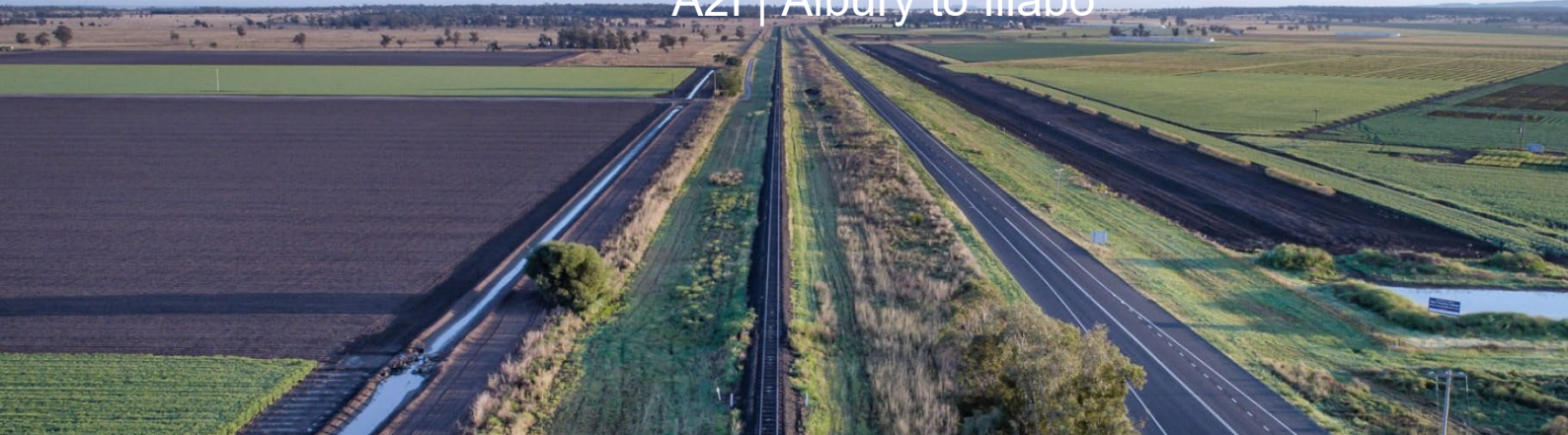




EIS CONSISTENCY ASSESSMENT REPORT (MINOR) – THE ROCK & TABLE TOP SUPPORTING WORKS (550.300 & 623.500)


A2I | Albury to Illabo



Document Control

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Glossary

Specific terms and acronyms used throughout this strategy are listed and described in the table below.

TERM	DEFINITION
A2I	Albury to Illabo
ACHAR	Technical Paper 2: Aboriginal Cultural Heritage Assessment Report of the EIS
AEP	Annual Exceedance Probability
AHD	Australian Height Datum
AHIMS	Aboriginal Heritage Information Management System service by Heritage NSW
ARTC	Australia Rail Track Corporation
ASS	Acid Sulfate Soils
BARM	Biodiversity Assessment Report Memo
CA	Consistency Assessment
CEMF	Construction Environmental Management Framework
Change	Macquarie Dictionary: A variation, adjustment, alteration, deviation or transformation to the project scope, construction methodology or design.
CIZ	Construction Impact Zone
CNVIS	Construction Noise and Vibration Impact Statement
CoA	Condition(s) of approval
Compatible	Macquarie Dictionary: Capable of existing in harmony. Capable of orderly, efficient integration with other elements in a system.
Consistent	Macquarie Dictionary: Agreeing or accordant; compatible; not self-opposed or self-contradictory; constantly adhering to the same principles, course, etc.
Consistent with	Means that carrying out the project (as approved) will comply with the terms of the approval despite the proposed change. (See <i>Barrick Australia Ltd v. Williams</i> [2009] NSWCA 275)
Construction boundary	As defined in the Division 5.2 approval, the area physically affected by work as defined in the Project Description as described in the documents listed in CoA A1. Referred to as the 'approved CIZ' in this CA.
Division 5.2 Approval	An approval under Division 5.2 of the NSW <i>Environmental Planning and Assessment Act 1979</i> for State Significant Infrastructure / Critical State Significant Infrastructure.
EAD	Environmental assessment documentation, as listed in CoA A1.
EIS	Environmental Impact Statement
EPL	Project's Environment Protection Licence (#21984)
IRPL	Inland Rail Pty Ltd (subsidiary of ARTC)
LGA	Local Government Area
LoS	Lever of Service
MR	Martinus Rail, the principal contractor appointed by IRPL to construct the A2I section of the Inland Rail program.
Modification of an Approval	Section 5.25 <i>Environmental Planning and Assessment Act 1979</i> : Means changing the terms of the Division 5.2 approval, including revoking or varying a condition of the approval or imposing an additional condition on the approval.
NAHA	Non-Aboriginal Heritage Assessment Memo
PCT	Plant Community Type as described in the vegetation classification system, approved by the NSW Plant Community Type Control Panel and described in the BioNet Vegetation Classification Database
PIR	Preferred Infrastructure Report
PIR RtS	Preferred Infrastructure Report Response to Submissions report
PM2.5	Particles with a diameter of 2.5 micrometres or less
PM10	Particles with a diameter of 10 micrometres or less
Project	Albury to Illabo project approved under section 5.19 of the EP&A Act on 8 October 2024
Proposed Change	Proposed Change involves the additional CIZ extensions required at The Rock Yard and Table Top to facilitate the wider scope of activities associated with these enhancement sites.
SSI	State Significant Infrastructure
The Rock	The Rock Yard clearances enhancement site
Table Top	Table Top Yard clearances enhancement site
UMMs	Updated Mitigation Measures

1 Introduction

1.1 Background

ARTC prepared an Environmental Impact Statement (EIS) for the Inland Rail – Albury to Illabo Project which was placed on public exhibition from 17 August 2022 to 28 September 2022. The EIS identified a range of environmental, social and planning issues associated with the construction and operation of the Albury to Illabo (A2I) Project and proposed measures to mitigate and manage those potential impacts.

In accordance with section 5.17(6)(b) of the EP&A Act, on 13 April 2023 the Planning Secretary directed ARTC to submit a Preferred Infrastructure Report (PIR) that provides further assessment of traffic and transport, noise and vibration, and air quality impacts. The PIR was also prepared to consider changes to the exhibited Project that have arisen as a consequence of these further assessments and related submissions.

The Inland Rail – Albury to Illabo Project was assessed as part of the following documents:

- ▶ Inland Rail – Albury to Illabo Environmental Impact Statement (ARTC, August 2022)
- ▶ Albury to Illabo Response to Submissions (ARTC, November 2023)
- ▶ Albury to Illabo Preferred Infrastructure Report (ARTC, November 2023)
- ▶ Albury to Illabo Preferred Infrastructure Report Response to Submissions (ARTC, February 2024)
- ▶ Inland Rail – Albury to Illabo (SSI-10055) Response to request for additional information – Air Quality Assessment (letter dated 1 May 2024)
- ▶ Part 1 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024)
- ▶ Part 2 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024)
- ▶ Albury to Illabo Kemp Street Bridge Enhancement Site Modification (June 2025)
- ▶ Albury to Illabo Kemp Street Bridge Enhancement Site Modification Clarification (July 2025)
- ▶ Albury to Illabo Kemp Street Bridge Modification Noise and Vibration Impact Assessment (August 2025)

The Minister for Planning and Public Spaces approved the Albury to Illabo Project under section 5.19 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on 8 October 2024. The approval incorporated the Minister's Conditions of Approval. The Modification was approved by the delegate of the NSW Minister for Planning and Public Spaces on 13 August 2025. The approval incorporated the Consolidated Minister's Conditions of Approval.

For the purposes of this consistency assessment, the approval issued by the NSW Minister for Planning and Public Spaces for the A2I Project is referred to as the Division 5.2 approval.

1.1.1 EPBC Act referral

The A2I Project was referred to the Australian Government Minister for the Environment under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) due to potential for impacts on protected matters on 2 June 2020 (EPBC Referral No 202/8670). On 29 June 2020, the former Australian Government Department of Agriculture, Water and Environment (DAWE) notified that the proposal is not a controlled action, and hence approval under the EPBC Act is not required.

1.1.2 Project changes

A modification report (Kemp Street Bridge Enhancement Site Modification, Inland Rail June 2025) was prepared to revise the replacement road and pedestrian bridge arrangement over the railway line at the Kemp Street bridge enhancement site in Junee to now provide a single combined structure.

The following consistency assessments have been prepared to support the undertaking of the Project:

- ▶ EIS Consistency Assessment Report (Minor) Kildare Catholic College (MR, April 2025)
- ▶ EIS Consistency Assessment Report (Minor) Cassidy Parade and Pearson Cassidy (MR, April 2025)
- ▶ EIS Consistency Assessment Report (Small Scale) Wagga Traffic Investigations (MR, May 2025)
- ▶ EIS Consistency Assessment Report (Minor) Edmondson Street Utilities (MR, July 2025)
- ▶ EIS Consistency Assessment Report (Minor) Edmondson Street Timing (MR, July 2025)
- ▶ EIS Consistency Assessment Report (Minor) Diver Platforms Stage B (MR, August 2025)
- ▶ EIS Consistency Assessment Report (Minor) Junee Precinct (MR, August 2025)
- ▶ EIS Consistency Assessment Report (Minor) Albury Precinct (MR, September 2025)
- ▶ EIS Consistency Assessment Report (Minor) Wagga Stage B (MR, September 2025)
- ▶ EIS Consistency Assessment Report (Minor) Junee to Illabo Clearances (MR, September 2025)
- ▶ EIS Consistency Assessment Report (Minor) Riverina Highway Site Establishment (MR, September 2025)
- ▶ EIS Consistency Assessment Report (Minor) Wagga Wagga Traffic Mitigations (MR, October 2025)
- ▶ EIS Consistency Assessment Report (Minor) Bomen Yard Construction Boundary Changes (MR, November 2025)
- ▶ EIS Consistency Assessment Report (Small Scale) Albury North Signal Hut (MR, November 2025)
- ▶ EIS Consistency Assessment Report (Minor) Signalling Scope Stage B (MR, November 2025)

1.2 Purpose of consistency assessment

This consistency assessment has been prepared in accordance with the Inland Rail Pty Ltd (IRPL) specification for NSW Consistency Assessments (0-0000-902-EEC-00-SP-0001_1). The purpose of this consistency assessment is to:

- ▶ Describe the Proposed Change relative to the Division 5.2 approval.
- ▶ Assess the environmental impacts associated with the Proposed Change relative to the Division 5.2 approval.
- ▶ Determine if the Proposed Change is consistent with the Division 5.2 approval or whether further approval is required either for a modification application or a new Project.

2 Proposed Change

2.1 Description of Proposed Change

The EAD identified the indicative proposal sites to enable construction of the reference design for the Albury to Illabo (A2I) section of the Inland Rail program. Further detailed design, construction planning, and site surveys have identified refinements to the construction methodology and resulted in the requirement to adjust the construction boundary as defined in the Division 5.2 approval and described in the EAD.

The Proposed Change relates to the construction footprint and methodology for site establishment and site operation works at:

- ▶ Table Top Yard clearances enhancement site (Table Top Yard), and
- ▶ The Rock Yard clearances enhancement site (The Rock Yard)

This Consistency Assessment (CA) considers the Proposed Change, which involves extending the approved construction boundary, to allow for site establishment, including minor trimming/clearing of vegetation, establishment of site compound and upgrade and maintenance of existing access tracks and haul roads and site operational activities including facilitation of two-way construction traffic.

For the purpose of this CA, the areas proposed to be expanded are referred to as the 'proposed CIZ extension areas'. The proposed CIZ extension areas fall within the existing rail corridor and connect to adjacent public roads where access points are proposed. The proposed CIZ extension areas are shown in greater detail in relation to key environmental constraints in Figure 2-1 and Figure 2-2 below.

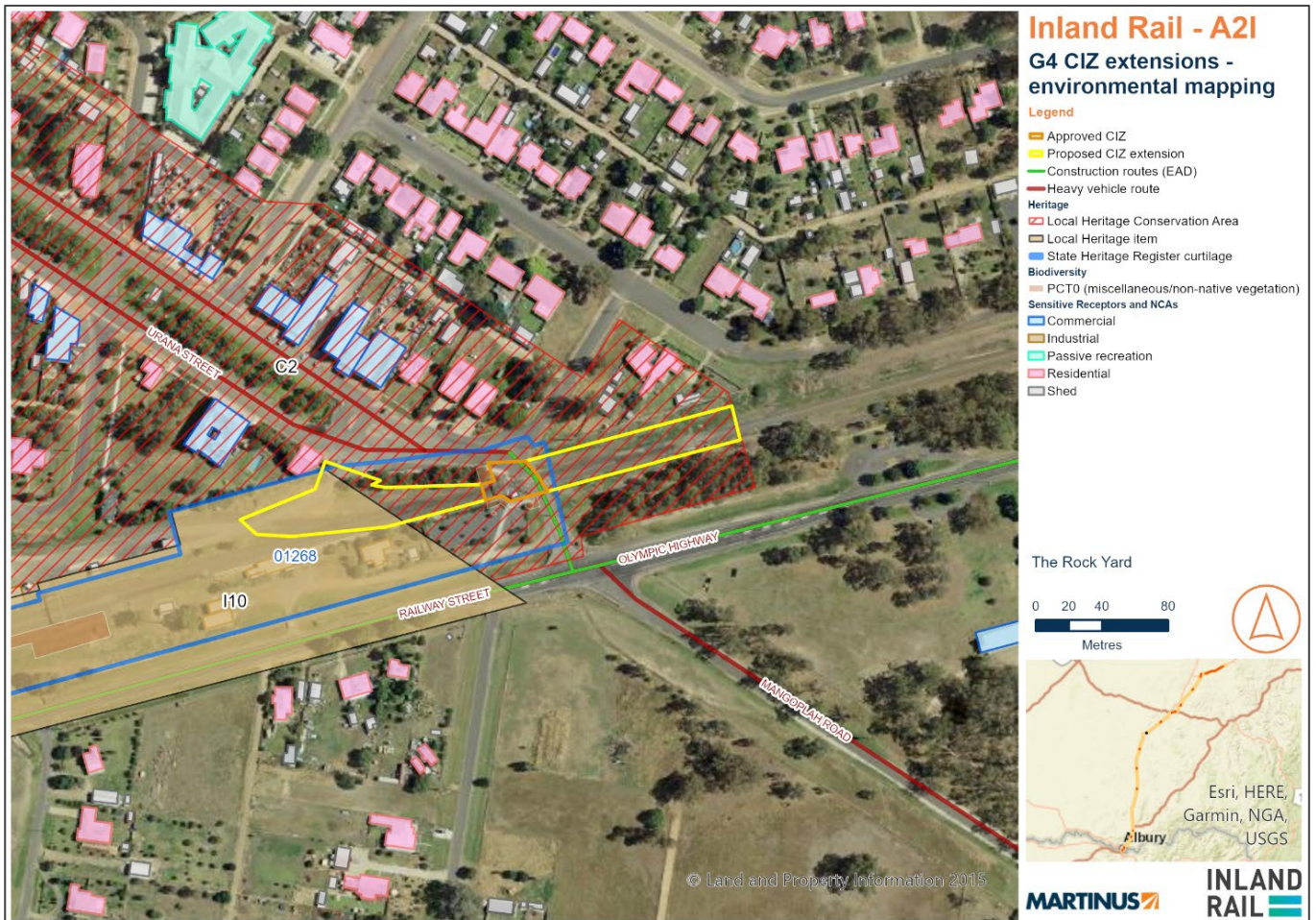


Figure 2-1: Proposed Change in relation to The Rock Yard (shown in yellow)

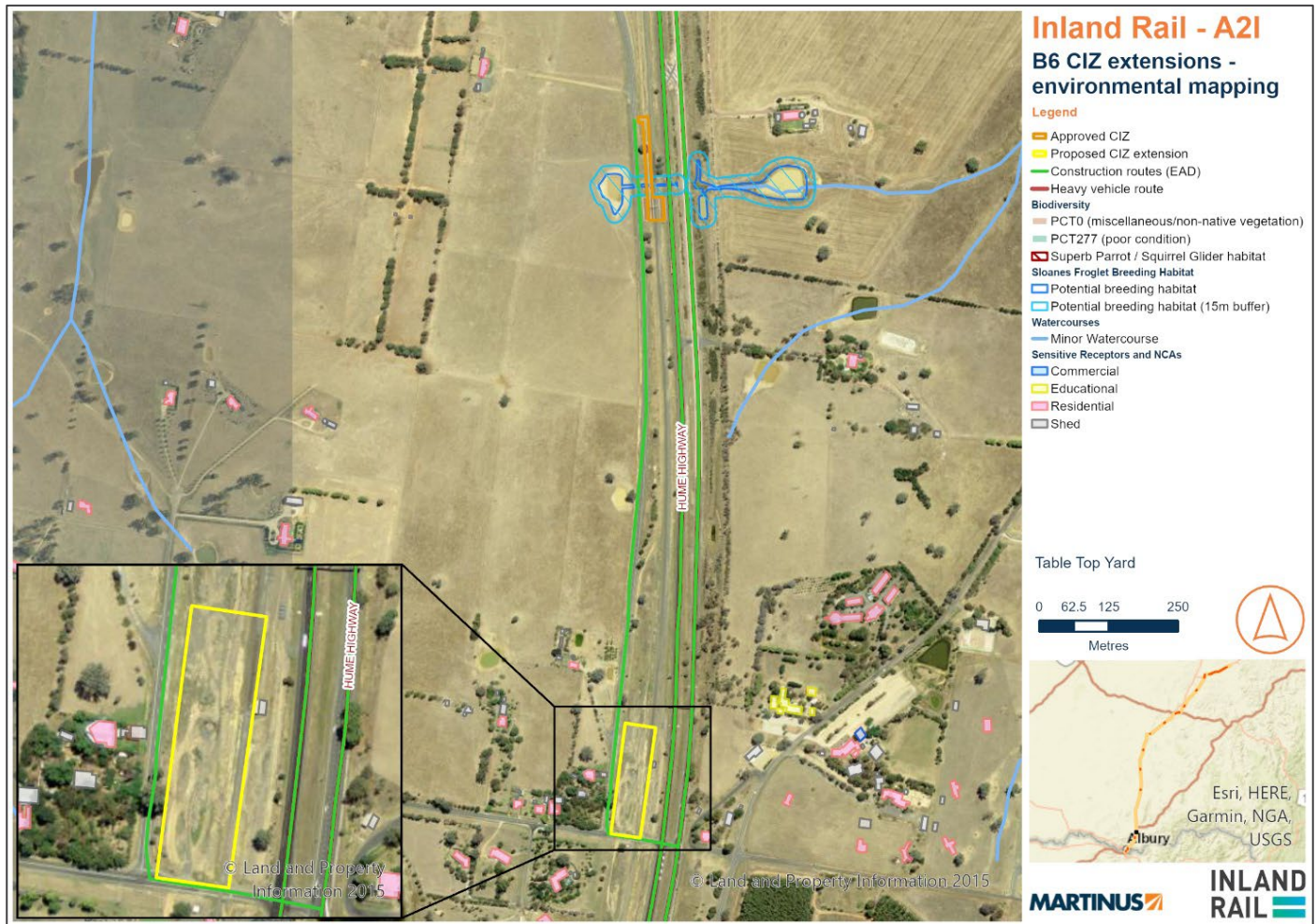


Figure 2-2: Proposed Change in relation to Table Top Yard (shown in yellow)

2.1.1 Methodology

Work plan

Table Top Yard

- ▶ Site establishment activities
- ▶ Site compound operation

The Rock Yard

- ▶ Site establishment activities
- ▶ Site compound operation

Plant and equipment

Table Top Yard

- ▶ Articulated dump truck
- ▶ Centrifugal fan
- ▶ Compressor
- ▶ Crane (mobile)

- ▶ Crane franna
- ▶ Elevated work platform
- ▶ Generator
- ▶ Hand tool (electric)
- ▶ Light vehicle
- ▶ Roller (smooth drum)
- ▶ Truck – medium rigid
- ▶ Truck – vacuum (NDD)
- ▶ Watercart

The Rock Yard

- ▶ Articulate dump truck
- ▶ Compressor
- ▶ Crane (mobile)
- ▶ Crane franna
- ▶ Elevated work platform
- ▶ Excavator – slasher
- ▶ Front end loader
- ▶ Generator
- ▶ Hand tool (electric)
- ▶ Light vehicle
- ▶ Roller – static
- ▶ Truck – medium rigid
- ▶ Truck & dog
- ▶ Truck – vacuum (NDD)
- ▶ Welding equipment

2.2 Need

Further detailed design and site surveys resulted in the requirement to adjust the approved construction boundary to facilitate site establishment activities and site operational activities.

The Proposed Change is required for essential project support functions not adequately considered as part of the reference design in the EIS. At present, the available space within the approved construction boundary is insufficient to accommodate these needs without impacting ongoing construction activities and site access. The Proposed Change will provide the necessary capacity to manage materials efficiently and de-risk the project through mitigating delivery issues and overall delivery timelines.

2.3 Location and setting

The Proposed Change relates to The Rock Yard clearances enhancement site located within the Greater Hume-Lockhart precinct and Table Top Yard clearances enhancement site located within the Albury precinct.

Aspect specific location and setting information as it relates to the Proposed Change is contained in the subsections below, and shown in Figure 2-1 and Figure 2-2 above.

2.4 Construction hours

The works associated with the Proposed Change will be timetabled to be carried out during the approved standard construction hours as per the Project's Environment Protection Licence #21984 (EPL) and CoA E69, where possible. The standard construction hours are as follow:

- ▶ 7:00am to 6:00pm Monday to Friday, inclusive
- ▶ 7:00am to 6:00pm Saturday, and
- ▶ At no time on Sundays or public holidays.

As outlined in CoA E70, any highly noise intensive works that result in an exceedance of the applicable NML at the same receiver must only be undertaken between:

- ▶ 8:00am to 6:00pm Monday to Friday
- ▶ 8:00am to 1:00pm Saturday
- ▶ If continuously, then not exceeding (3) hours, with a maximum cessation of work of not less than an hour.

The Proposed Change activities may occur outside of standard construction hours, and the hours approved as part of CoA E69 and EPL condition L4.1. Any out-of-hours works (OOHW) within the extended CIZ would be implemented in accordance with CoA E71 and EPL conditions L4.3, L4.4, L4.5 and L4.6.

3 Consultation

Inland Rail does not always carry out consultation for consistency assessments. However, in some cases consultation may be carried out to:

- ▶ Help identify the nature and scale of the impacts.
- ▶ Involve the community in the options considerations for the Proposed Change.
- ▶ Manage community expectations for the Project.
- ▶ Provide the best design outcome that minimises environmental impacts.

As considered above, Martinus Rail has undertaken ongoing consultation with asset owners in relation to determining a suitable design and to coordinate construction impacts on existing operational utilities.

Consultation with each of the affected landowners where works are proposed outside the construction boundary would be undertaken prior to commencement of works.

Where vegetation removal is proposed on land not owned by Inland Rail, consultation will be carried out with the property owner including confirming any revegetation/rehabilitation requirements. This will be undertaken in accordance with the Community Communication Strategy (IRPL, 2024), prior to the removal of vegetation.

Where a proposed CIZ extensions is subject to the preparation of a land licence/agreement, works will only occur following the approval of that land licence/agreement. Any land licence/agreements required as part of this CA will be provided to IRPL prior to commencement of works.

The community would be notified in accordance with Section 7.1 of the Community Communication Strategy (IRPL, 2024), including where works may be required outside of the approved construction hours for A2I, prior to commencement of works. Any complaints, feedback or enquiries would be handed in accordance with Section 8 of the Community Communication Strategy.

4 Environmental Assessment

4.1 Environmental risk review

An environmental risk review of the proposed activities has been undertaken and is provided below in Table 4-1. Assessments of potential impacts are provided in greater detail for:

- ▶ Traffic and transport (Section 4.2)
- ▶ Noise and vibration (Section 4.3)
- ▶ Aboriginal heritage (Section 4.4)
- ▶ Non-Aboriginal heritage (Section 4.5)
- ▶ Biodiversity (Section 4.6)
- ▶ Flood and bushfire risk (Section 4.7)
- ▶ Soils and contamination (Section 4.8)
- ▶ Air quality (Section 4.9)
- ▶ Landscape and visual (Section 4.10)

Table 4-1: Consistency assessment review

ISSUE	Y/N	NOTES
Are works required outside the IR property acquisition boundary, or land not previously impacted by Project works?	Yes	For works occurring outside of the IRPL acquisition boundary land licence/agreements will be prepared where required. These will be managed by the MR Communications and Interface teams (as discussed in Section 3 above).
Will the works result in any changes to form or functionality of the approved Project?	No	The Proposed Change would not impact on the form or functionality of the approved project. The Proposed Change is required to improve constructability of the approved Project following detailed design and would involve the same construction activities and operation as identified in the EAD.
Are there any potential impacts on traffic and transport associated with the works?	Yes	The Proposed Change may result in minor and short-term traffic and transport impacts. These impacts are therefore considered in greater detail in Section 4.2.
Are there any potential noise and vibration impacts associated with the works?	Yes	The Proposed Change may result in short-term noise impacts during construction. Potential noise impacts are considered in greater detail in Section 4.3.
Are there any potential impacts on known Aboriginal heritage items or sites located in the vicinity of the works?	No	The Proposed Change is located in proximity to Site Investigation Zone 4 (EAD). Potential impacts to Aboriginal heritage are discussed in greater detail in Section 4.4.
Are there any potential impacts on non-Aboriginal heritage items or sites located in the vicinity of the works?	Yes	The Proposed Change is located in proximity to known non-Aboriginal heritage items and sites. These impacts are therefore considered in greater detail in Section 4.5.
Are the works within 50m of an EEC or threatened species?	Yes	The Proposed Change is located in areas where several threatened species have been sighted. These impacts are therefore considered in greater detail in Section 4.6.
Do the works require clearing of native vegetation or habitat trees?	No	Minor trimming and clearing of non-native vegetation will be required for the Proposed Change. These impacts are considered in greater detail in Section 4.6.
Are the works within 40m of a waterway or water body?	No	The Proposed Change is not located within 40m of a waterway or water body. The nearest watercourses are located approximately 350m to 3000m away (Burkes Creek at The Rock Yard and Lake Hume at Table Top Yard).
Are the works located on flood prone land?	Yes	The Proposed Change at the Rock Yard is located on flood prone land. The Proposed Change at Table Top Yard is not located on flood prone land. The potential impacts associated with flooding are discussed in greater detail in Section 4.7.
Are the works located on bushfire prone land?	Yes	The Proposed Change at both the Rock Yard and Table Top Yard are located on bushfire prone land. However, the proposed

		changes are unlikely to result in an increased bushfire risk at these enhancement sites greater than what has already been assessed in the EAD.
Do the works involve ground disturbance of more than 2 hectares?	No	The extent of ground disturbance required for the Proposed Change would be less than the proposed construction impact zone.
Are the works in an area of known salinity hazard risk?	Yes	The Proposed Change is located in areas of moderate salinity hazard. The impacts associated with salinity are discussed in greater detail in Section 4.8.
Are the works in an area of known acid sulfate soil risk?	Yes	The Proposed Change is located in an area of a low probability for acid sulfate soils occurrence. The impacts associated with acid sulfate soils are discussed in greater detail in Section 4.8.
Will works require temporary or permanent placement of surplus spoil material?	Yes	The Proposed Change would require temporary placement of surplus spoil material; this material will be accommodated within the proposed stockpile/laydown sites and reused/disposed of in accordance with Chapter 23 of the EIS.
Are the works in an area of known contamination risk?	Yes	The Proposed Change is located in areas noted as a general contamination risk and intersects multiple areas of environmental concern (AEC) discussed in the EAD. Potential impacts associated with contamination are considered in greater detail in Section 4.8.
Are there any potential air quality impacts associated with the works?	Yes	The Proposed Change could result in minor, short-term air quality impacts during construction. Potential air quality impacts are discussed in greater detail in Section 4.9.
Are there any potential landscape and visual impacts associated with the works?	Yes	The Proposed Change would result in potential minor and short-term visual impacts during construction. Potential landscape and visual impacts are discussed in greater detail in Section 4.10.
Will works result in any operational impacts further to those detailed in the approved Project?	No	The Proposed Change is required to facilitate construction related activities within the rail corridor and adjoining lands. The Proposed Change would not represent an increase in operational impact compared to that which was assessed as part of the approved Project.

