Before the Independent Commissioners

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

In the matter of a submission by KiwiRail Holdings Limited (SO94 and

SO94.FS.1) on the Kāpiti Coast District Plan Proposed

Plan Change 2

and in the matter of Kāpiti Coast District Plan

Primary statement of evidence of Catherine Lynda Heppelthwaite for KiwiRail Holdings Limited regarding Kāpiti Coast District Plan Proposed Plan Change 2

Dated 10 March 2023

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;
 - b. KiwiRail submissions and further submissions in relation to noise and vibration;
 - c. Council's s42A recommendations;
 - d. Recommended amendments (Attachment A); and

- e. Section 32AA (Attachments B and C).
- 3.1 In preparing my evidence, I have considered the Plan Change 2 Council Officers' Planning Evidence prepared by Mr Banks and Ms Maxwell¹.

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. Wellington Regional Policy Statement (RPS) with specific reference to:
 - i. Chapter 3.3 Introductory Text:
 - Recognising rail as a significant physical resource²;
 - The efficient use and development of such infrastructure can be adversely affected by development. For example, land development can encroach on infrastructure or interfere with its efficient use. Infrastructure can also have an adverse effect on the surrounding environment. For example, the operation or use of infrastructure can create noise which may adversely impact surrounding communities. These effects need to be balanced to determine what is appropriate for the individual circumstances³.[bold added]
 - ii. Objective 10: The social, economic, cultural and environmental, benefits of regionally significant infrastructure are recognised and protected⁴.
 - iii. Policy 8: Protecting regionally significant infrastructure regional and district plans⁵. District and regional plans **shall include policies and**

¹ Dated 23 February 2023.

² RPS Introductory text, 3.3 Energy, infrastructure and waste, page 44(b) Infrastructure.

³ RPS Introductory text, 3.3 Energy, infrastructure and waste, page 44(b) Infrastructure.

⁴ RPS Table 3: Energy, infrastructure and waste objectives and titles of policies and methods to achieve the objectives

⁵ RPS Table 3: Energy, infrastructure and waste objectives and titles of policies and methods to achieve the objectives

rules that protect regionally significant infrastructure from incompatible new subdivision, use and development occurring under, over, or adjacent to the infrastructure⁶.[bold added]

iv. Policy 8 Explanation: Incompatible subdivisions, land uses or activities are those which adversely affect the efficient operation of infrastructure, its ability to give full effect to any consent or other authorisation, restrict its ability to be maintained, or restrict the ability to upgrade where the effects of the upgrade are the same or similar in character, intensity, and scale. It may also include new land uses that are sensitive to activities associated with infrastructure.

Protecting regionally significant infrastructure does not mean that all land uses or activities under, over, or adjacent are prevented. The Wellington Regional Council and city and district councils will need to ensure that activities provided for in a district or regional plan are compatible with the efficient operation, maintenance, and upgrading (where effects are the same or similar in character, intensity, and scale) of the infrastructure and any effects that may be associated with that infrastructure. Competing considerations need to be weighed on a case by case basis to determine what is appropriate in the circumstances⁷. [bold added]

- v. Method 1 (for Policy 8) identifies District plans as an implementation method⁸.
- 4.1 At Section 3.1 and 3.2.2, Mr Banks provides a discussion of *Statutory Considerations* including Plan Change 1 to the Wellington Regional Policy Statement⁹ where he recommends this is given minimal weighting¹⁰. I agree with Mr Banks given Plan Change 1's progression through the Schedule 1 process.
- 4.2 I also note Mr Banks' reference to the Emissions Reduction Plan¹¹ as a matter to be had regard to by Council; of particular relevance within the Emissions

⁶ RPS Page 96.

⁷ RPS Page 96.

⁸ Table 3: Energy, infrastructure and waste objectives and titles of policies and methods to achieve the objectives

⁹ Section 3.2.2.

¹⁰ Paragraph 79.

¹¹ Section 3.2.3

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.
- 4.3 For completeness, the New Zealand Rail Plan (NZRP) lists as strategic investment priorities¹²:
 - Investing in the national rail network to restore rail freight and provide a platform for future investments for growth; and
 - Investing in metropolitan rail to support growth and productivity in our largest cities.
- 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 time¹³.

