

Before an Independent Hearings Panel of Wellington

City Council

In the matter of the Resource Management Act 1991 (the **Act**)

And

In the matter of hearing of submissions and further submissions on the Wellington City Proposed District Plan (**PDP**)

**Statement of Evidence (Summary) of
Kirsty O'Sullivan**

Dated: 7 August 2023

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1. SUMMARY

- 1.1** My name is Kirsty O’Sullivan and I am an Associate with Mitchell Daysh Limited.
- 1.2** My qualifications, experience and code of conduct statement are set out in my evidence in chief dated 18th July 2023.
- 1.3** For the assistance of the Panel this evidence set outs in summary form my response to evidence given by witnesses last week when answering questions from the Panel.
- 1.4** With respect to Natural Hazards, Mr Sirl (the natural hazards section 42A report officer) has presented a substantially refined set of provisions. In my view, these provisions address the key issues raised by WIAL in its original submission and subsequent meeting with the Council. I generally agree with the recommended draft provisions presented in Mr Sirl’s rebuttal evidence. I therefore will not elaborate on natural hazards further.
- 1.5** With respect to earthworks, my evidence identified some issues with the mechanics of the provisions applying to the Airport Zone. Ms van Haren-Giles (the earthworks section 42A report officer) has generally recommended accepting my revised provisions subject to some minor amendments. I therefore do not elaborate on earthworks further.
- 1.6** With respect to noise, I have had the benefit of listening to the evidence presented by Wellington City Council and various submitters. In light of those presentations and some of the questions that followed, I have prepared a high level summary of the land use planning approach at New Zealand’s other international airports, including Auckland International Airport, Christchurch International Airport and Queenstown International Airport (refer to attached **Table 1**). What this shows is that Wellington is at the lower end of the spectrum in terms of recognising and managing the effects of reverse sensitivity at the airport via land use controls within aircraft noise boundaries. While I accept that each of the airports identified in Table 1 have their own unique circumstances that have led to the land use controls that

apply within their aircraft noise boundaries, all have used NZS6805 as the foundation of their land use management approach.

- 1.7** I also understand that via his summary, Mr Ashby described the range of views with respect to the management of aircraft noise as having WIAL at one of the continuum and Kainga Ora at the other. Again, to assist the Panel, I have prepared a summary of the expert planning witnesses views with respect to various planning methods relating to residential activities within the Air Noise Overlays. Refer to attached **Table 2**.
- 1.8** Focussing on the methods, within the Inner Noise Overlay, it would appear that Mr Ashby and I are almost aligned within respect the methods (rules) that apply within this overlay. Based on Mr Lindenberg's presentation on Friday, it appears he is aligned with Mr Ashby, however this will be confirmed on receipt of his updated provisions due to be circulated today. If my assumption is correct (that we are almost aligned), if the Panel was minded to adopt NOISE-R3 insofar as it relates to the density of residential development, that would not present any difficulties for me, with one exception. That is, the enablement of residential (or other noise sensitive activities) within land use zones that do not readily anticipate such activities.
- 1.9** In my view, within zones such as the Open Space and Industrial Zone, there is no reasonable expectation that residential activity is enabled within the zones. NZS6805 recommends that within the Air Noise Boundary (the Inner Noise Overlay), noise sensitive activities should be prohibited and within the Outer Control Boundary (the 55db Ldn noise contour), new noise sensitive activities should be prohibited unless the district plan permits such uses.
- 1.10** In the case of zones such as the Open Space and Industrial Zones, such activities are not permitted, therefore it would reasonably straight forward to achieve general consistency with NZS6805 by making such activities non-complying. My recommended non-complying activity status is also not that far removed and in some instances is consistent with the consent status that applies within the relevant operative zone provisions.

- 1.11** With respect to the Standards and as acknowledged in my evidence, the proposed Standards prescribed in NOISE-S4 to NOISE-S6 will ultimately result in a better internal noise environment for noise sensitive activities within the Air Noise Overlays. However based on the evidence of Mr Humpheson and also based on what the internal noise environment metric used at many airports around New Zealand (as evidenced in my table where an internal noise environment of 40dB Ldn is generally adopted), the level of treatment proposed by the Council and supported by various submitters, and the associated costs associated with that level of treatment, is not warranted to mitigate the effects of aircraft noise in terms of internal spaces.
- 1.12** Leading on from that point, I note that Mr Lindenberg (supported by Mr Ashby in part) has recommended allowing additions to existing residential activities without any associated need to acoustically treat that addition. In my view, it is inappropriate to allow such extensions without acoustic treatment as this would likely result in “habitable rooms” such as bedrooms not being treated to a level such that sleep disturbance effects (and potential associated health effects) are not properly mitigated.
- 1.13** If the Panel were to adopt the 40dB Ldn internal noise environment however, I understand from Mr Humpheson that the level of treatment required would not be significantly different to that required under the building code. I am also not familiar with such an exemption applying within the aircraft noise boundaries at other international airports around New Zealand, despite Mr Hunt suggesting in response to questions that it is not uncommon.
- 1.14** With respect to the affected party approval status, the Panel has heard a range of views as to whether it is appropriate to consider regionally significant infrastructure providers, such as WIAL, as affected parties to the development of noise sensitive activities within the different overlays.
- 1.15** In my view, given that both Air Noise Overlays are identified as a result of effects arising from noise generated by aircraft use at the airport and are expressly drafted

to address a reverse sensitivity effect that could be borne by the Airport, they would likely be an affected party in terms of section 95E of the RMA.

1.16 I note that this approach is what has driven WIAL to only seek restricted discretionary activity status for two or more residential units within both Air Noise Overlays. That is, if an activity triggers resource consent by virtue of its location within the Air Noise Overlay, any consent application should be solely focussed on effects arising as a result of that overlay. This will ensure that, for example, the effects on outdoor amenity can be considered and any options for minimising such effects considered. This is what happens now within the operative Air Noise Boundary and resource consents have successfully been obtained. In some instances, WIAL has also provided its written approval for such activities.

1.17 As an alternative, I note an extract from the Auckland Unitary Plan (Rule C.1.13(4)) with respect to notification. It states:

When deciding whether any person is affected in relation to an activity for the purposes of section 95E of the Resource Management Act 1991, the Council will give specific consideration to the following entities with responsibility for any natural or physical resources which may be affected by the activity, including:

- (a) *in relation to infrastructure, the network utility operator which operates that infrastructure;*
.....
- (f) *in relation to an overlay to manage reverse sensitivity effects, the operator of the activity which is protected by the overlay from such effects.*

1.18 If the Panel is not minded to expressly identify WIAL as an affected party, it would appear that the Auckland Unitary Plan approach could be a reasonable compromise. In my view, it is important that WIAL is able to ensure consistency of approach to mitigation such that the future potential for reverse sensitivity effects is reduced, and to ensure that appropriate standards of acoustic insulation, outdoor amenity etc are applied in a consistent way to protect amenity as far as that can be achieved, with a clear perspective being applied about the likely future

aircraft noise exposure will be. These are matters for which WIAL is best placed to comment on given its expertise and knowledge in this arena including that gained through the Quieter Homes Programme and previous consents and which Council Officers or any other party will not have a good understanding of.

1.19 In my view, the key point of contention difference between Mr Ashby, Mr Lindenberg and I relates to the Outer Air Noise Overlay. As noted in my evidence, I understand the natural temptation to want to “roll over” what I consider to be the outdated approach from the Operative Plan, particularly in the face of some strong submissions by Kainga Ora exerting pressure to enable significant residential intensification, despite the Overlay. However, in my opinion, the IPI and plan review process provides the Council and decision makers a fresh opportunity to review the existing provisions and determine whether such a relaxed application of NZS6805 remains appropriate in the circumstances that apply now and, critically, will apply in the future, particularly when the Airport and its efficient operation is recognised as a qualifying matter in terms of the Amendment Act.

1.20 There has been a good deal of discussion in the preceding hearing sessions about reverse sensitivity and whether there is ‘evidence’ of reverse sensitivity. Wellington International Airport is a nationally and regionally significant component of Wellington and New Zealand’s transport infrastructure with significant benefits for social and economic well-being.

1.21 The qualifying matters provision is primarily directed at ensuring the Airport can operate efficiently, which includes protecting the Airport from reverse sensitivity effects by promoting the management of the subdivision and use of land for activities sensitive to aircraft noise in areas of high cumulative noise around the Airport, so that the continued operation and growth of the Airport is not compromised. This is the primary reason for its inclusion as a qualifying matter which to me strongly suggests that any argument that attempts to downplay the importance of reverse sensitivity at airports is at odds with conventional thinking in this regard.

1.22 I also note that Mr Ashby's rebuttal evidence states at footnote 14 that the Inner Air Noise Overlay is the only qualifying matter. This is at odds with the section 32 Noise report (section 8 at page 35) and the listed qualifying matters contained in the Medium Density Residential Zone. In my view, both the Inner and Outer Noise Overlays are considered as qualifying matters. Most District Plans employ both to manage the effects of aircraft noise (see Proposed Intensification Plan Changes as they relate to Auckland, Christchurch and Queenstown International Airports) and whilst a nuanced approach has been applied at Wellington, both overlays serve an important function in terms of how best to manage the effects of aircraft noise on noise sensitive development. Such an approach is also a good fit of the NZ6805 provisions to the Wellington context. If the Outer Noise Overlay is not a qualifying matter, this raises considerable process related complexity for the Proposed Plan as the related controls will become a matter for determination under the First Schedule.

1.23 I note the criticism of some submitters in these proceedings about the lack of evidence provided by WIAL around noise complaints which leads these submitters to suggest there is a lack of evidence of any reverse sensitivity effects. As I state in my rebuttal statement, it is important to recognise that managing against reverse sensitivity is a forward-looking exercise, and critically the effects of noise from aircraft operations at Wellington is projected to increase over time. In my experience, where cumulative aircraft noise increases over time in airport locations where more and more people come to live alongside this effect, pressure to curtail lawful operations increases. To ensure the efficient operation of the Airport for the future the prudent approach to land use planning in this regard is aligned with what I have suggested in this case. That is to place some limits on the ability to develop noise sensitive activities in those areas most impacted by the cumulative noise from aircraft operations.

1.24 With respect to designations and the duplication of controls within the Proposed Plan, I note that Mr Ashby stated in response to questions he and I are aligned with what we consider should be included in the Proposed Plan. To clarify, in my view it is unnecessary to duplicate the controls as it is inefficient and appears to be driven by the Council's desire to retain a specific compliance pathway (i.e. through the

issue of an abatement notice). Notwithstanding, if the Panel is minded to duplicate the designation conditions, then Mr Ashby and I are aligned with respect to those provisions that could be included in the Proposed Plan.

Table 1: High level comparative analysis of approach to residential activity located within residential zones and within the aircraft noise boundaries at New Zealand’s four main international airports.

Matter	Auckland International Airport	Christchurch International Airport	Queenstown International Airport	Wellington International Airport (s42A report author)	Wellington International Airport (K O’Sullivan)
High Aircraft Noise Area / 65 dB Ldn Noise Contour / Inner Noise Overlay / Air Noise Boundary					
1 residential unit	Prohibited	Prohibited	Permitted 1 per 450m ²	Permitted	Permitted
2 residential units				Restricted discretionary	Restricted discretionary
3 residential units				Discretionary	Restricted discretionary
Additions / Alterations¹	Restricted discretionary	Non-complying	Permitted	Permitted	Permitted
Internal Sound Environment	40dB Ldn	40dB – 50 dB Ldn	40dB Ldn	External to internal noise reduction of 35 dB Dtr,2m,nT,w + Ctr	40dB Ldn
Acoustic Treatment Standards	Acoustic treatment Mechanical Ventilation	N/A (design certificate)	Acoustic Insulation Mechanical Ventilation	Acoustic Insulation Mechanical Ventilation	Acoustic Insulation Mechanical Ventilation
Affected Party	Yes	No	No	Yes	Yes

¹ Note, with the exception of the section 42A report author recommendation, none of the Airports listed provide for a 10% increase (or similar) in gross floor area **without** acoustic treatment/ventilation.

Table 1: High level comparative analysis of approach to residential activity located within residential zones and within the aircraft noise boundaries at New Zealand’s four main international airports.

Matter	Auckland International Airport	Christchurch International Airport*	Queenstown International Airport*	Wellington International Airport (s42A report author)	Wellington International Airport (K O’Sullivan)
Moderate Aircraft Noise Area / 60 dB Ldn Noise Contour / Outer Noise Overlay					
1 Residential Unit	Permitted	Permitted / Restricted discretionary 300-450m ² / no density	Permitted 1 per 450m ²	Permitted	Permitted
2 residential unites	1 per 400m ² or Flat Bush Precinct 1 per 150-400m ²				Restricted discretionary
3 residential units					
Additions / Alterations²	Permitted	Permitted	Permitted	Permitted	Permitted
Internal Sound Environment	40dB Ldn	40 to 50dB	40dB Ldn	External to internal noise reduction of 30 dB Dtr,2m,nT,w + Ctr.	40dB Ldn
Acoustic Treatment Standards	Mechanical Ventilation	N/A (design certificate)	Mechanical Ventilation	Acoustic Insulation Mechanical Ventilation	Mechanical Ventilation
Affected Party	Yes	No / Yes	No	No	Yes

* Queenstown and Christchurch International Airports do not delineate a 60dB Ldn noise contour for land use planning purposes and instead use a 55dB Ldn noise contour, or “Outer Control Boundary” as per NZS6805. Christchurch International Airport also has a 50dB Ldn Noise Contour.