4.2 Traffic and transport

4.2.1 Existing environment

The following discussion is drawn from the EAD (EIS, Chapter 9 and Technical Paper 1).

Table Top Yard

Table Top Yard is located within the Albury Local Government Area (LGA) of NSW. It consists of a 190-metre stretch of railway alignment situated west of the Hume Highway and east of Perryman Lane.

The Hume Highway, a major arterial road connecting Sydney and Melbourne, provides access to the Table Top Yard. Within this area, the highway carries an average daily traffic volume of approximately 11,400 vehicles. The site is accessible from the Hume Highway via Tynan Road and Perryman Lane. Traffic volumes on the Hume Highway include a maximum daily two-way count of 655 vehicles via Tynan Road and a minimum of 576 vehicles via Perryman Lane.

The Rock Yard

As noted in Section 2.3, The Rock Yard is located to the west of The Rock Railway Station on the Main Southern Railway Line.

The Rock Yard runs parallel to the Olympic Highway, a major arterial road connecting the Hume Highway to the Mid-Western Highway in Cowra. This section of the Olympic Highway carries an average of approximately 2,800 vehicles per day within the Greater Hume–Lockhart precinct. The rail line is crossed via a level crossing on Cole Street. There is limited active transport infrastructure in Greater Hume – Lockhart precinct. There are no cycle infrastructure or footpaths within the vicinity of The Rock Yard.

4.2.2 Impact assessment

Table Top Yard

Access for the activities associated with the Proposed Change would occur via Tynan Road (through the existing ARTC maintenance track). This would remove the requirement of accessing the Proposed Change through Hume Highway, a major and heavily trafficked road.

The number and type of construction vehicles required for the proposed works are aligned with the EAD, therefore, no increase in construction traffic is anticipated as a result of the Proposed Change.

The Rock Yard

Access for the activities associated with the Proposed Change would occur via the back road of Urana Street, which would be used as a hi-rail mount point instead of the area adjacent to the level crossing on Urana Street. This alternative access point would eliminate the need for potential traffic control and road closures and therefore remove the requirement for an additional Traffic Guidance Scheme (TGS), resulting in less impact on traffic.

The number and type of construction vehicles required for the proposed works are aligned with the EAD, therefore, no increase in construction traffic is anticipated as a result of the Proposed Change.

4.2.3 Conclusion

The Proposed Change would result in reduced, minor, and short-term traffic and transport impacts than compared to those previously anticipated, with no temporary closures of footpaths or roads required during the construction works.

These impacts at both enhancement sites would be generally in accordance with the impacts considered as part of the EAD and would be managed as per all applicable mitigation measures in the Conditions of Approval (CoAs) and Updated Mitigation Measures (UMMs), with any identified additional mitigation measures outlined in Table 4-12.

4.3 Noise and vibration

4.3.1 Existing environment

Common noise and vibration sources are train movements along the operational rail corridor, major road traffic and local traffic. Potentially sensitive receivers are those that may be affected by changes in noise and vibration levels within the work area. Sensitive receivers at Table Top Yard include residential dwellings, school and education institutions, commercial property and industrial premises. At The Rock Yard, sensitive receivers include residential dwellings, school and educational institutions, commercial property, industrial premises, active and passive recreation facilities and places of worship.

The existing vibration environment in close proximity to the railway line includes vibration from existing freight train movements on the alignment. Additional sources of vibration may be associated with operation of industrial premises, road traffic operations and construction activities typical of the environment.

Noise catchment areas

Noise catchment areas (NCA) were defined in the EIS to classify groups of sensitive receivers that are likely to have a similar existing noise environment and experience similar impacts from construction of the Project. These were determined through reference to aerial imagery and land use maps and verified during background noise monitoring.

Construction Noise and Vibration Impact Statements (CNVIS) were undertaken for The Rock Yard (Doc No: 6-0052-210-EEC-G4-AS-0001) and Table Top Yard (Doc No: 6-0052-210-EEC-B6-AS-0001), and are presented in Appendix A. The Table Top CNVIS has been updated and endorsed to reflect and include the Proposed Change area and activities at Table Top Yard.

An addendum to the endorsed CNVIS for The Rock Yard has been prepared and endorsed for the Proposed Change area and activities at The Rock Yard. The addendum has been provided under Appendix B.

The NCA descriptions, approximate number of sensitive receivers, Rating Background Levels (RBL) and Noise Management Levels (NMLs) associated with the Proposed Change are shown in Table 4-2 and Table 4-3 and shown in Figure 4-1 and Figure 4-2.

Table 4-2: NCAs and background noise information

ENHANCEMENT SITE	NCA ID	APPROXIMATE NUMBER OF RECEIVERS IN NCA	DESCRIPTION	RBL (dBA)		
				DAY*	EVENING*	NIGHT*
Table Top Yard clearances	NCA04	152	Semi-rural township of Table Top. Noise sources include the rail line and road traffic noise from Hume Highway and Table Top/Tynan Road.	42	42 ¹ (51)	42 ² (46)
The Rock Yard clearances	NCA08	488	The township of The Rock is predominately residential in nature and affected by noise sources including the rail corridor, Olympic Highway and local road traffic.	39	39 ¹ (41)	30

*Time periods defined as - Day: 7am to 6pm Monday to Saturday, 8am to 6pm Sunday; Evening, 6pm to 10pm; Night 10pm to 7am Monday to Saturday, 10pm to 8am Sunday

1 The evening RBL data has been reduced to the daytime period RBL in this case (bracketed figures indicates the measured value)

2 The night-time RBL data has been reduced to the evening period RBL in this case (bracketed figure indicates the measured value)

Table 4-3: NCAs and noise management levels

NCA ID	NOISE MANAGEMENT LEVEL (NML)				SLEEP DISTURBANCE SCREENING LEVEL (RBL +15 dBA or + 52 dBA)	SLEEP AWAKENING REACTION LEVEL (dBA)
	APPROVED HOURS (RBL + 10 dB)	OUT-OF-HOURS				
		DAYTIME (RBL + 5 dB)*	EVENING (RBL + 5 dB)*	NIGHT-TIME (RBL + 5 dB)*		
NCA 04	52	47	47	47	57	65
NCA 08	49	44	45	35	52	65

*Time periods defined as - Day: 7am to 6pm Monday to Friday, 8am to 6pm Saturday; Out-of-hours day: 8 am to 6 pm Sunday and public holidays; Evening, 6pm to 10pm Monday to Sunday (including public holidays); Night 10pm to 7am Monday to Saturday, 10pm to 8am Sunday (including public holidays)

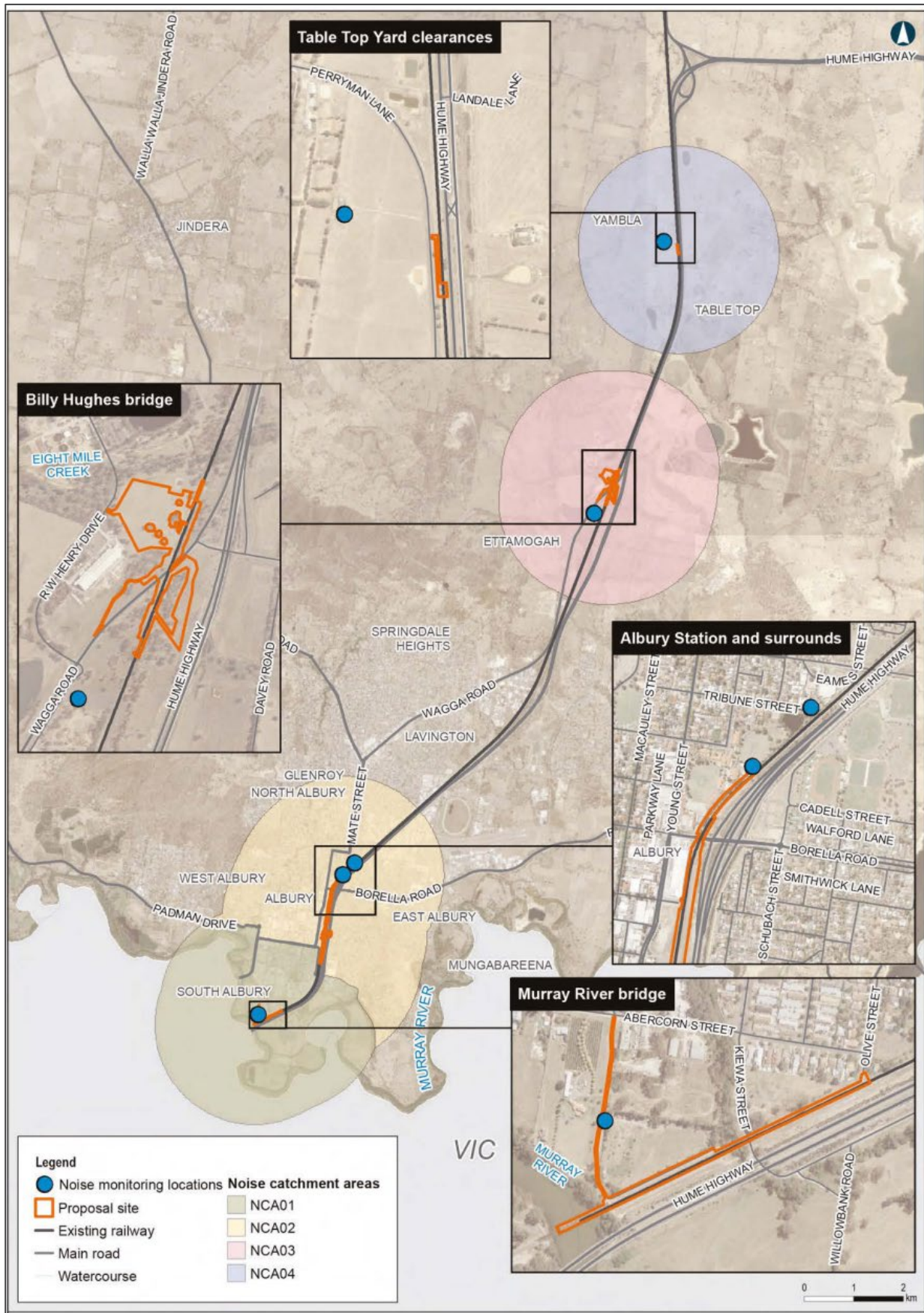


Figure 4-1: EAD mapped NCA 04 in relation to the Proposed Change

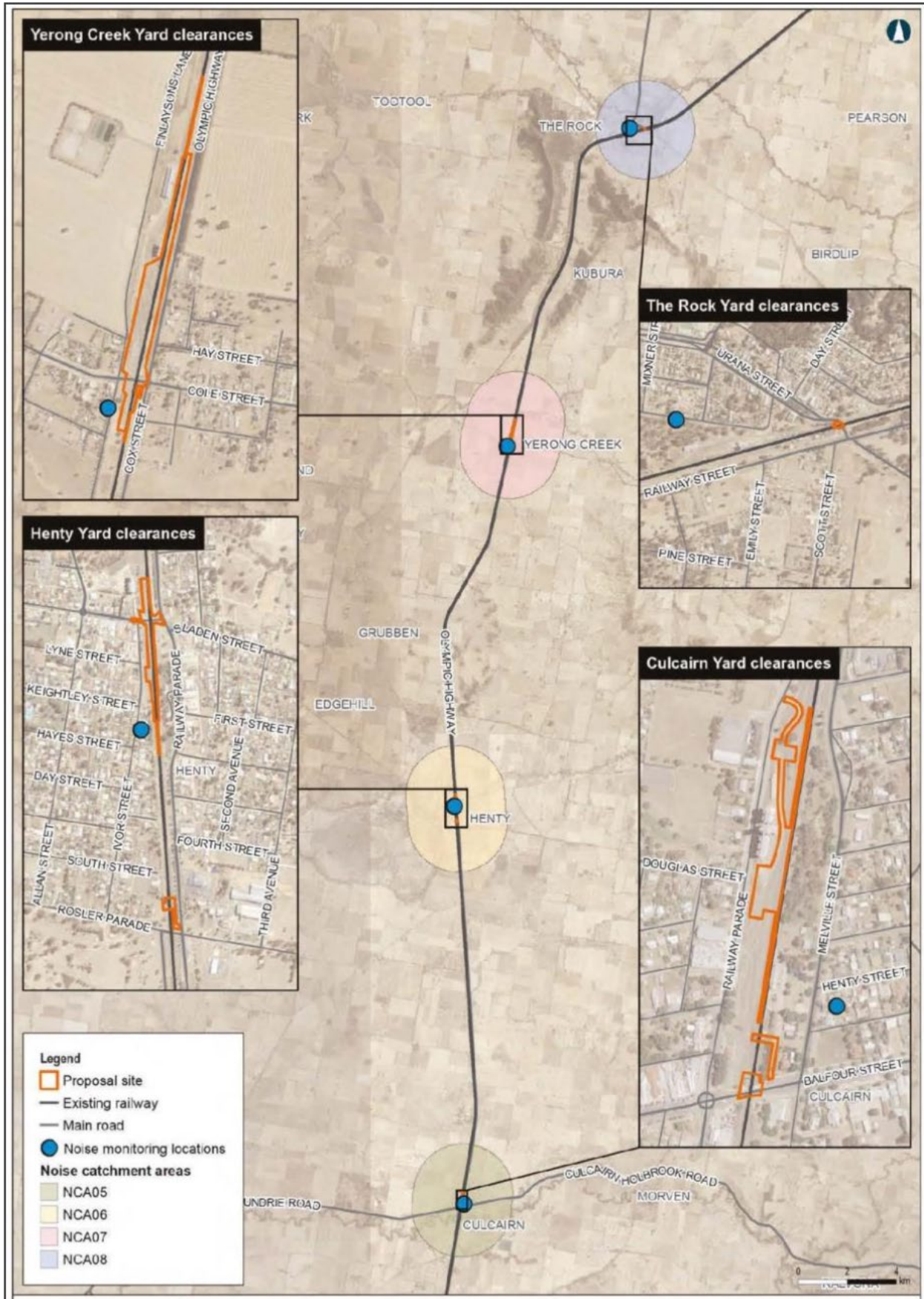


Figure 4-2: EAD mapped NCA 08 in relation to the Proposed Change

4.3.2 Construction hours

Construction hours for The Rock Yard and Table Top Yard enhancement sites are discussed in Section 2.5, with the following also noted:

Highly noise intensive works

‘Highly noise intensive works’ as per the Project Approval are defined as:

- ▶ use of power saws, such as used for cutting timber, rail lines, masonry, road pavement or steel work
- ▶ grinding metal, concrete or masonry
- ▶ rock drilling
- ▶ line drilling
- ▶ vibratory rolling
- ▶ bitumen milling or profiling
- ▶ jackhammering, rock hammering or rock breaking
- ▶ impact piling, and
- ▶ tamping (for rail Projects).

As outlined in Condition of Approval (CoA) E70, any highly noise intensive works that result in an exceedance of the applicable NML at the same receiver must only be undertaken between:

- ▶ 8:00am to 6:00pm Monday to Friday
- ▶ 8:00am to 1:00pm Saturday
- ▶ If continuously, then not exceeding (3) hours, with a maximum cessation of work of not less than an hour.

Out-of-hours work

In accordance with CoA E73, where out-of-hours work (OOHW) is required for:

- ▶ For carrying out work that if carried out during standard hours would result in a high risk to construction personnel or public safety based on a risk assessment carried out in accordance with AS/NZS ISO 31000:2009: “Risk management; or
- ▶ Where the relevant roads authority has advised the Proponent in writing that carrying out the work during standard hours would result in a high risk to road network performance and a road occupancy licence will not be issued; or
- ▶ Where the relevant utility service operator has advised the Proponent in writing that carrying out the work during standard hours would result in a high risk to the operation and integrity of the utility network; or
- ▶ Work undertaken in a rail possession for operational or safety reasons.

This will be regulated through the OOHW Protocol except as permitted by an EPL.

4.3.3 Impact assessment

Predicted noise levels

A summary of the predicted worst-case levels for each activity of the Proposed Change has been provided within each site-specific CNVIS and summarised below:

Table Top Yard

The Proposed Change activities are referred to as ‘Work Scenarios’, with the following noted:

- ▶ Work Scenario 1 (W.001) – site establishment activities
- ▶ Work Scenario 2 (W.002) – site compound activities

- ▶ ‘Moderately Intrusive’ impacts are predicted at the nearest residential receivers for ‘W.001 – Site Establishment/ Demobilisation’ and ‘W.002 – Compound Operations’ during approved daytime hours and Daytime OOHWs. ‘Moderately Intrusive’ impacts are predicted at the nearest residential receiver for ‘W.002 – Compound Operations’ during the evening and night-time works.
- ▶ For Daytime OOHWs associated with W.001 and W.002, ‘noticeable’ impacts are also predicted for residential receivers surrounding the works.
- ▶ Noise levels are predicted to exceed the sleep disturbance screening level during W.002. Sleep disturbance impacts would generally be caused by the air compressor in W.002 when works occur near residential receivers. Where reasonable and feasible, these activities should be limited to less sensitive periods to avoid noise impact during more sensitive out-of-hours periods (refer to Section 8.0 of the CNVIS). The number of awakening events would depend on several factors, including the equipment being used, the duration of noisy work and the distance of the work to each residential receiver.
- ▶ Further detail around specific OOHW, (e.g. duration and justification) must be identified in the OOHW permit, refer to section 2.4 of the CNVIS. No impacts above the NMLs are expected at any ‘other sensitive’ receivers surrounding the works during all works periods. No Highly Noise Affected (HNA) receivers or ‘Highly intrusive’ impacts are predicted during any works scenarios in any works period.
- ▶ All appropriate feasible and reasonable construction noise mitigation measures will be applied to work as outlined in Section 8.0 of the CNVIS.

The Rock Yard

The Proposed Change activities are referred to as ‘Work Scenarios’, with the following noted:

- ▶ Work Scenario 1 (W.001) – site establishment activities
- ▶ Work Scenario 2 (W.002) – site compound activities

W.001

The additional work area required for the Proposed Change forms part of the wider scope associated at The Rock Yard and will enable site establishment works. The CNVIS addendum has assessed the revised work area, which consists of the work area identified in the endorsed CNVIS and additional work area identified in this CA. Table 4-4 provides a summary of exceedances that have been identified for daytime out-of-hours, as the most affected period.

Table 4-4: Exceedance comparisons for W.001

ASSESSMENT RESULTS	NUMBER OF RESIDENTIAL RECEIVERS WITH NML EXCEEDANCE	
	CNVIS – W.001	SLR PREDICT – W.001 (REVISED WORK AREA)
Total Lw (dBA)	115	116
Noticeable (1-5 dB)	58	87
Clearly Audible (6-15 dB)	55	115
Moderately Intrusive (15-25 dB)	13	26
Highly Intrusive (>25 dB)	0	7

Table 4-4 shows an overall increase in the intensity of impacts resulting from the current proposed scenario (last column) due to the revised work area for the scenario. There is an increased number of receivers experiencing higher noise levels including moderately intrusive (16-25 dB) and highly intrusive (>25 dB) noise levels. This is likely due to the increased size of the work area.

Three receivers will potentially experience highly noise affected impacts (>75 dBA) and will be managed accordingly as noted in Section 4 of the Addendum.

W.002

The additional work area required for the Proposed Change forms part of the wider scope associated at The Rock Yard and will enable site compound operational works. The CNVIS addendum has assessed the revised work area, which consists of the work area identified in the endorsed CNVIS and additional work area identified in this CA. Table 4-5 provides a summary of exceedances that have been identified for night-time out-of-hours, as the most affected period.

Table 4-5: Exceedance comparisons for W.002

ASSESSMENT RESULTS	NUMBER OF RESIDENTIAL RECEIVERS WITH NML EXCEEDANCE	
	CNVIS – W.002	SLR PREDICT – W.002 (REVISED WORK AREA)
Total Lw (dBA)	113	116
Noticeable (1-5 dB)	125	86
Clearly Audible (6-15 dB)	113	198
Moderately Intrusive (15-25 dB)	34	103
Highly Intrusive (>25 dB)	5	25
Above Sleep Disturbance (>Screening Level)	103	99
Above Sleep Awake (>65 dB)	13	13

Table 4-5 shows an overall increase in the intensity of impacts resulting from the current proposed scenario (last column), due to the revised work area for the scenario. There is an increased number of receivers experiencing higher noise levels including moderately intrusive (16-25 dB) and highly intrusive (>25 dB) noise levels. This is likely due to the increased size of the work area.

Three receivers will potentially experience highly noise affected impacts (>75 dBA) and will be managed accordingly as noted in Section 4 of the Addendum.

It is noted that for most scenarios, the noisiest work would only be required for a relatively short period of the total duration. Noise levels and impacts at other times would be much lower than the worst-case levels predicted, and there would often be times when noise levels are low, and no impacts would occur.

A review of the predictions shows that both the sleep disturbance screening level and sleep awakening reaction level are likely to be exceeded when night work occurs near residential receivers. The receivers that would potentially be affected by sleep awakening impacts are the same receivers where 'moderately intrusive' and 'highly intrusive' night time impacts have been predicted (refer to Appendix C of the CNVIS).

Ground-borne noise

Ground-borne construction noise impacts from the Project are not anticipated as vibration intensive work with the potential to generate perceptible ground-borne noise, is not included in the scope of work. Vibration intensive work for the Project will be completed outdoors meaning airborne noise levels at the nearest receivers are expected to be higher than the corresponding internal ground-borne noise levels.

Where airborne noise levels are higher than ground-borne noise levels it is not necessary to evaluate potential ground-borne noise impacts and as such, they have not been considered further for this assessment.

4.3.4 Conclusion

Feasible and reasonable management and mitigation measures will be implemented as required to minimise noise, vibration and cumulative impacts for the scope of works as per the Proposed Change.

All applicable mitigation measures in the CoAs and UMMs will be implemented, with any identified additional mitigation measures outlined in Table 4-12.

4.4 Aboriginal heritage

4.4.1 Existing environment

The following discussion is drawn from the EAD (EIS, Chapter 10 and Technical Paper 2 – Aboriginal Cultural Heritage Assessment Report (ACHAR)) for The Rock Yard and Table Top Yard, and the Heritage Assessments (HAs) prepared by OzArk for the Proposed Change areas.

The study area for the ACHAR included the length of the existing railway corridor from Albury to Illabo, with a specific focus on the 14 enhancement sites that could be directly or indirectly impacted by the Project.

Heritage Assessments (HAs) (OzArk, October 2025) (Appendix C) were prepared for the Proposed Change. The HAs were prepared through a series of site walkovers and desktop assessments in relation to the location and activities associated with the Proposed Change, and its subsequent impact to Aboriginal heritage.

Table Top Yard

Site Investigation Zone 3

Table Top Yard is located within Site Investigation Zone 3.

This zone is located on the Ettamogah soil landscape, which is characterised by undulating plains over lower slopes and drainage areas, where moderate gully erosion can occur. The surrounding landscape is crossed by numerous lower order streams. The area has been impacted by the development of the Hume Highway and rail track, as well as surrounding agriculture (EAD).

The Rock Yard

Site Investigation Zone 7

The Rock Yard is located within Site Investigation Zone 7.

This zone lies within the Vincent Road and Mangoplah soil landscapes. As noted in the Zone 6 description above, Mangoplah is an alluvium soil landscape and is conducive to the preservation of formed archaeological deposits. This landscape incorporates Burkes Creek, a major creek 250 metres to the north of the zone (EAD).

Most of the western part of this zone is situated on the Vincent Road soil landscape—a transferral landscape on a relatively flat plain. Transferral landscapes are formed on deep deposits of mostly eroded parent materials washed from areas upslope. In this case, Zone 7 occurs across the plains extending from the lower slopes of a ridgeline location 1.8 kilometres to the south of the site investigation area. The combination of nearby high ground, proximity to a stable source of water at Burkes Creek, and its status as a transferral landscape would typically result in the potential for intact archaeological sites and deposits (EAD).

However, as noted in the EAD, all four of the investigation areas within Zone 7 have been subject to substantial disturbance and as a consequence are unlikely to have any remaining archaeological potential.

4.4.2 Impact assessment

Table Top Yard

AHIMS search

On 30 September 2025, a basic search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken centred on the CIZ extension.

The search results show that no Aboriginal sites have been registered within, or adjacent to, the CIZ extension area. There are no other sources of information to indicate that Aboriginal objects are likely within the CIZ extension at Table Top Yard.

Landform

The CIZ extension is within gentle foot slopes of the surrounding low rolling hill landform, situated approximately 240m above sea level. The CIZ extension is situated 617m north of Nine Mile Creek at its closest point. As the study area is distant to water, landforms with identified archaeological sensitivity as set out in the *Due Diligence Code of Practice* are not present within the CIZ extension.

Desktop inspection

The CIZ extension area appears to have been disturbed by works associated with nearby road and rail corridors, with an existing access road stretching across the CIZ extension visible at the desktop level. Ground cover vegetation is present across sections of the CIZ extension outside of the existing access tracks, which have been cleared of mid or upper storey vegetation.

It is clear from the desktop review that the CIZ extension has been highly disturbed by works associated with nearby rail and road corridor infrastructure, as well as ongoing vehicle movements associated with the continued use of existing access tracks.

The Rock Yard

AHIMS search

On 30 September 2025, a basic search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken centred on the CIZ extension.

The search results show that no Aboriginal sites have been registered within, or adjacent to, the CIZ extension area. The Rock Nature Reserve and Kengal Aboriginal Place is situated approximately 4km west of the CIZ extension. There are no other sources of information to indicate that Aboriginal objects are likely within the CIZ extension at The Rock Yard.

Landform

The CIZ extension extends across flay alluvial plains, situated approximately 210m above sea level. The closest named watercourse to the CIZ extension is Burkes Creek located 300m north.

No landforms defined in the *Due Diligence Code of Practice* as archaeologically sensitive (land within 200m of waters) are present within the CIZ extension, however the precautionary measure of a visual inspection has been applied due to the proximity of Burkes Creek.

