



9 September 2020

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Dear Fiona,

Decision under Section 172(1) of the Resource Management Act 1991 for the Notice of Requirement for alterations to City Rail Link Limited Designation 2500-1 (Condition 63) in the Auckland Unitary Plan (Operative in Part) – Operational Rail Vibration

Auckland Council released the Independent Commissioner's recommendation on the Notice of Requirement (**NoR**) for alterations to City Rail Link (**CRL**) Designation 2500-1 in the Auckland Unitary Plan (Operative in Part) on 6 August 2020. The Commissioner's recommendation is that the NoR be confirmed, but modified in part in relation to proposed conditions.

City Rail Link Limited (**CRL**) generally accepts the Commissioner's recommendation, but rejects part of the recommended modifications to Condition 63.2.

Please therefore be advised that, in accordance with section 172(1) of the Resource Management Act 1991 (**RMA**), CRL accepts (in part) and rejects (in part) the recommendation of the Independent Commissioner dated 31 July 2020.

The rejection (in part) relates only to the recommended inclusion of a new Condition 63.2(b), worded as follows:

"63.2(b) For any noise or vibration sensitive receiver in the Commercial Bay office tower that is not provided for in the table above, the upper limit for vibration and reradiated noise shall not exceed a RMS level (1s, maximum) of 0.21 mm/s and 50 dB $L_{A_{max}}$ respectively."

CRL confirms it accepts the recommended amended designation conditions as set out in Appendices 1 and 2 of the Commissioner's recommendation, other than recommended Condition 63.2(b).

The amended set of conditions which CRL confirms for CRL Designation 2500-1 in the Auckland Unitary Plan (Operative in Part) are attached (**Attachment 1**).

In accordance with section 172(3) of the RMA, CRL's reasons for rejecting the Commissioner's recommendation in relation to Condition 63.2(b) are as follows:

- (i) CRL acknowledges that it initially assumed that the vibration and reradiated noise criteria specified in Condition 63.2 would apply to all sensitive noise and vibration receivers not specified in Condition 63.1.
- (ii) Having heard the evidence from Council's noise and vibration consultant (Mr Styles) and having further considered the legal and practical implications of that assumption, as well as carefully reviewing the wording of Conditions 63.1 and 63.2, CRL acknowledges that this assumption was incorrect.
- (iii) Condition 63.2 sets out additional Project Criteria which apply to other receiver types not listed in the table within Condition 63.1. Condition 63.2 does not modify or extend the preamble in 63.1. It only refers and applies to existing receivers not provided for in the table. Identification of the receivers the Project Criteria specified in Conditions 63.1 and 63.2 apply to is found in the opening words of 63.1 – i.e. those receivers existing at the time of NoR lodgement and the levels of Commercial Bay above RL 13.47 (as a result only of Note 4 in Condition 63.1).
- (iv) Commercial Bay did not exist when the NoR was lodged. It is not, therefore, an 'existing receiver' in the resource management sense. Notwithstanding this CRL has agreed, as part of its section 176 RMA approval of Commercial Bay, that the office tower (only) will be considered as part of the receiving environment for CRL. At the NoR hearing CRL agreed to extend this recognition to the highest podium level beneath the tower.
- (v) Extending the existing environment beyond that specific part of Commercial Bay, as is proposed by Precinct Properties Limited (**Precinct**) and would be the result of the Commissioner's recommended Condition 63.2(b), is not only at odds with the protection afforded by a designation, case law regarding the existing environment and CRL's contractual undertakings with Precinct, it is also unnecessary.
- (vi) CRL does not accept that busy retail spaces in the lower podium levels of Commercial Bay need to be protected to the vibration and reradiated noise levels specified in recommended Condition 63.2(b). Putting this into perspective, the vibration level (0.21 mm/s RMS) specified in Condition 63.2(b) is about half the target level of 0.4 mm/s RMS for floor vibration that was recommended in the 'Structural Concept Design Report' for the Commercial Bay development. Measurements confirm that in the offices of the Commercial Bay office tower, footfall vibration will be in the order of 0.4 mm/s RMS to 0.8mm/s RMS.
- (vii) The lower podium levels are, in any case, protected indirectly as a result of the requirement to comply with the very stringent 0.14 mm/s RMS vibration criterion applying at Level 6 (RL 13.47) and above. In addition, the adjoining Jarden House, which was existing at the time of NoR lodgement, is immediately above the CRL alignment. The need to comply with the Project Criteria specified in Conditions 63.1 and 63.2 for this adjoining building also affords indirect protection to the lower podium levels of Commercial Bay.

Apart from its decision to reject recommended Condition 63.2(b), CRL otherwise accepts the Independent Commissioner's recommendation.

Yours sincerely,



Caroline Beaumont
General Counsel

Attachment 1
Amended Version of Conditions – Confirmed by CRL

Amend existing Condition 63 as follows:

**CONDITION NUMBER 63:
OPERATIONAL RAIL VIBRATION
DESIGNATION 1**

- 63.1 The Requiring Authority shall confirm that operational rail vibration and reradiated noise levels comply with the following Project Criteria at any noise or vibration sensitive receiver:
- (a) existing at the time of lodgement of the CRL NoR; or
 - (b) within the Commercial Bay office tower⁴ at 11-19 Customs Street West, located on Lot 2 DP 69547 and existing at 30 June 2020

Building Type	Vibration Criteria Velocity ³ (mm/s)	Reradiated Noise Criteria (dB L _{ASmax} re: 20 µPa)
Commercial uses with primarily daytime use ¹	0.14	40
Residences and buildings where people normally sleep	0.1	35
Auditoria/Theatres ²	0.1	30
TV/Recording Studios	0.045	25

Notes:

1. Such as offices, businesses, churches, schools, universities and libraries.
2. This includes Albert Street District Court.
3. Maximum one-second root-mean-square (RMS) value with an upper frequency limit of 80 Hz.
4. Commercial Bay office tower means that part of the building commencing at Level 6 RL 13.47.

