Attachment A: Revised Provisions

Base text:

Section 42A Officer's Report - Appendix 1 – Recommended Provisions with changes accepted.

Recommended changes:

Red underline / red ~~strike through~~

Definitions

Sensitive activity	means: 1. residential activity, including papakāika; 2. marae; 3. educational facility; 4. retirement village; 5. visitor accommodation activity; 6. place of worship; ~~or~~ 7. community facility; or 8. medical and health facilities.

Transport Corridor Noise Control ~~Area~~ Overlay	Means in relation to the Noise chapter, the area located within: (a) 100m of the boundary of any State Highway Designation where the ~~posted~~ permanent speed limit is 70 km/hr or above, or (b) 35m of the boundary of any State Highway Designation for State Highway 8, State Highway 83 and State Highway 85 where the ~~posted~~ permanent speed limit is less than 70km/hr, or (x) 50m of the boundary of the State Highway 1 designation, where the permanent speed limit is less than 70km/hr, or (c) 100m of the boundary any Railway Corridor Designation

Noise Chapter

NOISE-P3	**Recognising existing lawfully established noise emitting activities**
Provide for adequate areas where activities generating higher levels of noise can operate, subject to appropriate controls and where the special characteristics of noise generating activities are accommodated to reflect the function, character and amenity values of each zone. For the purposes of NOISE-P3, higher noise environments include: 1. locations adjoining the existing State Highways and the rail corridor ~~and~~ within the Transport Corridor Noise Control ~~Area~~ **Overlay**; and 2. Industrial Zones and Town Centre Zone; and 3. existing lawfully established activities that are high noise generators.	

NOISE-R2	New buildings, change of use of existing buildings and additions to existing buildings, for use by a sensitive activity	
Any site within 40m of ~~a~~ Commercial and Mixed Use Zones. **Any site within a Residential Zone that is within 20m of the boundary of a Town Centre Zone and/or Industrial Zones**	**Activity status: Permitted** **Where:** PER-1 All of the following standards are complied with where relevant: 1. NOISE-S2 Mechanical ventilation requirements; and 2. NOISE-S3 Acoustic treatment for sensitive activities.	**Activity status when compliance is not achieved: Restricted Discretionary** **Where:** RDIS-1 Compliance is not achieved with PER-1 **Matters of discretion are restricted to:** 1. the matters identified in NOISE-P4 and in NOISE-S3. ***Notification**: Any application made under RDIS-1 is precluded from being publicly notified.*
Any site located within ~~a~~ the Transport Corridor Noise Control ~~Area~~ Overlay	**Activity status: Permitted** **Where:** PER-2 All of the following standards are complied with where relevant: 1. NOISE-S2 Mechanical ventilation requirements; And 2. NOISE-S3 Acoustic treatment for sensitive activities.	**Activity status when compliance is not achieved: Restricted Discretionary** **Where:** RDIS-2 Compliance is not achieved with PER-2 **Matters of discretion are restricted to:** 1. the matters identified in NOISE-P4 and in NOISE-S3. ***Notification**: Any application made under RDIS-2 is precluded from being publicly notified.* *Note: Notice of any application for a resource consent under this rule must be served on ~~Waka Kotahi NZ~~ New Zealand Transport Agency and/or KiwiRail in accordance with Clause 10(2) of the Resource Management (Forms, Fees, and Procedure) Regulations 2003.*

NOTE: *Regarding* ***NOISE-S2*** *(see NZTA Planning Evidence and Acoustic Evidence), this will require a considerable amendment to ensure that mechanical ventilation requirements are explicitly required in situations where there is no prescribed internal noise level in NOISE-S3 (eg NOISE-S3 1a and 2b). The current text refers to an 'internal design noise levels for habitable rooms' which do not apply to NOISE-S3.1a and S3.2b, so failure to meet those parts of NOISE-S3 would not then trigger the need for mechanical ventilation under NOISE-S2.*

This need for a considerable amendment is shown as a deletion so this can be worked through. NZTA supports the intention of NOISE-S2, but in its current form, the intention will not be achieved.

NOISE-S2	**Mechanical ventilation requirements**	
All zones	1. ~~Where the internal design noise levels for habitable rooms in a building used by a sensitive activity required under NOISE-S3 or NOISE-R9 (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~~: a. provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code (Schedule 1 of the Building Regulations 1992); and b. achieves at least 1 air change per hour, but no less than ~~a minimum of~~ 7.5 litres per second per ~~person~~ occupant; and x. Provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18° and 25°C when assessed using a 2.5 % design weather condition for the applicable location. An acceptable design weather set would include IRHACE Yearbook 2009 NIWA weather data; and c. does not generate more than 35 dB LAeq(30s) when measured 1m away from any grille or diffuser.	**Matters of discretion where compliance is not met: Not Applicable**

NOISE-S3	**Acoustic treatment for sensitive activities ~~New sensitive activities — indoor design noise level and mechanical ventilation requirements~~**	
All zones	1. Any new building intended for a sensitive activity, and any alteration or addition to an existing building intended for a sensitive activity shall either: a. where it is not in relation to road or rail noise, 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 room~~space~~; or b. where it is located within a Transport Corridor Noise Control Overlay, be designed and constructed to meet with the following indoor design noise~~sound~~ levels: i. rail noise inside bedrooms between 10:00pm - 7:00am - 35 dB LAeq(1h); ii. rail noise inside habitable rooms~~spaces~~ excluding bedrooms - 40 dB LAeq(1h); iii. road traffic noise inside all habitable rooms~~spaces~~ - 40 dB LAeq (24hr) ; and iv. rail and road traffic noise within any other building intended for a sensitive activity- maximum value as set out in **Table X**. ~~recommended in AS/NZS 2107:2016 Acoustics — Recommended design sound levels and reverberation times for building interiors.~~ 2. compliance with this standard can be achieved by either: a. providing the WDC with a design report (prior to construction) and a design certificate (prior to occupation), prepared by a suitably	**Matters of discretion are restricted to:** 1. the location of the sensitive activity from the State Highway or railway corridor; 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 corridor; and 5. the outcome of any consultation with ~~Waka Kotahi NZ~~ New Zealand Transport Agency or KiwiRail.

qualified acoustics specialist, stating the design proposed is capable of meeting clause 1 of this standard; and/or

b. where it is not in relation to rail noise, or road noise that is outside the Applicability of NOISE-APP 1; conforming to the acceptable solutions listed in NOISE-APP1-Noise attenuation construction requirements.

