

## Before the Hearings Commissioners

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Under the Resource Management Act 1991 (the **RMA**)

In the matter of a submission by KiwiRail Holdings Limited (Submitter 54 and Further Submission 3) on Plan Change 26

and in the matter of City of Waipa District Plan

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**Primary statement of evidence of Catherine Lynda Heppelthwaite for  
KiwiRail Holdings Limited regarding Plan Change 26 on the Waipa  
District Plan**

Dated 6 April 2023

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## **1 INTRODUCTION, QUALIFICATIONS AND EXPERIENCE**

- 1.0 My full name is Catherine Lynda Heppelthwaite. I am a principal planner for Eclipse Group Limited. I am presenting this planning evidence on behalf of KiwiRail Holdings Limited (**KiwiRail**).
- 1.1 I hold a Bachelor Degree in Resource Studies obtained from Lincoln University in 1993. I am a full member of the New Zealand Planning Institute, a member of the Resource Management Law Association and the Acoustical Society of New Zealand. I have more than 25 years' experience within the planning and resource management field which has included work for local authorities, central government agencies, private companies and private individuals. Currently, I am practicing as an independent consultant planner and have done so for the past 18 years.
- 1.2 I have extensive experience with preparing submissions and assessing district plans provisions in relation to noise and vibration, most recently in relation to the New Plymouth, Porirua and Whangarei District Plans where I assisted Waka Kotahi by providing specialist planning evidence on similar issues (noise and vibration).

## **2 CODE OF CONDUCT**

- 2.0 I have read the Environment Court's Code of Conduct for Expert Witnesses (2023) and I agree to comply with it. My qualifications as an expert are set out above. I confirm that the issues addressed in this brief of evidence are within my areas of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

## **3 SCOPE OF EVIDENCE**

- 3.0 My evidence will address the following:
- a. The statutory and higher order planning framework; and
  - b. KiwiRail submissions and further submissions in relation to building setbacks along with noise and vibration submissions;
  - c. Council's s42A recommendations; and
  - d. Further amendments required.

3.1 In preparing my evidence, I have considered the RMA Hearings Panel Report (**Section 42A Report**) prepared by Mr Damien McGahan<sup>1</sup> and the s32 Assessment<sup>2</sup>.

#### **4 THE STATUTORY AND HIGHER ORDER PLANNING FRAMEWORK**

4.0 In preparing this evidence I have specifically considered the following:

- a. The purpose and principles of the RMA (sections 5-8);
- b. Provisions of the RMA relevant to plan-making and consenting;
- c. National Policy Statement on Urban Development 2020;
- d. Waikato Regional Policy Statement (**RPS**) with specific reference to:

- i. **UFD-O1** – Built Environment

*Development of the built environment (including transport and other infrastructure) and associated land use occurs in an integrated, sustainable and planned manner which enables positive environmental, social, cultural and economic outcomes including by:*

[...]

*3. integrating land use and infrastructure planning, including by ensuring that development of the built environment does not compromise the safe, efficient and effective operation of infrastructure corridors;*

[...]

*5. recognising and protecting the value and long-term benefits of regionally significant infrastructure;*

[...]

*7. minimising land use conflicts, including minimising potential for reverse sensitivity*

- ii. **Method UFD-M2** – Reverse sensitivity

*Local authorities should have particular regard to the potential for reverse sensitivity when assessing resource consent applications, preparing, reviewing or changing district or regional plans and development planning mechanisms such as structure plans and growth strategies. In particular consideration should be given to discouraging new sensitive activities, locate near existing and planned land uses or activities that could be subject to effects*

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<sup>1</sup> Dated 17 March 2023.

<sup>2</sup> Proposed Plan Change 26: Residential Zone Intensification, Incorporating Section 32 Evaluation Report, August 2022 prepared by J Cook-Munro and A Kirkby-McLeod.