63.2 (a) For any noise or vibration sensitive receiver or building types existing at the time of lodgement of the CRL NoR that are not provided for in the table above, the upper limit for vibration and reradiated noise shall not exceed a RMS level (1s, maximum) of 0.21 mm/s and 50 dB L_{ASmax} respectively.

~~63.2 (b) For any noise or vibration sensitive receiver in the Commercial Bay office tower that is not provided for in the table above, the upper limit of vibration and reradiated noise shall not exceed a RMS level (1s, maximum) of 0.21 mm/s and 50 dB L_{ASmax} respectively.~~

63.3 For the avoidance of doubt the Project Criteria in Conditions 63.1 and 63.2 do not apply to the North Auckland Line and Britomart Designations.

63.4 When assessing operational rail vibration and reradiated noise, compliance with Conditions 63.1, 63.2 and 67.1 shall be achieved for at least 95% of any 20 consecutive train pass-by 'events'. The events shall be representative of the rolling stock fleet operating on the line and shall include maintenance activities, unless such maintenance activities are undertaken after 11.30pm and before 6.00am.

63.5 Subject to Condition 66.4 in the case of MediaWorks and to Condition 67.1 in the case of the Commercial Bay office tower, when assessing operational rail vibration, measurement shall be made in accordance with Section 5.2.3 of BS6472-1:2008 *Guide to evaluation of human exposure to vibration in buildings* and reradiated noise shall be measured in accordance with the requirements in *NZS6801:2008 Acoustics - Measurement of Environmental Sound*. Both shall be measured in such manner that the measured levels can be evaluated against the criteria in Condition 63.

Amend existing Condition 65 as follows:

CONDITION NUMBER 65: OPERATIONAL NOISE AND VIBRATION MANAGEMENT PLAN (ONVMP) DESIGNATIONS 1, 2, 4, 5 AND 6

65.1 To manage the adverse effects from the maintenance and operation of the City Rail Link, the Requiring Authority shall, prior to the operation of the CRL, prepare an Operational Noise and Vibration Management Plan, (ONVMP) to the satisfaction of Auckland Council's Compliance Monitoring Manager. The objective of the ONVMP shall be to ensure that the tracks, rolling stock and associated infrastructure (including ventilation and other mechanical plant) are maintained and operated in accordance with maintenance standards as outlined in the Requiring Authority's maintenance programme for the City Rail Link, so that operational noise and vibration levels received at noise sensitive receiver locations, and vibration levels comply with Conditions 63 and 64.

65.2 The ONVMP shall set out procedures for:

- a. The maintenance of rolling stock to minimise noise and vibration emissions including, but not limited to, the management of wheel roughness and flats, braking systems, cooling systems, suspension systems and any other significant source associated with the operation of locomotives;
- b. The maintenance of tracks to minimise noise and vibration emissions, including, but not limited to, the management of curve squeal, rail roughness, joint constructions and any other significant source associated with the use of the tracks;
- c. The implementation of mitigation measures associated with the operation and maintenance of the City Rail Link, for the operational life of the City Rail Link;
- d. The management of noise from the operation of the line, including, but not limited to, the use of audible warning devices and acceleration / deceleration controls (where relevant);
- e. The management of noise and maintenance of noise-generating equipment from stations and associated ventilation and mechanical plant infrastructure including, but not limited to, PA systems, fans and ventilation noise and audible warning devices; and
- f. The measurement and management of operational noise and vibration at the Commercial Bay office tower, including procedures that address the requirements of Condition 67.

65.3 The ONVMP shall be adhered to at all times. It may be updated or amended at any time with the approval of Auckland Council's Compliance Monitoring Manager.

65.4 For the avoidance of doubt this does not apply to the North Auckland Line and Britomart Designations.

Insert new condition 67:

**CONDITION NUMBER 67: OPERATIONAL
RERADIATED NOISE AND VIBRATION MONITORING
– COMMERCIAL BAY OFFICE TOWER**

Designation 1

67.1 The Requiring Authority shall engage an acoustic consultant to carry out measurements of vibration and reradiated noise at the Commercial Bay office tower (as described in Condition 63.1):

- a. within the first three months of full operation of the CRL, at two locations on Level 6 (RL 13.47) and two locations on Level 9 (RL 27.86) of the Commercial Bay office tower; and
- b. again at six monthly intervals, on an ongoing basis, until the appropriate period for rail grinding has been established, that period to be agreed with Auckland Council's Compliance Monitoring Manager.

67.2 The Requiring Authority shall provide a report to Auckland Council's Compliance Monitoring Manager (copy to the owner of the Commercial Bay office tower) within five working days of the measurements being undertaken that summarises the measurements from Condition 67.1. If exceedances are observed, the Requiring Authority shall provide a mitigation plan within 20 working days of the date the report is provided that outlines the actions that shall be taken to ensure compliance with Condition 63 including a timeline for implementation of mitigation measures, and a plan for follow-up measurements and reporting to demonstrate compliance.