² Note, with the exception of the section 42A report author recommendation, none of the Airport’s listed provide for a 10% increase (or similar) in gross floor area **without** acoustic treatment/ventilation.

Table 2: High level comparative analysis of Operative District Plan, M Ashby, K O’Sullivan and M Lindenberg position with respect to planning methods (residential activities only).

Matter	Operative District Plan	M Ashby recommendation (section 42A report author / WCC)	K O’Sullivan recommendation (WIAL)	M Lindenberg recommendation (Kainga Ora)
Inner Air Noise Overlay				
1 residential unit in residential zone	Permitted	Permitted	Permitted	Permitted (TBC)
2 residential units in residential zone	Restricted discretionary	Restricted discretionary	Restricted discretionary	Restricted discretionary (TBC)
3 residential or more units in residential zone	Discretionary	Discretionary	Restricted discretionary	Discretionary (TBC)
Residential activity in non-residential zone	Varies	Same as above	Non-complying	Same as above
Additions / Alterations increasing the number of bedrooms	Permitted	Discretionary	Permitted	Discretionary (TBC)
Internal Sound Environment	40dB Ldn	External to internal noise reduction of 35 dB Dtr,2m,nT,w + Ctr	40dB Ldn	External to internal noise reduction of 35 dB Dtr,2m,nT,w + Ctr (TBC)
Acoustic Treatment Standards	Acoustic Insulation (not specified) Mechanical Ventilation	Acoustic Insulation Mechanical Ventilation	Acoustic Insulation Mechanical Ventilation	Acoustic Insulation Mechanical Ventilation
Gross Floor area increase	N/A	10% increase without acoustic treatment	All subject to acoustic treatment	25m ² permitted without acoustic treatment
WIAL as Affected Party	Yes	Yes	Yes	No

Table 2: High level comparative analysis of Operative District Plan, M Ashby, K O’Sullivan and M Lindenberg position with respect to planning methods (residential activities only).

Non-compliance with standard	Restricted discretionary	Discretionary	Discretionary	Discretionary (TBC)
Matter		M Ashby recommendation (section 42A report author / WCC)	K O’Sullivan recommendation (WIAL)	M Lindenberg recommendation (Kainga Ora)
Outer Air Noise Overlay				
1 residential unit	Permitted	Permitted (no limit on residential units in non- residential zones?)	Permitted	Permitted
2 residential units	Permitted		Restricted discretionary	
3 residential units	Restricted discretionary		Restricted discretionary	
4 or more residential units	Restricted discretionary	Restricted discretionary	Restricted discretionary	Permitted (TBC)
Residential activity in non-residential zone	Varies	Same as above	Non-complying	Same as above
Additions / Alterations increasing the number of bedrooms	Permitted	Permitted	Permitted	Permitted (TBC)
Internal Sound Environment	N/A	External to internal noise reduction of 30 dB Dtr,2m,nT,w + Ctr.	40dB Ldn	External to internal noise reduction of 30 dB Dtr,2m,nT,w + Ctr. (TBC)
Acoustic Treatment Standards	N/A	Acoustic Insulation Mechanical Ventilation	Mechanical Ventilation	Acoustic Insulation (TBC) Mechanical Ventilation (TBC)
Gross Floor area increase	N/A	10% increase without acoustic treatment	All subject to acoustic treatment	25m2 permitted without acoustic treatment
Affected Party	N/A	No	Yes	No

Table 2: High level comparative analysis of Operative District Plan, M Ashby, K O’Sullivan and M Lindenberg position with respect to planning methods (residential activities only).

Non-compliance with standard	N/A	Discretionary	Discretionary	Restricted Discretionary (TBC)
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Red underlines show additions and red strikeouts show deletions made by Mr M Ashby in the section 42A report dated 3 July 2023.

Blue underlines show additions and blue strikeouts show deletions made by Mr M Ashby in the section 42A report dated 3 July 2023.

Green underlines show additions and green strikeouts show deletions made by Ms O'Sullivan in her Evidence in Chief, dated 18th July 2023. Yellow highlights show minor amendments made to those provisions since the 18th July which provide clarity.

Definitions

<p>AIR NOISE OVERLAY</p>	<p>means an area defined by planning maps to show land subject to development restrictions due to potential noise effects from Wellington International Airport. The Air Noise Overlay comprises:</p> <ol style="list-style-type: none"> a. Inner Air Noise Overlay – <u>an area of land within which aircraft noise exposure exceeding 65dB Ldn will be experienced, being properties lying between the Airport and a modelled 65 dBA contour, fitted to property boundaries.</u> b. Outer Air Noise Overlay – <u>an area of land within which aircraft noise exposure of between 65 and 60dB Ldn will be experienced, being properties lying between the 65 dBA contour and a modelled 60 dBA contour, fitted to property boundaries.</u> a. Air Noise Boundary – being a line shown on district plan maps used for controlling the emission of noise from aircraft operations at Wellington International Airport measured using rolling 90 day average 24 hour night weighted sound exposure in accordance with NZS 6805:1992 Airport noise management and land use planning. The location of the Air Noise Boundary is based on the modelled L_{dn} 65 dBA contour and therefore corresponds to the outer extent of the Inner Air Noise Overlay. <p><u>Note: The Air Noise Overlay is applied to all parts of a property, regardless of whether the modelled contour affects less than the entire property.</u></p>
<p><u>AIR NOISE BOUNDARY</u></p>	<p><u>means a boundary line shown on district plan maps the location of which is based on the predicted day / night sound level of 65dB Ldn from future aircraft operations at Wellington Airport. The outer extent of the Air Noise Boundary corresponds with the outer extent of the Inner Noise Overlay, used for controlling the emission of noise from aircraft operations at Wellington International Airport measured using rolling 90 day average 24 hour night weighted sound exposure in accordance with NZS 6805:1992 Airport noise management and land use planning. The location of the Air Noise Boundary is based on the modelled L_{dn} 65 dBA contour and therefore corresponds to the outer extent of the Inner Air Noise Overlay.</u></p>
<p><u>FIXED PLANT</u></p>	<p><u>means plant that is permanently or temporarily located and operated at any location and includes mechanical and building services equipment such as equipment that is:</u></p> <ol style="list-style-type: none"> a. <u>required for ventilating, extracting, heating, cooling, conditioning, and exhaust either of buildings or commercial activities;</u> b. <u>associated with boilers or plant equipment, furnaces, incinerators or refuse equipment;</u> c. <u>electrical equipment, plumbing (including pumps), lift or escalator equipment; or</u> d. <u>similar plant, equipment, items, rooms or services.</u>
<p><u>HELICOPTER NOISE EFFECTS ADVISORY OVERLAY</u></p>	<p><u>means an area defined by the planning maps, based on a distance of 500m from each of the two landing pads at Wellington Regional Hospital (Newtown). The advisory overlay serves to alert the potential for noise disturbance arising from the permitted regular use of helicopters as air ambulances or in emergencies.</u></p>

<p><u>HIGH NOISE AREA</u></p>	<p>means land and habitable rooms of buildings located within:</p> <ul style="list-style-type: none"> a. <u>40m of a State Highway designation;</u> b. <u>40m of a Railway designation;</u> c. <u>Courtenay Place Noise Area;</u> d. <u>General Industrial Zone;</u> e. <u>Inner Air Noise Overlay.</u> <p><u>With respect to railway and state highway designations, distance to the nearest habitable room of a building is measured to the closest point of the designation.</u></p>
<p><u>MODERATE NOISE AREA</u></p>	<p>means land and habitable rooms of buildings located within:</p> <ul style="list-style-type: none"> a. <u>The area between 40m and 100m of a State Highway designation with a posted speed limit or maximum variable speed limit greater than >70 km/hour;</u> b. <u>The area between 40m and 100m of a Railway designation;</u> c. <u>City Centre Zone;</u> d. <u>Mixed Use Zone;</u> e. <u>Commercial zone;</u> f. <u>Neighbourhood Centre Zone;</u> g. <u>Local Centre Zone;</u> h. <u>Metropolitan Centre Zone;</u> i. <u>Waterfront Zone;</u> j. <u>Outer Port Noise Overlay;</u> k. <u>Outer Air Noise Overlay.</u> <p><u>With respect to railway and state highway designations, distance to the nearest habitable room of a building is measured to the closest point of the designation.</u></p>
<p>NOISE SENSITIVE ACTIVITY</p>	<p>means any lawfully established:</p> <ul style="list-style-type: none"> a. residential activity, including activity in visitor accommodation or retirement accommodation; b. educational activity; c. health care activity <u>or hospital activity;</u> d. congregation within any place of worship; and e. activity at a marae.
<p><u>RAIL VIBRATION ADVISORY OVERLAY</u></p>	<p><u>means an area of land defined by the planning maps, being a distance of 60m beyond the railway designation boundary. The advisory overlay serves to alert property owners to the potential for railway related vibration to be received in that area. No district plan controls apply in relation to vibration as a result of this overlay.</u></p>
<p>WELLINGTON AIR NOISE MANAGEMENT COMMITTEE (WANMC)</p>	<p>means the body primarily responsible for the NMP, being a partnership between the Airport, aircraft operators, and the local community. Wellington City Council contributes to the WANMC, including through providing updated noise exposure reports from the noise monitoring system.</p>

Introduction to Airport Zone Chapter

Airport Noise

The management of noise associated with the Airport's operations is addressed in the District Plan Noise Chapter [and Wellington International Airport's designations](#). Noise is subject to the following interrelated controls:

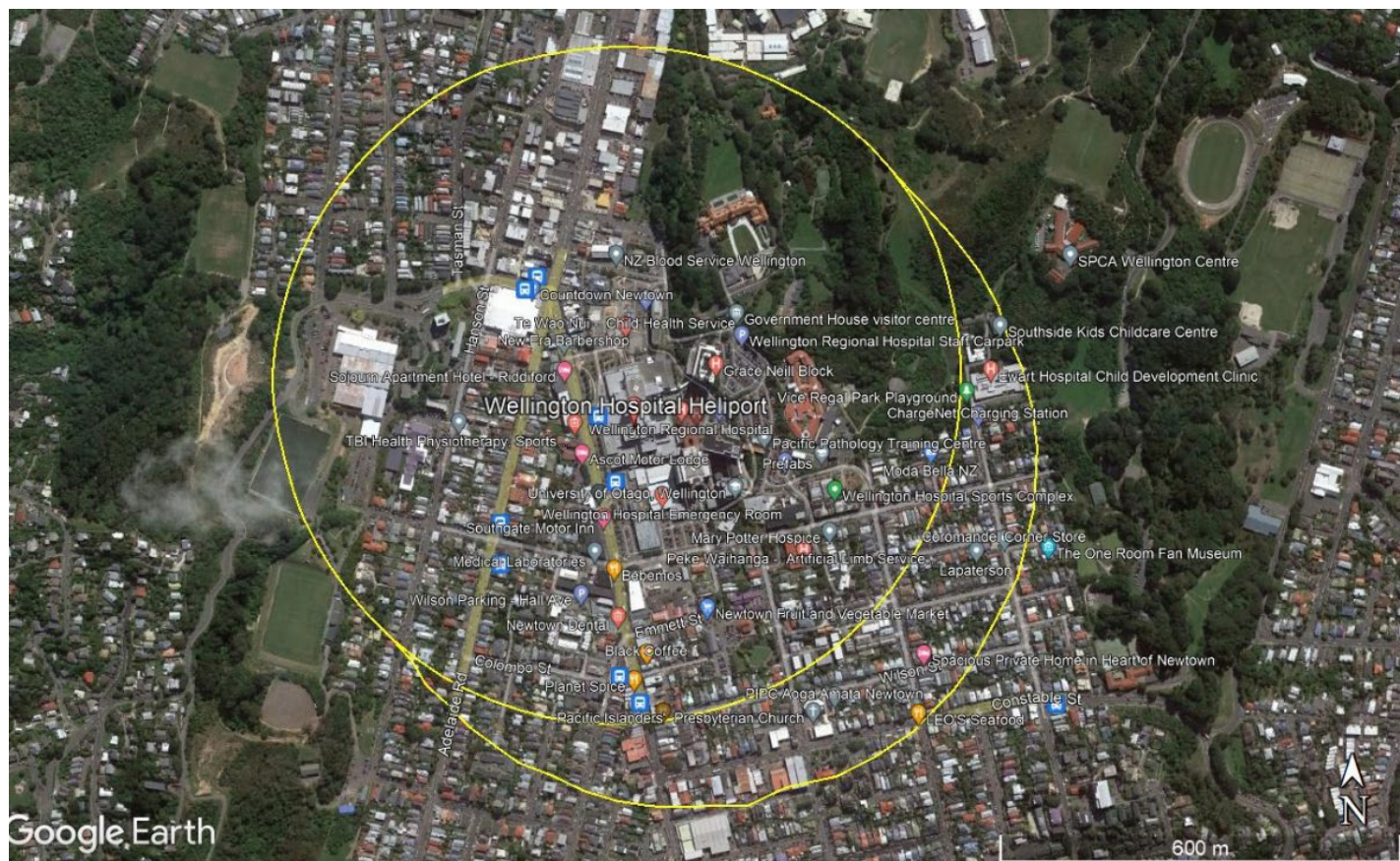
1. District Plan provisions which reference specific noise restrictions.