5 KIWIRAIL SUBMISSIONS AND FURTHER SUBMISSIONS

- 5.0 KiwiRail's primary submission seeks:
 - a. identification of a setback from the rail corridor as a qualifying matter¹⁴;
 - amendment of setback standards in the General Residential Zone to increase the setback from the rail corridor to 5m and associated restricted discretionary activity assessment criteria¹⁵;
 - c. introduction of a 5m setback standard for the Metropolitan Centre Zone,
 Town Centre Zone, Local Centre Zone and any other zone adjoining the rail corridor along with a matter of discretion¹⁶;
 - d. amendment of the district wide noise standard to apply to noise sensitive activities within 100m of the railway corridor¹⁷;

¹² The New Zealand Rail Plan, Part B, pages 25 and 38 for key details.

¹³ Statement of Mr Michael Brown, 10 March 2023, paragraphs 3.6 to 3.9.

¹⁴ S094.01, S094.02, S094.03 and S094.04.

¹⁵ S094.01 and S094.02.

¹⁶ S094.03 and S094.04.

¹⁷ S094.05.

- e. introduction of vibration controls which apply to sensitive uses within 60m of the railway corridor¹⁸; and
- f. all related and consequential amendments as required to achieve the relief sought.
- 5.1 KiwiRail made a range of further submissions including:
 - a. recognising potential reverse sensitivity effects in Policy GRZ-P10¹⁹ and in NOISE-R14²⁰:
 - b. opposing preclusion of limited notification for high density developments not meeting setbacks within SUB-RES-R27²¹; and
 - c. opposing preclusion of limited notification as a result of combining GRZ-Rx6, GRZRx7 and SUB-RES-R27²².

6 COUNCILS PLANNING EVIDENCE

- 6.0 I can confirm Mr Banks has correctly interpreted that reference to the 'rail corridor' boundary for the proposed 5m building setback and NOISE-R14 as being the KiwiRail designation boundary (KRH-001) ²³.
- 6.1 The tracks and infrastructure (which may presently be some distance from the designation boundary), can be moved in reliance on Outline Plan / designation.

 Noting the ERP/NZRP forward plan for more investment in rail, that this may bring infrastructure closer to the site boundary in the future.
- 6.2 Mr Banks has not accepted KiwiRail's submissions in relation to the 5m building setback for the following reasons:
 - a. insufficient information to demonstrate that the assessment requirements for new qualifying matters (under sections 77J(3) and 77P(3) of the RMA) have been met²⁴;

¹⁸ S094.06 and S094.07.

¹⁹ SO114.06 FS.1 Z Energy Ltd et al

²⁰ SO114.06 FS.1 Z Energy Ltd et al1

²¹ SO26.04 The Loyalty Initiative and SO25.49

²² SO28.12 Infill Tapui Limited

²³ Paragraphs 297 and 303.

²⁴ Paragraph 300.

- b. insufficient information to confirm why a different setback is necessary for property maintenance adjacent to the rail corridor (as compared with any other property boundary)²⁵; and
- c. that KiwiRail can utilise refusal of access requests (for maintenance) from property owners to in order to protect its network²⁶.
- 6.3 For noise and vibration, Mr Banks considers there are a range of reasons the existing acoustic control should not be extended to 100m and that a vibration control is not appropriate. These reasons are summarised as:
 - a. the number of land parcels to which the controls would apply are significant;
 - b. there is insufficient information to evaluate the appropriateness of the provisions (including alternatives such as managing effects within the rail corridor)²⁷; and
 - c. a list of technical question on the functioning of the vibration standard and ascertaining compliance²⁸.
- 6.4 I will address each of these points in Sections 7 to 9 and also provide comment on a further submissions in Section 10.

