

NOISE

Noise

DRAFT
WAITAKI DISTRICT PLAN



Waitaki

DISTRICT COUNCIL
TE KAUNIHERA Ā ROHE O WAITAKI

Noise

Introduction

Most land use activities generate some degree of noise and can affect the health, safety and amenity of the District's residents and visitors. Excessive noise can detract from the character and amenity values associated with the local environment. Noise generating activities can also be restricted by noise sensitive activities located close by that seek a higher level of amenity (reverse sensitivity).

This chapter focuses on managing the adverse effects of noise generating activities to ensure that they do not compromise amenity and safety values of individuals and communities.

Other than where expressly provided for, noise levels arising from activities must be measured in accordance with NZS 6801:2008 Acoustics - Measurement of Environmental Sound and assessed in accordance with NZS 6802:2008 Acoustics - Environmental Noise.

This chapter does not include noise from aircraft in flight or vehicles on a road, as these activities are controlled by different legislation.

Objectives

NOISE-O1 Minimising the adverse effects of noise and vibration

Activities generating noise and vibration are compatible with the role, function, character and amenity values of the zone and surrounding receiving environment, and do not compromise public health or safety, or well-being and amenity values.

NOISE-O2 Reverse sensitivity

New noise sensitive activities are designed and located to minimise conflict and reverse sensitivity effects on existing and authorised noise generating activities.

NOISE-O3 Construction and temporary noise

Construction and temporary activities that generate noise are enabled while ensuring that any adverse effects are minimised.

Policies

NOISE-P1 Establishing reasonable noise limits

Identify reasonable noise limits in each zone that are consistent with anticipated noise levels; and ensure that noise generation from use and development within and between each zone is consistent with the zone's role, function, character and amenity values.

NOISE-P2 Recognising existing lawfully established noise emitting activities

Provide for adequate areas where activities generating higher levels of noise can operate, subject to appropriate controls.

NOISE-P3 Managing noise sensitive activities

Enable noise-sensitive activities locating in higher noise environments where they are designed, constructed and maintained to achieve indoor design noise levels and minimise the potential for reverse sensitivity effects from noise, having regard to:

1. the outdoor amenity for occupants of the noise-sensitive activity; and
2. the location of the noise-sensitive activity in relation to the State Highway or rail network, existing lawful noisy activities, or the Industrial Zone; and
3. the ability to appropriately locate the activity within the site; and
4. the ability to meet the appropriate levels of acoustic insulation through screening, alternative technologies or materials; and

5. any adverse effects on the State Highway or rail network, existing lawful noisy activities, or businesses within the Industrial Zone; and
6. the outcome of any consultation with Waka Kotahi NZ Transport Agency or KiwiRail.

For the purposes of NOISE-P3, higher noise environments include:

1. locations adjacent to existing State Highways and the rail network; and
2. Industrial Zones and Town Centre Zone; and
3. existing lawful noisy activities.

NOISE-P4 Noise from construction and temporary activities

Minimise the adverse effects of noise from construction and temporary activities on the amenity values of the surrounding area, having regard to:

1. the sensitivity of the receiving environment; and
2. the proposed duration and daily work hours of the activities; and
3. whether compliance with permitted noise standards can be practically achieved in consideration of site, topographical and other constraints.

NOISE-P5 Managing the effects from new noise generating activities

Require new noise generating activities to comply with the noise rules or submit, with a resource consent application, an assessment of:

1. the extent to which it avoids conflict with existing noise-sensitive activities; and
2. effects on other established uses and their operation; and
3. potential effects on activities permitted within the receiving zone; and
4. the compatibility of the noise with other noises generated from permitted zone activities, and other activities not controlled by the Plan, within the receiving zone; and
5. the degree to which the noise breaches the permitted noise standards for the receiving zone/s; and
6. whether adverse effects can be internalised to the site where the noise is generated and the extent to which they can be minimised at site boundaries; and
7. the frequency, intensity, duration and offensiveness of the noise generated; and
8. any management plans for managing noise; and
9. whether the activity adopts the best practicable option to avoid, remedy or mitigate adverse effects and the appropriateness of potential mitigation measures to control and monitor the noise levels in addition to, or as alternatives to, the best practicable option; and
10. any adverse effects on the health, safety and well-being of people and communities within the surrounding area, including sleep disturbance and annoyance; and
11. acoustic design standards for noise sensitive activities located in, or adjacent to, areas anticipating high noise levels.