2. Conditions imposed on the Wellington International Airport Designations (which includes the operation of the Airport Noise Management Committee and the Airport Noise Management Plan). ~~District Plan provisions which reference the Airport's Noise Management Plan (NMPANMP).~~
- ~~3. The NMPANMP, which sits outside of the District Plan.~~
4. The Air Noise overlay (ANO) – 65 dB Air Noise Boundary (ANB) which is demarcated on the District Plan maps, and referenced in District Plan provisions ~~and the NMPANMP~~. The extent and nature of the ANO ANB is guided by the recommendations of New Zealand Standard NZS6805:1992 Airport Noise Management and Land Use Planning.
5. The Inner Air Noise Overlay and the Outer Air Noise Overlay, which are used to manage intensity of development by noise sensitive activities (such as residential development). The ~~O~~outer edge of the Inner Air Noise Overlay approximates the ANB. The ~~O~~outer edge of the Outer Air Noise ~~Boundary-Overlay~~ approximates a 60 dB Ldn ~~airnoise-noise~~ contour.

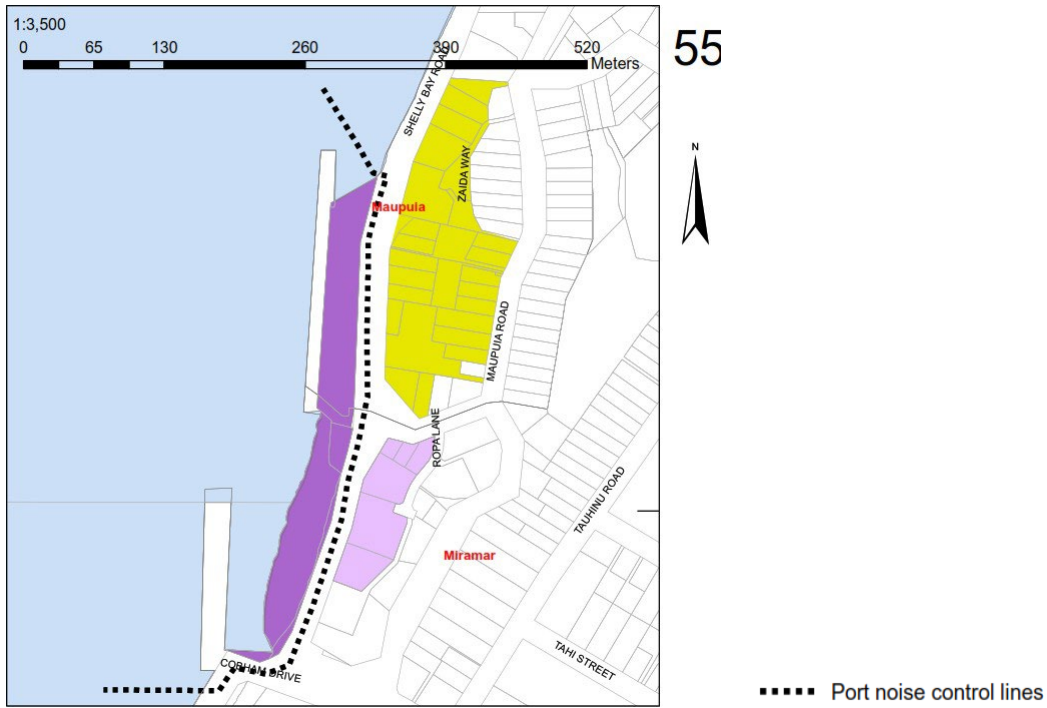
District Plan Maps

Amend planning maps to insert a noise overlay referred to as:

[500 metre Helicopter Noise Effects Advisory overlay \(HNEAO\)](#)



Amend planning maps to include the existing Burnham Wharf (Miramar) port noise control line shown by Map 55 in the operative district plan:



Te Oro

Noise

NOISE	Noise
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P1 Sch1 Introduction

Effective management of noise and vibration is a key aspect of achieving good environmental outcomes throughout the City.

Noise is well recognised as a potential environmental pollutant and nuisance. It can adversely affect health and amenity values, interfere with communication, and disturb sleep and concentration. For those, and other reasons, noise is the subject of frequent complaints received by council. Wellington's relatively compact nature, and anticipated residential intensification in the city centre area and other mixed use areas, make noise management an ongoing and important issue.

The provisions of this chapter manage potential adverse noise effects that can arise from a diverse range of activities. In addition, section 16 of the RMA imposes a duty on all persons to avoid unreasonable noise (which includes vibration) by adopting the best practicable option (BPO), regardless of whether the activity complies with a standard or rule. Section 17 of the RMA further imposes a general duty to avoid, remedy or mitigate adverse noise effects. At all times the Council has a responsibility to exercise its powers under the RMA to ensure that the general duties of sections 16 and 17 are met. RMA Sections 326 and 327 are used by Wellington City Council to control excessive noise.

The objectives, policies, rules and standards of the Noise chapter are linked to zones and to specific activities. They take into account the level, duration and nature of noise – within the context of the surrounding environment and whether noise can be reasonably mitigated. The provisions identify where sound insulation is a requirement for new noise sensitive activities, and also limit the establishment of noise sensitive activities in some cases. Noise sensitive activities are defined by the District Plan. [Mapped noise overlays are used in several cases to define areas in which noise effects from specific sources can be expected, up to prescribed limits. Examples include the Air Noise Overlay and the Port Noise Overlay. Noise overlays may also prescribe limits to intensification of noise sensitive activities \(such as new residential development\) and / or acoustic insulation and ventilation standards to assist in managing the effects of noise received in the overlays. Noise advisory overlays are also used, but without any associated district plan rules or standards.](#)

Other than where expressly provided for, the measurement of noise must be in accordance with New Zealand Standard NZS6801:2008 Acoustics – Measurement of Environmental Sound and New Zealand Standard NZS6802:2008 Acoustics – Environmental Noise. Some other standards are expressly provided for, such as NZS6803: 1999 Acoustics Construction Noise.

Some activities that generate noise are exempt from the noise rules set out in this chapter. This is because they are not controlled by the RMA, e.g. vehicles being driven on a road, or aircraft above 1,000 feet in flight over built up areas. In addition, the Civil Aviation Act ~~2003~~¹⁹⁹⁹ imposes certain rules requiring noise abatement procedures for aircraft operating in the vicinity of Wellington International Airport.

The following activities are exempt from the rules and standards contained in this chapter. They are:

1. Aircraft being operated above 1,000 feet (305m) over built up areas, or above 500 feet (152m) over rural areas;
2. Aircraft used in emergencies or as air ambulances;
3. Vehicles being driven on a road (within the meaning of section 2(1) of the Transport Act 1998), or within a site as part of or compatible with a normal residential activity (including apartments or mixed use activity);
4. Trains on rail lines (public or private) and crossing bells within the road reserve, including at railway yards, railway sidings or stations. This exemption does not apply to the testing (when stationary), maintenance, loading or unloading of trains;
5. Any warning device or siren used by emergency services for civil defence or emergency purposes (and routine testing and maintenance);
6. The use of generators and mobile equipment (including vehicles) when used solely for civil defence or emergency purposes, including testing and maintenance not exceeding 48 hours in duration, where they are operated by emergency services or lifeline utilities, or for the continuation of radiocommunication broadcasts;

7. Rural activities, including, agricultural vehicles, machinery or equipment used on a seasonal or intermittent basis in the Rural Zones excluding any fixed plant; and
8. Crowd or people noise from special events or temporary event activities including any events located in Open Space and Recreation Zones.

Note: Where standards are provided for specific activities, and there is a conflict between those standards and the zone interface standards or zone standards, the specific activity standards will prevail. In addition, resource consent may be required for the activity that generates noise. Provisions controlling the establishment of those activities may be contained in other chapters of the district plan.

Other relevant District Plan provisions
<p>It is important to note that in addition to the provisions in this chapter, the following Part 2: District-Wide chapters may also be of relevance.</p> <p>The noise provisions, while district wide, need to be considered in conjunction with zone specific chapters and their associated standards for activities. The relevant zone chapter will depend on the location of the activity.</p> <p>Noise from temporary activities is addressed in the Temporary Activities Chapter.</p> <p>Resource consent may therefore be required under rules in this chapter as well as other chapters. Unless specifically stated in a rule or in this chapter, resource consent is required under each relevant rule. The steps to determine the status of an activity are set out in the General Approach chapter.</p> <p><u>Noise emissions from activities at Wellington International Airport is primarily managed by Wellington International Airport Limited's Miramar South, Main Site and East Side Designations (WIAL2, WIAL4 and WIAL5). The rules set out in this chapter are therefore only apply icable to the extent that the land subject to the designation is used for a purpose other than the designated purpose. activities undertaken at Wellington International Airport where they are not being undertaken under those designations.</u></p>

Objectives	
P1 Sch1 ISPP	<p>NOISE-O1</p> <p>Managing noise generation and effects</p> <p><u>Adverse noise effects on amenity values are managed, and the health of people and communities are managed to levels is provided for, Amenity values and peoples' health and well-being are protected from adverse noise levels,</u> consistent with the anticipated outcomes for the receiving environment.</p>
P1 Sch1 ISPP	<p>NOISE-O2</p> <p>Reverse sensitivity</p> <p>Existing and authorised activities that generate high <u>higher</u> levels of noise are protected from reverse sensitivity effects.</p>
Policies	
P1 Sch1	<p>NOISE-P1</p> <p>General management of noise</p> <p>Enable the generation of <u>land</u> noise from activities that:</p> <ol style="list-style-type: none"> 1. <u>Maintain is consistent with</u> the amenity values of the receiving environment; and 2. Does not compromise the health, safety and wellbeing of people and communities.
P1 Sch1	<p>NOISE-P2</p> <p>Construction noise</p> <p>Enable construction activities while ensuring that unreasonable noise and vibration effects are managed effectively.</p>
P1 Sch1 ISPP	<p>NOISE-P3</p> <p>Higher noise areas</p> <p>Allow for higher noise levels to be generated within:</p> <ol style="list-style-type: none"> 1. <u>High Noise Areas</u> 2. <u>Moderate Noise Areas:</u> 3. General Rural Zone; 4. <u>Commercial and Mixed-Use Zones,Zone;</u>

	<p>5. Hospital Zone; 6. Tertiary Education Zone; 7. Stadium Zone; 8. Port Zone; 9. <u>Airport Zone and associated airspace;</u> 10. <u>City Centre Zone;</u> 11. <u>Courtenay Place Noise Area;</u> 12. <u>Mixed Use Zone;</u> 13. <u>General Industrial Zone;</u> and 14. <u>State Highway and Railway network designations</u></p> <p><u>The Port Noise Management Plan and the Airport Noise Management Plan (both required by NOISE S3) provide additional context for management of noise at these regionally significant facilities.</u></p>
P1 Sch1 ISPP	<p>NOISE-P4</p> <p><u>Protection of noise sensitive activities by a</u>Acoustic treatment of buildings used for noise sensitive activities and provision of alternative ventilation for buildings housing for noise sensitive activities</p> <p>Require sound insulation and / or mechanical ventilation for <u>buildings or rooms housing</u> new noise sensitive activities within <u>High Noise Areas and Moderate Noise Areas, consistent with the anticipated outcomes for each receiving environment:</u></p> <p>1. <u>The City Centre Zone;</u> 2. <u>Courtenay Place Noise Area;</u> 3. <u>The Waterfront Zone;</u> 4. <u>The Centres ZonesNeighbourhood Centre Zone;</u> 5. <u>Local Centre Zone;</u> 6. <u>Metropolitan Centre Zone;</u> 7. <u>The Mixed Use Zones;</u> 8. <u>Commercial Zone;</u> 9. <u>General Industrial Zones;</u> 10. <u>Outer Port Noise Overlay;</u> 11. <u>The Air Noise Overlay (Inner Air Noise Overlay and Outer Air Noise Overlay);</u> and 12. <u>Identified corridors adjacent to the State Highways and railway networks.</u></p> <p><u>The relevant acoustic insulation and ventilation standards are NOISE S4, NOISE S5 and NOISE S6. Two standards of acoustic insulation are prescribed to achieve acceptable indoor acoustic amenity in habitable rooms. NOISE S4 is the standard for High noise areas, and NOISE S5 is the standard for Moderate noise areas.</u></p>
P1 Sch1	<p>NOISE-P5</p> <p>Noise at Wellington Regional Stadium and the Basin Reserve</p> <p>Require that activities at Wellington Regional Stadium and the Basin Reserve, other than special entertainment events authorised as temporary activities, are managed effectively to mitigate adverse noise effects on residential amenity.</p>
ISPP	<p>NOISE-P6</p> <p>Development restrictions onof noise sensitive activities (excluding the Air Noise Overlay)</p> <p><u>Restrict/Manage</u> the development of noise sensitive activities within:</p> <p>1. The Inner Air Noise Overlay<u>High Noise Areas and Moderate Noise Areas;</u> and 2. Other locations<u>Buildings housing noise sensitive activities in High Noise Areas and Moderate Noise Areas</u> where ventilation and acoustic insulation standards are not met.</p> <p><u>High and Moderate Noise Areas are listed in NOISE R3.1 and NOISE R3.2. The relevant acoustic insulation and ventilation standards are NOISE S4, NOISE S5 and NOISE S6.</u></p> <p><u>New or intensified noise sensitive activities will be discouraged, where the risk of reverse-sensitivity effects on authorised compliant emitters of noise, and regionally significant infrastructure, in those areas cannot be appropriately managed.</u></p>

ISPP	NOISE-P7		<p>Development restrictions on noise sensitive activities within the Air Noise Overlay</p> <ol style="list-style-type: none"> 1. <u>Avoid the establishment of new or the intensification of existing noise sensitive activities within Open Space, Natural Open Space or General Industrial Zone where they are also located within the Air Noise Overlay;</u> 2. <u>Discourage the establishment of new or the intensification of existing noise sensitive activities within the Air Noise Overlay in all other zones unless the reverse sensitivity effects on Wellington International Airport can be appropriately managed.</u>
	Rules: Land use activities		
P1 Sch1	NOISE-R1		Noise not otherwise provided for in this chapter
	All Zones	1. Activity status: Permitted Where: a. Compliance with NOISE-S1 and APP4 is achieved.	
P1 Sch1	All Zones	2. Activity status: Restricted Discretionary Where: a. Compliance with the requirements of NOISE-R1.1.a cannot be achieved. Matters of discretion are: 1. The matters in NOISE-P1; and The extent and effect of non-compliance with any relevant standard as specified in the associated assessment criteria for the infringed standard.	
	NOISE-R2		Noise from construction, maintenance, earthworks, and demolition activities
	All Zones	1. Activity status: Permitted Where: a. All work will occur within the hours of 7.30am to 6.00pm Monday to Saturday; or and 3. Compliance with NOISE-S2 (Construction Activities) is achieved.	
	All Zones	2. Activity status: Restricted Discretionary Where: a. Compliance with the requirements of NOISE-R2.1.a cannot be achieved. Matters of discretion are: 1. The matters in NOISE-P2; and 2. The extent and effect of non-compliance with any relevant standard as specified in the associated assessment criteria for the infringed standard.	