Desktop inspection

A visual inspection of the CIZ extension area was completed by the Project Archaeologist on 1 October 2025. No Registered Aboriginal Party (RAP) representatives attended the inspection. The CIZ extension area was noted as being heavily disturbed by the construction of the Station and ground surface visibility was very low outside of the existing access tracks.

Areas of archaeological sensitivity at Sandy Creek, as identified at the desktop level, were considered to have low archaeological potential following the visual inspection, owing to the limited nature of the CIZ extension and existing disturbance from the initial establishment of the railway and associated bridge.

4.4.3 Conclusion

Assessment for Aboriginal heritage via the Due Diligence Code has determined that the proposed CIZ extension is unlikely to harm Aboriginal objects or landscape features with archaeological sensitivity.

No Aboriginal sites were recorded, and it was determined that due to the significant land use disturbance as well as distance to watercourses, there is a low likelihood of intact, subsurface archaeological deposits. Therefore, no further archaeological investigation is required.

In the unlikely event that Aboriginal objects are encountered, refer to the Unexpected Finds Procedure (Heritage and Human Remains) under Appendix E.

All applicable mitigation measures in the CoAs and UMMs will be implemented, with any identified additional mitigation measures outlined in Table 4-12.

4.5 Non-Aboriginal heritage

4.5.1 Existing environment

Potential non-Aboriginal heritage impacts were assessed within Chapter 11 of the EIS, Technical Paper 3 (Non-Aboriginal heritage). The study area for EIS Technical Paper 3 (Non-Aboriginal heritage) included the length of the existing railway corridor from Albury to Illabo, with a specific focus on the 14 enhancement sites, including heritage items and conservation areas within and in the vicinity of the enhancement sites that could be directly or indirectly impacted by the Project.

HAs were prepared by OzArk for the Proposed Change at Table Top Yard and The Rock Yard. These HAs were prepared through a series of site walkovers and desktop assessments in relation to the Proposed Change and its subsequent impact to local non-Aboriginal heritage (Appendix C).

Table Top Yard

As noted in the EAD, there are registered heritage items at Table Top Yard.

The Rock Yard

The Proposed Change intersects or is adjacent to the curtilage of the heritage items listed in Table 4-6 and shown in Figure 4-3.

Table 4-6: Heritage items that intersect or are adjacent to the Proposed Change

ENHANCEMENT SITE	HERITAGE NAME	HERITAGE LISTING	DISTANCE FROM PROPOSED CHANGE
The Rock Yard clearances enhancement site	▶ The Rock Station and Yard Group (SHR 01268)	▶ State Heritage Register (SHR) (01268) ▶ Lockhart Local Environmental Plan (LEP) 2012 (I10) ▶ Section 170 register (4280256)	▶ Within curtilage
	▶ The Rock Urban Conservation Area	▶ Lockhart LEP 2012 (C2)	▶ Within curtilage

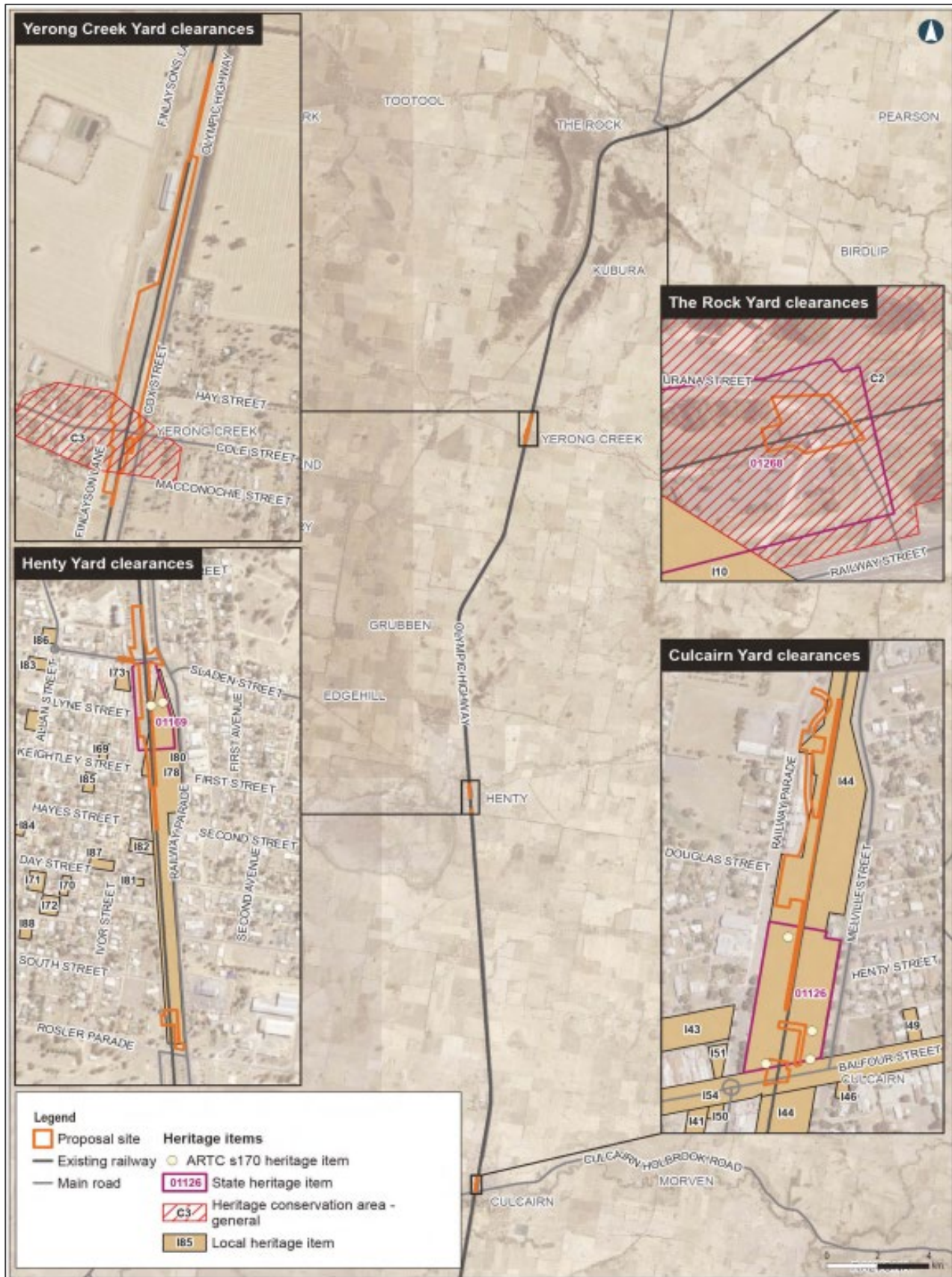


Figure 4-3: EAD showing location of non-Aboriginal heritage items near the Proposed Change

4.5.2 Impact assessment

Table Top Yard

Given the limited nature of the study area and the high-level land use disturbance evident from aerial imagery, a desktop level inspection has been deemed appropriate in this case. No previously listed LEP, SHR or Commonwealth Heritage Listings are within the CIZ extension. The closest LEP-listed item “Maryvale” (I310) is sufficiently distant from the CIZ extension that potential impacts to this item are considered to be negligible.

The CIZ extension has a low likelihood to contain unrecorded, significant, historic archaeological deposits. This result is consistent with the findings of the SOHI prepared for this project by GML Heritage (GML, 2022).

The Rock Yard

The Rock Urban Conservation Area – LEP C2

The temporary and minor nature of the proposed activities within the CIZ extension are considered to have a negligible impact on The Rock Urban Conservation Area’s visual amenity and streetscape.

The Rock Station and Yard Group - SHR 01268, LEP I10, s180 Register 4280256

The visual inspection confirmed that the railway ‘crane and platform’ which has been identified as holding contributory heritage significance to the Station, is located south beyond the CIZ extension. It is considered that the item is a suitable distance from the proposed works as to not be at risk of any potential indirect impacts.

While the northeastern most portion of the platform is located within the CIZ extension, the proposed works will not require alterations to the platform or adjacent railway lines. Instead, this portion of the CIZ extension will only require the transit of railway machinery on existing lines. Furthermore, all platform signage will be retained and avoided. As such, all heritage fabric will be avoided by the proposed works and there will be negligible impact to the heritage values of the Station.

Archaeological assessment

The proposed CIZ extension is assessed as having a low likelihood to contain unrecorded, significant, historic archaeological deposits. The elements of the Station within the CIZ extension are still extant with no potential footings or areas indicating subsurface features identified during the visual inspection. Additionally, the proposed works are temporary and will cause minimal disturbance to the ground disturbance.

4.5.3 Conclusion

The proposed works associated with the CIZ extension at The Rock Yard do not entail significant ground disturbing works and all heritage fabric within the LEP and SHR curtilages will be avoided. As such, there will be negligible impact to the heritage values of The Rock Urban Conservation Area (C2) and The Rock Station and Yard Group (SHR 01268).

There are no historical heritage items located within, or near to, the proposed CIZ extension area at Table Top Yard. As such, the assessment for historic heritage has determined that impacts to historic heritage as a result of the proposed CIZ extension will be negligible.

The works may proceed with caution with no further management measures. In the unlikely event that historic objects are encountered, refer to the Unexpected Finds Procedure (Heritage and Human Remains) under Appendix E.

All applicable mitigation measures in the CoAs and UMMs will be implemented, with any additional mitigation measures outlined in Table 4-12.

4.6 Biodiversity

4.6.1 Existing environment

Biodiversity Assessment Report Memos (BARMs) (East Coast Ecology, November 2025) (Appendix D) have been prepared for the Proposed Change area at The Rock and Table Top, referenced as 'Subject Land'.

Table Top Yard

The Subject Land is mapped as occurring on 'Ettamogah' soil landscape, characterised by undulating plain on Silurian volcanics. The Subject Land occurs on gently inclined terrain, ranging from 243m above sea level (asl) in the southern extent to 241m asl in the northern extent (Google Earth).

Vegetation communities

Field surveys revealed the following vegetation community types, located within the Proposed Change, described by WSP (2024):

- ▶ Miscellaneous Ecosystems – 'Highly Disturbed areas with no or limited Native Vegetation' (MEHD)
 - ▶ The Subject Land displayed a long history of disturbance from infrastructure (rail and road) and industrial use, the Subject Land is comprised of no or limited native species is dominated by exotic species, and provides limited ecological function (WSP, 2024).

Threatened flora

As noted in the BARM, BioNet and PMST searches revealed six threatened flora species occur, or have potential to occur, within a ~5km radius of the Proposed Change area.

Threatened fauna

As noted in the BARM, (BioNet and PMST searches revealed 41 threatened fauna species occur, or have potential to occur, within a ~5km radius of the Proposed Change area.

Migratory species

As noted in the BARM, BioNet and PMST searches revealed seven threatened fauna species occur, or have potential to occur, within a ~5km radius of the Proposed Change area.

The Rock Yard

The Subject Land is mapped as occurring on both the 'Mangoplah' soil landscape, characterised by extensive level plains of Burkes Creek alluvial sediments. The Subject Lands occurs on a consistent gradient of approximately 216 m above sea level (asl) (Google Earth).

Vegetation communities

Field surveys revealed the following vegetation community types, located within the Proposed Change, described by WSP (2024):

- ▶ Miscellaneous Ecosystems – 'Ornamental Plantings' (MEOP)
 - ▶ The Subject Land displayed historical and ongoing residential and community use comprised of ornamental native and exotic species planted for aesthetic purposes and was therefore determined to have limited ecological function (WSP, 2024)
- ▶ Miscellaneous Ecosystems – 'Highly Disturbed areas with no or limited Native Vegetation' (MEHD)
 - ▶ The Subject Land displayed a long history of disturbance from infrastructure (rail and road) and industrial use, the Subject Land is comprised of no or limited native species is dominated by exotic species, and provides limited ecological function (WSP, 2024).

Threatened flora

As noted in the BARM, BioNet and PMST searches revealed 12 threatened flora species occur, or have potential to occur, within a ~5km radius of the Proposed Change area.

Threatened fauna

As noted in the BARM, BioNet and PMST searches revealed 40 threatened fauna species occur, or have potential to occur, within a ~5km radius of the Proposed Change area.

Migratory species

As noted in the BARM, BioNet and PMST searches revealed seven threatened fauna species occur, or have potential to occur, within a ~5km radius of the Proposed Change area.

4.6.2 Impact assessment

Table Top Yard

Vegetation communities

As noted, the potential impact to vegetation communities has been assessed in the BARM. The Proposed Change will potentially impact:

- ▶ 0.73ha of MEHD

Threatened flora

The results from the site assessment, including targeted flora surveys and habitat assessment, were used to assess each species' likelihood of occurrence within the Subject Land. After carrying out the assessment, the assessor determined that the habitat is substantially degraded such that all potential threatened flora species are unlikely to occur within the Subject Land.

Threatened fauna

The degraded vegetation within the Subject Land would only provide low-quality foraging habitat for threatened species. There was no breeding habitat identified (in the form of hollow-bearing trees, rocky outcrops/caves, large trees or human-made structures).

On the basis that the Subject Land is highly degraded and vacant of high-quality foraging and/or breeding habitat, it was determined that potential threatened fauna area unlikely to utilise the Subject Land in preference of surrounding areas.

Migratory species

The species are unlikely to occur due to the lack of suitable habitat in the Subject Land (i.e. ornamental tree dominated), and these species do not breed in Australia.

The Rock Yard

Vegetation communities

As noted, the potential impact to vegetation communities has been assessed in the BARM. The Proposed Change will potentially impact:

- ▶ 0.01ha of MEOP
- ▶ 0.25ha of MEHD

Threatened flora

The results from the site assessment, including targeted flora surveys and habitat assessment, were used to assess each species' likelihood of occurrence within the Subject Land. After carrying out the assessment, the assessor determined that the habitat is substantially degraded such that all potential threatened flora species are unlikely to occur within the Subject Land.

Threatened fauna

The degraded vegetation within the Subject Land would only provide low-quality foraging habitat for threatened species. There was no breeding habitat identified (in the form of hollow-bearing trees, rocky outcrops/caves, large trees or human-made structures).

On the basis that the Subject Land is highly degraded and vacant of high-quality foraging and/or breeding habitat, it was determined that potential threatened fauna area unlikely to utilise the Subject Land in preference of surrounding areas.

Migratory species

The species are unlikely to occur due to the lack of suitable habitat in the Subject Land (i.e. ornamental tree dominated), and these species do not breed in Australia.

4.6.3 Conclusion

Table Top Yard

The proposed activity will potentially impact:

- ▶ 0.73ha of MEHD

The Rock Yard

The proposed activity will potentially impact:

- ▶ 0.01ha of MEOP
- ▶ 0.25ha of MEHD

As noted in the BARMs, the potential impacts on biodiversity identified for the Proposed Change can be appropriately managed in accordance with the Conditions of Approval and through implementation of the Updated Mitigation Measures outlined in the Construction Biodiversity Management Plan for the Project.

All applicable mitigation measures in the CoAs and UMMs will be implemented, with any additional mitigation measures outlined in Table 4-12.

4.7 Flooding

4.7.1 Existing environment

The following discussion has been drawn from the EAD (EIS, Chapter 18 and Technical Paper 11).

The frequency of flood events is generally referred to in terms of their annual exceedance probability (AEP). For example, for a 5% AEP flood, there is a five percent probability (or a one in 20 chance) that there would be floods of a greater magnitude in any given year. For a 1% AEP flood, there is a one percent probability (or a one in 100 chance) that there would be floods of greater magnitude each year. The probable maximum flood (PMF) is the largest flood that could be expected to occur at a particular location, usually estimated from probable maximum precipitation.

Existing flood conditions for the Proposed Change area is presented in Table 4-7 below.

Table 4-7: Existing flood conditions

ENHANCEMENT SITE	EXISTING FLOOD CONDITIONS	DRAINAGE	FLOOD RISK WITHIN AND AROUND ENHANCEMENT SITE FOR EVENTS UP TO THE 1% AEP	PMF FLOOD DEPTH
Table Top Yard clearances	▶ Not located on flood-prone land	▶ No formal drainage infrastructure	▶ Not affected	▶ Not affected
The Rock Yard clearances	▶ No flood impacts within the rail corridor	▶ No information available	▶ Not affected	▶ 0.5 to 1m

4.7.2 Impact assessment

Construction activities on flood-prone land have the potential to temporarily affect flooding behaviour. Without the implementation of appropriate management measures, potential impacts include:

- ▶ can damage to construction sites, machinery, plant and equipment
- ▶ detrimentally impact downstream watercourses through increased flow rates in drainage lines, changes in scour, bank erosion and transport of sediments, and
- ▶ obstruct the passage of floodwater and overland flow, which could exacerbate existing flooding conditions and pose a safety risk to the public.

Considering the limited duration and scope of the works, no significant impacts to flood behaviour are anticipated for events up to and including the 1% AEP.

4.7.3 Conclusion

Work associated with the proposed CIZ changes are not expected to affect flood levels or behaviour.

Any potential impacts would be generally in accordance with the impacts considered as part of the EAD and would be managed as per all applicable mitigation measures in the CoAs and UMMs, with any identified additional mitigation measures outlined in Table 4-12.

4.8 Soils and contamination

4.8.1 Existing environment

Existing soil characteristics

Table Top Yard

The Proposed Change area is located within the Albury precinct which ranges from about 150 mAHD at the Murray River to 230 mAHD. The land generally slopes to the south towards the Murray River. Existing soil characteristics within the Proposed Change area are shown in Table 4-8.

The Rock Yard

The Proposed Change area is located within the Greater Hume—Lockhart precinct at about 210 to 220 m Australian Height Datum (mAHD). The topography generally slopes to the north, west to the Murrumbidgee River; however, there are localised high points along the Olympic Highway that drain to various tributaries of the Murrumbidgee River. Existing soil characteristics within the Proposed Change area are shown in Table 4-8 below.

Table 4-8: Existing soil characteristics

ENHANCEMENT SITE	LANDSCAPE	SOIL	CHARACTERISTICS
Table Top Yard clearances	▶ Ettamogah landscape	<ul style="list-style-type: none"> ▶ Typically deep to moderately deep red-to-yellow Chromosols and Kurosols ▶ Sodosols (podzolic profile (soil formed by weathering and leaching) with elevated sodium in the clay) in low-lying areas 	<ul style="list-style-type: none"> ▶ High erosion hazards ▶ Localised gully erosion has been observed along with widespread wind and sheet erosion
The Rock Yard clearances	▶ Vincent Road soil landscape	▶ Moderately deep (80–150 cm) sodosols.	▶ Local soils are also prone to high erosion hazard, localised foundation hazard and strong acidity

ENHANCEMENT SITE	LANDSCAPE	SOIL	CHARACTERISTICS
	▶ Mangoplah soil landscape	▶ In the west, formed from colluvium (loose soil, deposited by erosion) from the local sandstones, while in the east the soils are of alluvial (loose soil, deposited by water) origin.	▶ Low-lying areas are also prone to localised waterlogging.

Saline soils

Table Top Yard

Whilst salinity is listed as “not observed” (not identified during assessment) for the Ettamogah landscape, the enhancement site is also shown on the Table Top hydrogeological landscape, in which is described as having a “moderate” land salinity hazard.

The Rock Yard

The Proposed Change is located on land that is mapped as having “moderate” land salinity hazard.

Acid sulfate soils

The Proposed Change areas are located within areas described as ‘extremely low’ probability of occurrence of acid sulfate soils (ASS).

Contamination

The Proposed Change areas are located within an existing rail corridor, which is considered to contain a general level of risk associated with contamination from historical development and activities associated with its operation. A range of sites adjacent to the rail corridor that would be considered to have associated contaminated risk were identified, including agricultural land.

The sources for these general contamination risks include:

- ▶ fill used in construction of the existing rail line, which may be contaminated
- ▶ weed-suppression activities
- ▶ buildings potentially containing hazardous materials
- ▶ rail line ballast potentially containing heavy metals and other contaminants
- ▶ contamination from maintenance activities undertaken at sidings and near silos or other areas
- ▶ use of chemicals on agricultural land
- ▶ machinery storage and maintenance, refuelling and spray rig filling, agricultural sheds and silos

Description of the AEC and potential contaminants of concern are presented in Table 4-9, with their locations shown in Figure 4-4. There are no AECs located in proximity to the Proposed Change at Table Top Yard.

Table 4-9: Description of AEC and potential contaminants of concern

ENHANCEMENT SITE	AEC	DESCRIPTION OF AEC	POTENTIAL CONTAMINANTS OF CONCERN
The Rock Yard clearances	AEC 25	The Rock RFS—historical storage of fire suppressants potentially used	TRH, BTEX, PAHs The RFS have advised that this site has not been identified as a location where there has been historical use of PFAS. Therefore, this contaminant was not considered further
	AEC 26	Rusted metal drums, wooden sleepers, concrete blocks, tired and old rail	TRH, BTEX, PAHs, asbestos, lead containing dust and/or paint
	AEC 27	Potential ACM, glass and metal on the site surface	TRH, BTEX, PAHs, asbestos, lead containing dust and/or paint
	AEC 28	Potential ACM structure	TRH, BTEX, PAHs, asbestos, lead containing dust and/or paint

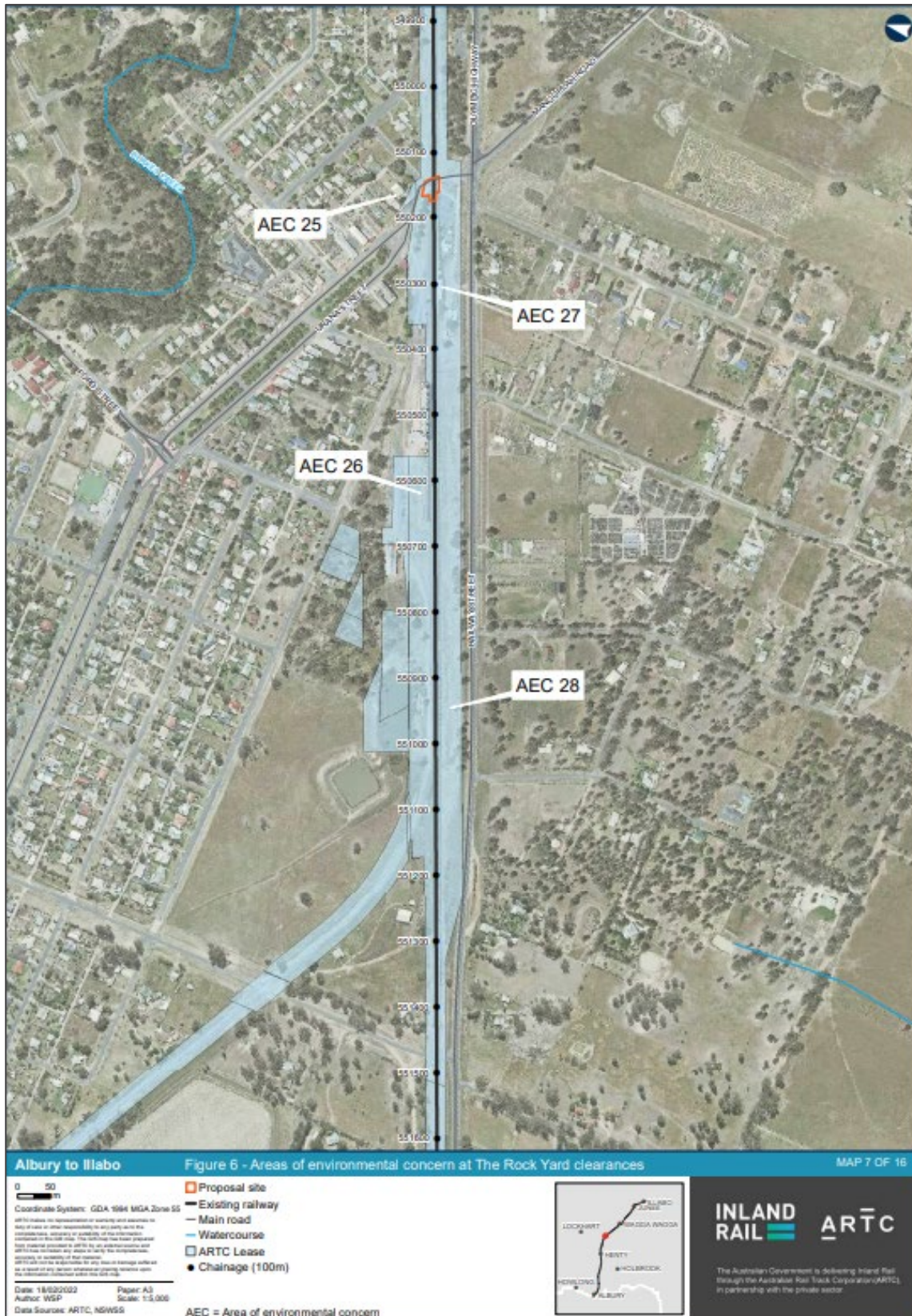


Figure 4-4: EAD showing location of AECs at The Rock Yard

4.8.2 Impact assessment

Ground disturbance activities would disturb soils. If not adequately managed this could result in:

- ▶ erosion of exposed soil and stockpiled materials
- ▶ dust generation
- ▶ an increase in sediment loads entering the stormwater system and/or local runoff, and, therefore, nearby receiving waterways
- ▶ increase in salinity levels in soil
- ▶ ASS conditions
- ▶ mobilisation of contaminated sediments, with resultant potential for environmental and human health impacts

Soil erosion

Construction activities associated with the Proposed Change would temporarily expose the natural ground surface and sub-surface through the removal of vegetation, and ground disturbance. The exposure of soil to runoff and wind can increase soil erosion potential; particularly, where construction activities are undertaken in soil landscapes characterised by dispersive soils, given their susceptibility to erosion. This is consistent with the potential impacts considered as part of the EAD and would be managed in accordance with the Blue Book.

Saline soils

Excavation of salt affected soil from deeper horizons is likely to lead to an increase in salinity presence at the surface. Excavation of these areas are likely to disrupt the existing aboveground and sub-surface drainage patterns, allowing salts to be brought to the surface in seeps or to accumulate in zones of evaporation. Soil disruption associated with excavations or cuttings into the landscape for the proposal, footing, construction compounds, bridges or levelling purposes are potential activities that could lead to increased salinity.

Contamination

There is a general contamination risk present within the Proposed Change areas, based on their general setting within an existing rail corridor and land uses that occur in and adjacent to these areas.

As noted in the EIS (Chapter 20) the risk of contamination within the Proposed Change area is considered to be low within the context of the continuing railway land use; however, some discrete areas of medium risk have been identified, such as areas of waste within the rail corridor, fill used in the construction of the existing rail line and structures containing hazardous materials (such as lead paint and asbestos).

Based on the intensity of historical activities observed within the rail corridor, including the presence of operational facilities, and development in the surrounding area, the Proposed Change is considered to have a higher likelihood of contamination being present.

A Sampling, Analysis and Quality Plan (SAQP) has been developed for all sites across the alignment and will be utilised to inform the scope of any site investigations required.

4.8.3 Conclusion

Construction activities at the Proposed Change areas would be short term and would be prepared with consideration of the existing soils and contamination characteristics of the area.