Rules

Note: For certain activities, a resource consent may be required by rules in more than one chapter in the District Plan. Unless expressly stated otherwise by a rule, resource consent is required under each of those rules. The steps to determine the status of an activity are set out in the General Approach Chapter.

NOISE-E1	Exemptions to noise standards
All zones	<p>The noise standards and rules in this Plan, unless specifically stated, will not apply to noise generated by the following:</p> <ol style="list-style-type: none"> 1. use of vehicles, machinery or equipment used on a seasonal or intermittent basis for agricultural, horticultural and forestry or land based primary production activities in the General Rural Zone, such as harvesting (but does not include the use of helicopters, bird-scaring devices, frost control fans or irrigation pumps); 2. spontaneous social activities and children’s play (but not including preschools); 3. vehicles travelling on a road (excluding stationary vehicles); 4. aircraft: <ol style="list-style-type: none"> i. lawfully operating during, or immediately before or after flight; and ii. landings and takeoffs in emergency situations, or diverted aircraft; 5. trains and level crossing warning devices; 6. warning devices used by emergency services, including routine testing and maintenance; 7. activities at emergency service facilities associated with emergency response and emergency response training; 8. the temporary use of emergency generators for continued power supply, not exceeding 48 hours in duration; 9. control of crowd noise at a park or reserve.

PERMITTED ACTIVITIES

NOISE-R1 Activities generating noise in Residential, Rural Lifestyle and Settlement Zones												
Residential Zones Rural Lifestyle Zone Settlement Zone	<p>Activity status: Permitted</p> <p>Where: PER-1 The following noise limits shall not be exceeded at any point beyond the site boundary.</p> <table border="1"> <thead> <tr> <th>Hours</th> <th>Noise Level</th> </tr> </thead> <tbody> <tr> <td>7:00am–7:00pm</td> <td>50dB LAeq (15 min)</td> </tr> <tr> <td>7:00pm–10:00pm</td> <td>45 dB LAeq (15 min)</td> </tr> <tr> <td>10:00pm-7:00am the following day</td> <td>40 dB LAeq (15 min)</td> </tr> <tr> <td>10:00pm-7:00am the following day</td> <td>70 dB LAFmax</td> </tr> </tbody> </table>	Hours	Noise Level	7:00am–7:00pm	50dB LAeq (15 min)	7:00pm–10:00pm	45 dB LAeq (15 min)	10:00pm-7:00am the following day	40 dB LAeq (15 min)	10:00pm-7:00am the following day	70 dB LAFmax	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-1 Compliance is not achieved with PER-1</p> <p>Matters of discretion are restricted to: 1. the matters in NOISE-P5.</p>
Hours	Noise Level											
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10:00pm-7:00am the following day	70 dB LAFmax											