7 QUALIFYING MATTER

7.0 Council, may, introduce Qualifying Matters (defined under 77I) to be less enabling that required the Policy 3. Mr Banks appears to accept that under 77I(e), the rail network is a matter required for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure. The National Policy Statement for Urban Development defines Nationally significant infrastructure as including (f) the New Zealand rail network (including light rail). The section of the North Island Main Trunk Line which passes through Kāpiti District, is, as the name suggests, part of the main passenger and freight route between Auckland and Wellington and clearly nationally significant infrastructure.

²⁶ Paragraph 299.

²⁵ Paragraph 299.

²⁷ Paragraph 305.

²⁸ Paragraphs 306 and 307.

- 7.1 Section 77I(e) specifically refers to the safe or efficient operation of nationally significant infrastructure. As will be describe further by Mr Brown and summarised in my paragraph 8.0 below, a 5m setback is recommended to assist with providing a safe network and safety, consequently, contributes to an efficient network.
- 7.2 Mr Banks' main concern is that Sections 77J(3) and 77P(3) are not met. Section 77J(3) place a requirement on the territorial authority to prepare an evaluation report which must:
 - (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.
- 7.3 Section 77P(3) imposes a similar requirement. In my opinion it is clear that rail network is a Qualifying Matter (QM) and the responsibility that Mr Banks has put forward (under 77J(3) and 77P(3)) rests with Council. submission, the evidence of Dr Chiles, Mr Brown and myself, identifies the area subject to the QM (5m from the rail designation)²⁹ and also sets out the reason why the level of development proposed is incompatible with the QM³⁰ (safety and efficiency).
- 7.4 It is also worth underlining that other IPIs have recognised the rail corridor as a QM, for example, Selwyn and Porirua.

BUILDING SETBACK 8

- 8.0 I rely on Mr Brown's evidence which:
 - a. describes why a 5m metric setback is necessary (relative to a three / 12m storey dwelling within 1m of a rail corridor;

²⁹ Section 77J(a)(i).

³⁰ Section 77J(a)(ii).

- b. describes the risk to persons both accessing the rail corridor (to undertake adjoining property maintenance) and rail corridor users (train operators and passengers); and
- c. concludes that corridor access requests are not a reliable method of managing network access.
- 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 and also to provide safe and healthy environments for people.
- For example, Transpower has included in a range district plans³¹ a national grid 8.2 corridor overlay which restricts activities within a specified spatial extent of its network. Airports and ports are another common infrastructure type which restricts activities on surrounding private land³².
- 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 and I conclude that a setback is the most efficient outcome. I have relied on the evidence of Mr Brown as to the extent of that setback.

NOSIE AND VIBRATION 9

- Dr Chiles³³ has provided evidence which I accept and summarise the key 9.0 findings as:
 - a. Research confirms that noise and vibration have adverse health and amenity effects on people³⁴;
 - b. Based in his analysis, Dr Chile's concludes the appropriate provisions to manage noise and vibration effects apply from the edge of the designation boundary and are:

³¹ For example, Chapter D26 of the Auckland Unitary Plan.

³² For example, Chapters D24 Aircraft Noise Overlay and D25 City Centre Port Noise Overlay of the Auckland Unitary Plan. ³³ Statement of Dr Stephen Chiles, 10 March 2023.

³⁴ Statement of Dr Stephen Chiles, 10 March 2023, 4.1 to 4.6.

- i. 100m for noise, a setback of 40m (for noise) is not sufficient to manage the most significant effects of noise from rail lines³⁵; 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 control³⁶.
- 9.1 Mr Banks has indicated concern about the number of land parcels to which the controls would apply and there being insufficient information to evaluate the appropriateness of the provisions (including alternatives such as managing effects within the rail corridor)³⁷.
- 9.2 In regard to assessing the number of parcels to which the controls would apply, I do not consider simply counting the total number of parcels to be an accurate assessment for evaluation. This is because, for the proposed controls to be applied, a 'cascade' of events must first occur and this 'cascade' will not apply to every land parcel:
 - a. The land parcel must have development potential <u>and</u> an owner who wishes to develop (the controls proposed are not retrospective).
 - b. If there is development; only sensitive activities would activate the controls;
 there are 'non-sensitive' activities (commercial, business and industrial)
 which do not trigger controls.
 - c. If there is development and it is for sensitive activity, there are a range of compliance pathways which may negate specific built responses (e.g. require an acoustic assessment confirming noise limits are below levels³⁸ or locating a sensitive activity outside the setback area).
 - d. If there is development potential for a sensitive activity and compliance pathways are not available, then additional mitigation would be required to be a permitted activity.