<p>NOISE-R3</p>	<p>Noise sensitive activity in a new building, or in alterations / additions to an existing building (excluding the Air Noise Overlays)</p>
<p>As specified in Rule</p>	<p>1. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance with NOISE-S4 (High Noise Areas) and NOISE-S6 (Ventilation) is achieved for one residential unit on a site within:</p> <p>i. 40m of a State Highway;</p> <p>ii. 40m of a Railway corridor;</p> <p>iii. Courtenay Place Noise Area;</p> <p>iv. General Industrial Zone; or</p> <p>v. Inner Air Noise Overlay.</p> <p>Note: Distances from a state highway or railway corridor shall be measured from the closest habitable room to the closest point of a state highway or railway designation.</p> <p>1. <u>Activity status: Permitted</u></p> <p><u>Where:</u></p> <p>a. <u>Compliance with NOISE-S4 (High Noise Areas) and NOISE-S6 (Ventilation) is achieved within a High Noise Area for:</u></p> <p>ii. <u>One residential unit.</u></p> <p>iii. <u>Residential units in the Courtenay Place Noise Area.</u></p> <p>iv. <u>Alteration or addition to an existing habitable room.</u></p>

	As specified in Rule	<p>2.—Activity status: Permitted</p> <p>Where:</p> <p>a.— Compliance with NOISE-S5 (Moderate Noise Areas) and NOISE-S6 (Ventilation) is achieved for up to three residential units on a site within:</p> <ol style="list-style-type: none"> i.— The area between 40m and 100m80m of a State Highway with a posted speed limit greater than >70 km/hour; ii.— The area between 40m and 100m of a Railway corridor; iii.— City Centre Zone; iv.— Mixed Use Zone; v.— Commercial zone; vi.— Neighbourhood Centre Zone; vii.— Local Centre Zone; viii.— Metropolitan Centre Zone; ix.— Waterfront Zone; x.— Outer Port Noise Overlay; and xi.— Outer Air Noise Overlay. <p>Note: Distances from a state highway or railway corridor shall be measured from the closest habitable room to the closest point of a state highway or railway designation. Unless otherwise restricted by zone or overlay based rules, there is no limit on the number units per site on land further than 40m from a State Highway that has a posted speed limit equal to or less than 70 km/hour.</p> <p>2. Activity status: Permitted</p> <p>Where:</p> <p>a. <u>Compliance with NOISE-S5 (Moderate Noise Areas) and NOISE-S6 (Ventilation) is achieved within a Moderate Noise Area for:</u></p> <ol style="list-style-type: none"> i. <u>Up to three residential units on a site in a residential zone.</u> ii. <u>Residential units in other (non-residential) zones.</u> iii. <u>Alteration or addition to an existing habitable room.</u> iv. <u>Any other noise sensitive activity.</u> <p><u>Note:</u></p> <ol style="list-style-type: none"> 1. <u>The number of dwellings on a site includes any existing dwellings.</u> 2. <u>Unless otherwise restricted by zone or overlay based rules, there is no limit on the number of units per site on land further than 40m from a State Highway that has a posted or maximum variable speed limit equal to or less than 70 km/hour.</u>
	All Zones	<p>3.—Activity status: Restricted Discretionary</p> <p>Where:</p> <p>a.— Compliance with the requirements of NOISE-S4 and NOISE-S6 or NOISE-S5 cannot be achievedis achieved for two residential units on a site listed by NOISE-R3.1; or</p> <p>b.— Any noise sensitive activity is proposed on a site within land subject to NOISE-R3.2;</p> <p>c.— Two residential units are proposed on a site within the Inner Air Noise Overlay; and</p> <p>d.— Compliance with the requirements of NOISE-S5 and NOISE-S6 is achieved for four or more residential units on a site listed by NOISE-R3.2Four or more residential units are proposed on a site within the Outer Air Noise Overlay; or.</p>

	<p>e. <u>Any other noise sensitive activity is proposed on a site within land subject to NOISE-R3.2 and the requirements of NOISE-S5 and NOISE-S6 are achieved.</u></p> <p><u>Matters of discretion are:</u></p> <ol style="list-style-type: none"> 1. <u>The matters of assessment in NOISE-S4, and NOISE-S5 and NOISE-S6; and</u> 2. <u>The extent and effect of non-compliance with any relevant standard as specified in the associated assessment criteria for the infringed standard.</u> <p><u>Wellington International Airport Limited will be considered an affected party for applications within the Inner Air Noise Overlay.</u></p> <p><u>Note: This rule does not obligate Wellington International Airport Limited (WIAL) to provide or upgrade mechanical ventilation or noise insulation in a residential unit which has already received such treatment.</u></p> <p>3. <u>Activity status: Restricted Discretionary</u></p> <p><u>Where:</u></p> <ol style="list-style-type: none"> a. <u>Compliance with NOISE-S4 and NOISE-S6 is achieved within a High Noise Area site for:</u> <ol style="list-style-type: none"> i. <u>Two residential units.</u> b. <u>Compliance with NOISE-S5 and NOISE-S6 is achieved within a Moderate Noise Area site for:</u> <ol style="list-style-type: none"> i. <u>Four or more residential units in a residential zone.</u> ii. <u>Any other noise sensitive activity.</u> <p><u>Matters of discretion are:</u></p> <ol style="list-style-type: none"> 1. <u>The matters of assessment in NOISE-S4, NOISE-S5 and NOISE-S6.</u> 2. <u>The ability to achieve acceptable outdoor amenity.</u> 3. <u>Any proposed mitigation of noise, in accordance with a best practicable option approach (e.g., site layout and design, design and location of structures and buildings and outdoor amenity areas).</u> 4. <u>Sensitivity of the activities activity to current and predicted future noise generation from authorised compliant emitters of noise.</u> 5. <u>The risk of reverse sensitivity effects on regionally significant infrastructure.</u> 6. <u>The extent and effect of non-compliance with any relevant standard as specified in the associated assessment criteria for the infringed standard.</u> <p><u>Note:</u></p> <ol style="list-style-type: none"> 1. <u>The number of dwellings on a site includes any existing dwellings.</u> 2. <u>An operator of regionally significant infrastructure whose project, work or operations generate noise within a High Noise Area, may be considered an affected party for applications in that Area.</u>
	<p>4. <u>Activity status: Discretionary</u></p> <p><u>Where:</u></p> <ol style="list-style-type: none"> a. <u>Three or more residential units are proposed on a site subject to NOISE-3.1; or</u> b. <u>Compliance with the requirements of NOISE-R3.3 is not otherwise achieved; or</u> c. <u>Any other noise sensitive activity is proposed on a site within land subject to NOISE-R3.1; and</u> d. <u>Wellington International Airport Limited will be considered an affected party for applications within the Inner Air Noise Overlay. Three or more residential units are proposed on a site within the Inner Air Noise Overlay.</u>

		<p>Note: This rule does not obligate Wellington International Airport Limited (WIAL) to provide or upgrade mechanical ventilation or noise insulation in a residential unit which has already received such treatment.</p> <p>4. <u>Activity status: Discretionary</u></p> <p><u>Where:</u></p> <p>a. <u>Compliance with NOISE-S4 and NOISE-S6 is achieved within a High Noise Area site for:</u></p> <ol style="list-style-type: none"> <u>Three or more residential units in a residential zone.</u> <u>Alteration or addition to an existing dwelling that increases the existing number of bedrooms.</u> <u>Any noise sensitive activity not otherwise permitted.</u> <p>b. <u>On any site within a High or Moderate noise area:</u></p> <ol style="list-style-type: none"> <u>Compliance with the requirements of NOISE-R3 is not otherwise achieved.</u> <p><u>Note:</u></p> <ol style="list-style-type: none"> <u>The number of dwellings on a site includes any existing dwellings.</u> <u>An operator of regionally significant infrastructure whose project, work or operations generate noise within a High Noise Area, may be considered an affected party for applications in that Area.</u>
ISPP	NOISE-R3A	Noise sensitive activity within the Air Noise Overlay
	<u>Medium Density Residential Local Centre Zone</u> <u>Neighbourhood Centre Zone</u> <u>[Other zones that enable residential activity as a result of any rezoning recommended by the Panel]</u>	<p>1. <u>Activity status: Permitted</u></p> <p><u>One residential unit per site is permitted within the Air Noise Overlay where:</u></p> <p>(a) <u>Compliance with the requirements of NOISE-S16 and S17 is achieved;</u></p>
ISPP	<u>Medium Density Residential Local Centre Zone</u> <u>Neighbourhood Centre Zone</u> <u>[Other zones that enable residential activity as a result of any rezoning recommended by the Panel]</u>	<p>2. <u>Activity status: Restricted Discretionary</u></p> <p><u>Where:</u></p> <p>a. <u>Compliance with the requirements of NOISE-R3A.1 cannot be achieved; or</u></p> <p>b. <u>Any other noise sensitive activity is proposed on a site and the requirements of NOISE-S16 and NOISE-S6 are achieved.</u></p> <p><u>Matters of discretion are:</u></p> <ol style="list-style-type: none"> <u>The matters in NOISE-P3 and NOISE-P7;</u> <u>The ability to achieve acceptable outdoor amenity;</u> <u>Any proposed mitigation of aircraft noise, in accordance with a best practicable option approach (e.g site layout and design, design and location of structures and buildings and outdoor amenity areas).</u> <u>The extent to which the effects, as a result of the sensitivity of the activities to current and future noise generation from aircraft operations, are proposed to be managed, including avoidance of any effect that may limit the operation, maintenance or upgrade of Wellington International Airport.</u> <p><u>Wellington International Airport Limited will be considered an affected party for applications for noise sensitive activities within the Air Noise Overlay.</u></p>

P1 Sch 1	Medium Density Residential Local Centre Zone Neighbourhood Centre Zone [Other zones that enable residential activity as a result of any rezoning recommended by the Panel]	2. Activity status: Discretionary Where: c. Any noise sensitive activity is proposed on a site and the requirements of NOISE-S16 or NOISE-S17 are not achieved. Wellington International Airport Limited will be considered an affected party for applications for noise sensitive activities within the Air Noise Overlay.
	General Industrial Zone Open Space Zone Airport Zone Mixed Use Zone	1. Activity status: Non-complying Where: (a) Any noise sensitive activity located within the Air Noise Overlay and not subject to NOISE-R3A.1 or NOISE-R3A.2.
P1 Sch1	NOISE-R4	Helicopter Landing Noise
	Hospital Zone Airport Zone	1. Activity status: Permitted <i>Note: The likelihood of noise arising from helicopter activity in the area surrounding Wellington Regional Hospital (Newtown) is signalled by a mapped noise alert-advisory overlay. Aircraft (which includes helicopters) used in emergencies or as air ambulances, are exempt from the provisions of the Noise chapter. There are no associated standards.</i>
	All other Zones	2. Activity status: Permitted Where: a. Compliance with the recommended limits and noise management provisions as set out in NZS6807:1994 Noise Management and Land Use Planning for Helicopter Landing Areas is achieved.
	All other Zones	3. Activity status: Discretionary Where: a. Any of the requirements of NOISE-R4.2 cannot be achieved.
P1 Sch1	NOISE-R5	Noise from Wellington Regional Stadium and the Basin Reserve
	Stadium zone Basin Reserve	1. Activity status: Permitted Where: a. The noise is from Wellington Regional Stadium or the Basin Reserve; and i. Compliance with NOISE-S1 and APP4 is achieved; or ii. Compliance with TEMP-S8 or TEMP-S9 is achieved.
	Stadium zone Basin Reserve	2. Activity status: Restricted Discretionary Where: a. Compliance with NOISE-R5.1.a is not achieved.