Potential soil and contamination impacts of the Proposed Change can therefore be adequately managed in accordance with the CoAs and UMMs, with any additional mitigation measures outlined in Table 4-12.

4.9 Air quality

4.9.1 Existing environment

Regional air quality is mainly influenced by rural activities, industrial activities, vehicle emissions, railway operations, power generation, waste management and extraction activities. Dust from paved and unpaved roads, and domestic solid and liquid fuel burning in the region, also contribute to the local air shed.

As noted in the EIS (Chapter 22), air quality data for Table Top Yard and The Rock Yard has been sourced from Wagga Wagga North and Albury monitoring stations, respectively. The results are summarised in Table 4-10 below, alongside the air quality impact assessment criterion for each pollutant specified in the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (NSW EPA, 2016).

Table 4-10: Background air quality (2016 to 2020)

MONITORING STATION	POLLUTANT	AVERAGING PERIOD	AIR QUALITY IMPACT ASSESSMENT CRITERIA	YEAR*				
				2016	2017	2018	2019	2020
Wagga Wagga North	PM10 (g/m3)	Maximum 24-hour average	50	114.7	171.6	127.2	251.7	259.4
		Annual average	25	20.7	20.4	26.9	34.7	21.9
	PM2.5 (g/m3)	Maximum 24-hour average	25	Not available	40.8	90.2	129.4	559.5
		Annual average	8	Not available	8.5	8.9	11.0	12.9
Albury	PM10 (g/m3)	Maximum 24-hour average	50	51	48.8	107.8	222.4	298.3
		Annual average	25	14.9	15.6	19.4	23.2	19.7
	PM2.5 (g/m3)	Maximum 24-hour average	25	28.1	18.7	30.4	167.1	275
		Annual average	8	7.4	7.2	7.3	10.1	11.4

*Exceedances of the air quality impact assessment criteria as shown in **bold**.

4.9.2 Impact assessment

Dust emissions

The following activities have the potential to generate dust during construction:

- ▶ vegetation clearing and grubbing
- ▶ installation of temporary infrastructure and site compound
- ▶ earthworks such as rail formation works
- ▶ civil works at road and pedestrian bridges
- ▶ dirt, mud, or other materials tracked onto a paved public roadway by a vehicle leaving a construction site (generally referred to as egress)
- ▶ erosion of unsealed surfaces
- ▶ materials handling and loading at laydown areas, and vehicle movements on unsealed roads/surfaces

The UMMs outlined in the EAD will be implemented to minimise the risk of impacts to air quality during the Proposed Change.

4.9.3 Conclusion

The Proposed Change impacts to air quality have been deemed as negligible to high prior to any mitigation measure implementation (EIS, Chapter 22). Following the implementation of appropriate mitigation measures, the residual air quality impacts would be reduced to negligible to low risk and short-term.

All applicable mitigation measures in the CoAs and UMMs will be implemented, with any identified additional mitigation measures outlined in Table 4-12.

4.10 Landscape and visual

4.10.1 Existing environment

The Proposed Change areas are located at the boundary of the upper slopes of the South-western Bioregion, characterised by steep, hilly and undulating ranges and granite basins, with open forests and woodlands.

A feature of the landscape and visual catchment across the Proposed Change area, includes the operational rail corridor of the Main South Line. This corridor has largely been cleared of native vegetation and generally consists of grassland with a few scattered trees.

4.10.2 Impact assessment

Under EIS Technical Paper 10, no viewpoints have been assessed for The Rock Yard or Table Top Yard due to the minor nature of the works proposed. Technical Paper 10 also concluded that due to the minor scale of works at The Rock Yard and Table Top Yard, there would be no landscape or visual impacts.

4.10.3 Conclusion

For a detailed consideration on the impact of the Proposed Change areas to non-Aboriginal heritage items and sites (including associated viewpoints) refer to Section 4.5.

All applicable mitigation measures in the CoAs and UMMs will be implemented, with any additional mitigation measures outlined in Table 4-12.

4.11 Matters of national environmental significance

As discussed in Section 1.1, the A2I Project was referred to the Australian Government Minister for the Environment under the EPBC Act due to potential for impacts on protected matters on 2 June 2020 (EPBC Referral No 202/8670). On 29 June 2020, DAWE notified that the proposal is not a controlled action, and hence approval under the EPBC Act is not required.

The Proposed Change is considered against matters of national environmental significance and impacts on Commonwealth land in accordance with the EPBC Act in Table 4-11, which determined that there would be no impacts on matters of national environmental significance, and no referral is required.

Table 4-11: Matters of national environmental significance

FACTOR	IMPACT (YES/NO)	IMPACT DESCRIPTION
Any impact on a World Heritage property?	No	No, there are no impacts on a World Heritage property resulting from the proposed works.
Any impact on a National Heritage place?	No	No, there are no impacts on a National Heritage place resulting from the proposed works.
Any impact on a wetland of international importance?	No	No, there are no impacts on a wetland of international importance resulting from the proposed works.
Any impact on a listed threatened species or communities?	No	No, there are no impacts to threatened species, populations or ecological communities are expected as a result of the proposed activity.

FACTOR	IMPACT (YES/NO)	IMPACT DESCRIPTION
Any impacts on listed migratory species?	No	No, there are no impacts to threatened species, populations or ecological communities are expected as a result of the proposed activity.
Any impact on a Commonwealth marine area?	No	No, there are no impacts on a Commonwealth marine area resulting from the proposed works.
Does the proposal involve a nuclear action (including uranium mining)?	No	No, the proposal does not involve a nuclear action, including uranium mining.
Additionally, any impact (direct or indirect) on Commonwealth land?	No	No, the proposal does not impact Commonwealth land.

4.12 Environmental management measures

Table 4-12 outlines any changes to relevant CoAs and UMMs, called EMMs in this document, that will be implemented as additional management measures for the Proposed Change.

Table 4-12: Additional mitigation measures

ASPECT	NATURE AND EXTENT OF IMPACTS (NEGATIVE AND POSITIVE) DURING CONSTRUCTION (IF CONTROL MEASURES IMPLEMENTED) OF THE PROPOSED CHANGE, RELATIVE TO THE APPROVED PROJECT	PROPOSED CONTROL MEASURES IN ADDITION TO PROJECT COA AND UMM	MINIMAL IMPACT YES/NO	ENDORSED	
				Yes/No	Comments
Traffic and transport	The Proposed Change's scope of works would not result in an increase in the level of impact assessed as part of the A2I EAD and would not impact on the Project's ability to comply with relevant CoAs and UMMs.	No additional mitigation measures required.	Yes		
Noise and vibration	Noise impacts are expected to be short-term and minor in nature.	No additional mitigation measures required.	Yes		
Non-Aboriginal heritage	HAs have been prepared for the Proposed Change that concluded the works may proceed with no additional mitigation measures and potential impacts on non-Aboriginal heritage can be appropriately managed in accordance with the CoAs and UMMs	No additional mitigation measures required.	Yes		
Aboriginal heritage	HAs and AHIMS searches for the Proposed Change have been prepared and conclude that the Proposed Change scope of works would not result in an impact to Aboriginal Heritage	No additional mitigation measures required.	Yes		
Biodiversity	The potential impacts on biodiversity identified for the Proposed Change can be appropriately managed in accordance with the CoAs and through implementation of the UMMs outlined in the Construction Biodiversity Management Plan for the Project.	No additional mitigation measures required.	Yes		
Flood and bushfire risk	The Proposed Change is consistent with level of impact considered as part of the EAD. The	No additional mitigation measures required.	Yes		

	Proposed Change would not involve any major earthworks or other construction activities that would substantially alter the flood regime.				
Soils and contamination	Construction activities at the Proposed Change area would be short term and would be prepared with consideration of the existing soils and contamination characteristics of the area.	No additional mitigation measures required.	Yes		
Air quality	Air quality impacts are expected to be short-term and minor in nature.	No additional mitigation measures required.	Yes		
Landscape and visual	Impacts to landscape sensitivity and night-time visual are expected to be short-term and minor in nature.	No additional mitigation measures required.	Yes		

5 Consistency assessment

Table 5-1 presents a set of questions that assist Inland Rail to determine whether the proposed change can be considered consistent with the Minister's approval.

Table 5-1: Consistency questions

CONSISTENCY QUESTION	DISCUSSION	CONSISTENT
Q1) Are the proposed works being carried out as part of an approved project? E.g. Are works "generally in accordance with" project documents and plans, where relevant?	As considered throughout this document, the Proposed Change is being carried out in accordance with the EAD.	Yes
Q2) Is the modification such a radical transformation of the project as a whole, as to be, in reality, an entirely new project? Note: If answered Yes, a new project application may be required.	The Proposed Change does not constitute a modification and is not a radical transformation of the Project as a whole and is not an entirely new Project.	Yes
Q3) Are the proposed works a modification that is considered "consistent with" the project as approved? This will require the work in question to have environmental impacts contemplated by the approval (such as EA / EIS, CEMP, spoil management plan, heritage management plan or the like), including documents forming part of the approval, or as a minimum, very few additional impacts.	The Proposed Change, as considered in Chapter 2 is considered "consistent with" the Infrastructure Approval. The Proposed Change is considered to be consistent with the impacts contemplated by the EAD outlined in CoA 1 of the Infrastructure Approval.	Yes
Q4) When considering all previous consistency assessments and the potential cumulative impacts, are the proposed works still considered 'consistent with' the project as approved?	The Proposed Change is considered "consistent with" the Project, including any potential cumulative impacts. Any subsequent consistency assessments would be subject separate consideration for potential cumulative impacts.	Yes

6 Monitoring and Reporting

There are no further monitoring or reporting required as a result of the Proposed Change.

7 Conclusion

Based on the consistency assessment in this report, the Proposed Change is considered:

- ☒ Consistent with the Ministers Conditions of Approval, and the Updated Mitigation Measures.
- ☐ ~~Not consistent with the Ministers Conditions of Approval, and the Mitigation Measures. A modification to the Project approval must be prepared and submitted to the Department of Planning Infrastructure and Environment for approval.~~

8 Certification


Author

This consistency assessment provides a true and fair review of the Proposed Change for the Inland Rail – Albury to Illabo Project.

Name: David Lamb	Signature: 
Position: Environment Lead	
Organisation: Martinus Rail	Date: 27/11/2025

Inland Rail

The Proposed Change, subject to the implementation of all the environmental requirements of the Project, is consistent with the Division 5.2 approval.

Name: Susan Kay	Signature: 
Position: Principal Environment Advisor	Date: 27/11/2025
Organisation: Inland Rail	

Name: Malcolm Clark	Signature: 
Position: Project Director (Manager)	Date: <div>Mr Malcolm Clark - Australian Rail Track Corporation</div>
Organisation: Inland Rail	<div>Nov 28, 2025, 9:05 AM GMT+11:00</div>

I have examined the Proposed Changes by reference to the Division 5.2 approval in accordance with Section 5.25(2) of the EP&A Act. I consider that the proposal is consistent with the Division 5.2 approval.

I agree / ~~do not agree~~ with the recommendations of the ~~Insert above signatory e.g. PEL~~ and ~~approve / do not approve~~ of the carrying out the Proposed Change in accordance with those recommendations.

Appendix A Construction Noise and Vibration Impact Statements (SLR)



A2I | Albury to Illabo – Table Top Yard Clearances

Construction Noise and Vibration Impact Statement

Martinus Rail

1/23-27 Waratah Street, Kirrawee, NSW 2232

Prepared by:

SLR Consulting Australia

Tenancy 202 Submarine School, Sub Base
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SLR Project No.: 610.031317.00001

Client Reference No.: R09

20 November 2025

Revision: v2.0

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
v2.0	20 November 2025	Nicholas Vandenberg	Steven Luzuriaga	
v1.1	12 November 2025	Nicholas Vandenberg	Steven Luzuriaga	
v1.0	28 January 2025	Brandon Nguyen Khuong	Steven Luzuriaga	

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Martinus Rail (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.



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Appendix A	Acoustic Terminology
Appendix B	Modelling Scenarios and Equipment
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Acronyms and Abbreviations

AA	The Acoustics Advisor for the CSSI approved by the Planning Secretary
A2I	Albury to Illabo section of the Inland Rail project
ARTC	Australian Rail Track Corporation
AS	Australian Standard
AV:ATG	Assessing Vibration: a technical guideline (DEC, 2006)
BS	British Standard
dBA	A-weighted decibel (referenced 20 µPa)
DPHI	Department of Planning, Housing and Infrastructure
CEMP	Construction Environmental Management Plan
CNVF	Inland Rail NSW Construction Noise and Vibration Framework
CNVMP	Construction Noise and Vibration Management Plan
CSSI	Critical Stage Significant Infrastructure
DEC	Department of Environment and Conservation
DECC	Department of Environment and Climate Change (now NSW EPA)
DIN	Deutsches Institut für Normung (German Institute for Standardisation)
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EPA	Environment Protection Authority
EPL	Environmental Protection Licence
ER	The Environmental Representative(s) for CSSI approved by the Planning Secretary.
HNA	Highly Noise Affected
Hz	Hertz
ICNG	Interim Construction Noise Guideline (DECC, 2009)
IR	Inland Rail
ISO	International Standards Organisation
km	Kilometres
km/h	Kilometres per hour
LAeq	Equivalent continuous noise level, providing a representation of the cumulative level of noise exposure over a defined period.
LAeq(15hour)	The equivalent continuous noise level for the 15-hour daytime period of 7.00 am to 10.00 pm
LAeq(9hour)	The equivalent continuous noise for the 9-hour daytime period of 10.00 pm to 7.00 am
LAeq(1hour)	The equivalent continuous noise for the 1-hour daytime or night-time period that has the potential to result in the greatest noise impact to sensitive receivers.



L _{Amax}	The maximum noise level during the measurement or assessment period. The L _{AFmax} or Fast is averaged over 0.125 of a second and the L _{ASmax} or Slow is averaged over 1-second.
m	Metres
mm	Millimetres
mm/s	Millimetres per second
m/s	Metres per second
MR	Martinus Rail
NCA	Noise Catchment Areas
NML	Noise Management Level
NSW	New South Wales
NPfI	Noise Policy for Industry
OOHW	Out of hours work
PPV	Peak Particle Velocity
RBL	Rating Background Level
TfNSW	Transport for New South Wales
VDV	Vibration Dose Value



Compliance Table

CoA	Requirement	Reference
A1	<p>The Proponent must carry out the CSSI in accordance with the terms of this approval and generally in accordance with the:</p> <ul style="list-style-type: none"> a) Inland Rail – Albury to Illabo Environmental Impact Statement (ARTC, August 2022) b) Albury to Illabo Response to Submissions (ARTC, November 2023) c) Albury to Illabo Preferred Infrastructure Report (ARTC, November 2023) d) Albury to Illabo Preferred Infrastructure Report Response to Submissions (ARTC, February 2024) e) Inland Rail – Albury to Illabo (SSI-10055) Response to request for additional information – Air Quality Assessment (letter dated 1 May 2024) f) Part 1 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024) g) Part 2 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024) 	The CNVMP
A2	The CSSI must only be carried out in accordance with all procedures, commitments, preventative actions, performance criteria and mitigation measures set out in the documents listed in Condition A1 unless otherwise specified in, or required under, this approval.	The CNVMP
C9	<p>The Construction Noise and Vibration Sub-plan must include, but not limited to:</p> <ul style="list-style-type: none"> a) measures to reduce construction to standard ICNG hours where sensitive land uses are likely to be noise affected for more than 3 months; b) an approach to assess and manage construction fatigue from noise impacts on sensitive receivers on an ongoing basis; c) noise sensitive periods identified by the community, religious, educational institutions, noise and vibration-sensitive businesses and critical working areas and measures to ensure noise levels above the NMLs do not occur during sensitive periods in accordance with Condition E76; d) mitigation for construction traffic noise impacts from additional construction traffic and road diversions; e) the location of all heritage items, non-heritage structures and infrastructure likely to be impacted by vibration and measures to manage vibration impacts at those items and structures; and f) vibration levels at a range of distances from vibration intensive equipment such as excavators and vibratory rollers before undertaking works with the specific type and size of equipment. 	The CNVMP
E68	A detailed land use survey must be undertaken to confirm sensitive land use(s) (including critical working areas such as operating theatres and precision laboratories) potentially exposed to construction noise and vibration, construction ground-borne noise and operational noise. The survey may be undertaken on a progressive basis but must be undertaken in any one area before the commencement of work which generates construction or operational noise, vibration or ground-borne noise in that area. The results of the survey must be included in the Noise and Vibration CEMP sub-plan required by Condition C8.	The CNVMP, Section 3.0, Figure 1
E69	<p>Work must be undertaken during the following hours:</p> <ul style="list-style-type: none"> a) 7:00am to 6:00pm Mondays to Fridays, inclusive; 	Section 2.2



CoA	Requirement	Reference
	<p>b) 7:00am to 6:00pm Saturdays; and</p> <p>c) at no time on Sundays or public holidays.</p>	
E70	<p>Except as permitted by an EPL, highly noise intensive works that result in an exceedance of the applicable NML at the same receiver must only be undertaken:</p> <p>a) between the hours of 8:00 am to 6:00 pm Monday to Friday;</p> <p>b) between the hours of 8:00 am to 1:00 pm Saturday; and</p> <p>c) if continuously, then not exceeding three (3) hours, with a minimum cessation of work of not less than one hour.</p> <p>For the purposes of this condition, 'continuously' includes any period during which there is less than one hour between ceasing and recommencing any of the work.</p>	<p>Section 2.2.1, Section 8.2</p>
E71	<p>Notwithstanding Conditions E69 and E70, work may be undertaken outside the hours specified in the following circumstances (a, b, or c):</p> <p>a) Safety and Emergencies, including:</p> <ol style="list-style-type: none"> for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm. <p>On becoming aware of the need for emergency work in accordance with Condition E71(a), the AA, the ER, the Planning Secretary and the EPA must be notified of the reasons for such work. Best endeavours must be used to notify all noise and/or vibration affected residents and owners/occupiers of properties identified sensitive land use(s) of the likely impact and duration of those work.</p> <p>b) Work, that meets the following criteria;:</p> <ol style="list-style-type: none"> construction that causes LAeq(15 minute) noise levels: <ul style="list-style-type: none"> no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and no more than the 'Noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land use(s); and construction that causes LAFmax noise levels no more than 15 dB above the rating background level at any residence during the night period as defined in the ICNG. and construction that causes: <ul style="list-style-type: none"> continuous or impulsive vibration values, measured at the most affected residence no more than the preferred values for human exposure to vibration, specified in Table 2.2 of <i>Assessing Vibration: a technical guideline</i> (DEC, 2006), or intermittent vibration values measured at the most affected residence no more than the preferred values for human exposure to vibration, specified in Table 2.4 of <i>Assessing Vibration: a technical guideline</i> (DEC, 2006). <p>c) By Approval, including:</p> <ol style="list-style-type: none"> where different construction hours, such as those for a rail possession, are permitted under an EPL in force in respect of the CSSI; or works which are not subject to an EPL that are approved under an Out-of-Hours Work Protocol as required by Condition E72; or negotiated agreements with directly affected residents and sensitive land use(s). 	<p>Section 2.3</p>
E72	<p>An Out-of-Hours Work Protocol must be prepared to identify a process for the consideration, management and approval of work</p>	<p>The CNVMP, Section 2.4</p>



CoA	Requirement	Reference
	<p>which is outside the hours defined in Conditions E69, and that are not subject to an EPL. The Protocol must be approved by the Planning Secretary before commencement of the Out-of-Hours Work. The Protocol must be prepared in consultation with the ER, AA and EPA.</p> <p>The Protocol must include:</p> <ul style="list-style-type: none"> a) identification of low and high-risk activities and an approval process that considers the risk of activities, proposed mitigation, management, and coordination, including where: <ul style="list-style-type: none"> i. the ER and AA review all proposed out-of-hours activities and confirm their risk levels, ii. low risk activities can be approved by the ER in consultation with the AA, and iii. high risk activities that are approved by the Planning Secretary; b) a process for the consideration of out-of-hours work against the relevant NML and vibration criteria; c) a process for selecting and implementing mitigation measures for residual impacts in consultation with the community at each affected location, including respite periods. The measures must take into account the predicted noise levels and the likely frequency and duration of the out-of-hours works that sensitive land use(s) would be exposed to, including the number of noise awakening events; d) procedures to facilitate the coordination of out-of-hours work including those approved by an EPL or undertaken by a third party, to ensure appropriate respite is provided; and e) notification arrangements for affected receivers for approved out-of-hours work and notification to the Planning Secretary of approved low risk out-of-hours works. <p>This condition does not apply if the requirements of Condition E71 are met.</p>	
E73	<p>Except as permitted by an EPL, out-of-hours work that may be regulated through the Out-of-Hours Work Protocol as per Condition E72, but is not limited to:</p> <ul style="list-style-type: none"> a) Carrying out work that if carried out during standard hours would result in a high risk to construction personnel or public safety based on a risk assessment carried out in accordance with AS/NZS ISO 31000:2009: "Risk management; or b) where the relevant roads authority has advised the Proponent in writing that carrying out the work during standard hours would result in a high risk to road network performance and a road occupancy licence will not be issued; or c) where the relevant utility service operator has advised the Proponent in writing that carrying out the work during standard hours would result in a high risk to the operation and integrity of the utility network; or d) work undertaken in a rail possession for operational or safety reasons. <p><i>Note: Other out-of-hours works can be undertaken with the approval of an EPL, or through the project's Out-of-Hours Work Protocol for works not subject to an EPL.</i></p>	Section 2.3
E74	<p>Mitigation measures must be implemented with the aim of achieving the following construction noise management levels and vibration objectives:</p> <ul style="list-style-type: none"> a) construction 'Noise affected' NMLs established using the Interim Construction Noise Guideline (DECC, 2009); 	The CNVMP, Section 4.0, Section 8.0



CoA	Requirement	Reference
	<p>b) vibration criteria established using <i>the Assessing vibration: a technical guideline</i> (DEC, 2006) (for human exposure);</p> <p>c) Australian Standard AS 2187.2 - 2006 “<i>Explosives - Storage and Use - Use of Explosives</i>”;</p> <p>d) BS 7385 Part 2-1993 “<i>Evaluation and measurement for vibration in buildings Part 2</i>” as they are “applicable to Australian conditions”; and</p> <p>e) the vibration limits set out in the <i>German Standard DIN 4150-3: Structural Vibration- effects of vibration on structures</i> (for structural damage).</p> <p>Work that exceeds the noise management levels and/or vibration criteria must be managed in accordance with the Noise and Vibration CEMP sub-plan.</p> <p><i>Note: The ICNG identifies ‘particularly annoying’ activities that require the addition of 5 dB(A) to the predicted level before comparing to the construction NML.</i></p>	
E75	<p>Mitigation measures must be applied when the following residential ground-borne noise levels are exceeded:</p> <p>a) evening (6:00 pm to 10:00 pm) — internal LAeq(15 minute): 40 dB(A); and</p> <p>b) night (10:00 pm to 7:00 am) — internal LAeq(15 minute): 35 dB(A).</p> <p>The mitigation measures must be outlined in the Noise and Vibration CEMP sub-plan, including in any Out-of-Hours Work Protocol, required by Condition E72.</p>	Section 4.2.3
E76	Noise generating work in the vicinity of community, religious, educational institutions, noise and vibration-sensitive businesses and critical working areas (such as exam halls, theatres, laboratories and operating theatres) resulting in noise levels above the NMLs must not be timetabled during sensitive periods, unless other reasonable arrangements with the affected institutions are made at no cost to the affected institution.	Section 8.0
E77	At no time can noise generated by construction exceed the National Standard for exposure to noise in the occupational environment of an eight-hour (8hr) equivalent continuous A-weighted sound pressure level of LAeq,8h of 85 dB(A) for any employee working at a location near the CSSI.	Section 8.6
E78	Construction Noise and Vibration Impact Statements (CNVIS) must be prepared for work that may exceed the noise management levels, vibration criteria and/or ground-borne noise levels specified in Condition E74 and Condition E75 at any residence outside construction hours identified in Condition E69, or where receivers will be highly noise affected. The CNVIS must include specific mitigation measures identified through consultation with affected sensitive land use(s) and the mitigation measures must be implemented for the duration of the works. A copy of the CNVIS must be provided to the AA and ER prior to the commencement of the associated works. The Planning Secretary may request a copy/ies of CNVIS.	This report, Section 8.5
E79	Owners and occupiers of properties at risk of exceeding the screening criteria for cosmetic damage must be notified before work that generates vibration commences in the vicinity of those properties. If the potential exceedance is to occur more than once or extend over a period of 24 hours, owners and occupiers are to be provided a schedule of potential exceedances on a monthly basis for the duration of the potential exceedances, unless otherwise agreed by the owner and occupier. These properties must be identified and considered in the Noise and Vibration CEMP Sub-plan required by Condition C8 and the Community Communication Strategy required by Condition B1.	Section 8.0



CoA	Requirement	Reference
E80	Vibration testing must be undertaken before and during vibration generating activities that have the potential to impact on heritage items to identify minimum working distances to prevent cosmetic damage. In the event that the vibration testing and attended monitoring shows that the preferred values for vibration are likely to be exceeded, the construction methodology must be reviewed and, if necessary, additional mitigation measures implemented.	Section 6.1, Section 8.0
E81	Advice from an independent heritage specialist must be sought on methods and locations for installing equipment used for vibration, movement and noise monitoring at heritage-listed structures. <i>Note: The heritage specialist is to provide advice prior to installing equipment that may impact the heritage significance or structural integrity of the heritage listed structures.</i>	Section 8.0
E83	All work undertaken for the delivery of the CSSI, including those undertaken by third parties (such as utility relocations), must be coordinated to ensure respite periods are provided. This must include: a) rescheduling work to provide respite to impacted noise sensitive land use(s) so that the respite is achieved; or b) the provision of alternative respite or mitigation to impacted noise sensitive land use(s); and c) the provision of documentary evidence to the AA in support of any decision made in relation to respite or mitigation. The consideration of respite must also include all other CSSI, SSI and SSD projects which may cause cumulative and/or consecutive impacts at receivers affected by the delivery of the CSSI.	Section 8.0, Section 8.2
E119	The Proponent must coordinate work with adjoining Inland Rail Projects, including any work to relocate or connect utilities, to minimise cumulative and consecutive noise and vibration impacts and maximise respite for affected sensitive land uses. Coordination and mitigation measures must be detailed in the Construction Noise and Vibration management Sub-plan required by Condition C9.	Section 8.0, Section 8.2, Section 9.0
E122	Property damage caused directly or indirectly (for example from vibration or from groundwater change) by the construction or operation must be rectified at no cost to the owner. Alternatively, compensation may be provided for the property damage as agreed with the property owner.	Section 6.1



1.0 Introduction

SLR Consulting Australia Pty Ltd (SLR) has been engaged by Martinus Rail (MR) to prepare a construction noise and vibration impact statement (CNVIS) for the Table Top Yard Clearances. This site forms part of the Albury to Illabo (A2I) section of Inland Rail (the Project). This assessment has been prepared in accordance with the Construction Noise and Vibration Management Plan (CNVMP) for the A2I section of the Project.

This report assesses the potential construction noise and vibration impacts for the Table Top Yard Clearances (ie gantry removal work). An explanation of the specialist acoustic terminology used in this report is provided in **Appendix A**.

