

**BEFORE THE INDEPENDENT HEARINGS COMMISSIONERS
AT TAURANGA**

IN THE MATTER of the Resource Management Act 1991 ("**RMA**")

AND

IN THE MATTER of Proposed Plan Change 92 ("**PC 92**") to the
Operative Western Bay of Plenty District Plan
("**District Plan**")

JOINT MEMORANDUM OF COUNSEL REGARDING NOISE RULE

11 OCTOBER 2023

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MAY IT PLEASE THE COMMISSIONERS:

1. This joint memorandum is filed on behalf of KiwiRail Holdings Limited ("**KiwiRail**") and Kāinga Ora - Homes and Communities ("**Kāinga Ora**").
2. This memorandum relates to expert conferencing held in response to Direction #3 from the Hearing Panel, which asked Dr Chiles (on behalf of KiwiRail) and Mr Styles (on behalf of Kāinga Ora) to discuss the wording of the proposed rule for indoor rail noise ("**Rail Noise Rule**") promoted by KiwiRail and report back to the Hearing Panel on the outcome of those discussions. The Rail Noise Rule would apply in the event that the Panel accepts a 100 metre mapped contour, as sought by KiwiRail, as opposed to a fully modelled contour, as sought by Kāinga Ora.
3. Dr Chiles and Mr Styles met via virtual conferencing on Friday 22 September 2023 to discuss the proposed wording for the Rail Noise Rule.
4. The draft Rail Noise Rule with amendments agreed to by both experts, in the event that a 100 metre mapped contour is applied, is attached at **Appendix A**. The rule has also been reviewed by the Western Bay of Plenty District Council.

Dated: 11 October 2023

A A Arthur-Young / K L Gunnell
Counsel for KiwiRail Holdings Limited

B J Matheson / A Cameron
Counsel for Kāinga Ora - Homes and Communities

APPENDIX A – RAIL NOISE RULE WITH PROPOSED AMENDMENTS

- iii. In Ōmokoroa and Te Puke, any new building or addition to an existing building located within 100m of the railway designation boundary, which contains a dwelling, accommodation facility, education facility, place of worship or marae, or medical or scientific facility shall meet the following requirements:

- ~~(a)~~ ~~(a)~~—The building is to be designed, constructed and maintained to achieve an internal design level of 35 dB_{L_{Aeq}(1h)} for bedrooms and 40 dB_{L_{Aeq}(1h)} for all other habitable rooms. Written certification of such compliance from a Suitably Qualified and Experienced Acoustic Consultant ~~suitably qualified and experienced acoustic engineer~~ shall be submitted with the building consent application for the building concerned. The design certificate shall be based on:
- 1) A source level for railway noise of 70 L_{Aeq}(1h) at a distance of 12 metres from the nearest track; and
 - 2) The attenuation over distance being:
 - i. 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres; or
 - ii. As modelled by a Suitably Qualified and Experienced Acoustic Consultant using a recognised computer modelling method for freight trains with diesel locomotives, having regard to factors such as barrier attenuation, the location of the dwelling relative to the orientation of the track, topographical features and any intervening structures.

~~assume railway noise to be 70 L_{Aeq}(1h) at a distance of 12 metres from the track, and must be 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.~~

- (b) For habitable rooms for a residential activity, achieves the following requirements:
- i. provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code and that provides at least 1 air change per hour, with relief for equivalent volumes of spill air;
 - ii. provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C; and
 - iii. does not generate more than 35 dB L_{Aeq}(30s) when measured 1 metre away from any grille or diffuser. The noise level must be measured after the system has cooled the rooms to the temperatures in (ii), or after a period of 30 minutes from the commencement of cooling (whichever is the lesser).

- (c) For other spaces, a specification as determined by a suitably qualified and experienced person.
- (d) A commissioning report must be submitted to the Council prior to occupation of the building demonstrating compliance with all of the mechanical ventilation system performance requirements in subclause (b).
- (e) The requirements of (a) to (d) to not apply where the building(s) within 100m of the railway designation boundary:
 - i. Is in a location where the exterior façades of the bedroom(s) or habitable room(s) is at least 50m from the formed railway track and there is a solid building, fence, wall or landform that blocks the line of sight from all parts of all windows and doors of those rooms to all points 3.8m directly above the formed railway track; or
 - ii. Is in a location where it can be demonstrated by way of prediction or measurement by an Suitably Qualified and Experienced Acoustic Consultant that the rail noise level at all exterior façades of the bedrooms or habitable rooms is no more than 15 dB above the relevant internal noise levels in (a).
 - iii. Written certification from a Suitably Qualified and Experienced Acoustics Consultant demonstrating compliance with either (e)(i) or e(ii) as relevant shall be submitted with the building consent application for the building concerned.