³⁵ Statement of Dr Stephen Chiles, 10 March 2023, 6.5.

³⁶ Statement of Dr Stephen Chiles, 10 March 2023, 6.8 to 6.10.

³⁷ Paragraph 305.

³⁸ Kāpiti District Plan NOISE-R14 Permitted Activity (1)(g)(iii).

- 9.3 Based on this cascade, it is my view that the number of sites where the controls would be triggered and require mitigation will be much more limited that a land parcel count as suggested by Mr Banks.
- 9.4 In regards to the second part of Mr Banks' question (insufficient information to evaluate the appropriateness of the provisions including alternatives such as managing effects within the rail corridor), I note the following:
 - a. In regard to internalisation of effects, Dr Chiles³⁹ provides a technical explanation of KiwiRail operations and why effects, even in the best of operating conditions, cannot be fully internalised.
 - b. The RPS framework accepts there will be effects from infrastructure (beyond its boundaries) and provides a policy framework in which to manage (balance) these (being Objective 10, Policy 8). The RPS does not require that all effects of infrastructure are internalised. The explanatory text in Chapter 3.3 gives a clear explanation:

The efficient use and development of such infrastructure can be adversely affected by development. For example, land development can encroach on infrastructure or interfere with its efficient use. Infrastructure can also have an adverse effect on the surrounding environment. For example, the operation or use of infrastructure can create noise which may adversely impact surrounding communities. These effects need to be balanced to determine what is appropriate for the individual circumstances⁴⁰.[bold added]

- c. The RPS also directs (by the use of the term "shall" within Policy 8 and its methods) district councils to include policies and rules that protect regionally significant infrastructure from incompatible new subdivision, use and development occurring under, over, or adjacent to the infrastructure. This is a very strong directive and the Kāpiti District Plan already recognises control of noise as both an effect and a matter which requires addressing through rules.
- d. In the advent of increased intensification of sensitive activities around significant infrastructure, Dr Chiles has provided technical evidence which

³⁹ Statement of Dr Stephen Chiles, 10 March 2023, 5.1 and 5.2.

 $^{^{40}}$ RPS Introductory text, 3.3 Energy, infrastructure and waste, page 44(b) Infrastructure.

demonstrates health and amenity effects will occur as a result of noise and vibration and therefore it is appropriate to require broader spatial extent for noise provisions and that a vibration control is introduced.

- 9.5 I have considered other methods (retention of existing noise control and no vibration control) to address heath, amenity and reverse sensitivity effects. This is assessed in the format of Section 32AA and included as Attachment C and I conclude that an increased 'permitted activity' setback for noise and a new vibration control both with is the most efficient outcome to provide for health and amenity along with consequentially reducing potential reverse sensitivity effects.
- Finally, Mr Banks has raised a list of questions⁴¹ on the functioning of the 9.6 vibration control, with the exception of point (e)⁴² which I will assess, I rely on the evidence of Dr Chiles⁴³ where he addresses these matters.
- 9.7 In relation to point (e), I would anticipate that Council would either accept and rely on the professional opinion of the acoustician who provided the certificate or utilise whatever method is already in place for recovering costs when otherwise checking building consents for district plan compliance.

FURTHER SUBMISSIONS 10

10.0 With reference to further submission SO114.06 FS.1 Z Energy Ltd et al, the submitter sought an amendment to Policy GRZ-P10:

> Subdivision, use and development in the Residential Zones will be required to achieve a high level of on-site amenity for residents and neighbours in accordance with the following principles:

- 1. building size and footprint will be proportional to the size of the allotment;
- 2. usable and easily accessible private outdoor living spaces will be provided;
- 3. buildings and structures will be designed and located to maximise sunlight access, privacy and amenity for the site and adjoining allotments;
- 4. buildings and structures will be designed and located to minimise visual impact and to ensure they are of a scale which is consistent with the area's

⁴¹ Paragraphs 306 and 307.