		<p>Matters of discretion are:</p> <ol style="list-style-type: none"> 1. Whether noise emission levels would increase the background noise levels for a noise sensitive activity, creating a noise nuisance for the occupants of a noise sensitive site; 2. Whether the sound characteristics of the noise emissions or the time of day at which noise occurs is likely to lead to sleep disturbance or other form of nuisance associated with noise; 3. The manner in which buildings, structures or machinery are designed and arranged to reduce the noise emission levels likely to emanate from the noise source; and 4. The best practicable options available to reduce the adverse effects of the noise.
P1 Sch1	NOISE-R6	Fixed Plant Noise
	All Zones	<ol style="list-style-type: none"> 1. Activity status: Permitted <p>Where:</p> <ol style="list-style-type: none"> a. Compliance with NOISE-S7 and APP5 is achieved; or b. The noise is generated by fixed plant used solely for emergency or civil defence purposes; or c. The noise is generated by fixed plant in relation to Operational Port Activities, and: <ol style="list-style-type: none"> i. Only operates for maintenance between 8:00am and 5:00pm weekdays; and ii. Compliance with NOISE-S1 and APP5 is achieved; or Compliance with NOISE-S7 is achieved. <p style="color: red;">Exemption: The noise limits set in standard NOISE-S7 do not apply to fixed plant located in the Special Purpose Port Zone, in relation to Operational Port Activities.</p> <p style="color: red;">Fixed plant is exempt from the noise limits provided that it:</p> <p style="color: red;">only operates for maintenance between 8:00am and 5:00pm weekdays, and can comply with NOISE-S1.</p>
	All Zones	<ol style="list-style-type: none"> 2. Activity status: Restricted Discretionary <p>Where:</p> <ol style="list-style-type: none"> a. Compliance with the requirements of NOISE-R6.1 cannot be achieved. <p>Matters of discretion are:</p> <ol style="list-style-type: none"> 1. The matters in NOISE-P1; and 2. The extent and effect of non-compliance with any relevant standard as specified in the associated assessment criteria for the infringed standard.
P1 Sch1	NOISE-R7	Commercial facility dog noise (day care, dog parks, boarding kennels)

	As specified in Rule	<p>1. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance is achieved with NOISE-S1 <u>and APP4</u> within:</p> <ul style="list-style-type: none"> i. General Rural zone; ii. Large Lot Residential zone; iii. General Industrial zone; iv. City Centre zone; v. Metropolitan Centre zone; vi. Town Centre zone; vii. Mixed use zone; viii. Commercial zone; ix. Local Centre zone; x. Neighbourhood Centre zone; and <p>b. The hours of operation are between 7:00am and 7:00pm, all days of the week; and</p> <p>c. Operation does not include overnight boarding and / or outdoor facilities for overnight stay.</p>
	All other Zones	<p>2. Activity status: Discretionary</p> <p>Where:</p> <p>a. Any of the requirements of NOISE-R7.1 cannot be achieved.</p>
P1 Sch1	NOISE-R8	Shooting range and firearm noise
	<u>Airport Zone</u> <u>General Rural Zone</u>	<p>1. <u>Activity status: Permitted</u></p> <p><u>Where:</u></p> <p>a. <u>In the Airport Zone, shooting is:</u></p> <ul style="list-style-type: none"> i. <u>For the purposes of wildlife management in respect of aircraft safety; and</u> ii. <u>Complies with any terms set by the Airport Noise Management Plan (ANMP).</u> <p>b. <u>In the General Rural Zone is for the purpose of conservation activities or informal recreation activities.</u></p>
	<u>All Zones</u>	<p>2. Activity status: Discretionary</p> <p><u>Where:</u></p> <p>a. <u>Any of the requirements of NOISE-R8.1 cannot be achieved.</u></p> <p>b. <u>Shooting range or firearm noise otherwise occurs and is not subject to provisions of the Temporary Activities chapter.</u></p>
P1 Sch1	NOISE-R9	Blasting noise
	All Zones	<p>1. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance is achieved with NOISE-S2 (Blasting); and</p> <p>b. The activity is a quarrying activity.</p>

	Quarry Zone	<p>2. Activity status: Permitted</p> <p>Where:</p> <ol style="list-style-type: none"> Compliance is achieved with NOISE-S2 (Kiwi Point Quarry); and The activity is a quarrying activity; and Located in the Special Purpose Quarry Zone (Kiwi Point Quarry)
	All Zones	<p>3. Activity status: Restricted Discretionary</p> <p>Where:</p> <ol style="list-style-type: none"> Compliance is not achieved with NOISE-R9.1.a or NOISE-R9.1.b <p>Matters of discretion are:</p> <ol style="list-style-type: none"> Peak noise levels from blast events; The frequency and the number of blast events; The number of blasts per year; The extent to which noise and vibration effects from blasting activities are minimised; and Whether surrounding property owners will be notified of blasting events in advance of the activity.
P1 Sch1	NOISE-R10	Home business noise
	All Zones	<p>1. Activity status: Permitted</p> <p>Where:</p> <ol style="list-style-type: none"> Compliance is achieved with NOISE-S2 (Home Business Activity) <u>and APP4</u>.
	All Zones	<p>2. Activity status: Discretionary</p> <p>Where:</p> <ol style="list-style-type: none"> Any of the requirements of NOISE-R10.1 cannot be achieved.
P1 Sch1	NOISE-R11	Electronic sound system noise
	<u>All Zones</u> <u>Commercial and</u> <u>Mixed Use Zones</u>	<p>1. Activity status: Permitted</p> <p>Where:</p> <ol style="list-style-type: none"> Compliance is achieved with NOISE-S2 (Electronic Sound System Noise).
	All Zones	<p>2. Activity status: Discretionary</p> <p>Where:</p> <ol style="list-style-type: none"> Any of the requirements of NOISE-R11.1 cannot be achieved.
P1 Sch1	NOISE-R12	Port noise

P1 Sch1

	All Zones	<p>1. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance is achieved with NOISE-S1 <u>and APP4</u>.</p>
	All Zones	<p>2. Activity status: Discretionary</p> <p>Where:</p> <p>a. Compliance with NOISE-R12.1 cannot be achieved.</p>
	NOISE-R13	Airport noise
	All Zones <u>Airport Zone</u>	<p>1. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance is achieved with the following standards:</p> <p>i. NOISE-S1;</p> <p>ii. NOISE-S8;</p> <p>iii. NOISE-S9;</p> <p>iv. NOISE-S10;</p> <p>v. NOISE-S11;</p> <p>vi. NOISE-S12;</p> <p>vii. NOISE-S14; ; <u>and</u></p> <p>viii. NOISE-S15;</p> <p><u>And</u></p> <p>b. Compliance is achieved with all of the following conditions in the identified designations:</p> <p>i. WIAL2 (Miramar South Area)</p> <p>a. Conditions 10 and 11</p> <p>b. Conditions 14 to 18</p> <p>ii. WIAL4 (Airport Main Site Area)</p> <p>a. Conditions 23 to 27</p> <p>b. Conditions 29 to 31</p> <p>iii. WIAL5 (Airport East Side Area)</p> <p>a. Conditions 31 and 33</p> <p>b. Conditions 34 and 35</p> <p>c. Condition 37</p> <p><u>Aircraft noise will be measured in accordance with NZS 6805:1992 Airport noise management and land use planning and calculated as a 90 day rolling average. All terminology must have the meaning that may be used or defined in the context of NZS6805:1992 Airport noise management and land use planning.</u></p> <p><u>The level of noise from aircraft operations, for comparison with Ldn 65 dBA, is calculated from the total amount of noise energy produced by each aircraft event (landing or take off) over a period of 90 days. This method of control does not directly control individual aircraft events, but does so indirectly by taking into account their contribution to the amount of noise generated in a 24 hour period.</u></p>

	<p><u>All Zones-Airport Zone</u></p>	<p>2. Activity status: Restricted Discretionary</p> <p>Where:</p> <p>a. Compliance is not achieved with NOISE-R13.1.a <u>(except in relation to NOISE-S10);</u></p> <p>Matters of discretion are:</p> <ol style="list-style-type: none"> 1. Relevant matters listed in NOISE-P1; 2. The degree to which noise emissions can be reduced through mitigation or management measures, changes in the location, or methods of operation of the activity; 3. Whether the proposal will have any adverse effects on the health and safety of people; and 4. The effects of the type, intensity and duration of the noise emitted from any activity. 5. Relevant matters in the Airport Noise Management Plan (ANMP) – see NOISE-S3.
	<p><u>All Zones-Airport Zone</u></p>	<p>3. Activity status: Non-complying</p> <p>Where:</p> <p>a. Compliance is not achieved with:</p> <p style="padding-left: 40px;">i. NOISE-S9;</p> <p style="padding-left: 40px;"># NOISE-S10;and or</p> <p>b. Noise from any land based activity in the Airport Zone exceeds the limits in NOISE-S14 by more than 5dB.</p> <p>Notification Status: An application for resource consent made in respect of this rule must be publicly notified.</p>

Standards – Permitted activity noise and sound insulation standards

P1 Sch1	NOISE-S1	Maximum permitted activity noise levels by zone	
	<p>Subject to any Temporary Activity exclusions in the District Plan, or conditions of a resource consent or designation, noise generated by any activity in all zones must not exceed permitted noise limits within the receiving zone set out in APP4 – Permitted Noise Standards.</p>	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Background noise levels and any special character of noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities; 2. Any mitigation of the noise proposed, in accordance with a best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operations); and 3. The ability to mitigate adverse effects through the imposition of conditions such as noise attenuation. 	
P1 Sch1	NOISE-S2	Maximum permitted noise levels by activity	
	<ol style="list-style-type: none"> 1. Construction activities 	<p>The noise from any construction, maintenance, earthworks and demolition activities must be measured, assessed, managed and controlled in accordance with the requirements of NZS6803:1999 Acoustics Construction Noise.</p> <p>Noise due to the following activities shall be exempt from compliance:</p> <ol style="list-style-type: none"> 1. Urgent repair of utilities to maintain continuity of service, to protect life or limb or minimise or prevent loss or serious damage to property. 2. In the City Centre Zone, where the best practicable option to reduce noise to a reasonable level requires construction work to be undertaken outside normal working hours. <p>The vibration from any construction, maintenance, earthworks and demolition activities must be measured, assessed, managed and controlled in accordance with the requirements of DIN 4150-3:2016 Structural Vibration – Part 3: Effects of Vibration on Structures</p> <p>Nothing in this Standard shall be used to prevent emergency work from taking place.</p>	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Background noise levels and any special character of noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities; 2. Any mitigation of the noise proposed, in accordance with a best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operations); and 3. The ability to mitigate adverse effects through the imposition of conditions such as noise attenuation.

2. Blasting		<p>Peak noise levels from blasting activities must not exceed the following when measured within the notional boundary of any building set out in NOISE-S2 (Blasting) a, b or c <u>1, 2 or 3</u>, below:</p> <ol style="list-style-type: none"> 1. Occupied noise sensitive activity and visitor accommodation: <ol style="list-style-type: none"> a. permissible blasting time window: 7:00am to 7:00pm; and b. number of blasts per year: ≤ 20; and <ol style="list-style-type: none"> i. maximum peak sound level of 120 dB LZpeak; or c. number of blasts per year: >20; and <ol style="list-style-type: none"> i. maximum peak sound level of 115 dB LZpeak; or 2. Occupied commercial and industrial buildings: <ol style="list-style-type: none"> a. permissible blasting time window: All hours of occupation; and b. no limit on number of blasts per year; and <ol style="list-style-type: none"> i. maximum peak sound level of 125 dB LZpeak; or 3. Unoccupied buildings <ol style="list-style-type: none"> a. permissible blasting time window: All times; and b. no limit on the number of blasts per year; and c. all blasts comply with a maximum peak sound level of 140 dB LZpeak.
3. Kiwi Point Quarry		<ol style="list-style-type: none"> 1. Peak noise from blasting activities must not exceed the levels set out in NOISE-S2 (Blasting) when measured within the notional boundary of any building. 2. Blasting of faces for crushed rock production may only occur between 10.00am and 2.00pm weekdays. 3. In all cases, for the northern face residents of Tarawera Road, Plumer Street, 113, 130, 166, 170 and 175 Fraser Avenue, and 146 Burma Road, and for the southern face the residents of 25-46 Gurkha Crescent, Shastri Terrace and 6-28 (even numbers) Imran Terrace and the abattoir operator must be notified by mail, by email or by other electronic means no less than one week in advance of blasting. 4. Blasting must be immediately preceded by a siren or hooter with a sound which distinguishes it from normal Police, Ambulance or Fire Service sirens.
4. Home business activity		<p>Noise generated by any home business activity (or noise source associated with the work from home business activity), when measured at or within the boundary of any site, other than the site from which the noise is emitted, must comply with the noise limits stated in NOISE-S1 <u>and APP4</u>.</p>

	5. Electronic sound system noise	<p>Electronic sound systems within the Commercial and Mixed Use zones must comply with the below:</p> <ol style="list-style-type: none"> 1. <u>Within the Commercial and Mixed Use zones, noise</u> emission levels in any public space (including streets and parks) generated by electronic sound systems must not exceed 75dB LAeq (2 minutes). In any event the measurements must be made no closer than 0.6 metres from any part of a loudspeaker and at a height no greater than 1.8 metres (representative of the head of a passer-by). 2. The measured level(s) under NOISE-S2 (Electronic sound systems) shall have no adjustments for Special Audible Characteristics (SAC's) when assessed in accordance with New Zealand Standards NZS 6802:2008 Acoustics – Environmental Noise 	
P1 Sch1	NOISE-S3	Noise management plans	
	Port Activities	<ol style="list-style-type: none"> 1. The port company (CentrePort) must at all times operate in accordance with a Port Noise Management Plan, which must include but is not limited to the matters set out below. The Port Noise Management Plan must be developed to the satisfaction of 	
		<p>Wellington City Council and Greater Wellington Regional Council.</p> <ol style="list-style-type: none"> 2. The port company must undertake a noise monitoring programme annually (once every calendar year) to ensure that noise from port related activities comply with NOISE-S1 at the Port Noise Control Line. This monitoring will be undertaken in accordance with the 'CentrePort Noise Management Plan for CentrePort Ltd' (dated December 2008) and the information shall be reported to Wellington City Council's Compliance Manager. 3. The Port Noise Management Plan must: <ol style="list-style-type: none"> a. State the objectives of the Management Plan. b. Identify all significant noise sources from port activities undertaken by the port within the Port Zone and the adjacent Coastal Marine Area. c. Identify the best practical options to ensure the emission of noise does not exceed the noise levels specified in NOISE-S1. d. Identify techniques that will be considered to reduce the emission of noise over time and indicate which of these techniques will be adopted to achieve realistic objectives in managing noise. e. Explain how the port company will take noise effects into account in the design and location of new, altered or extended port activities. f. Identify how the port company will work with independent companies and external contractors to ensure that transport noise and noise from other activities within the port area will be kept to a minimum practical noise level. g. Identify procedures for noise reduction through the port company's staff and contractor training. 	