*including the discharge of substances, odour, smoke, noise, light spill or dust which could affect the health of people and /or lower the amenity values of the surrounding area.*

*The relevant policy is: UFD-P1 Planned and co-ordinated subdivision, use and development,*

- iii. **UFD-P1** – Planned and co-ordinated subdivision, use and development

*Subdivision, use and development of the built environment, including transport, occurs in a planned and co-ordinated manner which: [...]*

*4. has regard to the existing built environment.*

- iv. **UFD-P2** – Co-ordinating growth and infrastructure

*Management of the built environment ensures:*

*1.the nature, timing and sequencing of new development is co-ordinated with the development, funding, implementation and operation of transport and other infrastructure in order to:*

*a.[...]*

*b. maintain or enhance the operational effectiveness, viability and safety of existing and planned infrastructure;*

*c. [...]*

*3. the efficient and effective functioning of infrastructure, including transport corridors, is maintained, and the ability to maintain and upgrade that infrastructure is retained; and [...]*

4.1 In addition, Council has described the relevant statutory documents in Section 7 of the 42A Report with which I generally agree or accept and will not repeat here.

4.2 The Emissions Reduction Plan<sup>3</sup> is a matter to be had regard to by Council; of particular relevance within the Emissions Reduction Plan (for rail) is *Action 10.3.1: Support the decarbonisation of freight* which includes as a key initiative:

- *Continue to implement the New Zealand Rail Plan and support coastal shipping.*

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<sup>3</sup> Section 3.2.3

4.3 For completeness, the New Zealand Rail Plan (**NZRP**) lists as strategic investment priorities<sup>4</sup>:

- *Investing in the national rail network to restore rail freight and provide a platform for future investments for growth; and*

4.4 While the Emissions Reduction Plan is *to be had regard to*, its support for the NZRP (among other things) illustrates a strategic forward plan to generally improve and increase train services over time<sup>5</sup>. The North Island Main Trunk Line passes through Te Awamutu and is a key part of the rail freight network.

## 5 KIWIRAIL SUBMISSIONS AND FURTHER SUBMISSIONS

5.0 In summary, KiwiRail's primary submission seeks:

- a. that rail be identified as a qualifying matter<sup>6</sup> pursuant to s771(e) and s770(e) of the RMA;
- b. a 5m setback from the rail designation boundary being provided for buildings and structures in the Medium Density Residential Zone (**MDRZ**) including a new policy<sup>7</sup>, rule<sup>8</sup> and matter of discretion<sup>9</sup>;
- c. a 5m setback from the rail designation boundary being provided for buildings and structures in the General Residential Zone (**GRZ**) including a new policy<sup>10</sup>, rule<sup>11</sup> and a matter of discretion<sup>12</sup>;
- d. amendments to the acoustic standards to:
  - i. include a new vibration standard for noise sensitive activities within 60m from the rail designation boundary;<sup>13</sup> and
  - ii. increase the area applying noise control standards for noise sensitive activities from 40m to 100m (noise)<sup>14</sup> of the rail designation boundary.

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<sup>4</sup> The New Zealand Rail Plan April 2021, Part B, pages 25 and 38 for key details.

<sup>5</sup> Statement of Mr Michael Brown, 6 April 2023, paragraphs 3.1 to 3.6.

<sup>6</sup> Submission 54.1.

<sup>7</sup> Submission 54.4.

<sup>8</sup> Submission 54.9.

<sup>9</sup> Submission 54.5 and 54.15.

<sup>10</sup> Submission 54.3.

<sup>11</sup> Submission 54.6.

<sup>12</sup> Submission 54.7.

<sup>13</sup> Submission 54.8, 54.13 and 54.14.

<sup>14</sup> Submission 54.11 and 54.12.

5.1 KiwiRail has also made other primary submissions supporting provisions as notified and further submissions which generally oppose Kainga Ora (who seek to remove rail as a qualifying matter<sup>15</sup>) and support a Waka Kotahi submission<sup>16</sup> seeking inclusion of a definition of 'transport network'. Mr McGahan has adopted a position consistent with KiwiRail's further submissions, I agree with his reasons and these are not addressed further.

## 6 SECTION 42A ASSESSMENT

6.0 The 42A Authors make the following recommendations:

- a. Confirms that the rail network meets the tests as a qualifying matter<sup>17</sup> but changes to include a new policy, rules and matters of discretion which adopt a 5m setback have not been supported. Mr McGahan has noted<sup>18</sup>:

*As the existing rules in the District Plan and PC26 as notified did not contain rules that resulted in less enabling restrictions on development as a result of the qualifying matter KiwiRail's additional requests are not supported. KiwiRail are invited to provide a s77J assessment to support accommodating the setback within the qualifying matter.*

- b. Submissions requesting changes to include updated noise and new vibration provisions respectively are not adopted.