⁴² Paragraph 306(e) To what extent the rule would impose costs on Council to retain or commission suitable expertise to assess compliance with the standard at the building consent stage (given that compliance with the standard is a permitted activity, and a resource consent would not be required);
⁴³ Statement of Dr Stephen Chiles, 10 March 2023, Section 7.

urban form compatible with the planned built character of the Zone and minimise reverse sensitivity effects on existing non-residential activities;

- 5. appropriate separation distances will be maintained between buildings; [...]
- 10.1 Mr Banks has rejected this submission on the basis that GRZ-P8 already addressed this concern. I do not agree. GRZ-P8 makes specific reference to lawfully established industrial or intensive rural activities (and their zoning).

New residential and development will be located away from lawfully established industrial or intensive rural activities, or areas zoned for these activities, to minimise reverse sensitivity effects.

10.2 The change to GRZ-P10 is much broader than industrial or rural activities (or land zoned for the same), it extends to all existing non-residential activities. This would include rail and other infrastructure and I agree with the submitters that the proposed modification to GRZ-P10(4) is appropriate.

11 CONCLUSION

11.0 In conclusion:

- a. Qualifying Matter: The KiwiRail network and facilities are nationally significant infrastructure in the Kāpiti District (Sections 77I and 77O). Evidence and submissions have confirmed the extent and need to apply the QM.
- b. Building Setback: A building setback is considered to be a Qualifying Matter as it is required to enable the nationally significant infrastructure to operate in a safe and efficient manner.
- c. Noise and Vibration: The RPS anticipates significant infrastructure will have effects (which may include noise) and that the infrastructure needs to be protected from incompatible activities (including by rules and policies within district plans). The RPS explanatory text also indicates a balance is necessary. The 'balance' is, in my opinion achieved by the cascade approach of apply controls only to sensitive development which does not meet alternative compliance pathways. This recognises both the need to protect health and amenity and also enable development near transport infrastructure (which in turn supports intensification).

d.	GRZ-P10: should be amended to cover the full suite of activities in relation to potential reverse sensitivity effects.
	Cath Heppelthwaite 10 March 2023

Attachment A: Proposed Changes

Base text is taken from Plan Change 2 as notified. New text is <u>red</u> and proposed deletions in <u>red strikethrough</u>.

Rule	Relief sought	Amendment (Plan Ch black underline and str and KiwiRail's propose shown in red underline strikethrough)	rikethrough ed changes
GRZ- Rx1	KiwiRail seeks a new permitted activity standard requiring buildings and structures to be setback 5m from a boundary with a rail corridor.	New buildings and struany minor works, additalterations to any build structure. 4.Buildings and structure from the relevant bour depth listed in the yard Yard Front Side Rear This standard does nowhere there is an exist	ures must be setback ndary by the minimum dis table below: dis Setbacks Minimum depth 1.5 metres 1 metre 1m (excluded on corner sites) t apply to site boundaries

Rule	Relief sought	Amendment (Plan Change 2 text in black underline and strikethrough and KiwiRail's proposed changes shown in red underline and strikethrough) buildings on adjacent sites or where a common wall is proposed. x. Buildings and structures must not be located within a 5m setback from a boundary with a rail corridor.					
Restricted discretionary activity rules in the GRZ	KiwiRail seek a new matter of discretion for activities that do not comply with the new permitted activity standard requiring buildings and structures to be setback at least 5m from the rail corridor.	Matters of discretion [] x. 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 corridor.					
MCZ, TCZ, LCZ	Parts of the KiwiRail network adjoin the MCZ (Paraparaumu), TCZ (Ōtaki, Waikanae, Paraparaumu Beach and Raumati Beach) and LCZ (Waikanae Beach, Kena Kena, Mazengarb Road, Meadows, Raumati South and Paekākāriki). These zone chapters do not currently include provision for boundary setbacks for buildings or structures from the rail corridor. Consistent with the amendment to the MDRS in the GRZ, KiwiRail seek a boundary setback of 5m from the rail corridor for all buildings and structures in the MCZ, TCZ and LCZ to ensure the intensification changes appropriate manage potential safety impacts on the rail corridor.	New permitted activity performance standard: x. Buildings and structures must not be located within a 5m setback from a boundary with a rail corridor.					
	KiwiRail seeks a new matter of discretion directing consideration of impacts on the safety and efficiency of the rail corridor is appropriate in situations where the 5m setback standard is not complied with in all zones adjacent to the railway corridor.	Matters of discretion [] x. 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 corridor.					