2.0 Project Description

Inland Rail is an approximate 1,600 kilometres (km) freight rail network that will connect Beveridge and Kagaru via regional Victoria, New South Wales and Queensland. The Inland Rail route would involve using approximately 1,000 km of existing track (with enhancements and upgrades where necessary) and 600 km of new track, passing through 30 local government areas. Inland Rail will accommodate double-stacked freight trains up to 1,800 metres (m) long and 6.5 m high.

The Albury to Illabo (A2I) section (the Project) forms a key component of the Inland Rail program. It is a 185 km section of existing rail corridor located in regional NSW between the towns of Albury and Illabo. Works would include track realignment, lowering and/or modification within the existing rail corridor, modification, removal or replacement of bridge structures (rail, road and/or pedestrian bridges), raising or replacing signal gantries, level-crossing modifications and other associated works. This CNVIS is associated with the Table Top Yard Clearances (ie gantry removal work).

Relevant noise and vibration conditions from the Conditions of Approval (CoA) are detailed within the compliance table at the beginning of this document and will be complied with during the work.

2.1 Scope of this CNVIS

The focus of this CNVIS is the work associated with the gantry removal works at Table Top Yard. Work at these sites includes:

- Establishment of temporary site facilities, including site office/shed and materials laydown areas
- Site Compound Operation
- Removal and disposal of existing gantry and footings
- Utility and Signalling Works – Removal and replacing existing utilities and signals.

Further details of work activities are outlined in **Section 5.1**. The work area is surrounded by rural residential receivers, Table Top Public School, Ettamogah Grand National Motel and other commercial receivers. The acoustic environment is dominated by road traffic noise from the Hume Highway. The Project location, work areas and surrounding receivers are shown in **Figure 1**.



2.2 Hours of work

In accordance with the Construction Noise and Vibration Management Plan (CNVMP) and CoA E69 construction work must be undertaken within the approved standard construction hours:

- a) 7:00am to 6:00pm Monday to Friday, inclusive;
- b) 7:00am to 6:00pm Saturday and
- c) At no time on Sundays or public holidays.

2.2.1 Highly Noise Intensive Work

As outlined in the CoA E70, any highly noise intensive works that result in an exceedance of the applicable NML at the same receiver must only be undertaken:

- a) Between 08:00am – 06:00pm Monday to Friday;
- b) Between 08:00am – 01:00pm Saturday; and
- c) If continuously, then not exceeding (3) hours, with a maximum cessation of work of not less than one hour.

The CoA defines ‘highly noise intensive works’ as those identified as annoying under the ICNG and include:

- Use of ‘beeper’ style reversing or movement alarms, particularly as night-time;
- Use of power saws, such as used for cutting timber, rail lines, masonry, road pavement or steel work;
- Grinding metal, concrete or masonry;
- Rock drilling;
- Line drilling;
- Vibratory rolling;
- Rail tamping and regulating;
- Bitumen milling or profiling;
- Jackhammering, rock hammering or rock breaking;
- Impact piling.

2.3 Variation to hours of work

Notwithstanding Conditions E69 and E70, work may be undertaken outside the hours specified in the following circumstances (a, b, or c):

- a) Safety and Emergencies
- b) Work, that meets specific criteria
- c) By Approval

Note: refer to **Compliance Table** for further detail.



2.4 Justification of Out of Hours Work (OOHW)

Work activities that may be required or proposed to be undertaken outside of standard working hours will be managed in accordance with the OOHW Protocol as defined in CoA E72 and E73, unless the work is regulated by an EPL.

All work on or adjacent to roads would be carried out in accordance with a relevant Traffic Control Plan (TCP), Road Occupancy Licence (ROL) and/or rail possession to facilitate safe work near live road/rail traffic. Where an ROL/rail possession cannot be obtained for the approved project hours and/or proposed works cannot be undertaken safely during these hours, some works will be required to be undertaken outside of standard hours (ie Out of Hours Work, OOHW).

As outlined in the ICNG, work undertaken on public infrastructure may need to be undertaken outside the recommended standard hours. For this project the need is based on a requirement to sustain the operational integrity of public infrastructure, as works to restore operation of the infrastructure provide benefit to the greater community (ie more than just local residents).

Further detail around the specific work tasks, duration and justification of OOHW must be identified in the OOHW permit, required by the OOHW Protocol or EPL.

3.0 Existing Environment

The existing ambient noise environment was described in Environmental Impact Statement (EIS), Technical Paper 6 – Noise and Vibration (Non-Rail) for the Albury to Illabo project. This section provides details of the existing ambient noise environment relevant to the Table Top Yard Clearances.

The noise catchment area (NCA) used is consistent with the NCAs described in the EIS and are shown in **Figure 1** with the receiver classifications and approximate noise monitoring locations.

A detailed land use survey was undertaken in August 2024 to confirm sensitive land uses within the project area, results of the land use survey have been incorporated into the receiver classifications shown in **Figure 1**.

3.1 Background Noise Levels

Background noise levels have been referenced from the baseline noise survey undertaken as part of the EIS and reproduced in the CNVMP. The background noise levels relevant to the Table Top Yard works are summarised in **Table 1**.

Table 1 Background Noise Levels

Noise Monitoring Location	NCA	Rating background Level (RBL) dBA NPfI defined time periods ¹		
		Daytime period	Evening period	Night-time period
4	4	42	42 ² (51)	42 ³ (46)

Note 1: The assessment periods are the daytime which is 7 am to 6 pm Monday to Saturday and 8 am to 6 pm on Sundays and public holidays, the evening which is 6 pm to 10 pm, and the night-time which is 10 pm to 7 am on Monday to Saturday and 10 pm to 8 am on Sunday and public holidays. See the NSW EPA Noise Policy for Industry (NPfI).

Note 2: The evening RBL data has been reduced to the daytime period RBL in this case (bracketed figures indicates the measured value).

Note 3: The night-time RBL data has been reduced to the evening period RBL in this case (bracketed figures indicates the measured value).



4.0 Assessment Criteria

4.1 Construction Noise and Vibration Guidelines

The standards and guidelines relevant to the Project are listed in **Table 2**. These guidelines aim to protect the community and environment from excessive noise and vibration impacts during construction of projects.

Table 2 Construction Noise and Vibration Standards and Guidelines

Guideline/Policy Name	Where Guideline Used
<i>Inland Rail NSW Construction Noise and Vibration Framework</i> (CNVF)	Assessment and management protocols for airborne noise, ground-borne noise and vibration impacts for construction of NSW Inland Rail projects
<i>Interim Construction Noise Guideline</i> (ICNG) (DECC, 2009)	Assessment of airborne noise impacts on sensitive receivers
<i>Environmental Criteria for Road Traffic Noise</i> (ECRTN) (EPA, 1999)	Contains guidance for assessing potential sleep disturbance impacts
<i>Road Noise Policy</i> (RNP) (DECCW, 2011)	Assessment of construction traffic impacts
<i>BS 7385 Part 2-1993 Evaluation and measurement for vibration in buildings Part 2</i> , BSI, 1993	Assessment of vibration impacts (structural damage) to non-heritage sensitive structures
<i>DIN 4150:Part 3-2016 Structural vibration – Effects of vibration on structures</i> , Deutsches Institut für Normung, 2016	Screening assessment of vibration impacts (structural damage) to heritage sensitive structures, where the structure is found to be unsound
<i>Assessing Vibration: a technical guideline</i> (DEC, 2006)	Assessment of vibration impacts on sensitive receivers
<i>AS2187.2:2006 Explosives – Storage and use Part 2: Use of explosives</i>	Assessment of impacts from blasting activities
<i>Construction Noise and Vibration Guideline (Public Transport Infrastructure)</i> (CNVG-PTI) (Transport for NSW, 2023)	Utilised for minimum working distances for vibration intensive work.

4.2 Noise Management Levels

The noise management levels (NMLs) for residential and other sensitive receivers have been adopted from the CNVMP, as determined in the EIS. Receiver types and locations are shown **Figure 1**.

4.2.1 Residential Receivers

Project-specific NMLs for residential receivers were determined for within the Table Top NCA. NMLs for other sensitive receivers are fixed values adopted from the *Interim Construction Noise Guideline* (ICNG) (DECC, 2009) and outlined in the CNVMP. Residential NMLs for the Table Top NCA surrounding the utilities work site are shown in **Table 3**.



Table 3 Residential Noise Management Levels

NCA	Noise Management Level (LAeq(15minute) - dBA)				Sleep disturbance Screening Level (RBL +15dB or 52 dB)	Sleep Awakening Reaction Level
	Approved Hours (RBL +10dB)	Out of Hours ^{1,2}				
		Daytime (RBL +5dB)	Evening (RBL +5dB)	Night-time (RBL +5dB)		
NCA04	52	47	47	47	57	65

Note 1: Approved Construction Hours are Monday to Saturday 7 am to 6 pm, as defined in CoA E69.

Note 2: Work outside of the Approved Hours is defined as OOHW = Out of Hours Work. Daytime out of hours is Sunday and public holidays between 8 am to 6 pm. Evening is 6pm to 10pm Monday – Sunday (including public holidays). Night-time is 10pm to 7am Monday – Saturday and 10pm to 8am Sunday (including public holidays).

Highly Noise Affected

In addition to the NMLs presented above, the ICNG highly noise affected level (75 dBA) is applicable to all residential receivers during approved project hours as outlined in the CNVMP and the ICNG.

Sleep Disturbance

Where the sleep disturbance screening level (RBL + 15 dB or 52 dB, whichever is greater, see **Table 3**) is exceeded, further assessment is required to determine whether the 'awakening reaction' level of LAmax 65 dBA (external) would be exceeded and the likely number of these events. The awakening reaction level is the level above which residents are likely to be awoken from sleep.

4.2.2 Other Sensitive Land Uses and Commercial Receivers

The ICNG NMLs for 'other sensitive' non-residential land uses are shown in **Table 4**.

The ICNG references *AS2107:2016 Acoustics – Recommended design sound levels and reverberation times for building interiors* for criteria for 'other sensitive' receivers which are not listed in the guideline. Neither the ICNG nor AS2107 provide criteria for child care centres so the Association of Australian Acoustical Consultants *Guideline for Child Care Centre Acoustic Assessment* (GCCCAA) has been referenced.

Table 4 NMLs for 'Other Sensitive' Receivers

Land Use	Noise Management Level LAeq(15minute) (dB) (Applied when the property is in use)	
	Internal	External
ICNG 'Other Sensitive' Receivers		
Classrooms at schools and other educational institutions	45	55 ¹
Hospital wards and operating theatres	45	65 ²
Places of worship	45	55 ¹
Active recreation areas (characterised by sporting activities which generate noise)	-	65
Passive recreation areas (characterised by contemplative activities that generate little noise)	-	60
Commercial	-	70
Industrial	-	75



Land Use	Noise Management Level LAeq(15minute) (dB) (Applied when the property is in use)	
	Internal	External
Non-ICNG 'Other Sensitive' Receivers		
Hotel – daytime & evening ³	50	60 ^{1,5}
Hotel – night-time ³	35	45 ^{1,5}
Child care centres – activity areas ⁴	40	50 ^{1,5}
Child care centres – sleeping areas ⁴	35	45 ^{1,5}
Library ³	45	55 ¹
Public Building ³	50	60 ¹
Aged Care	Considered as Residential	

Note 1: It is assumed that these receivers have windows partially open for ventilation which results in internal noise levels being around 10 dB lower than the external noise level.

Note 2: It is assumed that these receivers have fixed windows which conservatively results in internal noise levels being around 20 dB lower than the external noise level.

Note 3: Criteria taken from AS2107.

Note 4: Criteria taken from Association of Australian Acoustical Consultants Guideline for Child Care Centre Acoustic Assessment.

Note 5: Some receivers near highways or rail lines may have building façade mitigation and air-conditioning. Where evidence is provided a 20dB reduction from external to internal may be adopted

4.2.3 Ground-borne Noise

Construction work can cause ground-borne (structure-borne or regenerated) noise impacts in nearby buildings when vibration intensive equipment is in use, such as during tunnelling or excavation work using tunnel boring machines, roadheaders or rockbreakers. Vibration can be transmitted through the ground and into nearby buildings, which can then create audible noise impacts inside the building.

Ground-borne noise NMLs are applicable where ground-borne noise levels are likely to be higher than airborne noise levels, which can occur where work is underground or where surface work is shielded by noise barriers or other structures or façade mitigation at the receiver. Ground-borne noise is generally found to generate impacts during the evening and night-time periods when ambient noise levels are often much lower, and ground-borne noise is more prominent.

The internal ground-borne noise NMLs for residential receivers are shown in **Table 5**.

Table 5 Internal ground-borne NMLs

Receiver Type	Noise Management Level (LAeq(15minute) – dBA)		
	Daytime ¹	Evening ²	Night-time ²
Residential	n/a	40	35

Note 1: Daytime ground-borne noise NMLs are not specified in the ICNG of CoA.

Note 2: Specified in the ICNG and CoA E75.

For other sensitive receivers,, the ICNG does not provide guidance in relation to acceptable ground-borne noise levels. For the purpose of this CNVIS, the internal airborne NMLs presented in **Table 4** will also be adopted for ground-borne noise.



4.3 Vibration Criteria

The effects of vibration from construction work can be divided into three categories:

- Those in which the occupants of buildings are disturbed (**human comfort**). People can sometimes perceive vibration impacts when vibration generating construction work is located close to occupied buildings. Vibration from construction work tends to be intermittent in nature and the EPA's Assessing Vibration: a technical guideline (2006) (AV:ATG) provides criteria for intermittent vibration based on the Vibration Dose Value (VDV), as shown in **Table 6**. While the construction activities for the proposal are generally not expected to result in continuous or impulsive vibration impacts, corresponding criteria are provided in **Table 7**.
- Those where building contents may be affected (**building contents**). People perceive vibration at levels well below those likely to cause damage to building contents. For most receivers, the human comfort vibration criteria are the most stringent and it is generally not necessary to set separate criteria for vibration effects on typical building contents. Exceptions to this can occur when vibration sensitive equipment, such as electron microscopes or medical imaging equipment, are in buildings near to construction work. No such equipment has been identified in the study area.
- Those where the integrity of the building may be compromised (**structural/cosmetic damage**). If vibration from construction work is sufficiently high it can cause cosmetic damage to elements of affected buildings. Industry standard cosmetic damage vibration limits are specified in British Standard BS 7385 and German Standard DIN 4150. The limits are shown in **Table 8** and **Table 9**.

Table 6 Human Comfort Vibration – Vibration Dose Values for Intermittent Vibration

Building Type	Assessment Period	Vibration Dose Value ¹ (m/s ^{1.75})	
		Preferred	Maximum
Critical Working Areas (eg operating theatres or laboratories)	Day or night-time	0.10	0.20
Residential	Daytime	0.20	0.40
	Night-time	0.13	0.26
Offices, schools, educational institutions and places of worship	Day or night-time	0.40	0.80
Workshops	Day or night-time	0.80	1.60

Note 1: The VDV accumulates vibration energy over the daytime and night-time assessment periods, and is dependent on the level of vibration as well as the duration.



Table 7 Human Comfort Vibration – Preferred and Maximum Weighted Root Mean Square Values for Continuous and Impulsive Vibration Acceleration (m/s²) 1–80 Hz

Location	Assessment period	Preferred values		Maximum values	
		z-axis	x- and y-axis	z-axis	x- and y-axis
Continuous vibration					
Residential	Daytime	0.010	0.0071	0.020	0.014
	Night-time	0.007	0.005	0.014	0.010
Offices, schools, educational institutions and places of worship	Day or night-time	0.020	0.014	0.040	0.028
Workshops	Day or night-time	0.04	0.029	0.080	0.058
Impulsive vibration					
Residential	Daytime	0.30	0.21	0.60	0.42
	Night-time	0.10	0.071	0.20	0.14
Offices, schools, educational institutions and places of worship	Day or night-time	0.64	0.46	1.28	0.92
Workshops	Day or night-time	0.64	0.46	1.28	0.92

Table 8 Cosmetic Damage – BS 7385 Transient Vibration Values for Minimal Risk of Damage

Group	Type of Building	Peak Component Particle Velocity in Frequency Range of Predominant Pulse	
		4 Hz to 15 Hz	15 Hz and Above
1	Reinforced or framed structures. Industrial and heavy commercial buildings	50 mm/s at 4 Hz and above	
2	Unreinforced or light framed structures. Residential or light commercial type buildings	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above

Note 1: Where the dynamic loading caused by continuous vibration may give rise to dynamic magnification due to resonance, especially at the lower frequencies where lower guide values apply, then the guide values may need to be reduced by up to 50%.

Table 9 Cosmetic Damage – DIN 4150 Guideline Values for Short-term Vibration on Structures

Group	Type of Structure	Guideline Values Vibration Velocity (mm/s)				
		Foundation, All Directions at a Frequency of			Topmost Floor, Horizontal	Floor Slabs, Vertical
		1 to 10 Hz	10 to 50 Hz	50 to 100 Hz	All frequencies	All frequencies
1	Buildings used for commercial purposes, industrial buildings and buildings of similar design	20	20 to 40	40 to 50	40	20
2	Residential buildings and buildings of similar design and/or occupancy	5	5 to 15	15 to 20	15	20



Group	Type of Structure	Guideline Values Vibration Velocity (mm/s)				
		Foundation, All Directions at a Frequency of			Topmost Floor, Horizontal	Floor Slabs, Vertical
		1 to 10 Hz	10 to 50 Hz	50 to 100 Hz	All frequencies	All frequencies
3	Structures that, because of their particular sensitivity to vibration, cannot be classified as Group 1 or 2 and are of great intrinsic value (eg heritage listed buildings)	3	3 to 8	8 to 10	8	20 ¹

Note 1: It may be necessary to lower the relevant guideline value markedly to prevent minor damage.

4.3.1 Heritage Buildings or Structures

Heritage listed buildings and structures should be considered on a case-by-case basis but BS 7385 notes that buildings of historical value should not be assumed to be more sensitive to vibration, unless structurally unsound. Where a heritage building is deemed to be sensitive, the more stringent DIN 4150 Group 3 guideline values in **Table 9** can be applied.

Heritage Structures

No heritage buildings or structures have been identified within vicinity of the work areas as per the State Heritage Inventory and Local Environmental Plans. Therefore, no additional consideration or assessment has been undertaken in relation to heritage buildings or structures.

4.3.2 Buried Pipework and Utilities

The German Standard DIN 4150-3:1999 “Structural Vibration Part 3: Effects of vibration in structures” provides guideline values for evaluating the effect of vibration on buried pipework. The values are based on the assumption that pipes have been manufactured and laid using current technology. Additional considerations may be required at junctions. The recommended limits for short term vibration to ensure minimal risk of damage are presented numerically in **Table 10**.

Table 10 Guideline Values for Short Term Vibration on Buried Pipework

Line	Pipe Material	Guideline value at the Pipe ^{1,2} (PPV mm/s)
1	Steel (including welded pipes)	100
2	Clay, concrete, reinforced concrete, pre stressed concrete, metal (with or without flange)	80
3	Masonry, plastic ³	50

Note 1: Mounting equipment directly onto pipes may not be possible. If the vibration source is not immediately next to the pipework, measurements can be made on the ground surface to obtain an estimate. Generally, this vibration level will be greater than the level measured directly on the pipework.

Note 2: The guideline values may be reduced by 50% without further analysis when evaluating the effects of long-term vibration on buried pipework.

Note 3: Drainpipes shall be evaluated using the values given for Line 3.



Buried Pipework and Utilities

No buried pipework or utilities have been identified in this CNVIS at risk of impact from vibration. Therefore, no additional consideration or assessment has been undertaken in relation to buried pipework and utilities.

4.3.3 Minimum Working Distances for Vibration Intensive Work

Minimum working distances for typical vibration intensive construction equipment have been sourced from the Transport for NSW (TfNSW) Construction Noise and Vibration Guideline (Public Transport Infrastructure) (CNVG-PTI) and are shown in **Table 11**. The minimum working distances are for both cosmetic damage (from BS 7385 and DIN 4150) and human comfort (from the NSW EPA Assessing Vibration: a technical guideline). They are calculated from empirical data which suggests that where work is further from receivers than the quoted minimum distances then impacts are not considered likely.

The minimum working distances listed in the CNVG were used to derive the minimum working distances required for cosmetic damage to industrial and heavy commercial buildings (also reinforced or framed structures). The following pseudo-power law relationship has been used in the derivations:

$$V_2 = V_1 \times \left(\frac{D_1}{D_2} \right)^B$$

where a site exponent value of B = 1.6 is adopted for the calculations, as per AS2187.2:2006

Table 11 Recommended Minimum Working Distances from Vibration Intensive Equipment

Plant Item	Rating/Description	Minimum Distance			
		Cosmetic Damage			Human Response (NSW EPA Guideline) ²
		Residential and Light Commercial (BS 7385)	Heritage Items ¹ (DIN 4150, Group 3)	Industrial and Heavy Commercial (BS 7385)	
Vibratory Roller	<50 kN (1–2 tonne)	5 m	11 m	3 m	15 m to 20 m
	<100 kN (2–4 tonne)	6 m	13 m	3 m	20 m
	<200 kN (4–6 tonne)	12 m	25 m	6 m	40 m
	<300 kN (7–13 tonne)	15 m	31 m	8 m	100 m
	>300 kN (13–18 tonne)	20 m	40 m	10 m	100 m
	>300 kN (>18 tonne)	25 m	50 m	12 m	100 m
Small Hydraulic Hammer	300 kg (5 to 12 t excavator)	2 m	5 m	1 m	7 m
Medium Hydraulic Hammer	900 kg (12 to 18 t excavator)	7 m	15 m	4 m	23 m
Large Hydraulic Hammer	1,600 kg (18 to 34 t excavator)	22 m	44 m	11 m	73 m
Vibratory Pile Driver	Sheet piles	2 m to 20 m	5 m to 40 m	1 to 10 m	20 m
Piling Rig – Bored	≤ 800 mm	2 m (nominal)	5 m	1 m	4 m



Plant Item	Rating/Description	Minimum Distance			
		Cosmetic Damage			Human Response (NSW EPA Guideline) ²
		Residential and Light Commercial (BS 7385)	Heritage Items ¹ (DIN 4150, Group 3)	Industrial and Heavy Commercial (BS 7385)	
Jackhammer	Hand held	1 m (nominal)	3 m	1 m	2 m
Ballast Tamping ²	N/A	5 m	10 m	3 m	30 m

Note 1: Minimum working distances for heritage items that have been identified as structurally unsound or otherwise particularly sensitive to vibration. These distances have been calculated based on the 2.5 mm/s PPV criteria from DIN 4150 and the cosmetic damage minimum working distances presented in the CNVG-PTI with reference to BS 7385.

Note 2: Based on SLR measurement data. The human response minimum working distance for Ballast Tamping is determined based on a residential night-time preferred VDV criterion.

The minimum working distances are indicative and will vary depending on the particular item of equipment and local geotechnical conditions. The distances apply to cosmetic damage of typical buildings under typical geotechnical conditions.

4.4 Traffic on Surrounding Roads

The potential impacts from project related traffic on the surrounding public roads are assessed using the NSW EPA *Road Noise Policy* (RNP). An initial screening test is first applied to evaluate if existing road traffic noise levels are expected to increase by more than 2.0 dB. Where this is considered likely, further assessment is required using the RNP criteria shown in **Table 12**.

Table 12 RNP/NCG Criteria for Assessing Traffic on Public Roads

Road Category	Type of Project/Land Use	Assessment Criteria (dB)	
		Daytime (7 am – 10 pm)	Night-time (10 pm – 7 am)
Freeway/ arterial/ sub-arterial roads	Existing residences affected by additional traffic on existing freeways/arterial/sub-arterial roads generated by land use developments	LAeq(15hour) 60 (external)	LAeq(9hour) 55 (external)
Local roads	Existing residences affected by additional traffic on existing local roads generated by land use developments	LAeq(1hour) 55 (external)	LAeq(1hour) 50 (external)



5.0 Noise Assessment

The potential construction noise levels from the Project have been predicted using ISO 9613:2 algorithm in SoundPLAN noise modelling software. The model includes ground topography, buildings and representative noise sources from the Project.

5.1 Work Scenario

Noise modelling scenarios have been determined based on key Project noise generating stages, supplied by the Project team. A detailed description of each work scenario and the total sound power levels (Lw) are provided in **Table 13**. A summary of construction work periods and schedule required for each scenario is shown in **Table 14**, as per the working hours defined in the CNVMP. The location of the various work scenarios is shown in **Figure 2**.

Table 13 Work Scenario Descriptions

ID	Scenario	Description	Total Lw
W.001	Site Establishment/ Demobilisation	<ul style="list-style-type: none"> Site Compound delivery and set up Laydown construction 	111
W.002	Compound Operation	<ul style="list-style-type: none"> Operation of the site compound Delivery/removal of materials/equipment 	109
W.003	Removal of Gantry and Footings	<ul style="list-style-type: none"> Removal of existing gantry and gantry footings 	120
W.004	Signalling Work	<ul style="list-style-type: none"> Removal and replacement of existing signals and utilities as necessary 	104
W.005	Utility Work		111

Table 14 Scenarios and Periods of Work

ID	Scenario	Hours of Work				Indicative Start Date	Likely Duration
		Approved Hours	Out-of-Hours Work ⁴				
			Day OOH ¹	Evening ²	Night ³		
W.001	Site Establishment/ Demobilisation	✓	✓	-	-	December 2025	1 month
W.002	Compound Operation	✓	✓	✓	✓		
W.003	Removal of Gantry and Footings	✓	✓	✓	✓		
W.004	Signalling Work	✓	✓	-	-		
W.005	Utility Work	✓	✓	-	-		

Note 1: Daytime out of hours is 8 am to 6 pm on Sunday and public holidays.

