Technical Memorandum



To: Chris Watt From: Peter Runcie

Company: Western Bay of Plenty District
SLR Consulting New Zealand

cc: Date: 5 December 2025

Project No. 810.030606-M01

RE: FTA087 Takitimu North Link – Stage 2
Acoustics Review

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1.0 Introduction

SLR has undertaken a review on behalf of Western Bay of Plenty District Council (**Council**) of the construction and operation of the proposed Takitimu North Link – Stage 2, in relation to acoustics (noise and vibration) effects.

In writing this memo, the following from the substantive application documentation available has been considered:

- Appendix 9.4.3 Assessment of Acoustic Effects, Rp 001 20210 2 8 8 Revision 10 dated 17 July 2025 prepared by Marshall Day Acoustics (the Acoustic Assessment).
- Appendix 9.1.1 Proposed Designation Conditions

SLR reviewed a draft version of the Acoustic Assessment on behalf of Council in 2023. The comments provided to the applicant as part of this process have been considered appropriately captured in the submitted Acoustic Assessment.

2.0 Statement of Qualifications and Experience

This review was undertaken by Peter Runcie. Peter is a Technical Director at SLR Consulting in New Zealand, specialising in environmental and architectural acoustics. He holds the qualification of a Bachelor of Science Degree with Honours in Audio Technology from the University of Salford in the United Kingdom. He is a full member of both the Institute of Acoustics (UK) and the Acoustical Society of New Zealand, a member of the New Zealand Planning Institute and SLR's New Zealand representative for the Association of Australasian Acoustical Consultants.

Peter has over 18 years' experience in the field of acoustic consultancy working on a range of projects within the United Kingdom, Europe, Middle East, Australia, and New Zealand. His work has involved a wide range of acoustic assessments, including working on numerous assessments of environmental noise effects from projects across New Zealand, including over 30 roading designations. He has presented evidence at numerous council level hearings, and in the Environment Court.

¹ https://www.fasttrack.govt.nz/projects/takitimu-north-link-stage-2/substantive-application

3.0 Key Acoustic Issues

The following potential effects have been identified and considered:

- a) Construction noise and vibration;
- b) Operational noise and vibration from proposed extension.

The relevant potential effects have been identified in the Acoustic Assessment.

The Acoustic Assessment's conclusions and a review of these findings are outlined below.

4.0 Site and Proposal Description

4.1 Site and Baseline Environment

The description of the existing environment provided in the acoustic assessment appears reasonable.

4.2 Proposal

The proposal is as described in Section 3 of the Acoustic Assessment.

5.0 Technical Assessment of Effects

5.1 Construction Noise and Vibration

5.1.1 Criteria

Construction noise and vibration effects have been considered against requirements of Waka Kotahi's "State Highway Construction and Maintenance Noise and Vibration Guide" (Guide), v1.1, August 2019 and NZS 6803: 1999 Acoustics – Construction Noise. The identified limits are considered to be appropriate for the proposed construction activities.

5.1.2 Assessment

The assessment seeks to identify potential effects at existing receivers and a process to manage effects at the time the works take place. Potential effects associated with noise and vibration levels are identified in Table 6 and Table 10 of the Acoustic Assessment, these are considered to be reasonable.

The proposed methodology to manage construction noise and vibration effects is set out in Section 5.5 of the Acoustic Assessment, including creation of a CNVMP and Schedules to manage and mitigate noise and vibration when exceedance of the limits is identified. This approach is reasonable.

5.2 Operational Noise

5.2.1 Criteria

Road traffic noise has been assessed against the requirements of NZS 6806:2010 Acoustics – Road-traffic noise – New and altered roads (NZS 6806). This is the appropriate standard.

5.2.2 Assessment

The assessment methodology is set out in Section 6 of the Acoustic Assessment. The modelling approach, inputs and software are appropriate for this stage of the application.



The Acoustic Assessment recommends the two following mitigation measures to meet the requirements of the identified performance criteria:

- 1 Traffic noise to be mitigated using and stone mastic asphalt mix surface (SMA) on the entire indicative alignment, except in the vicinity of Clusters 2, 3 and 4 Westbound, where a higher performing (lower noise generating) porous asphaltic road surface (e.g., LN5) shall be installed.
 - Clusters 2, 3 and 4 are broad groups of receivers used in the Acoustic Assessment but not defined in terms of relative to the road chainage. Whilst not in the body of the assessment, the executive summary refers to this as approximately 2 km, from chainage 10650 to chainage 12250.
 - Proposed Condition TN2 notes that LN5 does not apply to bridges on the carriageways of the Project nor to roads administered by WBOPDC. However, the Acoustic Assessment is not clear on this matter.
- 2 Other traffic noise sources such as bridge joints and ATP shall be taken into consideration when designing the road, as well as design measures that may reduce braking noise.

With these above in place noise levels at receivers is predicted to meet the lowest noise criteria set out in NZS 6806 (Category A). One receiver (17 Te Puna Road) is predicted to receive a noise level 1 dB above Category A. This is a subjectively imperceptible difference.

- 1 It is recommended that the applicant confirm the chainages of Clusters 2, 3 and 4 to enable confirmation that the correct chainages are included in Table 4 of Condition TN2.
- 2 It is recommended that the applicant confirm that the requirement in Condition TN2 for LN5 to not apply to bridges on the carriageways of the Project nor to roads administered by WBOPDC is consistent with the Acoustic Assessment.

6.0 Conclusion

Overall it is concluded that, subject to appropriate conditions, the actual and potential adverse noise and vibration effects of the proposal can be managed to be reasonable.

Two items for clarification regarding conditions have been identified where it is considered that the information is not sufficiently clear.

SLR trusts the above to be clear and of assistance, however, should you have any queries please do not hesitate to contact the undersigned.

Regards,

SLR Consulting New Zealand

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