Rule	Relief sought	Amendment (Plan Change 2 text in black underline and strikethrough and KiwiRail's proposed changes shown in red underline and strikethrough)
NOISE-R14 – Permitted activity	KiwiRail seeks that noise controls requiring acoustic insultation apply to new and altered sensitive uses within 100m of the railway corridor.	1. Any new or altered habitable room within a building that houses any noise sensitive activity (including rooms used for hospital recovery; but excluding rooms used for visitor accommodation, which is not temporary residential rental accommodation, outside of residential zones) on a subject site within any of the following: [] e. within 40m 100m of the boundary of a designation for rail corridor purposes; and
NOISE- RX — Permitted activity	KiwiRail seek that vibration controls be included to apply to sensitive uses within 60m of the legal boundary of any railway boundary. KiwiRail seek that non compliance with the permitted standards be assessed as a restricted discretionary activity with appropriate matters of discretion.	Indoor railway vibration 1. Any new buildings or alterations to existing buildings containing a noise sensitive activity, within 60 metres of the boundary of any railway network, must be protected from vibration arising from the nearby rail corridor. 2. Compliance with standard 1 above shall be achieved by a report submitted to the council demonstrating compliance with the following matters: (a) the new building or alteration or an existing building is 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; and ii. vibration isolation separating the sides of the floor slab from the ground; and iii. no rigid connections between the building and the ground. Matters of discretion (a) location of the building;

Rule	Relief sought	Amendment (Plan Change 2 text in black underline and strikethrough and KiwiRaii's proposed changes shown in red underline and strikethrough)
		(b) the effects of any non-compliance with the activity specific standards; (c) special topographical, building features or ground conditions which will mitigate vibration impacts; (c) the outcome of any consultation with KiwiRail.

Amend GRZ-P10 as follows:

Subdivision, use and development in the Residential Zones will be required to achieve a high level of on-site amenity for residents and neighbours in accordance with the following principles:

- 1. building size and footprint will be proportional to the size of the allotment;
- 2. usable and easily accessible private outdoor living spaces will be provided;
- 3. buildings and structures will be designed and located to maximise sunlight access, privacy and amenity for the site and adjoining allotments;
- 4. buildings and structures will be designed and located to minimise visual impact and to ensure they are of a scale which is consistent with the area's urban form compatible with the planned built character of the Zone and minimise reverse sensitivity effects on existing non-residential activities;
- 5. appropriate separation distances will be maintained between buildings; [...]

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 a 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, the setback could able future use by way of resource consent. This fits RPS Objective 10 and Policy 8 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.

Costs/Benefits

- The recommended amendments will limit building in some locations (cost).
- 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 for home owners 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.

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 (noise) or no controls (vibration)). This fits RPS Objective 10 and Policy 8 as it provides development which can be, with mitigation, compatible where close to infrastructure.
- Retaining the 40m noise setback and providing no vibration control will not support an efficient outcome as effects on health and amenity will not be addressed and new reverse sensitivity could arise (which could lead to inefficient operation of nationally significant infrastructure).

Costs/Benefits

- The recommended amendments require additional assessments for some buildings and activities in some locations; the benefits are however improved health and amenity and reduced risk of reverse sensitivity effects. The rail network provides passenger transport which is a significant supporting factor for residential intensification proposed.
- 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.

Risk of acting or not acting

• Heath and amenity effects will occur if no action is taken.

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 (specifically health) rather than the notified provisions.