NOISE-R2 Activities generating noise in General Rural Zone												
General Rural Zone	<p>Activity status: Permitted</p> <p>Where: PER-1 The following noise limits shall not be exceeded at any point within the notional boundary of any noise sensitive activity on any other site within a General Rural Zone, or at any point within the boundary of any site, in any zone other than an Industrial Zone.</p> <table border="1"> <thead> <tr> <th>Hours</th> <th>Noise Level</th> </tr> </thead> <tbody> <tr> <td>7:00am–7:00pm</td> <td>55 dB LAeq (15 min)</td> </tr> <tr> <td>7:00pm–10:00pm</td> <td>50 dB LAeq (15 min)</td> </tr> <tr> <td>10:00pm-7:00am the following day</td> <td>45 dB LAeq (15 min)</td> </tr> <tr> <td>10:00pm-7:00am the following day</td> <td>75 dB LAFmax</td> </tr> </tbody> </table>	Hours	Noise Level	7:00am–7:00pm	55 dB LAeq (15 min)	7:00pm–10:00pm	50 dB LAeq (15 min)	10:00pm-7:00am the following day	45 dB LAeq (15 min)	10:00pm-7:00am the following day	75 dB LAFmax	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-1 Compliance is not achieved with PER-1</p> <p>Matters of discretion are restricted to: 1. the matters in NOISE-P5.</p>
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NOISE-R3 Activities generating noise in Commercial and Mixed Use Zones																			
Commercial and Mixed Use Zones	<p>Activity status: Permitted</p> <p>Where: PER-1 The following noise limits shall not be exceeded at any point beyond the site boundary (other than those activities provided for in PER-2):</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Hours</th> <th style="text-align: left;">Noise Level</th> </tr> </thead> <tbody> <tr> <td>7:00am–10:00pm</td> <td>60 dB LAeq (15min)</td> </tr> <tr> <td>10:00pm–7:00am the following day</td> <td>50 dB LAeq (15 min)</td> </tr> <tr> <td>10:00pm–7:00am the following day</td> <td>80 dB LAFmax</td> </tr> </tbody> </table> <p>or</p> <p>PER-2 The following noise limits shall not be exceeded at any point beyond a boundary with the Residential Zones or within the notional boundary of any noise sensitive activity in a Rural Lifestyle or General Rural Zone:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Hours</th> <th style="text-align: left;">Noise Level</th> </tr> </thead> <tbody> <tr> <td>7:00am–7:00pm</td> <td>55 dB LAeq (15min)</td> </tr> <tr> <td>7:00pm–10:00pm</td> <td>50 dB LAeq (15 min)</td> </tr> <tr> <td>10:00pm–7:00am the following day</td> <td>45 dB LAeq (15 min)</td> </tr> <tr> <td>10:00pm–7:00am the following day</td> <td>75 dB LAFmax</td> </tr> </tbody> </table>	Hours	Noise Level	7:00am–10:00pm	60 dB LAeq (15min)	10:00pm–7:00am the following day	50 dB LAeq (15 min)	10:00pm–7:00am the following day	80 dB LAFmax	Hours	Noise Level	7:00am–7:00pm	55 dB LAeq (15min)	7:00pm–10:00pm	50 dB LAeq (15 min)	10:00pm–7:00am the following day	45 dB LAeq (15 min)	10:00pm–7:00am the following day	75 dB LAFmax
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	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-1 Compliance is not achieved with PER-1 or PER-2</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> the matters in NOISE-P5. 																		

NOISE-R4 Activities generating noise in Industrial Zones																		
Industrial Zones	<p>Activity status: Permitted</p> <p>Where: PER-1 The following noise limits shall not be exceeded at any point beyond the site boundary (other than those activities provided for in PER-2):</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Hours</th> <th style="text-align: left;">Noise Level</th> </tr> </thead> <tbody> <tr> <td>At all times</td> <td>70 dB LAeq (15 min)</td> </tr> <tr> <td>At all times</td> <td>85 dB LAFmax</td> </tr> </tbody> </table> <p>or</p> <p>PER-2 The following noise limits shall not be exceeded at any point beyond a boundary with the Residential Zones or within the notional boundary of any noise sensitive activity in a Rural Lifestyle or General Rural Zone:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Hours</th> <th style="text-align: left;">Noise Level</th> </tr> </thead> <tbody> <tr> <td>7:00am–7:00pm</td> <td>55 dB LAeq (15min)</td> </tr> <tr> <td>7:00pm–10:00pm</td> <td>50 dB LAeq (15 min)</td> </tr> <tr> <td>10:00pm-7:00am the following day</td> <td>45 dB LAeq (15 min)</td> </tr> <tr> <td>10:00pm-7:00am the following day</td> <td>75 dB LAFmax</td> </tr> </tbody> </table>	Hours	Noise Level	At all times	70 dB LAeq (15 min)	At all times	85 dB LAFmax	Hours	Noise Level	7:00am–7:00pm	55 dB LAeq (15min)	7:00pm–10:00pm	50 dB LAeq (15 min)	10:00pm-7:00am the following day	45 dB LAeq (15 min)	10:00pm-7:00am the following day	75 dB LAFmax	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-1 Compliance is not achieved with PER-1 or PER-2</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the matters in NOISE-P5.
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NOISE-R5 New buildings, change of use of existing buildings and additions to existing buildings, for use by a noise sensitive activity		
<p>Any site within 40m of a State Highway Commercial and Mixed Use Zones</p> <p>Residential Zones within 20m of the boundary with an Industrial Zone</p>	<p>Activity status: Permitted</p> <p>Where: PER-1</p> <p>NOISE-S1 and NOISE-S2 are complied with.</p>	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-1</p> <p>Compliance is not achieved with PER-1</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the matters in NOISE-P5.
<p>Within a Transport Corridor</p>	<p>Activity status: Permitted</p> <p>Where: PER-2</p> <p>NOISE-S3 is complied with.</p> <p>Notification: <i>An application for resource consent under this rule is precluded from being publicly notified.</i></p> <p><i>Notice of any application for resource consent under this rule must be served on Waka Kotahi New Zealand Transport Agency and/or KiwiRail in accordance with Clause 10(2) of the Resource Management (Forms, Fees, and Procedure) Regulations 2003.</i></p>	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-2</p> <p>Compliance is not achieved with PER-2</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the matters in NOISE-S1.