		<ul style="list-style-type: none"> h. Provide for the establishment and maintenance of a Port Noise Liaison Committee (the port company may provide for this function within the operation of its Environmental Consultative Committee). i. (List the Port Noise Liaison Committee functions; and the procedures for the recommendations of the Committee to be considered and determined by the port company. j. Detail procedures for receiving and deciding on complaints. k. Detail procedures for noise monitoring, auditing and reporting. l. Include procedures for the review and alteration of the Port Noise Management Plan. 	
	Airport Activities	<p>The provisions below do not, in any way, limit the obligations of the Airport company (WIAL) to fully comply with any Airport Designation Condition.</p> <p>1.— The Airport must at all times maintain and implement an Airport Noise Management Plan (ANMP). Any alteration or update to the ANMP is subject to certification by the Council.</p> <p>2.— The ANMP must include, as a minimum:</p>	
		<ul style="list-style-type: none"> a.— Terms of Reference which include the purpose, membership and functions of the ANMC. b.— A statement of noise management objectives and policies for the Airport; c.— Details of methods and processes for remedying and mitigating adverse effects of Airport noise including but not limited to: <ul style="list-style-type: none"> i.— improvements to Airport layout to reduce ground noise; ii.— Guidance relating to APU usage and how that usage will be reduced over time where practicable; iii.— improvements to Airport equipment (including provision of engine test shielding such as an acoustic enclosure for propeller driven aircraft) to reduce ground noise; iv.— aircraft operating procedures in the air and on the ground procedures to minimise noise where this is practicably achievable; v.— an Airport Wide Construction Noise Management Plan which outlines methods for guiding the way construction noise is managed including guidance for where a Project Specific Construction Noise Plan is required for a project. d.— Procedures for the convening, ongoing maintenance and operation of the ANMC; e.— Mechanisms to give effect to a noise monitoring programme to assess compliance with district plan noise standards; f.— Procedures for reporting to the ANMC any Aircraft Operations and engine testing activities which contravene district plan noise standards; 	

		<p>g. Methods necessary for the Airport to complete implementation of the Quieter Homes Programme;</p> <p>h. A complaints procedure including: recording; reporting back to complainants; corrective actions; and reporting to the Council and to the ANMC;</p> <p>i. A dispute resolution procedure to resolve any disputes between the Airport company and the ANMC about the contents and implementation of the ANMP;</p> <p>j. Communication methods to maintain contact with potentially noise affected communities;</p> <p>k. Preparation and implementation of an annual stakeholder communications plan;</p> <p>l. Procedures for obtaining and making noise monitoring and compliance data publicly available on WIAL's website;</p> <p>m. Procedures (including frequency) for reviewing and amending the ANMP.</p> <p>n. Arrangements for funding the ongoing membership and function of the ANMC.</p>	
ISPP	NOISE-S4	Acoustic Insulation – high noise areas	
	<p>High Noise Areas Within 40m of a State Highway</p> <p>Within 40m of a Railway Corridor</p> <p>General Industrial Zone</p> <p>Courtenay Place Noise Area</p> <p>Inner Air Noise Overlay</p>	<ol style="list-style-type: none"> Except as provided for in (2) Any habitable room in a building used by a noise sensitive activity in a new building or alteration or addition to an existing building, must be designed, constructed, and maintained to achieve a minimum external to internal noise reduction for habitable rooms of not less than 35 dB Dtr,2m,nT,w + Ctr. Any alteration or addition to a habitable room used by a noise sensitive activity within an existing building, which does not increase the gross floor area of the affected room by more than 10%, providing that the addition or alteration does not increase the number of bedrooms or sleeping rooms. Compliance with this standard must be achieved by ensuring habitable rooms are designed and constructed in a manner that accords with: <ol style="list-style-type: none"> Table II – Minimum construction requirements for external building elements of habitable rooms to achieve an advanced level of acoustic insulation; or an acoustic design certificate signed by a suitably qualified acoustic engineer and experienced acoustic expert stating the design proposed will achieve compliance with this standard. Acoustic insulation must be assessed in accordance with ISO 717-1:2020 Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation. The requirements of (a) above do not apply where an acoustic design certificate signed by a suitably 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> Background noise levels and any special character of noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities; Adverse effects on health and amenity indoors for occupants of buildings containing noise sensitive activities; The ability to achieve acceptable outdoor acoustic amenity; Any mitigation of the noise proposed, in accordance with a best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operations); The ability to mitigate adverse effects through the imposition of conditions such as noise attenuation; and In relation to a heritage building or a contributing building within a heritage area, the extent to which it is practicable to insulate to the required standard without detracting from identified heritage values.


		<p>qualified acoustic engineer and experienced acoustic expert, confirms the level of noise incident on the most exposed part of the exterior of any habitable room can be shown, under a reasonable maximum use scenario, to does not exceed the following outdoor noise limits at all points 1.5m above ground level, and any part of the floor levels above ground:</p> <ol style="list-style-type: none"> less than 55 dB LAeq (1h) for rail noise; or Less than 57 dB LAeq (1h 24h) for roadhighway noise; or Less than 57 dB L_dAeq (1-hr) for port noise. <p>Notes:</p> <ol style="list-style-type: none"> This standard applies in addition to, and does not affect the requirements of, the Building Act 2004. Note: Distances from a state highway or railway corridor shall be measured from the closest habitable room to the closest point of a state highway or railway designation. 'Reasonable maximum use scenario' shall be the level of noise incident on the exterior of the habitable room based on: <ol style="list-style-type: none"> Rail noise – 70 LAeq(1h) at a distance of 12 metres from the track, then deemed to reduce at a rate of 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres. Highway noise – The current day measured or predicted road traffic noise level LAeq (24 h) plus 2 dB. Port noise – The maximum permitted port noise L_dn level based on the location of the Port Noise Control Line. Port noise sources shall be deemed to be operating within wharf areas. 	
P4 Sch41 SPP	NOISE-S5	Acoustic insulation – moderate noise areas	
	<p>Moderate Noise Areas City Centre Zone</p> <p>Mixed Use Zone</p> <p>Commercial Zone General Industrial Zone</p> <p>Neighbourhood Centre Zone</p> <p>Local Centre Zone</p> <p>Metropolitan Centre Zone</p> <p>Waterfront Zone The area between</p>	<ol style="list-style-type: none"> Except as provided in (2) Aany habitable room in a building used by a noise sensitive activity in a new building or alteration or addition to an existing building, must be designed, constructed, and maintained to achieve a minimum external to internal noise reduction for habitable rooms of not less than 30 dB Dtr,2m,nT,w + Ctr. Any alteration or addition to a habitable room used by a noise sensitive activity within an existing building, which does not increase the gross floor area of the affected room by more than 10%, providing that the addition or alteration does not increase the number of bedrooms or sleeping rooms. Acoustic insulation must be assessed in accordance with ISO 717-1:2020 Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation. Compliance with this standard must be achieved by ensuring habitable rooms are designed and constructed in a manner that accords with: 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> Background noise levels and any special character of noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities; Adverse effects on health and enmity indoors for occupants of buildings containing noise sensitive activities; The ability to achieve acceptable outdoor acoustic amenity; Any mitigation of the noise proposed, in accordance with a best practicable option approach (e.g. site layout and design, design and location of

<p>40m and 100m of a railway corridor The area between 40m and 100m of a State Highway with a posted speed limit >70 km/hour</p> <p>Outer Port Noise Overlay</p> <p>Outer Air Noise Overlay</p>		<p>a. Table 1 – Minimum construction requirements for external building elements of habitable rooms to achieve a moderate level of acoustic insulation; or</p> <p>b. an acoustic design certificate signed by a suitably qualified <u>acoustic engineer and experienced acoustic expert</u> stating the design proposed will achieve compliance with this standard.</p> <p>5. The requirements of 3(a) above do not apply where an acoustic design certificate signed by a suitably qualified <u>acoustic engineer and experienced acoustic expert</u>, confirms the level of noise incident on the most exposed part of the exterior of any habitable room can be shown, under a reasonable maximum use scenario, to does not exceed the following noise limits at all points 1.5m above ground level, and any part of the floor levels above ground:</p> <p>a. Less than 55 dB LAeq (1h) for rail noise; or</p> <p>b. Less than 57 dB LAeq (1h) (24h) for <u>road highway</u> noise; or</p> <p>c. Less than 57 dB L_{dn}Aeq (1 hr) for port noise.</p> <p>Notes:</p> <p>1. This standard applies in addition to, and does not affect the requirements of, the Building Act 2004.</p> <p>2. Note: Distances from a state highway or railway corridor shall be measured from the closest habitable room to the closest point of a state highway or railway designation.</p> <p>3. <u>'Reasonable maximum use scenario' shall be the level of noise incident on the exterior of the habitable room based on:</u></p> <p>a. <u>Rail noise – 70 LAeq(1h) at a distance of 12 metres from the track, then deemed to reduce at a rate of 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres.</u></p> <p>b. <u>Highway noise – The current day measured or predicted road traffic noise level LAeq (24 h) plus 2 dB.</u></p> <p>c. <u>Port noise – The maximum permitted port noise L_{dn} level based on the location of the Port Noise Control Line. Port noise sources shall be deemed to be operating within wharf areas.</u></p>	<p>structures, buildings and equipment and the timing of operations);</p> <p>5. The ability to mitigate adverse effects through the imposition of conditions such as noise attenuation; and</p> <p>6. In relation to a heritage building or a contributing building within a heritage area, the extent to which it is practicable to insulate to the required standard without detracting from identified heritage values</p>
<p>P1 Sch1</p>	<p>NOISE-S6</p>	<p>Ventilation requirements</p>	
	<p>All Zones</p>	<p>1. The minimum external to internal noise reduction levels in NOISE-S4 and NOISE-S5 must be achieved at the same time as the ventilation requirements of the New Zealand Building Code. <u>Minimum ventilation standards are set out below for habitable rooms classified into one of two possible categories as follows:</u></p> <p>a. <u>Habitable rooms with openable windows sufficient in area to meet the ventilation requirements of the New Zealand Building Code;</u></p>	<p><u>Assessment criteria where the standard is infringed:</u></p> <p>1. <u>The ability to achieve acceptable indoor ventilation and acoustic amenity;</u></p> <p>2. <u>Any mitigation of the proposed ventilation noise, in accordance with a best practicable option approach;</u></p>