6.1 I will address these matters further below including comments on Qualifying Matters.

## 7 QUALIFYING MATTERS

7.0 Council may introduce Qualifying Matters (defined under 77I and 77O) to be less enabling than that required by the MDRS or Policy 3 of the National Policy Statement for Urban Development (**NPS UD**). Sections 77I(e) and 77O(e) specifically refer to a matter required for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure. The NPS UD defines "nationally significant infrastructure as including (f) the New Zealand rail network (including light rail)". As will be described further by Mr Brown and summarised in my paragraph 8.0 below, a 5m setback is recommended to

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<sup>15</sup> For example Kainga Ora Submission 79.129.

<sup>16</sup> Waka Kotahi Submission 63.14.

<sup>17</sup> S42A Report, paragraph 9.14.25.

<sup>18</sup> S42A Report, paragraph 9.14.29.

assist with providing a safe network and safety, consequently, contributes to an efficient network.

- 7.1 It is also worth underlining that other intensification planning instruments have recognised the rail corridor as a qualifying matter, for example, Selwyn and Porirua.
- 7.2 In his report Mr McGahan *invited* [KiwiRail] *to provide a s77J assessment to support accommodating the setback within the qualifying matter*<sup>19</sup>.
- 7.3 Section 77J(3) places a requirement on the territorial authority to prepare an evaluation report which must (among other things):
- (a) *demonstrate why the territorial authority considers—*
    - (i) *that the area is subject to a qualifying matter; and*
    - (ii) *that the qualifying matter is incompatible with the level of development permitted by the MDRS (as specified in Schedule 3A) or as provided for by policy 3 for that area; and*
  - (b) *assess the impact that limiting development capacity, building height, or density (as relevant) will have on the provision of development capacity; and*
  - (c) *assess the costs and broader impacts of imposing those limits.*
- 7.4 Section 77P(3) imposes a similar requirement. In my opinion it is clear that rail network is a Qualifying Matter (**QM**) and this is agreed by Mr McGahan<sup>20</sup>. The responsibility to complete a S77J (and 77P) evaluation rests with Council. The KiwiRail submission, the evidence of Dr Chiles, Mr Brown and myself, identifies the area subject to the QM (5m from the rail designation)<sup>21</sup> and also sets out the reason why the level of development proposed is incompatible with the QM<sup>22</sup> (safety and efficiency).
- 7.5 Recognising however that it is of assistance to include the requested provisions, I have made a preliminary assessment which addresses impacts on limited development capacity<sup>23</sup> and concludes setbacks will impact only the relatively confined area adjacent to the rail designation, as identified in Figure 1 by the *Structure Plan Area*.

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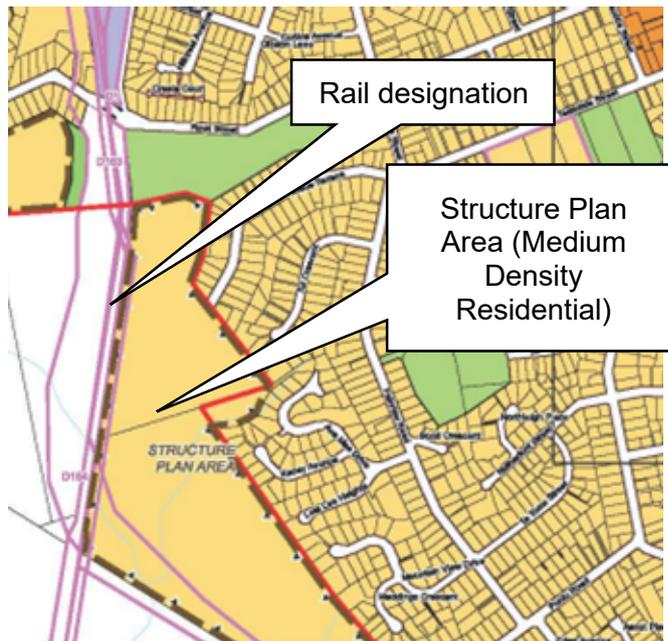
<sup>19</sup> S42A Report, paragraph 9.14.29.