NOISE-R6 Activities generating noise in Open Space and Recreation Zones												
<p>Open Space Zone</p> <p>Sport and Recreation Zone</p>	<p>Activity status: Permitted</p> <p>Where: PER-1</p> <p>The following noise limits shall not be exceeded at any point within any Residential Zone or Rural Lifestyle Zone or within the notional boundary of any noise sensitive activity:</p> <table border="1"> <thead> <tr> <th>Hours</th> <th>Noise Level</th> </tr> </thead> <tbody> <tr> <td>7:00am–7:00pm</td> <td>55 dB LAeq (15min)</td> </tr> <tr> <td>7:00pm–10:00pm</td> <td>50 dB LAeq (15 min)</td> </tr> <tr> <td>10:00pm-7:00am the following day</td> <td>45 dB LAeq (15 min)</td> </tr> <tr> <td>10:00pm-7:00am the following day</td> <td>75 dB LAFmax</td> </tr> </tbody> </table>	Hours	Noise Level	7:00am–7:00pm	55 dB LAeq (15min)	7:00pm–10:00pm	50 dB LAeq (15 min)	10:00pm-7:00am the following day	45 dB LAeq (15 min)	10:00pm-7:00am the following day	75 dB LAFmax	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-1</p> <p>Compliance is not achieved with PER-1</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> the matters in NOISE-P5.
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10:00pm-7:00am the following day	75 dB LAFmax											

NOISE-R7 Activities generating noise in Ōamaru Airport Zone										
<p>Ōamaru Airport Zone</p>	<p>Activity status: Permitted</p> <p>Where: PER-1</p> <p>The following noise limits shall not be exceeded at any point within any Residential Zone, Rural Lifestyle Zone or Settlement Zone or within the notional boundary of any noise sensitive activity:</p> <table border="1"> <thead> <tr> <th>Hours</th> <th>Noise Level</th> </tr> </thead> <tbody> <tr> <td>Monday–Saturday 7:00am–10:00pm</td> <td>55 dB LAeq (15min)</td> </tr> <tr> <td>At all other times</td> <td>40 dB LAeq (15 min)</td> </tr> <tr> <td>10:00pm-7:00am the following day</td> <td>75 dB LAFmax</td> </tr> </tbody> </table>	Hours	Noise Level	Monday–Saturday 7:00am–10:00pm	55 dB LAeq (15min)	At all other times	40 dB LAeq (15 min)	10:00pm-7:00am the following day	75 dB LAFmax	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-1</p> <p>Compliance is not achieved with PER-1</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> the matters in NOISE-P5.
Hours	Noise Level									
Monday–Saturday 7:00am–10:00pm	55 dB LAeq (15min)									
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NOISE-R8 Activities generating noise in Ōmārama Airport Zone										
Ōmārama Airport Zone	<p>Activity status: Permitted</p> <p>Where: PER-1 The following noise limits shall not be exceeded at any point within any Residential Zone, Rural Lifestyle Zone or Commercial or Mixed Use Zones or within the notional boundary of any noise sensitive activity:</p> <table border="1"> <thead> <tr> <th>Hours</th> <th>Noise Level</th> </tr> </thead> <tbody> <tr> <td>Monday– Saturday 7:00am–10:00pm</td> <td>55 dB LAeq (15min)</td> </tr> <tr> <td>At all other times</td> <td>40 dB LAeq (15 min)</td> </tr> <tr> <td>10:00pm-7:00am the following day</td> <td>75 dB LAFmax</td> </tr> </tbody> </table>	Hours	Noise Level	Monday– Saturday 7:00am–10:00pm	55 dB LAeq (15min)	At all other times	40 dB LAeq (15 min)	10:00pm-7:00am the following day	75 dB LAFmax	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-1 Compliance is not achieved with PER-1</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the matters in NOISE-P5.
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At all other times	40 dB LAeq (15 min)									
10:00pm-7:00am the following day	75 dB LAFmax									

