be through effects of noise, visual amenity and character change. Effects are potentially high.

## 14 RESILIENCE

A general discussion of resilience as it relates to the design and expansion of the proposed Airport. This can be read in NoR Main Site 13.

The effect of the loss of amenity of the some of the residents in Strathmore Park has the potential to undermine community resilience by making it a less desirable place to live.

To date, the attractions of living in this suburb such as elevated views, expansive views over the coast and Cook Strait, a green outlook over the golf course and ease of access to South Coast and Lyall Bay recreation areas, appear to have outweighed the negative effects of aircraft noise and aviation movements of current airport activities. This is demonstrated in the number of new or extended buildings observed along Bunker Way<sup>18</sup> in spite of high exposure to noise. A potential increase in the negative effects which I consider that the ESA would have, could change this balance with negative attributes outweighing positive attributes.

Multiple submitters have raised the existence of social housing residents forming part of the community and their vulnerability to loss of amenity.

#### Recommendation

- Consider resilience of communities by managing any negative effects such as diminishing residential amenity through increased noise and light

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<sup>18</sup> Site observations undertaken by the author indicate a number of new houses close the the golfcourse edge. This was followed up by deskstudy of comparing aerial photos of Strathmore Park between 2010 and 2020.

## LIST OF APPENDICES FOR ESA AND MAIN SITE

Note Appendices are relevant to both the Main Site NoR and the East Side Area Nor.

### Appendix A

*WIAL Designation Planning* prepared by Warren and Mahoney 30 August 2018.

### Appendix B

Figure 6 Viewport Location Map from *Wellington International Airport: Visual Effects of Designation Outcomes*, prepared by Frank Boffa in Association with Boffa Miskell Ltd, December 2019.

### Appendix C

Figure 1 Viewport Location Map *Additional material* prepared by Frank Boffa in Association with Boffa Miskell Ltd, October 2020.