<sup>20</sup> S42A Report, paragraph 9.14.25.

<sup>21</sup> Section 77J(a)(i).

<sup>22</sup> Section 77J(a)(ii).

<sup>23</sup> Section 77J(b).



**Figure 1:** Medium Density / Rail Designation Map 38 as notified in PC26

7.6 Based on the rail designation / Structure Plan Area boundary length of approximately 730m, with an average lot width of 17m<sup>24</sup>, this would indicate approximately 43 sites would be subject to the boundary setback control. This is an inconsequential number of sites relative to the overall capacity provided by PC26. Further, these setback controls are not intended to operate as a "no build zone", but rather propose a more nuanced approach to development adjoining the rail corridor.

## 8 BUILDING SETBACK

8.0 I rely on Mr Brown's evidence<sup>25</sup> which:

- a. describes why a 5m setback is necessary (taking into consideration height and height in relation to boundary controls proposed<sup>26</sup>) for maintaining buildings within the MDRZ; and
- b. describes the risk to persons both accessing the rail corridor (to undertake adjoining property maintenance) and rail corridor users (train operators and passengers).

<sup>24</sup> 17m reflects existing averaged lot widths on Puniu Road (to Banks Street) and Bank Street (between Puniu Road and Rutherford Street).

<sup>25</sup> Evidence of Mr Michael Brown, 6 April 2023.

<sup>26</sup> S42A Report Appendix 1, Officers recommended amendments, Rules 2A.4.2.1 and 2A.4.2.2, Pages 55-56.

- 8.1 In addition to Mr Brown's evidence, it is not uncommon for District Plans to include provisions which limit uses of land to protect the operation of infrastructure beyond the designation boundary and also to provide safe and healthy environments for people.
- 8.2 For example, Transpower has included in a range district plans<sup>27</sup> a national grid corridor overlay which restricts activities within a specified spatial extent of its network (around both pylons and lines). Airports and ports are another common infrastructure type which restricts activities and/or require mitigation for certain activities on surrounding private land<sup>28</sup>.
- 8.3 For completeness, I have considered other methods (no setback and extending existing designation widths) to provide for building maintenance and safety of adjoining occupants. This is assessed in the format of Section 32AA and included as **Attachment B**. This is also supported by the preliminary assessment in my paragraphs 7.6 and 7.7.

## 9 NOISE AND VIBRATION

- 9.0 Dr Chiles<sup>29</sup> has provided evidence which I accept and summarise the key findings as:
- a. Research confirms that noise and vibration have adverse health and amenity effects on people<sup>30</sup>;
  - b. Based on his analysis, Dr Chiles' concludes the appropriate provisions to manage noise and vibration effects apply from the edge of the rail designation boundary and are:
    - i. 100m for noise, given an area of 40m (for noise) is not sufficient to manage the most significant effects of noise from rail lines<sup>31</sup>; and
    - ii. 60m for vibration effects to manage health and amenity effects. The control (60m) is designed to capture the worst of those likely effects, not all effects. Dr Chiles balances the variability of vibration effects and his preference for 100m control<sup>32</sup>.

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<sup>27</sup> For example, Chapter D26 of the Auckland Unitary Plan.

<sup>28</sup> For example, Chapters D24 Aircraft Noise Overlay and D25 City Centre Port Noise Overlay of the Auckland Unitary Plan.

<sup>29</sup> Statement of Dr Stephen Chiles, 6 April 2023.

<sup>30</sup> Statement of Dr Stephen Chiles, 6 April 2023, paragraphs 4.2 to 4.6.

<sup>31</sup> Statement of Dr Stephen Chiles, 6 April 2023, paragraph 6.1.

<sup>32</sup> Statement of Dr Stephen Chiles, 6 April 2023, paragraph 6.13.