NOISE-R9 Noise, vibration and blasting effects in the Special Purpose Zone: Macraes Mining										
Special Purpose Zone – Macraes Mining	<p>Activity status: Permitted</p> <p>Where: PER-1 The following noise limits shall not be exceeded at any point beyond the site boundary:</p> <table border="1"> <thead> <tr> <th>Hours</th> <th>Noise Level</th> </tr> </thead> <tbody> <tr> <td>During daytime hours</td> <td>55 dB LAeq (15min)</td> </tr> <tr> <td>During nighttime hours</td> <td>40 dB LAeq (15 min)</td> </tr> <tr> <td>At all times</td> <td>75 dB LAFmax</td> </tr> </tbody> </table> <p>Where for the purposes of this rule, daytime means: 7:00am – 10:00pm Monday to Friday; and 9:00am – 10:00pm Saturdays, Sundays and Public Holidays; and</p> <p>PER-2 Vibration activities shall be conducted such that the following ground vibration levels, measured</p>	Hours	Noise Level	During daytime hours	55 dB LAeq (15min)	During nighttime hours	40 dB LAeq (15 min)	At all times	75 dB LAFmax	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-1 Compliance is not achieved with PER-1, PER-2 or PER-3</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the matters in NOISE-P5.
Hours	Noise Level									
During daytime hours	55 dB LAeq (15min)									
During nighttime hours	40 dB LAeq (15 min)									
At all times	75 dB LAFmax									

<p>either at the Macraes Mining Zone boundary or the boundary of the Golden Point Historic Reserve, shall not exceed 10mm per second peak particular velocity measured in the frequency range 3 hertz and 12 hertz; and</p> <p>PER-3 Blasting activities shall be conducted such that the following air blast peak over sound pressure, measured either at the Macraes Mining Zone boundary or any building within the Golden Point Historic Reserve, shall not exceed 128 dB linear unweighted. The hours of blasting shall be restricted to the following:</p> <ul style="list-style-type: none"> • Monday-Friday 9:00am to 5:30pm • Saturday and Sunday 10:00am to 4:30pm 	
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NOISE-R10	Construction and demolition noise and vibration	
<p>All zones</p>	<p>Activity status: Permitted</p> <p>Where: PER-1 Any noise arising from construction maintenance and demolition work in any zone shall comply with NZS68036:1999 Acoustics – construction noise; and</p> <p>PER-2 Vibration from any activity received by any building on any other site shall comply with the provisions of ISO-4866:2010 – Mechanical vibration and shock.</p>	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-1 Compliance is not achieved with PER-1 or PER-2</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the matters in NOISE-P4.

NOISE-R11	Temporary event noise (excluding temporary military activity training)	
<p>All zones</p>	<p>Activity status: Permitted</p> <p>Where: PER-1 Any sound checks that include testing and balancing of sound systems, sound equipment and vocal checks by performers shall not:</p> <ol style="list-style-type: none"> 1. exceed a cumulative period of 6 hours; and 2. commence before 9:00am on any day and shall be completed by 7:00pm on the day of the temporary event; and <p>PER-2 Any noise arising from the temporary event shall not exceed a limit of 75 dB LAeq (15 min) at any point within a Residential Zone or within the notional boundary of any noise sensitive activity.</p>	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-1 Compliance is not achieved with PER-1 or PER-2</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 2. the matters in NOISE-P4.