Notes:

1. *For the purposes of this standard, rail noise is deemed to be 70 LAeq(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.*
2. *The design for traffic noise shall be based on measured or predicted traffic noise levels, with an addition of 3~~2~~ dB to allow for future traffic growth.*

Table X

Occupancy/activity	**Maximum road noise level** LAeq(24h)	**Maximum Rail Noise Level** LAeq(1h)
Building type: Residential		
Sleeping spaces	40 dB	35 dB
All other habitable rooms	40 dB	40 dB
Building type: Education		
Lecture rooms/theatres, music studios, assembly halls	35 dB	35 dB
Teaching areas, conference rooms, drama studios, sleeping areas	40 dB	40 dB
Libraries	45 dB	45 dB
Building type: Health		
Overnight medical care, wards	40 dB	40 dB
Clinics, consulting rooms, theatres, nurses' stations	45 dB	45 dB
Building type: Cultural		
Places of worship, marae	35 B	35 dB

NOISE-APP1 - Noise attenuation construction requirements for compliance with NOISE-S3 Acoustic treatment for sensitive activities~~New sensitive activities – indoor design noise level and mechanical ventilation requirements~~

Applicability

For road noise, ~~C~~construction requirements detailed in this appendix are only applicable where:

1. The road(s) passing the building containing the noise sensitive activity has/have a posted speed limit of less than or equal to 60 km/hr; and
2. The building is a single level construction; and
3. The floor of the building is a reinforced concrete slab; and
4. No habitable room of the building is located less than 4.5 metres from the road boundary; and
5. The total area of glazing in any habitable room is no greater than 20% of the total area of external walls of that room; and
6. The roof of the building is a standard timber truss design, with a pitch of not less than 15 degrees and horizontal ceiling. Ventilation of the roof space must only be via casual ventilation typical of the jointing, capping and guttering detail used in normal construction.

~~In all other situations, a design report from a suitably qualified acoustics specialist is required.~~

Construction Options	
Exterior walls Option 1	**Exterior cladding of brick, Aerated Concrete or similar, with a surface mass not less than 27 kg/m2.** • Timber or steel framing of not less than 90 mm, with studs at 600 mm centres. A ventilated cavity is not required for noise control purposes under this option but is permissible, with or without a rigid air barrier, • Fibrous insulation of minimum R2.6. This includes fibreglass, polyester and wool, but does not include polystyrene or other foam sheet insulation products, • One layer of 10 mm thick Standard Gib board or alternative gypsum board having a surface mass not less than 6 kg/m2.
Exterior walls Option 2	**Exterior cladding of Profiled sheet steel not less than 0.4 mm thick, or profiled aluminium not less than 1.3 mm thick, or treated pine weatherboards not less than 19mm thick.** • Battens forming a ventilated cavity not less than 18mm deep, • Rigid air barrier consisting of Plywood not less than 9 mm thick or Fibre Cement not less than 4 mm thick, or alternative sheet product having a surface mass not less than 5 kg/m2. • Timber or steel framing of not less than 90 mm, with studs at 600 mm centres, • Fibrous insulation of minimum R2.6. This includes fibreglass, polyester and wool, but does not include polystyrene or other foam sheet insulation products, • Two layers of 10 mm thick Standard Gib board or alternative gypsum board, each layer having a surface mass not less than 6 kg/m2.
Exterior walls Option 3	**Exterior cladding of Fibre Cement weatherboards, with a surface mass not less than 18 kg/m2.** • Battens forming a ventilated cavity not less than 18 mm deep, • Rigid air barrier consisting of Plywood not less than 7 mm thick or Fibre Cement not less than 4 mm thick, or • Alternative sheet product having a surface mass not less than 3.8 kg/m2. Timber or steel framing of not less than 90 mm, with studs at 600 mm centres, • Fibrous insulation of minimum R2.6. This includes fibreglass, polyester and wool, but does not include polystyrene or other foam sheet insulation products, • Two layers of 10 mm thick Standard Gib board or alternative gypsum board, each layer having a surface mass not less than 6 kg/m2.
Glazing and exterior doors All options	• Windows to consist of double glazing consisting of 2 layers of glass not less than 4 mm thick, separated by an airgap of not less than 12 mm, with full perimeter seals, or any other glazing with a minimum performance of Rw 33 dB. • External doors to be either double glazed to the same standard as windows, or be a solid panel construction with a surface mass not less than 24 kg/m2 and incorporating full perimeter seals or any doorset with a minimum performance of Rw 30 dB.
Roof All options	• Profiled metal roofing not less than 0.4 mm thick, in either sheet or tile form, • Fibrous insulation of minimum R6 within the ceiling cavity. This includes fibreglass, polyester and wool, but does not include polystyrene or other foam sheet insulation products, • Two layers of 13 mm Standard Gib board or alternative gypsum board, with each layer having a surface mass not less than 8 kg/m2.