9.1 The RPS also sets out UFD-M2 that:

*[...] In particular consideration should be given to discouraging new sensitive activities, locate near existing and planned land uses or activities*

9.2 The Operative Waipa District Plan provides a good objective and policy framework which would support the proposed noise provisions. For example:

*Policy - Noise sensitive activities located adjacent to railways and strategic roads*

*2.3.2.10 To reduce the potential for reverse sensitivity effects, by requiring noise sensitive activities to be acoustically treated, where they are proposing to locate in close proximity to railways and strategic roads.*

*Objective - Comprehensive design and development*

*2.3.5.1 To ensure that in-fill housing, compact housing, retirement village accommodation and associated care facilities, rest homes and visitor accommodation are comprehensively designed by:*

*[...]*

*(i) Addressing reverse sensitivity effects; and*

*[...]*

9.3 In the advent of increased intensification of sensitive activities around significant infrastructure, Dr Chiles has provided technical evidence which demonstrates health and amenity effects will occur as a result of noise and vibration and therefore it is appropriate to include updated noise and new vibration control provisions.

9.4 The implementation of the MDRS and policies 3 and 4 of the NPS-UD will result in more people living near the rail corridor. As a consequence, the provisions sought by KiwiRail are in my opinion required to ensure intensification can occur in a way that appropriately manages the interface between the rail corridor and noise sensitive activities .

9.5 I have considered other methods (limited noise control and no vibration control) to address health, amenity and reverse sensitivity effects. This is assessed in the format of Section 32AA and included as **Attachment C**. I conclude that a 'permitted activity' setback for noise and vibration is the most efficient outcome to provide for health and amenity along with consequentially reducing potential reverse sensitivity effects. Proposed changes to plan provisions are included as **Attachment A**.

## 10 CONCLUSION

10.0 In conclusion:

- a. **Building Setback:** A railway "network" is accepted by the S42A Author as a Qualifying Matter. To ensure the safe and efficient operation of the rail corridor, a 5m setback is sought by KiwiRail from the rail designation boundary. A 5m setback is considered to be an appropriate distance to ensure safe building maintenance within the MDRZ and GRZ. Associated policy, rules and matters of discretion are proposed to support this.
- b. **Noise and Vibration:** Amended noise controls to extend to 100m and new vibration controls within 60m are proposed. These changes will recognise effects of infrastructure and also provide opportunities for intensification / sensitive activities where appropriate mitigation is provided. Consequential changes to matters of discretion are also proposed.

**Cath Heppelthwaite**  
6 April 2023

## Attachment A: Proposed Changes

Base text is taken from Appendix A – Planners recommendation with changes accepted. All changes are in red text. New text is underlined and proposed deletions in ~~strike through~~.

### General Residential Zone

#### Policy - Building setback: rail designation boundaries

##### 2.3.2.3A

Require activities adjacent to regionally significant network utilities to be setback a safe distance in order to ensure the ongoing safe and efficient operation of those utilities and the communities who live adjacent to them.

#### Rule - Minimum building setback from Rail Designation Boundary

##### 2.4.2.5A

Buildings and structures must be set back a minimum of 5 metres from the rail designation boundary.

##### 2.4.1.3 Restricted discretionary activities

The following activities shall comply with the performance standards of this zone

(a) [...]

(b) [...]

Assessment will be restricted to the following matters:

- Building location, bulk and design; and [...]
- For activities which do not meet 2.4.2.5A, the location and design of the building as it relates to the ability to safely use, access and maintain buildings without requiring access on, above or over the rail designation boundary.

### Medium Density Residential Zone

#### Policy - Building setback: rail designation boundaries

##### 2A.3.4.3A

Require activities adjacent to regionally significant network utilities to be setback a safe distance in order to ensure the ongoing safe and efficient operation of those utilities and the communities who live adjacent to them.

#### **Rules – Setbacks**

**2A.4.2.4** Buildings must be set back from the relevant boundary by the minimum depth listed in the yards table below:

Yard	Minimum depth
Front	1.5 metres
Side	1 metre
Rear	1 metre (excluded on corner sites)
<u>Rail designation</u>	<u>5 metres</u>

2A.4.2.5 [...]

2A.4.2.6 [...]

Activities that fail to comply with Rules 2A.4.2.4 to 2A.4.2.6 will require a resource consent for a restricted discretionary activity with the discretion being restricted over:

- Building location, bulk and design; and [...]
- The location and design of the building as it relates to the ability to safely use, access and maintain buildings without requiring access on, above or over the rail designation boundary.