NOISE-R12 Noise effects associated with temporary military activity training														
All zones	<p>Activity status: Permitted</p> <p>Where: PER-1 Noise associated with a temporary military training activity shall comply with the following limits:</p> <ol style="list-style-type: none"> 1. weapons firing and/or the use of explosives: <ol style="list-style-type: none"> a) occur between 7:00am to 7:00pm, and achieve either a 500m minimum separation distance to, or a peak sound pressure level of 95 dBC when measured within the notional boundary of any building containing a noise sensitive activity; and b) occur between 7:00pm to 7:00am, and achieve either a 1250m minimum separation distance to, or a peak sound pressure level of 85 dBC when measured within the notional boundary of any building containing a noise sensitive activity; 2. mobile noise sources (other than firing of weapons and explosives): shall comply with noise limits set out in NZS6803:1999 Acoustics – construction noise; 3. fixed (stationary) noise sources shall comply with the noise limits set out below when measured at the notional boundary of any building housing a noise sensitive activity: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Hours</th> <th style="text-align: center;">LAeq (15 min)</th> <th style="text-align: center;">LAF max</th> </tr> </thead> <tbody> <tr> <td>7:00am-7:00pm</td> <td style="text-align: center;">55 dB</td> <td style="text-align: center;">n/a</td> </tr> <tr> <td>7:00pm-10:00pm</td> <td style="text-align: center;">50 dB</td> <td style="text-align: center;">n/a</td> </tr> <tr> <td>10:00pm-7:00am the next day</td> <td style="text-align: center;">45 dB</td> <td style="text-align: center;">75 dB</td> </tr> </tbody> </table>	Hours	LAeq (15 min)	LAF max	7:00am-7:00pm	55 dB	n/a	7:00pm-10:00pm	50 dB	n/a	10:00pm-7:00am the next day	45 dB	75 dB	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-1 Compliance is not achieved with PER-1</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the matters in NOISE-P5.
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10:00pm-7:00am the next day	45 dB	75 dB												

<p>NOISE-R13 New buildings, change of use of existing buildings and additions to existing buildings, for use by a noise sensitive activity within the Outer Control Boundary and Air Noise Boundary associated with Ōmārama Airport</p>		
<p>All zones</p>	<p>Activity status: Permitted</p> <p>Where: PER-1 Any habitable rooms shall, within the area between the Outer Control Boundary (55 dBA Ldn) and the Air Noise Boundary (65 dBA Ldn) shown on Planning Maps 7 and 40, be constructed with acoustic insulation materials that ensure the indoor sound environment does not exceed Ldn 40 dBA; and</p> <p>PER-2 Where windows need to be closed to achieve the internal noise levels specified in NOISE-R13 PER-1 above, NOISE-S2 is complied with.</p> <p><i>Note: An acoustic design certificate from a suitably qualified acoustic engineer must be provided to WDC with the application for Building Consent, stating that the design proposed will achieve compliance with PER-1.</i></p>	<p>Activity status when compliance is not achieved: Restricted Discretionary</p> <p>Where: RDIS-1 Compliance is not achieved with PER-1 or PER-2</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the matters in NOISE-P3.

NOISE STANDARDS

NOISE-S1 Indoor design noise level - acoustic insulation requirements		
<p>All zones within 40m of a State Highway</p> <p>Commercial and Mixed Use Zones</p> <p>Residential Zones within 20m of the boundary with an Industrial Zone</p>	<ol style="list-style-type: none"> 1. Any habitable room within any: <ol style="list-style-type: none"> a) new building used for a noise sensitive activity; b) additions exceeding 50m² to an existing building used for a noise-sensitive activity; or c) existing building where its use is changed to a noise-sensitive activity, <p>must be designed, constructed, and maintained to achieve an internal design noise level of 35 dB LAeq (24h); and</p> 2. an acoustic design certificate from a suitably qualified acoustic engineer must be provided to WDC with the application for Building Consent, stating that the design proposed will achieve compliance with NOISE-S1-1. 3. Acoustic insulation must be assessed in accordance with ISO 717-1:2013 Acoustics – Rating of sound insulation in buildings and of building elements – Part 1: Airborne sound insulation; <p><i>Note: This standard applies in addition to, and does not affect the requirements of, the Building Act 2004.</i></p>	<p>Matters of discretion where compliance is not met: Not Applicable</p>

NOISE-S2 Mechanical ventilation requirements		
<p>All zones</p>	<ol style="list-style-type: none"> 1. Where the internal design noise levels for habitable rooms in a building used by a noise sensitive activity required under NOISE-S1 or NOISE-R13-PER-1 can only be achieved with windows closed, the building must be designed, constructed, and maintained with a mechanical ventilation system that achieves the following: 	<p>Matters of discretion where compliance is not met: Not Applicable</p>