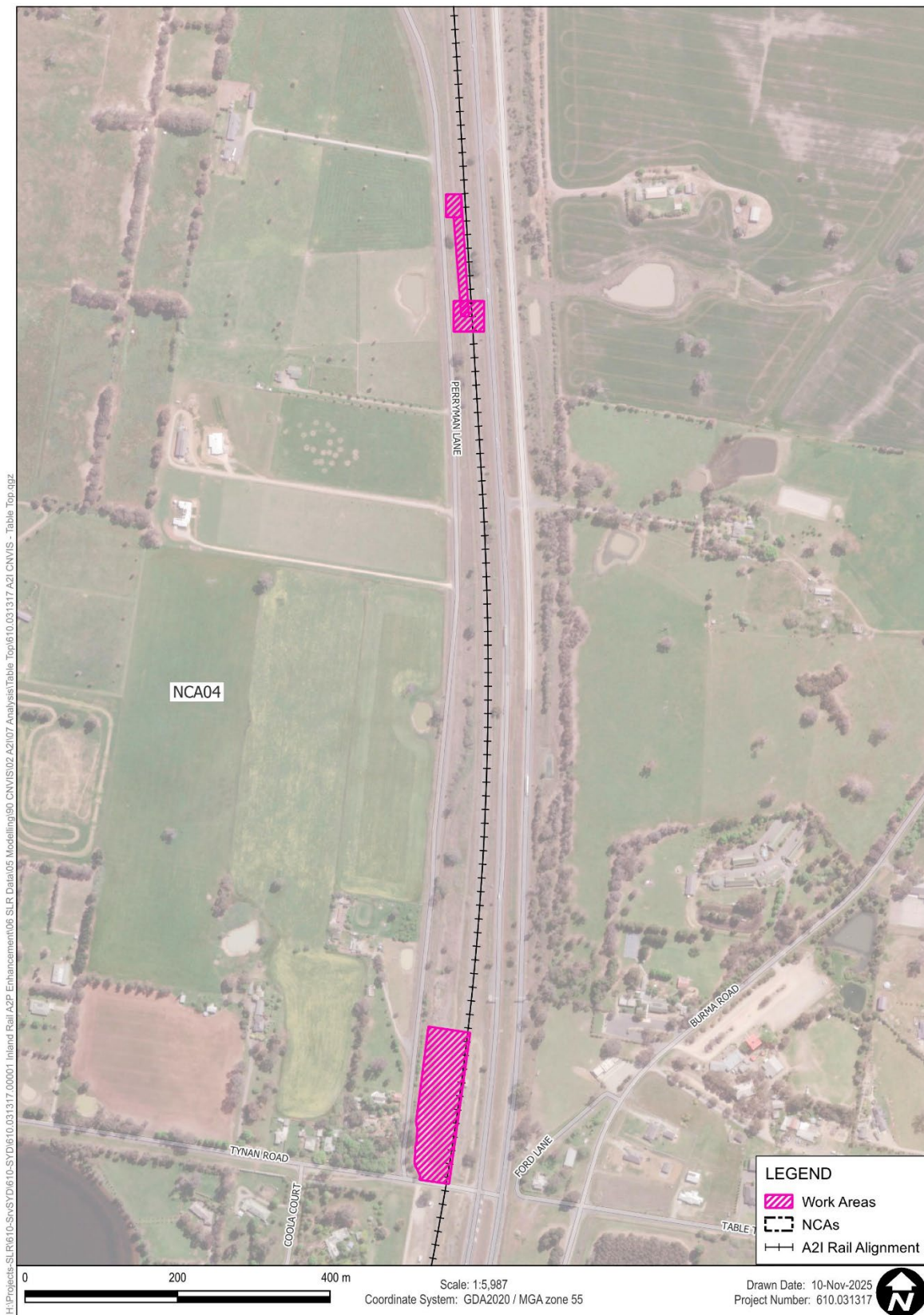
Note 2: Evening is 6 pm to 10 pm Monday – Sunday (including public holidays).

Note 3: Night is 10 pm to 7 am Monday – Saturday and 10pm to 8am Sunday (including public holidays).

Note 4: Where works are expected to occur outside of the standard working hours, further detail around the specific work tasks, duration and justification of OOHW must be identified in the OOHW permit, required by the OOHW Protocol or EPL.



Figure 2 Construction Work Location



5.1.1 Modelling Scenarios and Equipment

The assessment uses ‘realistic worst-case’ scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario, as required by the ICNG. Sound power levels (L_W) for the construction equipment used in the modelling are listed in **Appendix B**.

5.2 Predicted Noise Levels

The following overview is based on the predicted impacts at the most affected receivers and is representative of the worst-case noise levels that are likely to occur during construction.

The assessment shows the predicted ‘mitigated’ impacts based on the exceedance of the noise management levels, as per the categories in **Table 15**. The mitigation and management measures adopted for this CNVIS are provided in **Section 8.0**.

Table 15 Exceedance Bands and Impact Colouring

Subjective Classification	Exceedance of Noise Management Level		Impact Colouring
	Daytime	Out of Hours	
Negligible	No exceedance	No exceedance	
Noticeable	-	1 to 5 dB	
Clearly Audible	1 to 10 dB	6 to 15 dB	
Moderately Intrusive	11 to 20 dB	16 to 25 dB	
Highly Intrusive	> 20 dB	> 25 dB	

A summary of the number of buildings where NML exceedances were predicted for the various work scenarios is shown in **Table 16**. The number of receivers above the ‘highly noise affected’ (HNA) level are also included in the table. Maps of the predicted worst-case noise impacts are presented in **Appendix C**. Where works are not predicted to result in exceedances, maps have not been provided.

The assessment presents the combined predicted noise impacts for each scenario. Meaning, the worst-case result at each receiver is considered from all potential work areas where each scenario is to be undertaken.

The assessment is generally considered conservative as the calculations assume several items of construction equipment are in use at the same time within individual scenarios. As outlined in **Section 5.1.1**, the assessment uses ‘realistic worst-case’ scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario.

The exceedances shown in **Table 16** are therefore representative of a ‘realistic worst-case’ 15-minute period, and are unlikely to occur for extended periods of time throughout the entire construction period at any given receiver.

The indicative work durations presented in **Table 14** represent a window of time where the scenarios could occur, and does not represent the entire duration of the exceedances shown in **Table 16**.

In reality, there would frequently be periods when construction noise levels are much lower than the worst-case levels predicted as well as times when no equipment is in use and no noise impacts occur.



Table 16 Overview of NML Exceedances

ID	Scenario	HNA ¹	Number of Receivers																
			With NML exceedance (dB) ²																
			Approved Daytime			Out of Hours													
						Daytime OOH				Evening				Night-time				Sleep Disturbance	Sleep Awakening
			1-10	11-20	>20	1-5	6-15	16-25	>25	1-5	6-15	16-25	>25	1-5	6-15	16-25	>25	>Screening Level (57)	>65 dB
Residential Receivers																			
W.001	Site Establishment/ Demobilisation	-	5	2	-	11	5	2	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W.002	Compound Operation	-	6	1	-	6	6	1	-	6	6	1	-	6	6	1	-	8	2
W.003	Removal of Gantry and Footings	-	7	-	-	1	7	-	-	1	7	-	-	1	7	-	-	8	3
W.004	Signalling Work	-	-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W.005	Utility Work	-	-	-	-	3	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other Sensitive Receivers																			
W.001	Site Establishment/ Demobilisation	n/a	-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W.002	Compound Operation	n/a	-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W.003	Removal of Gantry and Footings	n/a	-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W.004	Signalling Work	n/a	-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W.005	Utility Work	n/a	-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note 1: Highly noise affected, based on ICNG definition (i.e. predicted LAeq(15minute) noise at residential receiver is greater than 75 dBA).

Note 2: Based on worst-case predicted noise levels



A summary of the predicted worst-case noise levels is shown below:

- ‘Moderately Intrusive’ impacts are predicted at the nearest residential receivers for ‘W.001 – Site Establishment/ Demobilisation’ and ‘W.002 – Compound Operations’ during approved daytime hours and Daytime OOHWs.
 - ‘Moderately Intrusive’ impacts are predicted at the nearest residential receiver for ‘W.002 – Compound Operations’ during the evening and night-time works.
- ‘Clearly audible’ impacts are predicted at the nearest residential receivers for, ‘W.003 – Removal of gantry and footings’ during approved daytime hours.
 - ‘Clearly audible’ noise impacts are also predicted at these receivers during Daytime, Evening and Night-time OOHWs for “W.003 – Removal of Gantry and Footings”.
- For Daytime OOHWs associated with W.001, W.002, W.003 and W.005, ‘noticeable’ impacts are also predicted for residential receivers surrounding the works.
- Noise generating activities during approved daytime hours from ‘W.004 – Signalling work’ are predicted to be below the NML for all sensitive receivers.
- Noise levels are predicted to exceed the sleep disturbance screening level at up to 15 residential receivers in total and the sleep awakening criteria at up to five residential receivers in total during W.002 – Compound Operations’ and W.003 – Removal of Gantry and Footings’. Sleep disturbance impacts would generally be caused by the air compressor in W.002 and the excavator with hammer in W.003 when works occur near residential receivers. Where reasonable and feasible, these activities should be limited to less sensitive periods to avoid noise impact during more sensitive out-of-hours periods (refer to **Section 8.0**). The number of awakening events would depend on several factors, including the equipment being used, the duration of noisy work and the distance of the work to each residential receiver. Further detail around specific OOHW, (eg duration and justification) must be identified in the OOHW permit, refer to **section 2.4**.
- No impacts above the NMLs are expected at any ‘other sensitive’ receivers surrounding the works during all works periods.
- No Highly Noise Affected (HNA) receivers or ‘Highly intrusive’ impacts are predicted during any works scenarios in any works period.

All appropriate feasible and reasonable construction noise mitigation measures will be applied to work as outlined in **Section 8.0**.

5.3 Ground-borne Noise

Ground-borne construction noise impacts from the Project are not anticipated as vibration intensive work with the potential to generate perceptible ground-borne noise, is not included in the scope of work. Vibration intensive work for the Project will be completed outdoors meaning airborne noise levels at the nearest receivers are expected to be higher than the corresponding internal ground-borne noise levels.

Where airborne noise levels are higher than ground-borne noise levels it is not necessary to evaluate potential ground-borne noise impacts and as such, they have not been considered further for this assessment.



6.0 Vibration Assessment

Vibration intensive items of equipment that would be required during work assessed in this CNVIS include a Medium Hydraulic Hammer. This item of equipment is required during the work as shown in **Table 17**.

The potential impacts during vibration intensive work have been assessed using the Transport CNVG-PTI minimum working distances for cosmetic damage and human response shown in **Table 17**.

Table 17 Vibration Intensive Equipment

ID	Scenario	Rating/Description	Minimum Distance			
			Cosmetic Damage			Human Response (NSW EPA Guideline)
			Residential and Light Commercial (BS 7385)	Heritage Items (DIN 4150, Group 3)	Industrial and Heavy Commercial (BS 7385)	
W.003	Removal of Gantry and Footings	Medium Hydraulic Hammer: 900 kg (12 to 18 t excavator)	7 m	15 m	4 m	23 m

Vibration offset distances have been determined from the TfNSW CNVG-PTI minimum working distances for cosmetic damage and human comfort (see **Table 11** and the assessment is summarised in **Figure 3**). The offset distances are representative of the highest vibration levels that would likely be experienced by the nearest receivers when work occurs nearby.

For most construction activities, vibration emissions are intermittent in nature and for this reason, higher vibration levels occurring over shorter time periods are allowed.

In the event that additional work is undertaken which requires the use of other items of plant than those identified in **Table 17**, a vibration impact assessment must be conducted prior to the commencement of work.



Figure 3 Construction Vibration Minimum Working Distances



6.1 Cosmetic Damage Assessment

Figure 3 shows that all nearby sensitive receivers are outside the minimum working distance for cosmetic damage. Therefore, cosmetic damage impacts are not considered likely.

All appropriate feasible and reasonable construction vibration mitigation measures should still be applied in accordance with the CNVMP. Mitigation and management measures are discussed in **Section 8.0**.

6.2 Human Comfort Assessment

Figure 3 shows that all nearby sensitive receivers are outside the minimum working distance for human comfort impacts. Therefore, human comfort impacts are not considered likely.

All appropriate feasible and reasonable construction vibration mitigation measures should still be applied in accordance with the CNVMP. Mitigation and management measures are discussed in **Section 8.0**.



7.0 Construction Traffic Assessment

The EIS identified that during the construction phase of the project, heavy vehicles would be required for materials and equipment delivery while light vehicles will transport workers to and from the site. This additional road traffic may impact receivers along the proposed transport routes.

No additional information has been provided regarding construction road traffic, therefore a summary of the predicted daytime traffic noise levels from the EIS is shown in **Table 18**.

Table 18 Construction Traffic Assessment

Traffic Route	Road Type	Predicted Construction Traffic Noise (Both Directions) LAeq (Period)		Exceed base criterion? Day ¹ <small>(7am – 10pm)</small>	Potential Increase > 2dB	Potential Noise Impact
		Existing	Existing + Proposed			
Table Top						
Perryman Lane	Local	51.8	52.8	No	No	No
Tynan Road	Local	51.0	51.9	No	No	No
Hume Highway	Arterial	66.5	66.6	Yes	No	No

Note 1: Freeway/arterial/sub-arterial roads: LAeq(15hour) 60dBA(external)
Local roads: LAeq(1hour) 55dBA (external)

The EIS found that construction traffic associated with the Table Top Yard clearance work on public roads is likely to comply with the road traffic noise goals during the daytime period.

The EIS did not assess construction traffic during the night-time period, and no additional information has been provided regarding construction road traffic. Therefore, it is conservatively assumed that:

- where night-time construction traffic is required, impacts would be experienced by residences along construction routes on sub-arterial and local roads within close proximity to the work sites. Night-time noise impacts are not anticipated on arterial roads.

Notwithstanding, mitigation and management measures to assist in minimising noise impacts from construction traffic are shown in **Section 8.0**.



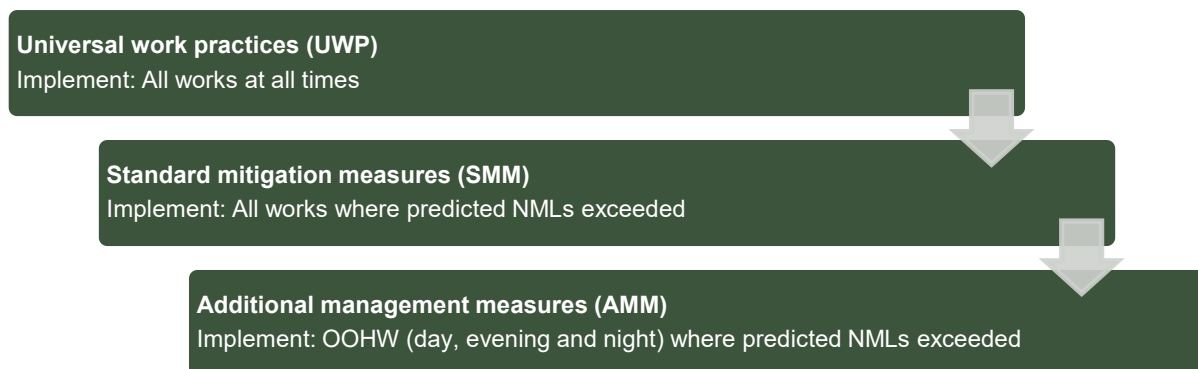
8.0 Mitigation and Management Measures

Noise from the Project may be apparent at the nearest receivers at certain times during the construction of. The Project should apply all feasible and reasonable mitigation measures to minimise the impacts.

In accordance with CoA E74, works that exceed the noise management levels and/or vibration criteria must be managed in accordance with the CNVMP.

The Inland Rail NSW Construction Noise and Vibration Framework (CNVF) has been adopted as a guideline for this project and outlines a hierarchy of work practices and mitigation measures to minimise the impact of construction noise and vibration on the community. This hierarchy is shown in **Figure 4**.

Figure 4 Hierarchy of Work Practices and Mitigation Measures



The universal work practices (UWP) and standard mitigation measures (SMM) for the overall A2I project are outlined in the CNVMP. All mitigation and management measures outlined in the CNVMP will be adopted in accordance with CoA E74. Site specific mitigation measures are outlined below in **Section 8.1**. Where possible these measures have been incorporated into the noise modelling assessment to provide mitigated results. Additional Management Measures (AMM) are outlined in **Section 8.3**.

8.1 Site Specific Mitigation Measures

Table 19 outlines the mitigation and management measures that will be adopted to minimise potential noise and vibration impacts associated with this CNVIS at surrounding sensitive receivers. These measures have been considered in noise modelling based on the total scenario sound power levels, refer **Appendix B**.

Table 19 Site Specific Mitigation Measures

Measure	Reference / Notes
Project Planning	
Use quieter and less vibration emitting construction methods where feasible and reasonable.	Best practice
Works will be completed during the approved daytime construction hours where possible, as outlined in Section 2.2 . Some unavoidable OOHW will be required due to road and rail traffic management restrictions, as outlined in Section 2.3 .	Best practice CoA E69 CoA E71



Measure	Reference / Notes
Where OOHW is required, an OOHW Permit will be prepared, as required by the OOHW Protocol or EPL. Further detail around the specific work tasks, duration and justification of OOHW must be identified in the OOHW permit.	Best practice CoA E71 CoA E72 CoA E73
Scheduling	
Highly noise intensive works that result in an exceedance of the applicable NML at the same receiver must only be undertaken: a) Between 08:00am – 06:00pm Monday to Friday; b) Between 08:00am – 01:00pm Saturday; and c) if continuously, then not exceeding three (3) hours, with a minimum cessation of work of not less than one hour. Refer Section 8.2 .	Best practice CoA E70
Noise generating work in the vicinity of community, religious, educational institutions, noise and vibration-sensitive businesses and critical working areas (such as exam halls, theatres, laboratories and operating theatres) resulting in noise levels above the NMLs will not be timetabled during sensitive periods, unless other reasonable arrangements with the affected institutions can be made at no cost to the affected institution. Refer to Community Consultation in Section 8.5 .	Best practice CoA E76
All work undertaken for the delivery of the project including those undertaken by third parties (such as utility relocations), must be coordinated to ensure respite periods are provided.	Best practice, CoA E83
Site Layout	
Compounds and worksites have been designed to promote one-way traffic and minimise the need for vehicle reversing.	Best practice
Construction activities must be planned to minimise vehicle movements around the Site.	
Work compounds, parking areas, and equipment and material stockpiles would be positioned away from noise-sensitive locations and take advantage of existing screening from local topography.	
Equipment that is noisy would be started away from sensitive receivers, where practicable.	
Training	
Training will be provided to all personnel on noise and vibration requirements for the project. Inductions and toolbox talks to be used to inform personnel of the location and sensitivity of surrounding receivers.	Best practice
The induction protocols must include awareness of noise generating activities and mitigation measures and techniques that should be implemented.	
Training must be conducted for appropriate community behaviours when access/egress the Site.	
Plant and Equipment Source Mitigation	
All plant and equipment must be maintained in a proper and efficient condition, operated in a proper and efficient manner, and feature standard noise reduction measures where applicable.	Best practice CNVF
Plant and equipment must be selected that can be fitted with options to minimise noise such as covers, mufflers, shrouds and other noise suppression equipment. Low noise emission plant and equipment must be selected where available. These considerations have been included in noise modelling based on the equipment sound power levels, refer Appendix B .	



Measure	Reference / Notes
Non-tonal reversing beepers (or an equivalent mechanism) must be fitted and used on all construction vehicles and mobile plant regularly used on site and for any out-of-hours work, including delivery vehicles.	
Stationary noise sources will be sited behind structures (or temporary screens) that act as barriers, or at the greatest distance from the noise-sensitive area (where practicable). Equipment will be oriented so that noise emissions are directed away from any sensitive areas.	
Noise generating equipment will be regularly checked and effectively maintained, including checking of hatches/enclosures regularly to ensure that seals are in good condition and doors close properly against seals.	
Noise monitoring spot checks of equipment will be completed to ensure individual items are operating as expected	
Dropping materials from a height will be avoided.	
Loading and unloading will be carried out away from noise sensitive areas, where practicable.	
Construction Traffic	
Construction traffic routes to site will be limited to major roads where possible.	Best practice
Trucks will not queue outside residential properties.	
Truck drivers will be instructed to avoid compression braking as far as practicable.	
Delivery vehicles should be fitted with straps rather than chains for unloading, wherever possible.	
Truck movements will be kept to a minimum where possible (ie trucks are fully loaded on each trip).	
Screening	
Install purpose-built screening or enclosures around long-term fixed plant that has the potential to impact nearby receivers	Best practice CNVF
The layout of the site will take advantage of existing screening from local topography, where possible. Site huts, maintenance sheds and/or containers will be positioned between noisy equipment and the affected receivers.	
Implementation of temporary noise barriers for highly intensive noise activities, such as saw cutting or rock breaking.	
Community Consultation	
Regular communications on the activities and progress of the proposal shall be provided to the community (eg via newsletter, email and/or website).	Best practice CNVF
A telephone, email and web-based community information service shall be established to allow the community to obtain additional information on construction activities, provide feedback or make a complaint.	Best practice CNVF
Notification will be provided to all impacted residences along construction traffic routes.	Best practice
Where complaints are received, work practices will be reviewed and feasible and reasonable practices applied to minimise any further impacts.	Best practice
Monitoring	
Noise and/or vibration monitoring will be conducted (as appropriate) when noise/vibration intensive works are being undertaken in close proximity to sensitive receivers.	Best practice CNVF CoA E80
Noise and vibration monitoring will be undertaken in accordance with the CNVMP and Monitoring Program.	CoA E81



Measure	Reference / Notes
Advice from a heritage specialist must be sought on methods and locations for installing equipment used for vibration, movement and noise monitoring at heritage-listed structures.	
See Section 8.7 for details of monitoring requirements.	
Vibration	
No vibration impacts are anticipated for this CNVIS. In the event that additional vibration generating work is undertaken which requires the use of other items of plant (not assessed in this CNVIS), a vibration impact assessment must be conducted prior to the commencement of work.	Best practice

8.2 Respite

In accordance with CoA E70, except as permitted by an EPL, highly noise intensive works that result in an exceedance of the applicable NML at the same receiver must only be undertaken:

- a) *Between 08:00am – 06:00pm Monday to Friday;*
- b) *Between 08:00am – 01:00pm Saturday; and*
- c) *if continuously, then not exceeding three (3) hours, with a minimum cessation of work of not less than one hour.*

For the purposes of this condition, ‘continuously’ includes any period during which there is less than one hour between ceasing and recommencing any of the work.

In accordance with CoA E72 and E83, the procedure outlined in the OOHV Protocol must be implemented to coordinate OOHV (including those approved by an EPL or undertaken by a third party), to ensure appropriate respite is provided. This coordination must include:

- a) rescheduling work to provide respite to impacted noise sensitive land use(s) so that the respite is achieved; or
- b) the provision of alternative respite or mitigation to impacted noise sensitive land use(s); and
- c) the provision of documentary evidence to the AA in support of any decision made in relation to respite or mitigation.

The consideration of respite must also include all other CSSI, SSI and SSD projects which may cause cumulative and/or consecutive impacts at receivers affected by the delivery of the CSSI.

Highly noise intensive works (as defined in **Section 2.2.1**) are required in various work scenarios. As outlined above, highly noise intensive work that results in an exceedance of the applicable NML is restricted to the hours shown above and must have respite periods as defined above.

CoA E70 applies to the following work scenarios where highly noise intensive works are proposed and the NML is predicted to be exceeded:

- W.003 – Removal of Gantry and Footings

In accordance with CoA E71, W.003 requires approval through the OOHV Protocol or an EPL to occur outside the hours listed above from CoA E70.

Respite offers are also required as part of the additional mitigation measured outlined in **Section 8.3**.



8.3 Additional Mitigation and Management Measures for Out of Hours Work

Where the ‘mitigated’ construction noise levels remain above the NMLs, the Additional Mitigation Measures Matrix (AMMM) adapted from in the CNVF and CNVMP is to be implemented. The approach, guided by the AMMM, is primarily aimed at pro-active engagement with affected sensitive receptors rather than additional noise reducing mitigation. OOHW has been divided into three periods (Day, Evening and Night) as adapted from the CNVF around the approved project hours (CoA E69).

Additional mitigation measures described in the CNVMP are listed in **Table 20**. The additional mitigation measures to be adopted for airborne noise are identified in **Table 21**.. The additional mitigation measures for construction vibration are identified in **Table 22**.

Table 20 Additional Mitigation Measures

Mitigation/Management Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

Note 1: As outlined in the CNVF, Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.

Note 2: As outlined in the CNVF, Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.

Note 3: As outlined in the CNVF, Respite Offers are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.



Table 21 Airborne Noise – Additional Mitigation Measures Matrix

Time Period		Exceedance of NML	Perception	Duration	Communication Category/ Management Measure
OOHW Daytime Period	Sunday 8am – 6pm (including public holidays)	<5	Noticeable	Any	CO1
		5-15	Clearly audible	Any	CO1
		16-25	Moderately intrusive	Any	CO1, CO2
		>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period	Monday – Sunday 6pm – 10pm (including public holidays)	<5	Noticeable	Any	CO1
		5-15	Clearly audible	Any	CO1
		16-25	Moderately intrusive	Any	CO1, CO2
		>25	Highly intrusive	Any	CO1, CO2
				>2 consecutive rest periods	CO1, CO2, RO
OOHW Night Period	Monday – Saturday 10pm – 7am	<5	Noticeable	Any	CO1
		5-15	Clearly audible	Any	CO1
	Sunday 10pm – 8am (including public holidays)	16-25	Moderately intrusive	Any	CO1, CO2
				>2 consecutive sleep periods	CO1, CO2, RO, AO
	>25	Highly intrusive		Any	CO1, CO2, RO
				>2 consecutive sleep periods	CO1, CO2, RO, AO, AltA

Note 1: Where the duration exceeds 2 consecutive rest/sleep periods, the corresponding additional mitigation measures will be provided for all periods where construction exceedances are expected to occur.

Table 22 Vibration – Additional Mitigation Measures Matrix

Time Period		Duration	Exceedance of 'preferred' value	Exceedance of 'maximum' value
OOHW Daytime Period	Sunday 8am – 6pm (including public holidays)	Any	CO1, CO2	CO1, CO2, RO
OOHW Evening Period	Monday – Sunday 6pm – 10pm (including public holidays)	Any	CO1, CO2	CO1, CO2, RO



Time Period		Duration	Exceedance of 'preferred' value	Exceedance of 'maximum' value
OOHW Night Period	Monday – Saturday 10pm – 7am Sunday 10pm – 8am (including public holidays)	Any	CO1, CO2, RO	CO1, CO2, RO, AltA

8.3.1 Receivers Eligible for Additional Mitigation Measures - Noise

The receivers eligible for additional mitigation and management measures due to construction noise from the project work are presented in **Appendix C** and **Appendix D**. where work occurs for greater than two consecutive evening or nights, receivers may be eligible for respite offers (RO) depending on the exceedance level and works period as detailed in **Table 21**.

The addresses of the impacted receivers for potential OOHW are provided in **Appendix D**.

Any proposed works outside of the approved daytime hours will need to be assessed as part of the OOHW permit preparation discussed in **Section 2.4**. Where possible, work would be scheduled to avoid impacting the same receiver for more than two consecutive sleep periods. Where receivers that would be impacted for more than two consecutive sleep periods must be identified in the OOHW permit.

8.3.2 Receivers Eligible for Additional Mitigation Measures - Vibration

As defined in **Section 2.2.1** and **Section 8.2** activities involving high noise generating equipment, such as rock hammering or rock breaking, are limited to specific daytime construction hours only. Respite periods of 1 hour after every 3 hours of high noise/vibration generating work are also required.

Figure 3 also demonstrates that all surrounding sensitive receivers fall outside the minimum working distances for Human Comfort. Therefore, no additional mitigation from vibration activities is required.

Any proposed works outside of the approved daytime hours will need to be assessed as part of the OOHW permit preparation discussed in **Section 2.4**.

8.4 Community Notification

As detailed in the standard management measures outlined in the CNVF.:

- A telephone, email and web-based community information service will be established to allow the community to obtain additional information on construction activities, provide feedback or make a complaint.
- Regular communications on the activities and progress of the proposal shall be provided to the community (e.g. via newsletter, email and/or website).