These matters will be considered in accordance with the assessment criteria in Section 21  
**Rule 2.4.2.29 (General Residential Zone)**

Where a new or altered noise sensitive activity ~~or~~ is proposed to be located within ~~40~~100m of a ~~railway track~~ designation boundary, the building shall be insulated so that:

(1) it achieves the following noise levels:

- (a) Inside bedrooms 35dBA LAeq (1hr)
- (b) Inside other habitable rooms 40dBA LAeq (1hr) ~~or~~

(2) Is at least 50 metres from any railway network, and is designed so that a noise barrier completely blocks line-of-sight from all parts of doors and windows, to all points 3.8 metres above railway tracks and

(3) The levels in (1) above must be met based on an assumed level of 70 dB LAeq(1h) at a distance of 12m from the track and reduce at a rate of 3 dB per doubling of distance of up to 40m and 6 dB per doubling of distance beyond 40m.

(4) Where windows are required to be closed to achieve the sound levels in the table above the room or space shall be designed, constructed and maintained to:

- (a) Provide mechanical ventilation that satisfies clause G4 of the New Zealand Building Code and is adjustable by the occupant to control the ventilation rate in increments up to a high air flow setting that provides at least 6 air changes per hour; and
- (b) Provide relief for equivalent volumes of spill air; and
- (c) Provide cooling and heating that is controllable by the occupant and that can maintain the inside temperature of the room or space between 18°C and 25°C.
- (d) The ventilation or cooling system used does not generate more than 35dBLAeq when measured 1m away from any grille or diffuser.

#### **Rule 2A.4.2.40 (Medium Density Residential Zone)**

Where a new or altered noise sensitive activity ~~or~~ is proposed to be located within ~~40~~100m of a ~~railway track~~ designation boundary, the building shall be insulated so that:

(1) it achieves the following noise levels:

- (a) Inside bedrooms 35dBA LAeq (1hr)
- (b) Inside other habitable rooms 40dBA LAeq (1hr) ~~or~~

(2) Is at least 50 metres from any railway network, and is designed so that a noise barrier completely blocks line-of-sight from all parts of doors and windows, to all points 3.8 metres above railway tracks and

(3) The levels in (1) above must be met based on an assumed level of 70 dB LAeq(1h) at a distance of 12m from the track and reduce at a rate of 3 dB per doubling of distance of up to 40m and 6 dB per doubling of distance beyond 40m.

(4) Where windows are required to be closed to achieve the sound levels in the table above the room or space shall be designed, constructed and maintained to:

- (a) Provide mechanical ventilation that satisfies clause G4 of the New Zealand Building Code and is adjustable by the occupant to control the ventilation rate in increments up to a high air flow setting that provides at least 6 air changes per hour; and
- (b) Provide relief for equivalent volumes of spill air; and
- (c) Provide cooling and heating that is controllable by the occupant and that can maintain the inside temperature of the room or space between 18°C and 25°C.
- (d) The ventilation or cooling system used does not generate more than 35dBLAeq when measured 1m away from any grille or diffuser.

**New Rule 2.4.2.30A (General Residential Zone)**

**New Rule 2A.4.2.42A (Medium Density Residential Zone)**

**Permitted activity rule for indoor railway vibration**

1. Any new buildings or alterations to existing buildings containing a noise sensitive activity, within 60 metres of any rail designation boundary must be either:

(a) be designed, constructed and maintained to achieve rail vibration levels not exceeding 0.3 mm/s vw,95; or

b) the new building or alteration to an existing building is a single-storey framed residential building with:

i. a constant level floor slab on a full-surface vibration isolation bearing with natural frequency not exceeding 10 Hz, installed in accordance with the supplier's instructions and recommendations;

ii. vibration isolation separating the sides of the floor slab from the ground; and iii. no rigid connections between the building and the ground; and

iii. no rigid connections between the building and the ground.

2. Compliance with standard 1 above shall be confirmed by a report prepared by a suitably qualified independent person, being submitted to the council

**Medium Density Residential Zone Assessment Criteria**

**21.1.2A.8(b) Setbacks**

(a) The extent to which the road boundary setback is appropriate in the location, particularly where located adjoining a Character Street.