	<ul style="list-style-type: none"> a) provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code (Schedule 1 of the Building Regulations 1992); and b) achieves a minimum of 7.5 litres per second per person; and c) does not generate more than 35 dB LAeq(30s) when measured 1m away from any grille or diffuser. 	
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NOISE-S3 New noise sensitive activities – Indoor design noise level and mechanical ventilation requirements		
Within a transport corridor	<ol style="list-style-type: none"> 1. Any new building intended for a sensitive activity, and any alteration or addition to an existing building intended for a sensitive activity, located within a transport corridor shall either: <ul style="list-style-type: none"> a) be designed and constructed to achieve a minimum external to internal noise reduction of 30 dB $D_{tr,2m,nT,w} + C_{tr}$ to any habitable space; or b) be designed and constructed to meet with the following indoor design sound levels: <ol style="list-style-type: none"> i. rail noise inside bedrooms between 22:00 hours and 07:00 hours –35 dB LAeq(1h); ii. rail noise inside habitable spaces excluding bedrooms – 40 dB LAeq(1h); iii. road traffic noise inside all habitable spaces – 40 dB LAeq (24hr) ; and iv. rail and road traffic noise within any other building intended for a sensitive activity– maximum value recommended in AS/NZS2107:2000; <p>except where either:</p> v. the sound incident on the most exposed part of the outside of 	Matters of discretion are restricted to: <ol style="list-style-type: none"> 1. the location of the sensitive activity from the State Highway or railway network; and 2. the ability to meet the appropriate levels of insulation through screening, alternative technologies or materials; and 3. any offset or compensation measures offered; and 4. the reverse sensitivity effects on the State Highway or rail network; and 5. the outcome of any consultation with Waka Kotahi NZ Transport Agency or KiwiRail.

	<p>the building is less than 55 dB $L_{Aeq}(1h)$ for rail noise or 57 dB $L_{Aeq}(24h)$ for road traffic noise; or</p> <p>vi. the nearest façade of the building is at least 50m from all State Highway and railway designations and there is a solid building, fence, wall or landform that blocks the line-of-sight from all parts of all windows and doors to all parts of any State Highway road surface or all points 3.8m above railway tracks;</p> <p>2. compliance with this standard can be achieved by either:</p> <p>a) providing the WDC with a design report (prior to construction) and a design certificate (prior to occupation), prepared by a suitably qualified acoustics specialist, stating the design proposed is capable of meeting activity standard 1.a); and/or</p> <p>b) conforming to the acceptable solutions listed in NOISE-APP1- Noise attenuation construction requirements for 30 and 35 dB.</p> <ul style="list-style-type: none"> • For the purposes of ventilation systems, compliance with this standard must be confirmed by providing the product specifications; or a design certificate (prior to occupation) prepared by a suitably qualified acoustics specialist, stating the design proposed is capable of meeting the activity standards. • Where it applies, compliance with 1.b) must be confirmed by providing the WDC with a design report prepared by a qualified acoustic engineer, demonstrating compliance, prior to any sensitive activity or alteration occurring. The design must take into account future permitted use of railway and State Highway designations either by the 	
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	<p>addition of 2 dB to predicted sound levels or based on forecast traffic in 20 years' time.</p> <ul style="list-style-type: none"> • The indoor design sound levels in 1.b) must be achieved at the same time as the ventilation requirements of the New Zealand Building Code. If windows are required to be closed to achieve the indoor design sound levels then an alternative means of ventilation must be provided within bedrooms. • Ventilation systems where installed must: <ul style="list-style-type: none"> a) generate sound levels not exceeding <ul style="list-style-type: none"> i. 35 dB $L_{Aeq}(30s)$ at night time in bedrooms; and ii. 40 dB $L_{Aeq}(30s)$ in any other habitable space (excluding bedrooms) when measured 1 metre away from any grille or diffuser; and b) provide an adjustable airflow rate of up to at least 6 air changes per hour. <p><i>Note: Rail noise is deemed to be 70 $L_{Aeq}(1h)$ at a distance of 12m from the edge of the track, and is deemed to reduce at a rate of 3 dB per doubling of distance up to 40m and 6 dB per doubling of distance beyond 40m.</i></p> <p><i>Noise levels arising from activities must be measured in accordance with New Zealand Standard NZS 6801:2008 Measurement of environmental sound and assessed in accordance with New Zealand Standard NZS 6802:2008 Acoustics - Environmental noise, except where otherwise expressly provided for.</i></p>	
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NOISE-APP1 - Noise attenuation construction requirements for 30 and 35 dB