		<p style="text-align: center;"><u>and</u></p> <p>b. <u>All other habitable rooms requiring to be acoustically insulated under NOISE-S4 and NOISE-S5</u></p> <p>2. <u>Where habitable rooms are provided with windows openable to the outside environment sufficient in area to meet the ventilation requirements of the New Zealand Building Code, and where these windows must remain closed to achieve compliance with NOISE-S4 and NOISE-S5 acoustic insulation standards, the room shall meet the following minimum requirements:</u></p> <p>a. <u>The room is to be provided with a mechanical ventilation system with air flow rates adjustable by the occupant in increments up to a high air flow setting of at least three air changes per hour; and</u></p> <p>b. <u>The room is provided with cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C; and</u></p> <p>c. <u>Any ventilation system installed in compliance with (a) and (b) above must not generate noise at levels greater than 35 dB L_{Aeq} (30s) when measured 1 metre from any grille or diffuser.</u></p> <p>3. <u>Excluding habitable rooms qualifying under (2) above, minimum ventilation system requirements for habitable rooms requiring to be acoustically insulated under NOISE-S4 and NOISE-S5 are set out as follows:</u></p> <p>a. <u>The room is to be provided with a mechanical ventilation system with air flow rates adjustable by the occupant in increments up to a high air flow setting of at least six air changes per hour, with relief provided for equivalent volumes of spill air; and</u></p> <p>b. <u>The room is provided with cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C; and</u></p> <p>c. <u>Any ventilation system installed in compliance with (a) and (b) above must not generate noise at levels greater than 35 dB L_{Aeq} (30s) when measured 1 metre from any grille or diffuser up to maximum flow rate of three air changes per hour.</u></p> <p>4. <u>Confirmation of compliance with this standard will be required by a qualified professional.</u></p> <p>5. <u>Mechanical ventilation systems shall include Filter Class of at least ISO Coarse 70%, and the filter shall be readily serviceable.</u></p> <p>6. <u>Where ventilation ducting is built in and not serviceable, it shall be rigid.</u></p> <p>7. <u>Where ventilation ducting is serviceable, it may be flexible.</u></p> <p>Note: This standard applies in addition to, and does not affect the requirements of, the Building Act 2004.</p>	<p>3. <u>The ability to mitigate adverse effects through the imposition of conditions;</u></p> <p>4. <u>In relation to a heritage building or a contributing building within a heritage area, the extent to which it is practicable to achieve ventilation to the required standard without detracting from identified heritage values</u></p>
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P1 Sch1	NOISE-S7	Fixed plant noise	
	All zones	<p>1. Noise generated by fixed plant noise must not exceed the noise limits set out in APP5 – Fixed Plant Noise Standards.</p>	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Background noise levels and any special character of noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities; 2. Management of effects from the activities with regard to the matters set out in NOISE-P2; 3. Any mitigation of the noise proposed, in accordance with a best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operations); and 4. The ability to mitigate adverse effects through the imposition of conditions such as noise attenuation.
P1 Sch1	NOISE-S8	Hours of aircraft operation	
	Airport Zone	<ol style="list-style-type: none"> 1. Domestic aircraft operations shall not occur during the following hours: <ol style="list-style-type: none"> a. midnight (12am) to 6am. 2. International aircraft operations shall not occur during the following hours: <ol style="list-style-type: none"> a. Midnight to 6am for departures. b. 1am to 6am for arrivals. 3. No aircraft shall operate under their main engine power within the East Side Precinct between the hours of 10pm and 7am. <p>Except:</p> <ol style="list-style-type: none"> 4. Disrupted flights where aircraft operations are permitted for an additional 30 minutes; 5. In statutory holiday periods where operations are permitted for an additional 60 minutes; 6. For the purposes of this condition, statutory holiday period means: <ol style="list-style-type: none"> a. The period from 25 December to 2 January, inclusive. Where 25 December falls on either a Sunday or Monday, the period includes the entire of the previous weekend. Where 1 January falls on a weekend, the period includes the two subsequent working days. Where 2 January falls on a Friday, the period includes the following weekend. b. The Saturday, Sunday and Monday of Wellington Anniversary weekend, Queens Birthday 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Type, intensity and duration of the noise; 2. Number of annual occurrences; 3. Mitigation or management measures; 4. Health and safety; 5. Effects on internal and external noise amenity for dwellings outside the Airport zone; and 6. The Airport Noise Management Plan. <p>In assessing noise effects, data may be used from a continuous noise monitoring station established to confirm compliance and may also be obtained from other locations.</p>

		<p>Weekend, and Labour Weekend.</p> <p>c. Good Friday to Easter Monday inclusive.</p> <p>d. Matariki Day.</p> <p>e. Waitangi Day.</p> <p>f. ANZAC Day.</p> <p>g. Any other day decreed as a national statutory holiday.</p> <p>h. Where Matariki Day, Waitangi Day or ANZAC Day falls (or is recognised) on a Friday or a Monday, the adjacent weekend is included in the statutory holiday period.</p> <p>i. The hours from midnight to 6am immediately following the expiry of each statutory holiday period defined above.</p> <p>7. Aircraft using the Airport as a planned alternative to landing at a scheduled airport, but which shall not take-off unless otherwise permitted;</p> <p>8. Aircraft landing in an emergency;</p> <p>9. The operation of emergency flights required to rescue persons from life threatening situations or to transport patients, human vital organs, or medical personnel in a medical emergency;</p> <p>10. The operation of unscheduled flights required to meet the needs of any state of emergency declared under the Civil Defence Emergency Management Act 2002 or any international civil defence emergency;</p> <p>11. Aircraft carrying heads of state and/or senior dignitaries acting in their official capacity or other military aircraft operations;</p> <p>12. No more than 4 aircraft movements per night with noise levels not exceeding 65 dB LA_{Fmax} (1 sec) at or beyond the edge of the Air Noise Boundary.</p>	
P1 Sch4	NOISE-S9	Calculation and management of aircraft noise	
		<p>1.— Aircraft noise shall be measured and modelled in accordance with NZS6805:1992 Airport Noise Management and Land Use Planning and calculated as a Ldn 90 day rolling average. All terminology shall have the meaning that may be used or defined in the context of NZS:6805-1992.</p> <p>2.— The Airport company (WIAL) shall ensure that all Aircraft Operations are managed so that the rolling day 90 day average 24 hour night weighted sound exposure level does not exceed a Day/night Level (Ldn) of 65dBA outside the Air Noise Boundary shown within the District Plan Maps.</p> <p>3.— Within the East Side Precinct, Aircraft Operations and the operation of Auxiliary Power Units (APUs) shall be managed so that the rolling 90 day average 24 hours night weighted sound exposure does not exceed a Day/Night Level (Ldn) of 65 dB outside of the East Side Precinct Compliance Line identified on Figure 6 below. In assessing compliance with this limit, account shall be taken of the cumulative effect of all aircraft operations and APUs from the Airport.</p> <p>4.— Noise monitoring shall take place at any point along</p>	<p>Assessment criteria where the standard is infringed:</p> <p>1.— Type, intensity and duration of the noise;</p> <p>2.— Mitigation or management measures;</p> <p>3.— Health and safety;</p> <p>4.— Effects on internal and external noise amenity for dwellings outside the Airport zone; and</p> <p>5.— The Airport Noise Management Plan.</p> <p>In assessing noise effects, data may be used from a continuous noise monitoring station established to confirm compliance and may also be obtained from other locations.</p>

		<p>the line shown in Figure 6 below. The rolling 90-day average Ldn noise level from aircraft operations and the operation of APUs must not exceed the corresponding level determined to correlate with 65 dB Ldn at the East Side Precinct Compliance Line. This noise level shall be determined once the noise monitoring location is finalised and shall be recorded in the Airport Noise Management Plan.</p> <p>5. The Airport must demonstrate compliance with the standards above by undertaking continuous noise monitoring in accordance with NZS 6805:1992 and the guidance provided in the Airport Noise Management Plan. The results of this noise monitoring shall be made publicly available on the Airport website.</p> <p>Except:</p> <p>1. The following aircraft operations shall be excluded from the calculation of the 90 day rolling average:</p> <p>a. Aircraft operating in an emergency.</p> <p>b. The operation of emergency flights required to rescue persons from life threatening situations or to transport patients, human vital organs, or medical personnel in a medical emergency.</p> <p>c. The operation of unscheduled flights required to meet the needs of any state of emergency declared under the Civil Defence Emergency Management Act 2002 or any international civil defence emergency.</p>	
		 <p>- Figure 6 – NOISE: East Side Precinct Compliance Line and Noise Monitoring</p> <p>1.</p>	
<p>P1 Sch1</p>	<p>NOISE-S10</p>	<p>Engine testing noise</p>	
	<p>Airport Zone</p>	<p>1. There shall be no aircraft engine testing in the East Side Precinct, or in the area shown by Attachment 4 of designation WIAL4.</p>	<p>Assessment criteria where the standard is infringed:</p> <p>1. Type, intensity and duration of the</p>

		<p>2. Engine testing shall adhere to the following:</p> <ol style="list-style-type: none"> a. Testing shall only be undertaken during the hours of 6am to 8pm; b. For essential unscheduled maintenance, testing is able to occur between 8pm and 11pm and where these events do occur, they shall be reported to the Airport Noise Management Committee (ANMC) on an annual basis; c. To operate an aircraft within flying hours but provided the engine run is no longer than required for normal procedures, which for the purpose of this condition, shall provide solely for short duration engine runs by way of flight preparation while the aircraft is positioned on the apron; <p>3. Restrictions on engine testing from 11pm to 6am do not apply if engine testing can be carried out in compliance with all of the following:</p> <ol style="list-style-type: none"> a. measured noise levels do not exceed 60 dB LAEQ (15 min) at or within the boundary of any residential zone; b. measured noise levels do not exceed 75 dB LAFmax at or within the boundary of any residential zone; c. noise levels shall be measured in accordance with NZS6801: 2008 Acoustics Measurement of Environmental Sound; d. the total number of engine test events relating to aircraft using the Airport as an alternate landing site shall not exceed 18 in any consecutive 12 month period; e. the total duration of engine test events using the Airport as an alternate landing site shall be no more than 20 minutes. 	<p>noise;</p> <ol style="list-style-type: none"> 2. Mitigation or management measures; 3. Health and safety; 4. Effects on internal and external noise amenity for dwellings outside the Airport zone; and 5. The Airport Noise Management Plan. <p>In assessing noise effects, data may be used from a continuous noise monitoring station established to confirm compliance and may also be obtained from other locations</p>
P1 Sch1	NOISE-S11	Noise from ground power units and auxiliary power units (Main site)	
	Airport Zone (Main Site)	<ol style="list-style-type: none"> 1. The operation of ground power units (GPUs) and auxiliary power units (APUs) within the Airport (excluding East Side Precinct), when measured at any adjoining Residential zone, shall not exceed the following limits: <ol style="list-style-type: none"> a. Monday to Saturday 7am to 10pm 55 dB LAeq (15 min) b. At all other times 45 dB LAeq (15 min) c. All days 10pm to 7am 75 dB LAFmax <p>Except:</p> <ol style="list-style-type: none"> 2. Aircraft under tow; 3. The first 60 minutes after an aircraft has stopped on the gate, unless the Pilot of an Aircraft requires a longer duration due to operational or public health and safety reasons; 4. 60 minutes prior to scheduled departure unless the Pilot of an Aircraft requires a longer duration due to operational or public health and safety reasons; 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Type, intensity and duration of the noise; 2. Number of annual occurrences; 3. Mitigation or management measures; 4. Health and safety; 5. Effects on internal and external noise amenity for dwellings outside the Airport zone; and 6. The Airport Noise Management Plan. <p>In assessing noise effects, data may be used from a continuous noise monitoring station established to confirm compliance and may also be obtained from other locations.</p>

		5. The use of APUs to provide for engine testing.	
P1 Sch1	NOISE-S12	Noise from ground power units and auxiliary power units (East Side)	
	Airport Zone (East Side)	<p>1. Any aircraft stand within the East Side Precinct shall have a Plugin ground power unit (GPU) available.</p> <p>1. The operation of APUs in the East Side Precinct is subject to the relevant standards in NOISE-S9.</p> <p>1. There shall be no operating of APUs on land within the East Side Precinct between the hours of 10pm and 7am, apart from aircraft under tow. Where aircraft are under tow the use of the APU shall cease as soon as reasonably practicable after completion of the tow.</p> <p>2. The operation of APUs on land within the East Side Precinct shall be restricted to a period not exceeding 15 minutes after the aircraft has stopped at the gate and 15 minutes prior to leaving the gate.</p>	<p>Assessment Criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Type, intensity and duration of the noise; 2. Number of annual occurrences; 3. Mitigation or management measures; 4. Health and safety; 5. Effects on internal and external noise amenity for dwellings outside the Airport zone; and 6. The Airport Noise Management Plan. 7. In assessing noise effects, data may be used from a continuous noise monitoring station established to confirm compliance and may also be obtained from other locations.
P1 Sch4	NOISE-S13	Airport East Side Precinct residential noise mitigation	
	Airport zone (East Side Precinct) Medium Density Residential Zone	<p>1. Prior to construction activity occurring to the east of the line shown on the map within Attachment 2 of designation WIAL5, or prior to land within the East Side Precinct being used to facilitate Code C (or larger) Aircraft (whichever is the earlier), the Airport shall offer to install mechanical ventilation to habitable rooms of those residential dwellings listed in Attachment 2 of designation WIAL5.</p> <p>2. Where the property owner accepts this offer, the following requirements apply:</p> <p>a. The Airport shall meet the full cost of the ventilation work.</p> <p>b. Any habitable room within any dwelling listed in Attachment 2 with openable windows must be provided with a positive supplementary source of fresh air ducted from the outside of the habitable room.</p> <p>c. The supplementary source of fresh air is to achieve a minimum of 7.5 litres per second/per person.</p> <p>The offer and outcomes from the ventilation work shall be to no less a standard than similar home ventilation packages provided under the Wellington Airport Quieter Homes programme (as at 2021).</p>	
P1 Sch1	NOISE-S14	Land based noise	
	Airport Zone (excluding Miramar South Precinct)	<p>1. Noise emission levels from any activity within the Airport designations<u>Zone (excluding the Miramar South Precinct)</u>, other than aircraft operations, engine testing and the operation of GPUs and APUs, when measured at any adjoining residential zone, shall not exceed the following limits:</p>	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Type, intensity and duration of the noise;