(b) The extent to which the road boundary and rail boundary setback affects the safe and efficient operation of the road and railway network.

(c) The extent to which the [...]

## **Attachment B: S32AA Assessment of Building Setback**

Having regard to section 32AA, the following is noted:

### **Effectiveness and efficiency**

- The proposed changes will be more efficient and effective than other methods (such as designating a wider corridor to provide setback) as it provides flexibility of use by resource consent allowing for situations where building within the setback is acceptable. Applying a wider designation means land will not be available for use at all, the setback yard by contrast could enable future use by way of resource consent. This fits RPS UFD-O1 and UFD-M2 in providing development which can be, with mitigation, compatible within reasonably close proximity to infrastructure.
- Providing no setback will not support an efficient outcome generally as incursions can lead to disruption to the rail network/ inefficient operation and endanger safety.

### **Costs/Benefits**

- The recommended amendments will limit building in some locations (cost). However, the impact on overall development capacity is marginal and resource consent can be sought to infringe the setback standard.
- The benefits are providing for a safer and more efficient rail network which supports passenger transport (being itself a significant supporting factor for residential intensification).
- The changes will enable greater certainty, and safety, for home owners and occupiers to undertake maintenance to their dwellings.

### **Risk of acting or not acting**

- Evidence has been provided of the risks to public safety and network efficiency if no action is taken. Not acting could result in an inefficient operation of nationally significant infrastructure due to unexpected shutdowns. Not acting increases the risk to the health and safety of adjoining residents.

### **Decision about most appropriate option**

- The recommended amendments as set out in my evidence are therefore considered to be more appropriate in achieving the purpose of the RMA rather than the notified provisions.

## **Attachment C: S32AA Assessment of Noise and Vibration Controls**

Having regard to section 32AA, the following is noted:

### **Effectiveness and efficiency**

- The proposed changes will be more efficient and effective at balancing infrastructure and health and amenity resulting from intensification than other methods (such as existing 40m controls). This fits RPS UFD-O1 and UFD-M2 as it provides development which can be, with mitigation, compatible where close to infrastructure.
- Retaining the 40m noise and vibration controls will not support an efficient outcome as effects on health and amenity for those residents within 40m to 100m (noise) and 40m to 60m \*vibration will not be addressed and new reverse sensitivity effects could arise (which could lead to inefficient operation of nationally significant infrastructure), in particular arising from the greater intensification of the area.
- Option adopts a 'prevention is better than cure approach'.

### **Costs/Benefits**

- The recommended amendments require additional assessments for some buildings and activities in some locations. • Where standards are infringed, there will be costs to applicants in seeking resource consent. In practice, this is generally not anticipated or experienced elsewhere as there are standard engineering solutions that can be implemented to achieve compliance. However, where there is an infringement, the extent of those costs will vary depending on whether a developer already requires consent for subdivision or to infringe other standards in the plan.

the benefits are however improved health and amenity and reduced risk of reverse sensitivity effects (benefits). The rail network provides passenger transport which is a significant supporting factor for residential intensification proposed.

Where standards cannot be met, there is a consenting pathway for development of noise sensitive activities.

- The changes will enable greater certainty for home owners as to their ability to live comfortably and free from the most significant health and amenity impacts when in close proximity to infrastructure (benefits).
- Dr Chiles' evidence is that rail vibration can routinely be experienced at over 100m from the railway corridor. In applying the provisions only out to 60m (due to the volume of traffic on the line), the provisions are a pragmatic response in that they address health and amenity effects at sites most affected by rail vibration.
- The provisions are an integrated response to planning in that it allows development of sensitive activities to occur near the rail corridor in a way that appropriately manages the effects of, and on, the ongoing use and operation of the rail corridor.
- The noise and vibration provisions do not apply to existing activities so there are no additional constraints on developed sites where redevelopment is not anticipated.

### **Risk of acting or not acting**

- Health and amenity effects will occur if no action is taken.
- Potential for reverse sensitivity effects on the operation of the rail network

### **Decision about most appropriate option**

- Based on the evidence of Dr Chiles, the recommended amendments as set out in my evidence are therefore considered to be more appropriate in achieving the purpose of the RMA rather than the notified provisions.