Noise attenuation construction requirements to achieve 30 dB Dtr,2m,nT,w + Ctr	
Building element	Minimum construction requirement
External walls of habitable spaces (refer Note 1)	<p>Walls with cladding: Minimum not to be less than 25 kg/m² being the combined mass of external and internal linings, excluding structural elements (e.g. window frames or wall studs).</p> <p>Assumes minimum 100mm wall cavity. Minimum exterior cladding to be 20mm timber or 9mm compressed fibre cement sheet over timber frame (100mm x 200mm). Fibrous acoustic blanket (batts or similar) required in cavity for all exterior walls. Interior: One layer of 13mm gypsum plasterboard (refer to Note 1 below).</p> <p>Mass walls: 190mm concrete block, strapped and lined internally with 9.5mm gypsum plaster board OR 150mm concrete wall.</p>
Windows of habitable spaces (refer Note 2)	Windows of up to 35% of floor area: 10/12/6 double glazing or 14 mm laminate glass or glazing systems of equivalent acoustic performance.
	Window areas greater than 35% of floor area will require a specialist acoustic report to show conformance with the insulation rule.
	Frames to be new aluminium window frames with compression seals or equivalent .
Pitched roof (refer Note 3)	<p>Cladding: 0.55mm profiled steel or tiles or 6mm corrugated fibre cement.</p> <p>Frame: Timber truss with 100mm acoustic blanket. Fibrous acoustic blanket (batts or similar) required for all ceilings with combined mass of less than 25 kg/m².</p> <p>Ceiling: 13mm gypsum plaster board.</p>
Skillion roof (refer Note 3)	<p>Cladding: 0.55mm profiled steel or 6mm fibre cement.</p> <p>Sarking: 20mm particle board (no gaps).</p> <p>Frame: 100mm gap with acoustic blanket.</p> <p>Ceiling: two layers of 9.5mm gypsum plaster board (no through ceiling lighting penetrations unless correctly acoustically rated). Fibrous acoustic blanket (batts or similar) required for all ceilings with combined mass 25kg/m².</p>
External Door to habitable spaces	Solid core door (min 24kg/m ²) with weather seals (where the door is exposed to exterior noise).

Notes:

1. Where exterior wall cladding has a mass of greater than 25kg/m² (e.g. brick veneer or minimum 25mm stucco plaster), internal wall linings need to be no thicker than 10mm gypsum plasterboard.
2. Ventilation requirements shall be in compliance with the New Zealand Building Code.
3. In determining the insulation 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.

Noise attenuation construction requirements to achieve 35 dB Dtr,2m,nT,w + Ctr	
Building Element	Minimum Construction Requirement
External walls of habitable spaces (refer Note 1)	<p>Either:</p> <p>External cladding with a surface mass not less than 23 kg/m²; Ex 100 x 50 timber framing at 600 mm centres; Fibrous thermal insulation; Internal lining of one layer 13mm thick high density gypsum board (minimum 12 kg/m²).</p> <p>Or:</p> <p>Any wall construction utilising at least 50 mm thick concrete; Secondary timber strapping or wall framing not less than 50 mm thick lined with at least 10 mm thick gypsum board; and Fibrous thermal insulation.</p>
Windows of habitable spaces (refer Note 2)	<p>4/12/4 thermal double glazing; with 6mm thick secondary pane at least 75mm from the outer glazing; and Windows to be new aluminium frames with fixed panes or opening sashes with full compression seals.</p>
Pitched roof (refer Note 3)	<p>Profiled longrun steel or tiles, with minimum steel thickness of 0.4mm; Timber trusses at minimum 800mm centres; Fibrous thermal insulation; and Ceiling lining of one layer 13mm thick high density gypsum board (minimum 12kg/m²).</p>
Skillion roof (refer Note 3)	<p>Profiled long-run steel or tiles, with minimum steel thickness of 0.4mm; Timber framing at minimum 600 centres; Fibrous thermal insulation; Ceiling lining of two layers 13mm thick high density gypsum board (minimum 12kg/m² each layer); and Minimum cavity between roof and ceiling 200mm.</p>
External door to habitable spaces	Specific acoustic design required.

Notes:

1. Where exterior wall cladding has a mass of greater than 25kg/m² (e.g. brick veneer or minimum 25mm stucco plaster), internal wall linings need to be no thicker than 10mm gypsum plasterboard.
2. Ventilation requirements shall be in compliance with NOISE-S3
3. In determining the insulation 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.