		<ol style="list-style-type: none"> a. Monday to Saturday 7am to 10pm 55 dB L_{Aeq} (15min) <u>in the Main Site Area</u> b. <u>All days 7am to 10pm 55 dB L_{Aeq} (15min) in the East Side Area</u> c. At all other times 45 dB L_{Aeq} (15min) d. All days 10pm to 7am 75 dB L_{AFmax} <ol style="list-style-type: none"> 2. In the East Side Precinct, for the purposes of calculating compliance with this limit, account shall be taken of the cumulative effect of all land based activities undertaken within the Airport <u>Zone</u>, other than aircraft operations, <u>the operation of APUs</u> and any engine testing. 	<ol style="list-style-type: none"> 2. Number of annual occurrences; 3. Mitigation or management measures; 4. Health and safety; 5. Effects on internal and external noise amenity for dwellings outside the Airport zone; 6. The requirements of NZS 6803:1999 Acoustics – Construction Noise; and 7. The Airport Noise Management Plan. <p>In assessing noise effects, data may be used from a continuous noise monitoring station established to confirm compliance and may also be obtained from other locations.</p>
P1 Sch1	NOISE-S15	Miramar South Precinct noise	
	Airport Zone (Miramar South)	<p>In relation to the Miramar South Precinct (“the Site”):</p> <ol style="list-style-type: none"> 1. Noise emission levels from within the a Site when measured on any site that includes an occupied residence in the <u>Medium Density</u> residential zone beyond the Site shall not exceed: <ol style="list-style-type: none"> a. Monday to Sunday 7am to 10pm 55 dB L_{Aeq} (15 min) b. Monday to Sunday 1am to 6am 40 dB L_{Aeq} (15 min) c. At all other times 45 dB L_{Aeq} (15 min) d. All days 10pm to 7am 75 dB L_{AFmax} 2. Noise emission levels from the Site when measured on any site in the <u>Neighbourhood</u> Centre Zone shall not exceed: <ol style="list-style-type: none"> a. At all times 60 dB L_{Aeq} (15 min) b. At all times 85 dB L_{AFmax} 3. Noise during construction activities shall comply with the requirements of NZS 6803:1999 Acoustics – Construction Noise. 4. A close boarded fence (or other acoustically effective barrier) with a density of at least 10 kg/m² and a height of two metres shall be installed around the perimeter of the site excluding site access points. This shall be inspected regularly and maintained to ensure its continued acoustic effectiveness. 3. Entry / egress for trucks shall not be located opposite residential zoned areas. Trucks shall not drive along the Residential zoned parts of Miro Street, Kedah Street, or Kauri Street except where there are specific circumstances where this is necessary. 4. Truck engines shall not be left to idle on the Site and signage shall be placed in appropriate locations within the Site to advise drivers of this requirement. The Airport or its agents shall actively monitor this requirement. 5. Building services shall be designed such that noise levels from this source at the Site boundary are at 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Type, intensity and duration of the noise; 2. Mitigation or management measures; 3. Health and safety; 4. Effects on internal and external noise amenity for dwellings outside the Miramar South Precinct; 5. The requirements of NZS 6803:1999 Acoustics – Construction Noise; 6. The Airport Miramar South Construction Noise Management Plan; 7. The acoustic assessment report prepared by the Airport for development of the Site; and 8. The Airport Noise Management Plan.

		<p>least 10 dB lower than the limits set out in 1 above.</p> <p>6. All warehouse doors shall be fast closing and shall remain closed at night-time unless in use.</p> <p>7. There shall be no servicing or maintenance of equipment outdoors at night.</p>	
ISPP	NOISE -S16	Air Noise Overlay – Internal Noise Environment	
	All Zones	<p>1. <u>Any habitable room used by a noise sensitive activity in a new building or an addition or alteration to an existing building must be designed, constructed and maintained to achieve an internal noise level of Ldn 40dB, based on the Air Noise Overlay.</u></p> <p>2. <u>Within the Inner Noise Overlay, compliance with NOISE-S16.1 shall be demonstrated by:</u></p> <p>a. <u>Designing, constructing and maintaining all habitable rooms in a manner that accords with: Table I Minimum construction requirements and implementing a mechanical ventilation system in accordance with NOISE-S17; or,</u></p> <p>b. <u>Submitting a certificate to the Council from a suitably qualified acoustic engineer stating the design proposed will achieve this standard.</u></p> <p>3. <u>Within the Outer Noise Overlay, compliance with NOISE-S16.1 shall be demonstrated by:</u></p> <p>a. <u>Implementing a mechanical ventilation system in accordance with NOISE-S17; or,</u></p> <p>b. <u>Submitting a certificate to the Council from a suitably qualified acoustic engineer stating the design proposed will achieve this standard.</u></p>	<p>Assessment criteria where the standard is infringed:</p> <p>1. <u>The extent of any standard infringement and whether the non-compliance is insignificant;</u></p> <p>2. <u>Where alternative measures proposed, the design, construction and material of any structure to be used would achieve an acceptable internal noise environment for habitable rooms with all external doors and windows of the building closed.</u></p> <p>3. <u>Whether it is appropriate to require acoustic treatment measures (including measures in existing rooms, or whether such measures should be limited to the addition).</u></p> <p>4. <u>The ability to mitigate adverse effects through the imposition of conditions such as noise attenuation.</u></p>
ISPP	NOISE -S17	Air Noise Overlay – Ventilation	
	All Zones	<p>[Note: this is a duplicate to NOISE-S6, adapted to refer to NOISE-S16]</p> <p>1. <u>The minimum internal noise environment NOISE-S17 must be achieved at the same time as the ventilation requirements of the New Zealand Building Code.</u></p> <p>2. <u>Where habitable rooms are provided with windows openable to the outside environment sufficient in area to meet the ventilation requirements of the New Zealand Building Code, and where these windows must remain closed to achieve compliance with NOISE-S16 acoustic insulation standards, the room shall meet the following minimum requirements:</u></p> <p>a. <u>The room is to be provided with a mechanical ventilation system compliant with section 1.5 Mechanical Ventilation of NZBC G4/AS1; and</u></p> <p>b. <u>The room is provided with cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C when assessed using a 2.5% design weather condition for the applicable location. An acceptable design weather set is NIWA 2.5% published weather data for the applicable region; and</u></p> <p>c. <u>Any HVAC ventilation system installed in</u></p>	<p>Assessment criteria where the standard is infringed:</p> <p>1. <u>The extent of any standard infringement and whether the non-compliance is insignificant;</u></p> <p>2. <u>Where alternative measures proposed, the design, construction and material of any structure to be used would achieve acceptable indoor ventilation and acoustic amenity;</u></p> <p>3. <u>Whether it is appropriate to require ventilation measures (including measures in existing rooms, or whether such measures so be limited to the addition).</u></p> <p>4. <u>The ability to mitigate adverse effects through the imposition of conditions.</u></p>

		<p><u>compliance with (a) and (b) above must not generate noise at levels greater than 35 dB LAeq (30s) when measured 1.5 metres from any outlet/inlet, and</u></p> <p>d. <u>Filtration shall be provided to all HVAC systems comply with NZBC G4/AS1 (or equivalent) and</u></p> <p>e. <u>Flexible duct shall be compliant with AS4254.2:2012.</u></p> <p>3. <u>Excluding habitable rooms qualifying under (2) above, i.e. where opening windows are not provided, minimum ventilation system requirements for habitable rooms requiring to be acoustically insulated under NOISE-S16 are set out as follows:</u></p> <p>a. <u>HVAC systems shall be compliant with sections 2a-f above, and</u></p> <p>b. <u>The mechanical ventilation system referred to in 2a above shall be able to supply outside air at an adjustable rate up to 1ACH.</u></p> <p>4. <u>Alternatively, in lieu of sections 2 and 3 above, a design verified by a suitably qualified an experienced HVAC expert stating the design proposed will provide ventilation and internal space temperature controls to meet or exceed the outcomes described in parts 2 and 3.</u></p> <p><u>Note: This standard applies in addition to, and does not affect the requirements of, the Building Act 2004.</u></p>	
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TABLE I - Minimum construction requirements necessary to achieve a moderate external sound insulation level of $D_{nT,w} + C_{tr} > 30$ dB:

Building Element	Minimum Construction Requirement	
External Walls of Habitable Rooms	Stud Walls:	
	Exterior cladding:	20 mm timber or 9mm compressed fibre cement sheet over timber frame (100 mm x 50 mm). *
	Cavity infill:	Fibrous acoustic blanket (batts or similar of a minimum mass of 9 kg/m ³) required in cavity for all exterior walls. Minimum 90 mm wall cavity.
	Interior lining:	One layer of 12 mm gypsum plasterboard.
		Where exterior walls have continuous cladding with a mass of greater than 25 kg/m ² (e.g. brick veneer or minimum 25 mm stucco plaster), internal wall linings need to be no thicker than 10 mm gypsum plasterboard.
	Combined superficial density:	Minimum not less than 25 kg/m ² being the combined mass of external and internal linings excluding structural elements (e.g. window frames or wall studs) with no less than 10 kg/m ² on each side of structural elements.
	Mass Walls:	190 mm concrete block, strapped and lined internally with 10 mm gypsum plaster board, or 150 mm concrete wall.
Glazed Areas of Habitable Rooms	Glazed areas up to 10% of floor area:	6 mm glazing single float
	Glazed areas between 10% and 35% of floor area:	6 mm laminated glazing
	Glazed areas greater than 35% of floor area:	Require a specialist acoustic report, prepared by a suitably qualified and experience acoustic expert , to show conformance with the insulation rule.
	Frames to be aluminium window frames with compression seals.	
Skillion Roof	Cladding:	0.5 mm profiled steel or 6 mm corrugated fibre cement, or membrane over 15mm thick ply, or concrete or clay tiles.
	Sarking:	17mm plywood (no gaps).
	Frame:	Minimum 100 mm gap with fibrous acoustic blanket (batts or similar of a mass of 9 kg/m ³).
	Ceiling:	Two layers of 10 mm gypsum plaster board (no through ceiling lighting penetrations unless correctly acoustically rated). Fibrous acoustic blanket (batts or similar of a minimum mass of 9 kg/m ³).
	Combined superficial density:	Combined mass of cladding and lining of not less than 25 kg/m ² with no less than 10 kg/m ² on each side of structural elements.
Pitched Roof (all roofs other than skillion roofs)	Cladding:	0.5 mm profiled steel or tiles, or membrane over 15mm thick ply.
	Frame:	Timber truss with 100 mm fibrous acoustic blanket. (batts or similar of a minimum mass of 9 kg/m ³) required for all ceilings.
	Ceiling:	12 mm gypsum plaster board.
	Combined superficial density:	Combined mass with cladding and lining of not less than 25 kg/m ² .
Floor areas open to outside	Cladding:	Under-floor areas of non-concrete slab type floors exposed to external sound will require a cladding layer lining the underside of floor joists of not less than 12 mm ply
	Combined superficial density:	Floors to attain a combined mass not less than 25 kg/m ² for the floor layer and any external cladding (excluding floor joists or bearers).

External Door to Habitable Rooms	Solid core door (min 25kg/m ²) with compression seals (where the door is exposed to exterior noise)			
<p>Notes:</p> <ul style="list-style-type: none"> The table refers to common specifications for timber size. Nominal specifications may in some cases be slightly less than the common specifications stated in the schedule for timber size. In determining the insulating performance of roof/ceiling arrangements, roof spaces are assumed to have no more than the casual ventilation typical of the jointing capping and guttering detail used in normal construction. 				
P1 Sch1	TABLE II - Minimum construction requirements necessary to achieve an advanced external sound insulation level of DnT,w + Ctr > 35 dB:			
	Building Element	Minimum Construction Requirements		
	External walls	<ol style="list-style-type: none"> Wall cavity infill of fibrous insulation, batts or similar, with a minimum density of 9kg/m³; and cladding and internal wall lining complying with either Option A, B or C below: 		
		Option A	Light cladding: timber weatherboard or sheet materials with surface mass between 16kg/m ² and 30kg/m ² of wall cladding	Internal lining of minimum 17kg/m ² plasterboard, such as two layers of 10mm thick high density plasterboard, on resilient/isolating mountings
		Option B	Medium cladding: surface mass between 30 kg/m ² and 65kg/m ² of wall cladding	Internal lining of minimum 17kg/m ² plasterboard, such as two layers of 10mm
				thick high density plasterboard
		Option C	Heavy cladding: surface mass greater than 65kg/m ² of wall cladding	Internal lining of minimum 6kg/m ² plasterboard, such as one layer of 10mm thick plasterboard
	Roof/ceiling	<ol style="list-style-type: none"> Ceiling cavity infill of fibrous insulation, batts or similar, with a minimum density of 7kg/m³; and ceiling penetrations, such as for recessed lighting or ventilation, must not allow additional noise break-in; and roof type and internal ceiling lining complying with either Option A, B or C below: 		
		Option A	Skillion roof with light cladding: surface mass up to 13kg/m ² of roof cladding	Internal lining of minimum 17kg/m ² plasterboard, such as two layers of 10mm thick high density plasterboard on resilient/isolating mountings
		Option B	Pitched roof with light cladding: surface mass up to 20kg/m ² of roof cladding	Internal lining of minimum 17kg/m ² plasterboard, such as two layers of 10mm thick high density plasterboard
		Option C	Heavy roof cladding: surface mass greater than 20kg/m ² of roof cladding	Internal lining of minimum 17kg/m ² plasterboard, such as one layer of 10mm thick high density plasterboard

	Glazed areas	<ol style="list-style-type: none"> 1. Timber or aluminum frames with full compression seals on opening panes (excludes glazed sliding doors or windows) 2. glazed areas shall be less than 35% of each room floor area 3. double-glazing with: <ol style="list-style-type: none"> a. a laminated pane of glass at least 6mm thick; and b. a cavity between the two panes of glass at least 12mm deep; and c. a second pane of glass at least 6mm thick; or d. any other glazing with a minimum performance of $R_w + C_{tr}$ 34dB.
	Exterior doors to any habitable room	Solid core exterior door, minimum surface mass 20kg/m ² , with compression seals; or other door sets with minimum performance of R_w 30dB