8.5 Consultation with Affected Receivers

8.5.1 Consultation Approach

This section discusses the consultation approach that has been undertaken for the purposes of the work subject to this CNVIS. It is noted that consultation with affected sensitive land users on what specific mitigation measures they may require is considered to be an ongoing and live process and as such, measures that are personal to individual affected sensitive



land user(s) will not be regularly documented in this CNVIS. Consultation records will be made available to the AA upon request.

The purpose of this consultation is to identify receivers who have specific circumstances that need further consideration during construction – for example, households who have children undertaking exams (HSC or similar), households who have vulnerable persons with disabilities or medical conditions, shift workers, etc.

The consultation approach utilised by Martinus Rail is in accordance with the Community Communications Strategy. The approach involved directly contacting the affected sensitive land user identified by this CNVIS through one or more of the following methods:

- Surveys distributed by email and paper notifications
- Door-knocks with a 'Sorry we missed you' card for those who were not at home
- Notifications
- Phone calls
- Emails
- Community briefings / group meetings.

Affected sensitive land users contacted by Martinus Rail have been made aware of the anticipated duration and nature of construction works that may affect them, as well as mitigation measures that will be implemented in accordance with the CEMP and CNVMP. Contact information for Martinus Rail's Community Team have been provided to assist with ongoing consultation during construction.

Depending on individual needs and circumstances, specific mitigation measures offered by Martinus Rail could include but are not limited to:

- Offers of individually agreed respite to highly noise affected sensitive land users (standard construction hours)
- Consultation on timetabling of highly noise intensive works to avoid sensitive periods
- Offers of attended noise monitoring at the premises to confirm actual levels of impact
- Offers of temporary alternative accommodation or work space
- Individual briefings.

Specific mitigation measures identified in consultation with individual affected sensitive land users will be implemented during works subject to this CNVIS. Further mitigation measures may be identified by the affected community as construction progresses and these will be assessed where reasonable and feasible and on a case by-case basis.

8.5.2 Consultation For This CNVIS

The project website includes the following key information:

- Latest approvals
- All management plans, including the CNVMP and the Construction Environmental Management Plan (CEMP), which provide information on the relevant environmental management measures
- Notifications, including three-month lookaheads, monthly updates and specific OOHW notifications



- Contact mechanisms, including requests for feedback and/or complaints on individual circumstances.

As part of the project's program of regular notifications, the following notifications have included information on the OOHW requirements subject to this CNVIS:

- Project-wide monthly notifications distributed to over 25,000 properties
- Work specific notifications
- Three-month lookahead notifications distributed to over 25,000 properties
- Regular emails with details of upcoming work or changes.

All notifications include the following:

- Link to project website
- 24/7 phone number and email address for enquiries, complaints or comments
- Requests for the community to provide feedback on their individual needs and circumstances.

Prior to commencement of works subject to this CNVIS, targeted consultation occurred with a total of approximately 7,127 residential properties across the entire project alignment, approximately 332 of which were in Table Top. These properties received targeted letterbox drops, emails and newspaper adverts from the Community Team and feedback was sought across (3) three weeks, from 7 August to 28 August 2024.

The team requested feedback from the affected community on their individual needs during this targeted consultation.

8.5.3 Consultation Outcomes

Feedback received during this consultation was primarily related to the existing operational train line and the disturbance the trains cause.

In Table Top, no additional management measures relating to construction noise were identified during this consultation; however, the following general sentiments were noted from respondents:

- Limit noise generating work outside of standard construction hours as much as possible
- Limit noise generating work on the weekends as much as possible
- Construction works should be completed as soon as possible.

The CNVIS documents the need to limit noise generating work as much as possible and this will be achieved through the implementation of existing mitigation measures listed in this CNVIS.

Nevertheless, regular consultation with the community will continue throughout construction in accordance with the Community Communications Strategy and the Community Action Plan prepared for the relevant activities. A list of key stakeholders relevant to this CNVIS are included in **Table 23** below.



Table 23 Key Stakeholders for this CNVIS

Precinct Area	Receiver Type	Level of Engagement	Distance from Work Site (m)
Table Top			
Perryman Lane and Tynan Road	Residential	Consult	Various
Table Top Public School	Educational	Consult	180

8.6 Occupational Noise Exposure

In accordance with CoA E77, worksites will be managed to ensure that noise generated by construction will not exceed the National Standard for exposure to noise in the occupational environment of an eight-hour equivalent continuous A-weighted sound pressure level of LAeq,8h of 85 dBA for any employee working at a location near the project.

It is not anticipated that an exceedance will occur at any point during the project, however occupational exposure to noise will primarily be managed under the Work Health and Safety Management Plan.

8.7 Monitoring

Noise and vibration monitoring will be undertaken in accordance with the CNVMP (including monitoring program) and the CNVF.

CoA E81 requires that advice from an independent heritage specialist must be sought on methods and locations for installing equipment used for vibration, movement and noise monitoring at heritage-listed structures prior to the installation of the equipment.

8.7.1 Construction Noise Monitoring

Construction noise monitoring will be carried out at the commencement of activities to confirm that actual noise levels are consistent with the predictions presented in this CNVIS, and that the management measures that have been implemented are effective or as per the CNVMP.

Monitoring locations will be focused to the most impacted receivers identified in **Appendix C**. Indicative locations are identified in **Table 24**, however, these will be subject to provision of safe access and the specific location of work being undertaken at the time of monitoring.

Noise monitoring will, where practicable, be in a position with unobstructed views of general site activities, whilst shielded as much as possible from non-construction site noise (e.g. road traffic, rail noise and other surrounding noise). The preferred measurement height is 1.2-1.5m above the ground. In accordance with *Australian Standard AS1055:2018*, outdoor noise monitoring is to be undertaken at least 3.5m from any reflecting structure other than the ground.

Noise monitoring will be carried out on or near the property boundary at the locations representative of the nominated receivers in **Table 24** (i.e. in publicly accessible areas near the nominated receivers, if it is safe to do so). Noise monitoring results will be assessed against the noise management levels (NMLs) and predicted exceedance category identified in **Appendix C**.

The results will be documented with discussion about the details of work underway at the time and mitigation in place. Noise monitoring results will be recorded on the MR Noise



Monitoring Form in Procore. Noise monitoring data will be made available to the AA and ER for information, upon request.

8.7.2 Construction Vibration monitoring

Attended or unattended vibration monitoring will be undertaken as required. Monitoring locations may vary as work progresses and will be determined on a case-by-case basis or in response to complaints. The focus of monitoring will be at risk buildings, structures and sensitive receivers as identified in **Section 5.3**. If other vibration intensive activities are required, an assessment of their potential impact is required as per the CNVMP.

No vibration monitoring is anticipated for works related to Table Top at this stage.

Table 24 Indicative Monitoring Locations

Location	Type	Monitoring	Timing
Noise Monitoring			
<ul style="list-style-type: none"> 430 Perryman Lane, Table Top 6 Landale Lane, Table Top 522 Perryman Lane, Table Top 	Activities based noise monitoring	<ul style="list-style-type: none"> Confirming that actual noise levels are consistent with predicted noise impacts and that the effectiveness of actions and mitigation measures implemented are satisfactory, In response to a noise related complaint(s) (determined on a case-by-case basis) Following implementation of mitigation measures or noise attenuation because of exceedance of predicted noise levels 	At the commencement of the activities being undertaken
	Out of Hours Work	Attended monitoring as required by the Out of Hours Work (OOHW) plan to validate noise levels are consistent with predicted noise impacts and that the effectiveness of actions and mitigation measures implemented are satisfactory	At the commencement of the range of OOHW activities being undertaken.
	Plant / Equipment Checks	Spot checks would be carried out as required on a case-by-case basis, such as <ul style="list-style-type: none"> In response to a specific noise related complaint and During noise verification monitoring when it is possible to isolate the noise from one piece of plant or equipment. 	case-by-case basis



9.0 Cumulative Impacts

Due to the limited scope of the works at Table Top, the likelihood of worst-case noise levels being generated by two different work activities at the same time is considered low. The impact of concurrent work would generally be limited to a potential increase in the duration, and annoyance, of noise impacts on the affected receivers.

In practice, construction noise levels in any one location would vary and would be frequently much lower than the worst-case scenario assessed due to construction staging moving work around within the study area and, in many cases, only a few items of equipment being used at any one time.

Martinus Rail will take feasible and reasonable steps to consult and coordinate with other construction projects when they become aware of them and if they have the potential to impact the same receivers concurrently, to minimise cumulative impacts of noise and vibration and maximise respite for affected sensitive receivers (in accordance with CoA E72 and E83).





Appendix A Acoustic Terminology

A2I | Albury to Illabo – Table Top Yard Clearances

Construction Noise and Vibration Impact Statement

Martinus Rail

SLR Project No.: 610.031317.00001

12 November 2025

1. Sound Level or Noise Level

The terms 'sound' and 'noise' are almost interchangeable, except that 'noise' often refers to unwanted sound.

Sound (or noise) consists of minute fluctuations in atmospheric pressure. The human ear responds to changes in sound pressure over a very wide range with the loudest sound pressure to which the human ear can respond being ten million times greater than the softest. The decibel (abbreviated as dB) scale reduces this ratio to a more manageable size by the use of logarithms.

The symbols SPL, L or LP are commonly used to represent Sound Pressure Level. The symbol LA represents A-weighted Sound Pressure Level. The standard reference unit for Sound Pressure Levels expressed in decibels is 2×10^{-5} Pa.

2. 'A' Weighted Sound Pressure Level

The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an 'A-weighting' filter. This is an electronic filter having a frequency response corresponding approximately to that of human hearing.

People's hearing is most sensitive to sounds at mid frequencies (500 Hz to 4,000 Hz), and less sensitive at lower and higher frequencies. Different sources having the same dBA level generally sound about equally loud.

A change of 1 dB or 2 dB in the level of a sound is difficult for most people to detect, whilst a 3 dB to 5 dB change corresponds to a small but noticeable change in loudness. A 10 dB change corresponds to an approximate doubling or halving in loudness. The table below lists examples of typical noise levels.

Sound Pressure Level (dBA)	Typical Source	Subjective Evaluation
130	Threshold of pain	Intolerable
120	Heavy rock concert	Extremely noisy
110	Grinding on steel	
100	Loud car horn at 3 m	Very noisy
90	Construction site with pneumatic hammering	
80	Kerbside of busy street	Loud
70	Loud radio or television	
60	Department store	Moderate to quiet
50	General Office	
40	Inside private office	Quiet to very quiet
30	Inside bedroom	
20	Recording studio	Almost silent

Other weightings (eg B, C and D) are less commonly used than A-weighting. Sound Levels measured without any weighting are referred to as 'linear', and the units are expressed as dB(lin) or dB.

3. Sound Power Level

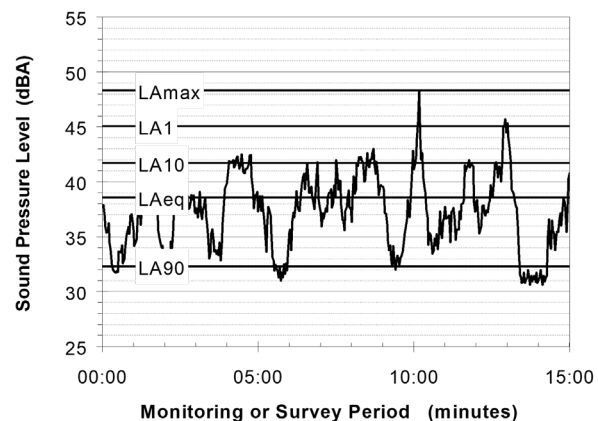
The Sound Power of a source is the rate at which it emits acoustic energy. As with Sound Pressure Levels, Sound Power Levels are expressed in decibel units (dB or dBA), but may be identified by the symbols SWL or LW, or by the reference unit 10^{-12} W.

The relationship between Sound Power and Sound Pressure is similar to the effect of an electric radiator, which is characterised by a power rating but has an effect on the surrounding environment that can be measured in terms of a different parameter, temperature.

4. Statistical Noise Levels

Sounds that vary in level over time, such as road traffic noise and most community noise, are commonly described in terms of the statistical exceedance levels LAN, where LAN is the A-weighted sound pressure level exceeded for N% of a given measurement period. For example, the LA1 is the noise level exceeded for 1% of the time, LA10 the noise exceeded for 10% of the time, and so on.

The following figure presents a hypothetical 15 minute noise survey, illustrating various common statistical indices of interest.



Of particular relevance, are:

- LA1 The noise level exceeded for 1% of the 15 minute interval.
- LA10 The noise level exceeded for 10% of the 15 minute interval. This is commonly referred to as the average maximum noise level.
- LA90 The noise level exceeded for 90% of the sample period. This noise level is described as the average minimum background sound level (in the absence of the source under consideration), or simply the background level.
- LAeq The A-weighted equivalent noise level (basically, the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound.
- LAmax The A-weighted maximum sound pressure level of an event measured with a sound level meter.

5. Frequency Analysis

Frequency analysis is the process used to examine the tones (or frequency components) which make up the overall noise or vibration signal.

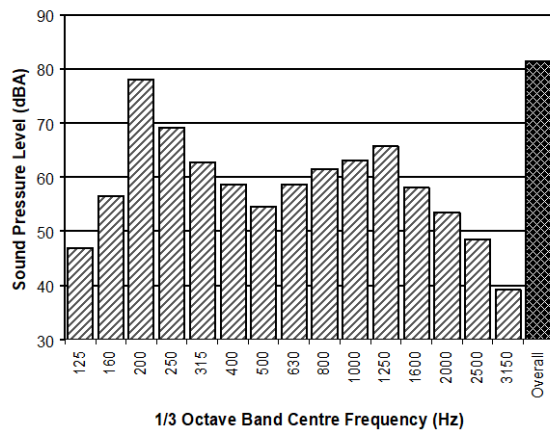
The units for frequency are Hertz (Hz), which represent the number of cycles per second.

Frequency analysis can be in:

- Octave bands (where the centre frequency and width of each band is double the previous band)
- 1/3 octave bands (three bands in each octave band)
- Narrow band (where the spectrum is divided into 400 or more bands of equal width)



The following figure shows a 1/3 octave band frequency analysis where the noise is dominated by the 200 Hz band. Note that the indicated level of each individual band is less than the overall level, which is the logarithmic sum of the bands.



6. Annoying Noise (Special Audible Characteristics)

A louder noise will generally be more annoying to nearby receivers than a quieter one. However, noise is often also found to be more annoying and result in larger impacts where the following characteristics are apparent:

- **Tonality** - tonal noise contains one or more prominent tones (ie differences in distinct frequency components between adjoining octave or 1/3 octave bands), and is normally regarded as more annoying than 'broad band' noise.
- **Impulsiveness** - an impulsive noise is characterised by one or more short sharp peaks in the time domain, such as occurs during hammering.
- **Intermittency** - intermittent noise varies in level with the change in level being clearly audible. An example would include mechanical plant cycling on and off.
- **Low Frequency Noise** - low frequency noise contains significant energy in the lower frequency bands, which are typically taken to be in the 10 to 160 Hz region.

7. Vibration

Vibration may be defined as cyclic or transient motion. This motion can be measured in terms of its displacement, velocity or acceleration. Most assessments of human response to vibration or the risk of damage to buildings use measurements of vibration velocity. These may be expressed in terms of 'peak' velocity or 'rms' velocity.

The former is the maximum instantaneous velocity, without any averaging, and is sometimes referred to as 'peak particle velocity', or PPV. The latter incorporates 'root mean squared' averaging over some defined time period.

Vibration measurements may be carried out in a single axis or alternatively as triaxial measurements (ie vertical, longitudinal and transverse).

The common units for velocity are millimetres per second (mm/s). As with noise, decibel units can also be used, in which case the reference level should always be stated. A vibration level V , expressed in mm/s can be converted to decibels by the formula $20 \log (V/V_0)$, where V_0 is the reference level (10^{-9} m/s). Care is required in this regard, as other reference levels may be used.

8. Human Perception of Vibration

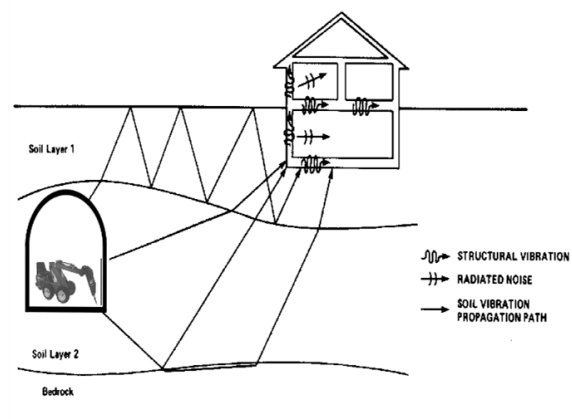
People are able to 'feel' vibration at levels lower than those required to cause even superficial damage to the most susceptible classes of building (even though they may not be disturbed by the motion). An individual's perception of motion or response to vibration depends very strongly on previous experience and expectations, and on other connotations associated with the perceived source of the vibration. For example, the vibration that a person responds to as 'normal' in a car, bus or train is considerably higher than what is perceived as 'normal' in a shop, office or dwelling.

9. Ground-borne Noise, Structure-borne Noise and Regenerated Noise

Noise that propagates through a structure as vibration and is radiated by vibrating wall and floor surfaces is termed 'structure-borne noise', 'ground-borne noise' or 'regenerated noise'. This noise originates as vibration and propagates between the source and receiver through the ground and/or building structural elements, rather than through the air.

Typical sources of ground-borne or structure-borne noise include tunnelling works, underground railways, excavation plant (eg rockbreakers), and building services plant (eg fans, compressors and generators).

The following figure presents an example of the various paths by which vibration and ground-borne noise may be transmitted between a source and receiver for construction activities occurring within a tunnel.



The term 'regenerated noise' is also used in other instances where energy is converted to noise away from the primary source. One example would be a fan blowing air through a discharge grill. The fan is the energy source and primary noise source. Additional noise may be created by the aerodynamic effect of the discharge grill in the airstream. This secondary noise is referred to as regenerated noise.





Appendix B Modelling Scenarios and Equipment

A2I | Albury to Illabo – Table Top Yard Clearances

Construction Noise and Vibration Impact Statement

Martinus Rail

SLR Project No.: 610.031317.00001

20 November 2025

Equipment		Total Lw (dBA)	Articulated Dump Truck	Backhoe (with auger)	Centrifugal Fan	Compressor	Crane (mobile)	Crane Franna	Elevated Work Platform	Excavator - Tracked (20 tonne)	Excavator + Hydraulic Hammer ¹	Generator	Hand Tool (Electric)	Hi-Rail Crane	Hi-Rail Truck	Hydraulic/Pneumatic Tools	Light Vehicle	Plate Compactor	Roller (Smooth Drum)	Truck – Medium Rigid	Truck – Vacuum (NDD)	Watercart
Sound Power Level (Lw) ²			109	104	90	109	104	98	97	105	122	92	102	104	103	116	95	104	107	103	109	105
Estimated utilisation (%)			25	75	100	50	30	30	25	50	30	100	75	30	25	75	25	100	100	25	100	75
ID	Construction Scenario																					
W.001	Site Establishment/Demobilisation	111	1				1		1			1	1				1		1	1		1
W.002	Compound Operation	109			1	1		1				1	1				1			1		1
W.003	Removal of Gantry and Footings	120				1	1				1	1	1	1	1	1	1	1		1	1	
W.004	Signalling Work	104					1		1			1	1				1					
W.005	Utility Work	111		1			1		1	1			1				2		1	2		

Note 1: Equipment classed as 'annoying' in the ICNG and requires a 5 dB correction.
Note 2: Sound power level data is taken from the DEFRA Noise Database, AS2436, TfNSW Construction Noise and Vibration Guideline.





Appendix C Noise Impact Maps

A2I | Albury to Illabo – Table Top Yard Clearances

Construction Noise and Vibration Impact Statement

Martinus Rail

SLR Project No.: 610.031317.00001

20 November 2025

H:\Projects-SLR\610-Sv\SVD\610.031317-00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\1 Table Top\610.031317 A21 CNVIS - Table Top.ggz



0 200 400 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 10-Nov-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

DISCLAIMER: All information within this document maybe based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose .

W.001 - Site Establishment/
Demobilisation - Approved Daytime
Hours

APPENDIX C-1

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0 200 400 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 10-Nov-2025
Project Number: 610.031317



Data Source:
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W.001 - Site Establishment/
Demobilisation - Out of Hours Daytime

APPENDIX C-2

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0 200 400 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 10-Nov-2025
Project Number: 610.031317



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W.002 - Compound Operation -
Approved Daytime Hours

APPENDIX C-3



0 200 400 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 10-Nov-2025
Project Number: 610.031317



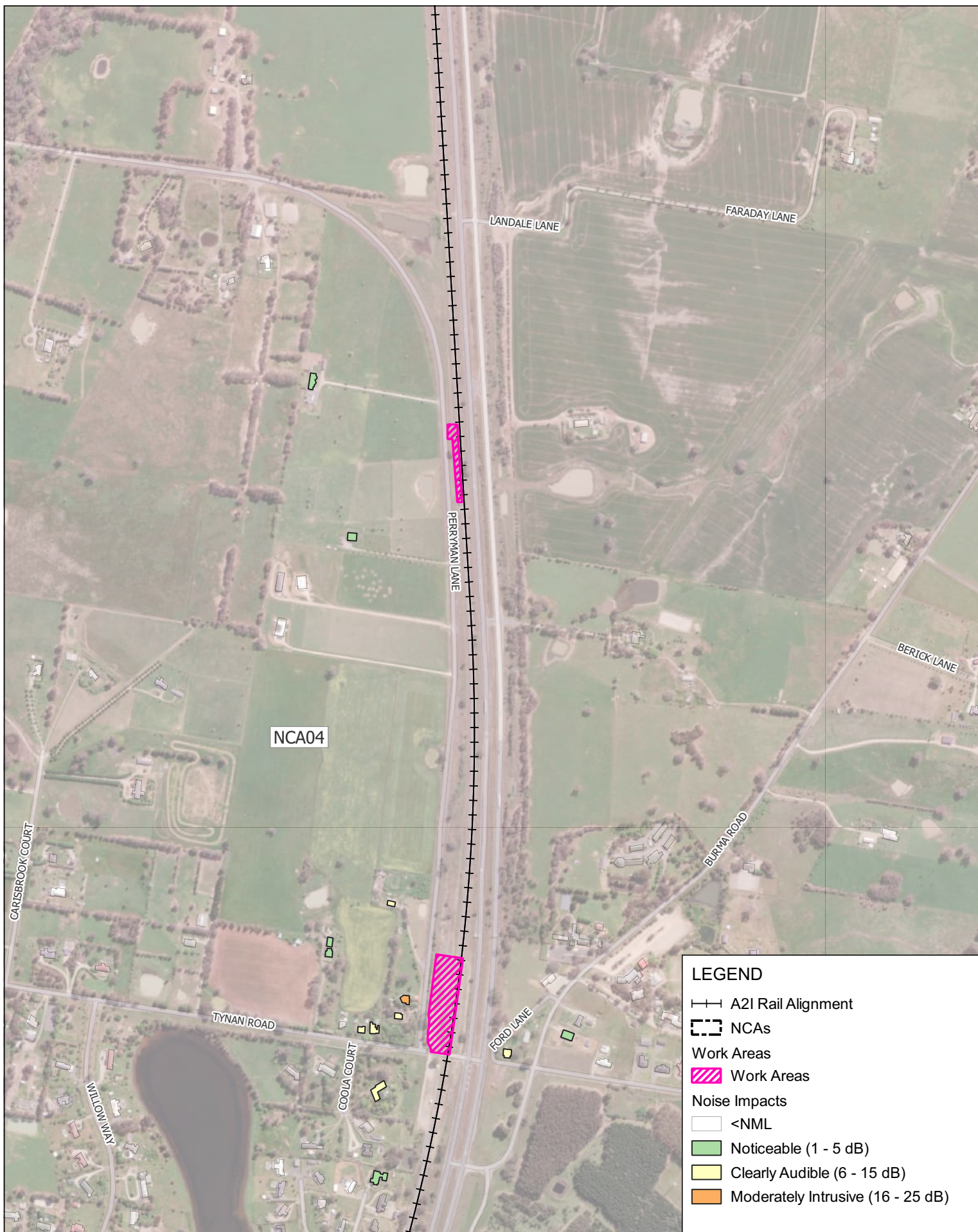
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W.002 - Compound Operation - Out of
Hours Daytime

APPENDIX C-4

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0 200 400 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 10-Nov-2025
Project Number: 610.031317



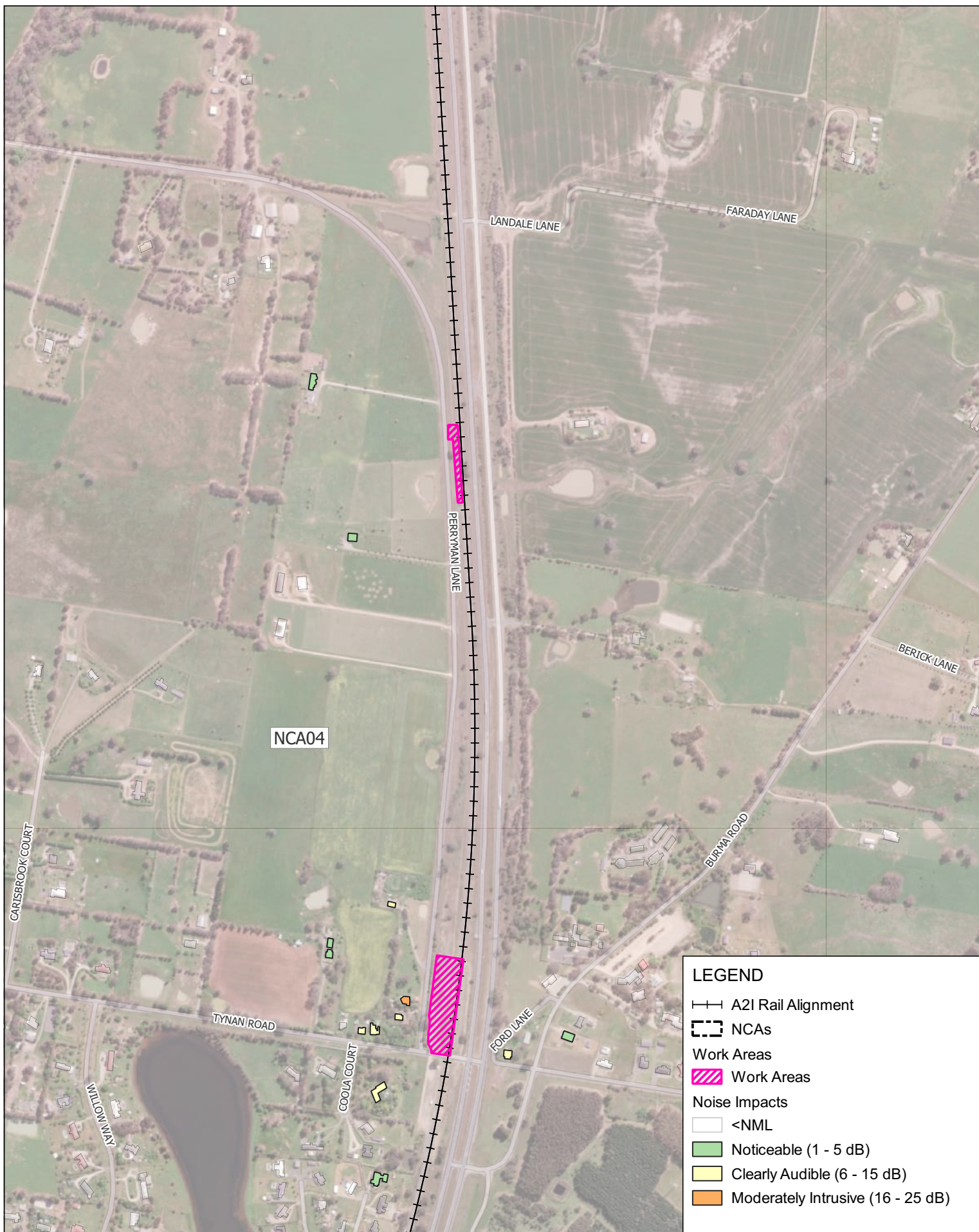
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W.002 - Compound Operation - Out of
Hours Evening

APPENDIX C-5

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0 200 400 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 10-Nov-2025
Project Number: 610.031317



Data Source:
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W.002 - Compound Operation - Out of
Hours Night-time

APPENDIX C-6

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LEGEND

--- A21 Rail Alignment

--- NCAs

Work Areas

Work Areas

Noise Impacts

<NML

Clearly Audible (1 - 10 dB)

0 200 400 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 10-Nov-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

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W.003 - Removal of Gantry and Footings
- Approved Daytime Hours

APPENDIX C-7

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Data Source:
ESRI World Imagery

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W.003 - Removal of Gantry and Footings
- Out of Hours Daytime

APPENDIX C-8

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LEGEND

—+— A21 Rail Alignment

--- NCAs

Work Areas

Work Areas

Noise Impacts

<NML

Noticeable (1 - 5 dB)

Clearly Audible (6 - 15 dB)

0 200 400 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 10-Nov-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

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W.003 - Removal of Gantry and Footings
- Out of Hours Evening

APPENDIX C-9

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0 200 400 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 10-Nov-2025
Project Number: 610.031317



Data Source:
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W.003 - Removal of Gantry and Footings
- Out of Hours Night-time

APPENDIX C-10



LEGEND

--- A21 Rail Alignment

--- NCAs

Work Areas

Work Areas

Noise Impacts

<NML

0 200 400 m

Scale: Scale: 1:10,000

Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 10-Nov-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

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W.004 - Signalling Work - Approved
Daytime Hours

APPENDIX C-11

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LEGEND

- A21 Rail Alignment
- NCAs
- Work Areas
- Work Areas
- Noise Impacts
- <NML

0 200 400 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 10-Nov-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

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W.004 - Signalling Work - Out of Hours
Daytime

APPENDIX C-12

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LEGEND

--- A21 Rail Alignment

--- NCAs

Work Areas

Work Areas

Noise Impacts

<NML

0 200 400 m

Scale: Scale: 1:10,000

Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 10-Nov-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

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W.005 - Utility Work - Approved Daytime Hours

APPENDIX C-13

H:\Projects-SLR\610-Sv\SVD\610-031317-00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\1 Table Top\610_031317 A21 CNVIS - Table Top.ggz



0 200 400 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 10-Nov-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

DISCLAIMER: All information within this document maybe based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose .

W.005 - Utility Work - Out of Hours
Daytime

APPENDIX C-14



Appendix D Receivers Triggering Additional Mitigation

A2I | Albury to Illabo – Table Top Yard Clearances

Construction Noise and Vibration Impact Statement

Martinus Rail

SLR Project No.: 610.031317.00001

20 November 2025

W.001 - Site Establishment/ Demobilisation

SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening *(>2 consecutive rest periods)	Additional Mitigation Night *(>2 consecutive sleep periods)
197137	11 COOLA CT, TABLE TOP NSW 2640	52	47	47	47	57	CO1	-	-
197148	4 FORD LANE, TABLE TOP NSW 2640	52	47	47	47	57	CO1	-	-
197160	287 TYNAN RD, TABLE TOP NSW 2640	52	47	47	47	55	CO1	-	-
197161	289 TYNAN RD, TABLE TOP NSW 2640	52	47	47	47	59	CO1	-	-
197165	283 TYNAN RD, TABLE TOP NSW 2640	52	47	47	47	48	CO1	-	-
197175	524 PERRYMAN LANE, TABLE TOP NSW 2640	52	47	47	47	63	CO1, CO2	-	-
197184	522 PERRYMAN LANE, TABLE TOP NSW 2640	52	47	47	47	65	CO1, CO2	-	-
197208	277 TYNAN RD, TABLE TOP NSW 2640	52	47	47	47	51	CO1	-	-
197216	277 TYNAN RD, TABLE TOP NSW 2640	52	47	47	47	51	CO1	-	-
197236	514 PERRYMAN LANE, TABLE TOP NSW 2640	52	47	47	47	55	CO1	-	-
197331	398 PERRYMAN LANE, TABLE TOP NSW 2640	52	47	47	47	52	CO1	-	-
1000592	571 BURMA ROAD, TABLE TOP NSW 2640	52	47	47	47	49	CO1	-	-
1000614	38 LARA LAKE ROAD, TABLE TOP NSW 2640	52	47	47	47	50	CO1	-	-
1000932	34 LARA LAKE ROAD, TABLE TOP NSW 2640	52	47	47	47	49	CO1	-	-
1000933	15 COOLA COURT, TABLE TOP NSW 2640	52	47	47	47	48	CO1	-	-
1000935	1492 TABLE TOP ROAD, TABLE TOP NSW 2640	52	47	47	47	49	CO1	-	-
1110256	430 Perryman Ln, Table Top NSW 2640	52	47	47	47	48	CO1	-	-
1110613	577 BURMA ROAD, TABLE TOP NSW 2640	52	47	47	47	50	CO1	-	-

W.002 - Compound Operation

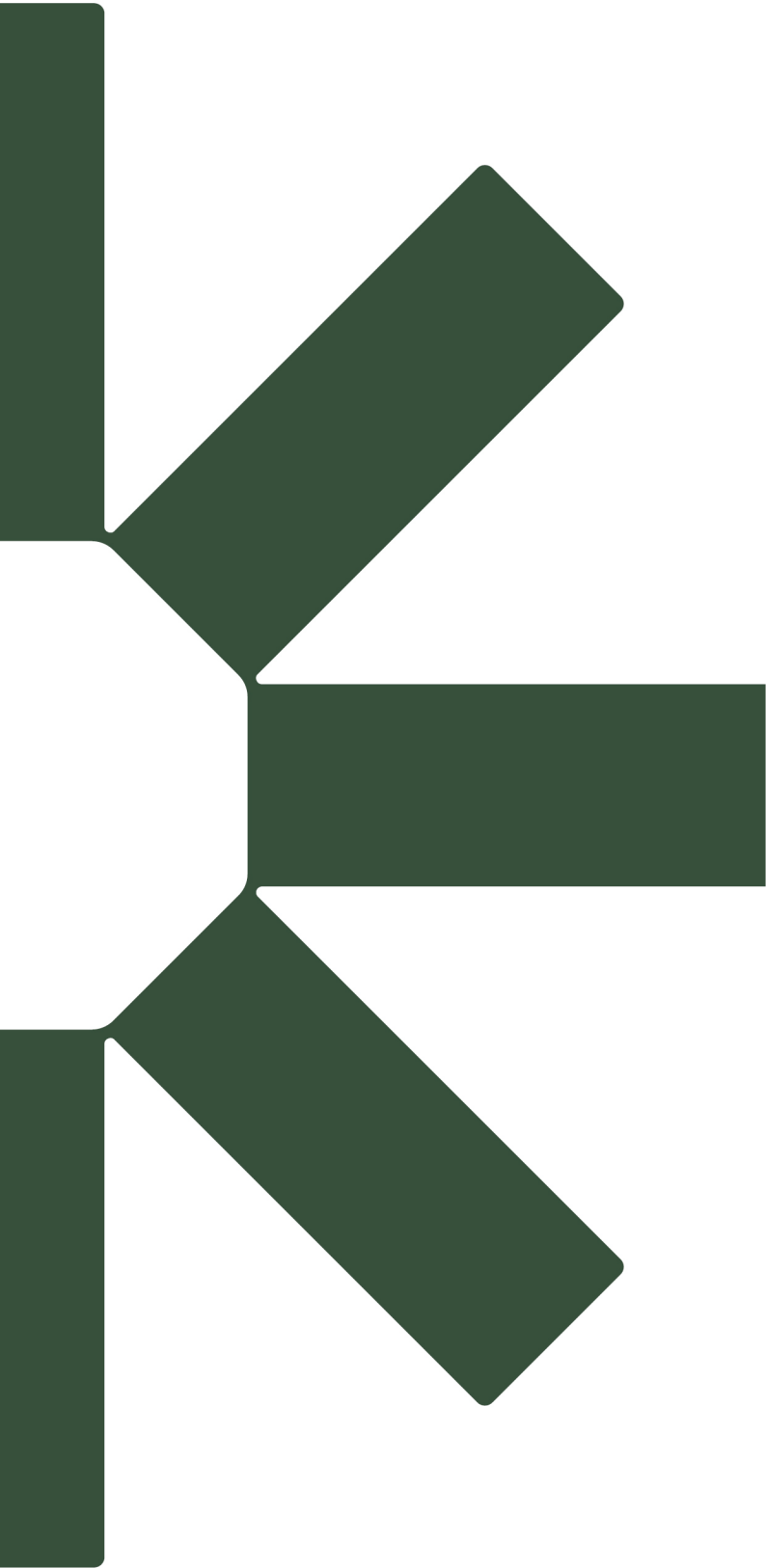
SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening *(>2 consecutive rest periods)	Additional Mitigation Night *(>2 consecutive sleep periods)
197137	11 COOLA CT, TABLE TOP NSW 2640	52	47	47	47	55	CO1	CO1	CO1
197148	4 FORD LANE, TABLE TOP NSW 2640	52	47	47	47	55	CO1	CO1	CO1
197160	287 TYNAN RD, TABLE TOP NSW 2640	52	47	47	47	53	CO1	CO1	CO1
197161	289 TYNAN RD, TABLE TOP NSW 2640	52	47	47	47	57	CO1	CO1	CO1
197175	524 PERRYMAN LANE, TABLE TOP NSW 2640	52	47	47	47	61	CO1	CO1	CO1
197184	522 PERRYMAN LANE, TABLE TOP NSW 2640	52	47	47	47	63	CO1, CO2	CO1, CO2	CO1, CO2, (RO,AO)*
197208	277 TYNAN RD, TABLE TOP NSW 2640	52	47	47	47	49	CO1	CO1	CO1
197216	277 TYNAN RD, TABLE TOP NSW 2640	52	47	47	47	49	CO1	CO1	CO1
197236	514 PERRYMAN LANE, TABLE TOP NSW 2640	52	47	47	47	53	CO1	CO1	CO1
197331	398 PERRYMAN LANE, TABLE TOP NSW 2640	52	47	47	47	50	CO1	CO1	CO1
1000614	38 LARA LAKE ROAD, TABLE TOP NSW 2640	52	47	47	47	48	CO1	CO1	CO1
1110256	430 Perryman Ln, Table Top NSW 2640	52	47	47	47	48	CO1	CO1	CO1
1110613	577 BURMA ROAD, TABLE TOP NSW 2640	52	47	47	47	48	CO1	CO1	CO1

W.003 - Removal of Gantry and Footings

SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening *(>2 consecutive rest periods)	Additional Mitigation Night *(>2 consecutive sleep periods)
197294	16329 HUME HWY, TABLE TOP NSW 2640	52	47	47	47	53	CO1	CO1	CO1
197319	6 LANDALE LANE, TABLE TOP NSW 2640	52	47	47	47	57	CO1	CO1	CO1
197331	398 PERRYMAN LANE, TABLE TOP NSW 2640	52	47	47	47	57	CO1	CO1	CO1
197357	334 PERRYMAN LANE, TABLE TOP NSW 2640	52	47	47	47	49	CO1	CO1	CO1
1110255	438 Perryman Ln, Table Top NSW 2640	52	47	47	47	53	CO1	CO1	CO1
1110256	430 Perryman Ln, Table Top NSW 2640	52	47	47	47	60	CO1	CO1	CO1
1110356	438 Perryman Ln, Table Top NSW 2640	52	47	47	47	55	CO1	CO1	CO1
1110357	438 Perryman Ln, Table Top NSW 2640	52	47	47	47	55	CO1	CO1	CO1

W.005 - Utility Work

SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening *(>2 consecutive rest periods)	Additional Mitigation Night *(>2 consecutive sleep periods)
197319	6 LANDALE LANE, TABLE TOP NSW 2640	52	47	47	47	48	CO1	-	-
197331	398 PERRYMAN LANE, TABLE TOP NSW 2640	52	47	47	47	48	CO1	-	-
1110256	430 Perryman Ln, Table Top NSW 2640	52	47	47	47	51	CO1	-	-



Making Sustainability Happen



A2I | Albury to Illabo – The Rock Yard Clearances

Construction Noise and Vibration Impact Statement

Martinus Rail

1/23-27 Waratah Street, Kirrawee, NSW 2232

Prepared by:

SLR Consulting Australia

Tenancy 202 Submarine School, Sub Base
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SLR Project No.: 610.031317.00001

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v1.2	28 August 2025	Adam Sirianni	Steven Luzuriaga	
v1.1	14 August 2025	Adam Sirianni	Steven Luzuriaga	
v1.0	22 January 2025	Brandon Nguyen Khuong	Steven Luzuriaga	

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Martinus Rail (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.



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Acronyms and Abbreviations

AA	The Acoustics Advisor for the CSSI approved by the Planning Secretary
A2I	Albury to Illabo section of the Inland Rail project
ARTC	Australian Rail Track Corporation
AS	Australian Standard
AV:ATG	Assessing Vibration: a technical guideline (DEC, 2006)
BS	British Standard
dBA	A-weighted decibel (referenced 20 µPa)
DPHI	Department of Planning, Housing and Infrastructure
CCHMP	Construction Cultural Heritage Management Plan
CEMP	Construction Environmental Management Plan
CH	Chainage
CNVF	Inland Rail NSW Construction Noise and Vibration Framework
CNVIS	Construction Noise and Vibration Impact Statement
CNVMP	Construction Noise and Vibration Management Plan
CSSI	Critical Stage Significant Infrastructure
DEC	Department of Environment and Conservation
DECC	Department of Environment and Climate Change (now NSW EPA)
DIN	Deutsches Institut für Normung (German Institute for Standardisation)
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EPA	Environment Protection Authority
EPL	Environmental Protection Licence
ER	The Environmental Representative(s) for CSSI approved by the Planning Secretary.
HNA	Highly Noise Affected
Hz	Hertz
ICNG	Interim Construction Noise Guideline (DECC, 2009)
IR	Inland Rail
ISO	International Standards Organisation
km	Kilometres
km/h	Kilometres per hour
LAeq	Equivalent continuous noise level, providing a representation of the cumulative level of noise exposure over a defined period.
LAeq(15hour)	The equivalent continuous noise level for the 15-hour daytime period of 7.00 am to 10.00 pm
LAeq(9hour)	The equivalent continuous noise for the 9-hour daytime period of 10.00 pm to 7.00 am



LAeq(1hour)	The equivalent continuous noise for the 1-hour daytime or night-time period that has the potential to result in the greatest noise impact to sensitive receivers.
L _{Amax}	The maximum noise level during the measurement or assessment period. The L _{AFmax} or Fast is averaged over 0.125 of a second and the L _{ASmax} or Slow is averaged over 1-second.
m	Metres
mm	Millimetres
mm/s	Millimetres per second
m/s	Metres per second
MR	Martinus Rail
NCA	Noise Catchment Areas
NML	Noise Management Level
NSW	New South Wales
NPfI	Noise Policy for Industry
OOHW	Out of hours work
PPV	Peak Particle Velocity
RBL	Rating Background Level
TfNSW	Transport for New South Wales
VDV	Vibration Dose Value



Compliance Table

CoA	Requirement	Reference
A1	<p>The Proponent must carry out the CSSI in accordance with the terms of this approval and generally in accordance with the:</p> <ul style="list-style-type: none"> a) Inland Rail – Albury to Illabo Environmental Impact Statement (ARTC, August 2022) b) Albury to Illabo Response to Submissions (ARTC, November 2023) c) Albury to Illabo Preferred Infrastructure Report (ARTC, November 2023) d) Albury to Illabo Preferred Infrastructure Report Response to Submissions (ARTC, February 2024) e) Inland Rail – Albury to Illabo (SSI-10055) Response to request for additional information – Air Quality Assessment (letter dated 1 May 2024) f) Part 1 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024) g) Part 2 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024) 	The CNVMP
A2	The CSSI must only be carried out in accordance with all procedures, commitments, preventative actions, performance criteria and mitigation measures set out in the documents listed in Condition A1 unless otherwise specified in, or required under, this approval.	The CNVMP
C9	<p>The Construction Noise and Vibration Sub-plan must include, but not limited to:</p> <ul style="list-style-type: none"> a) measures to reduce construction to standard ICNG hours where sensitive land uses are likely to be noise affected for more than 3 months; b) an approach to assess and manage construction fatigue from noise impacts on sensitive receivers on an ongoing basis; c) noise sensitive periods identified by the community, religious, educational institutions, noise and vibration-sensitive businesses and critical working areas and measures to ensure noise levels above the NMLs do not occur during sensitive periods in accordance with Condition E76; d) mitigation for construction traffic noise impacts from additional construction traffic and road diversions; e) the location of all heritage items, non-heritage structures and infrastructure likely to be impacted by vibration and measures to manage vibration impacts at those items and structures; and f) vibration levels at a range of distances from vibration intensive equipment such as excavators and vibratory rollers before undertaking works with the specific type and size of equipment. 	The CNVMP
E68	A detailed land use survey must be undertaken to confirm sensitive land use(s) (including critical working areas such as operating theatres and precision laboratories) potentially exposed to construction noise and vibration, construction ground-borne noise and operational noise. The survey may be undertaken on a progressive basis but must be undertaken in any one area before the commencement of work which generates construction or operational noise, vibration or ground-borne noise in that area. The results of the survey must be included in the Noise and Vibration CEMP sub-plan required by Condition C8.	The CNVMP, Section 3.0, Figure 1
E69	<p>Work must be undertaken during the following hours:</p> <ul style="list-style-type: none"> a) 7:00am to 6:00pm Mondays to Fridays, inclusive; b) 7:00am to 6:00pm Saturdays; and c) at no time on Sundays or public holidays. 	Section 2.2



CoA	Requirement	Reference
E70	<p>Except as permitted by an EPL, highly noise intensive works that result in an exceedance of the applicable NML at the same receiver must only be undertaken:</p> <ol style="list-style-type: none"> between the hours of 8:00 am to 6:00 pm Monday to Friday; between the hours of 8:00 am to 1:00 pm Saturday; and if continuously, then not exceeding three (3) hours, with a minimum cessation of work of not less than one hour. <p>For the purposes of this condition, 'continuously' includes any period during which there is less than one hour between ceasing and recommencing any of the work.</p>	<p>Section 2.2.1 Section 8.2</p>
E71	<p>Notwithstanding Conditions E69 and E70, work may be undertaken outside the hours specified in the following circumstances (a, b, or c):</p> <ol style="list-style-type: none"> Safety and Emergencies, including: <ol style="list-style-type: none"> for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm. <p>On becoming aware of the need for emergency work in accordance with Condition E71(a), the AA, the ER, the Planning Secretary and the EPA must be notified of the reasons for such work. Best endeavours must be used to notify all noise and/or vibration affected residents and owners/occupiers of properties identified sensitive land use(s) of the likely impact and duration of those work.</p> Work, that meets the following criteria: <ol style="list-style-type: none"> construction that causes LAeq(15 minute) noise levels: <ul style="list-style-type: none"> no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and no more than the 'Noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land use(s); and construction that causes LAFmax noise levels no more than 15 dB above the rating background level at any residence during the night period as defined in the ICNG; and construction that causes: <ul style="list-style-type: none"> continuous or impulsive vibration values, measured at the most affected residence no more than the preferred values for human exposure to vibration, specified in Table 2.2 of <i>Assessing Vibration: a technical guideline</i> (DEC, 2006), or intermittent vibration values measured at the most affected residence no more than the preferred values for human exposure to vibration, specified in Table 2.4 of <i>Assessing Vibration: a technical guideline</i> (DEC, 2006). By Approval, including: <ol style="list-style-type: none"> where different construction hours, such as those for a rail possession, are permitted under an EPL in force in respect of the CSSI; or works which are not subject to an EPL that are approved under an Out-of-Hours Work Protocol as required by Condition E72; or negotiated agreements with directly affected residents and sensitive land use(s). 	<p>Section 2.3</p>
E72	<p>An Out-of-Hours Work Protocol must be prepared to identify a process for the consideration, management and approval of work which is outside the hours defined in Conditions E69, and that are not subject to an EPL. The Protocol must be approved by the Planning Secretary before commencement of the Out-of-Hours Work. The Protocol must be prepared in consultation with the ER, AA and EPA.</p>	<p>The CNVMP, Section 2.4</p>



CoA	Requirement	Reference
	<p>The Protocol must include:</p> <ul style="list-style-type: none"> a) identification of low and high-risk activities and an approval process that considers the risk of activities, proposed mitigation, management, and coordination, including where: <ul style="list-style-type: none"> i. the ER and AA review all proposed out-of-hours activities and confirm their risk levels, ii. low risk activities can be approved by the ER in consultation with the AA, and iii. high risk activities that are approved by the Planning Secretary; b) a process for the consideration of out-of-hours work against the relevant NML and vibration criteria; c) a process for selecting and implementing mitigation measures for residual impacts in consultation with the community at each affected location, including respite periods. The measures must take into account the predicted noise levels and the likely frequency and duration of the out-of-hours works that sensitive land use(s) would be exposed to, including the number of noise awakening events; d) procedures to facilitate the coordination of out-of-hours work including those approved by an EPL or undertaken by a third party, to ensure appropriate respite is provided; and e) notification arrangements for affected receivers for approved out-of-hours work and notification to the Planning Secretary of approved low risk out-of-hours works. <p>This condition does not apply if the requirements of Condition E71 are met.</p>	
E73	<p>Except as permitted by an EPL, out-of-hours work that may be regulated through the Out-of-Hours Work Protocol as per Condition E72, but is not limited to:</p> <ul style="list-style-type: none"> a) Carrying out work that if carried out during standard hours would result in a high risk to construction personnel or public safety based on a risk assessment carried out in accordance with AS/NZS ISO 31000:2009: "Risk management; or b) where the relevant roads authority has advised the Proponent in writing that carrying out the work during standard hours would result in a high risk to road network performance and a road occupancy licence will not be issued; or c) where the relevant utility service operator has advised the Proponent in writing that carrying out the work during standard hours would result in a high risk to the operation and integrity of the utility network; or d) work undertaken in a rail possession for operational or safety reasons. <p><i>Note: Other out-of-hours works can be undertaken with the approval of an EPL, or through the project's Out-of-Hours Work Protocol for works not subject to an EPL.</i></p>	Section 2.3
E74	<p>Mitigation measures must be implemented with the aim of achieving the following construction noise management levels and vibration objectives:</p> <ul style="list-style-type: none"> a) construction 'Noise affected' NMLs established using the Interim Construction Noise Guideline (DECC, 2009); b) vibration criteria established using <i>the Assessing vibration: a technical guideline</i> (DEC, 2006) (for human exposure); c) Australian Standard AS 2187.2 - 2006 "<i>Explosives - Storage and Use - Use of Explosives</i>"; d) BS 7385 Part 2-1993 "<i>Evaluation and measurement for vibration in buildings Part 2</i>" as they are "applicable to Australian conditions"; and 	The CNVMP, Section 4.0, Section 8.0



CoA	Requirement	Reference
	<p>e) the vibration limits set out in the <i>German Standard DIN 4150-3: Structural Vibration- effects of vibration on structures</i> (for structural damage).</p> <p>Work that exceeds the noise management levels and/or vibration criteria must be managed in accordance with the Noise and Vibration CEMP sub-plan.</p> <p><i>Note: The ICNG identifies ‘particularly annoying’ activities that require the addition of 5 dB(A) to the predicted level before comparing to the construction NML.</i></p>	
E75	<p>Mitigation measures must be applied when the following residential ground-borne noise levels are exceeded:</p> <p>a) evening (6:00 pm to 10:00 pm) — internal LAeq(15 minute): 40 dB(A); and</p> <p>b) night (10:00 pm to 7:00 am) — internal LAeq(15 minute): 35 dB(A).</p> <p>The mitigation measures must be outlined in the Noise and Vibration CEMP sub-plan, including in any Out-of-Hours Work Protocol, required by Condition E72.</p>	Section 4.2.3
E76	Noise generating work in the vicinity of community, religious, educational institutions, noise and vibration-sensitive businesses and critical working areas (such as exam halls, theatres, laboratories and operating theatres) resulting in noise levels above the NMLs must not be timetabled during sensitive periods, unless other reasonable arrangements with the affected institutions are made at no cost to the affected institution.	Section 8.1
E77	At no time can noise generated by construction exceed the National Standard for exposure to noise in the occupational environment of an eight-hour (8hr) equivalent continuous A-weighted sound pressure level of LAeq,8h of 85 dB(A) for any employee working at a location near the CSSI.	Section 8.6
E78	Construction Noise and Vibration Impact Statements (CNVIS) must be prepared for work that may exceed the noise management levels, vibration criteria and/or ground-borne noise levels specified in Condition E74 and Condition E75 at any residence outside construction hours identified in Condition E69, or where receivers will be highly noise affected. The CNVIS must include specific mitigation measures identified through consultation with affected sensitive land use(s) and the mitigation measures must be implemented for the duration of the works. A copy of the CNVIS must be provided to the AA and ER prior to the commencement of the associated works. The Planning Secretary may request a copy/ies of CNVIS.	This report, Section 8.5
E79	Owners and occupiers of properties at risk of exceeding the screening criteria for cosmetic damage must be notified before work that generates vibration commences in the vicinity of those properties. If the potential exceedance is to occur more than once or extend over a period of 24 hours, owners and occupiers are to be provided a schedule of potential exceedances on a monthly basis for the duration of the potential exceedances, unless otherwise agreed by the owner and occupier. These properties must be identified and considered in the Noise and Vibration CEMP Sub-plan required by Condition C8 and the Community Communication Strategy required by Condition B1.	Section 8.0



CoA	Requirement	Reference
E80	Vibration testing must be undertaken before and during vibration generating activities that have the potential to impact on heritage items to identify minimum working distances to prevent cosmetic damage. In the event that the vibration testing and attended monitoring shows that the preferred values for vibration are likely to be exceeded, the construction methodology must be reviewed and, if necessary, additional mitigation measures implemented.	Section 6.0, Section 8.1
E81	Advice from an independent heritage specialist must be sought on methods and locations for installing equipment used for vibration, movement and noise monitoring at heritage-listed structures. <i>Note: The heritage specialist is to provide advice prior to installing equipment that may impact the heritage significance or structural integrity of the heritage listed structures.</i>	Section 6.0, Section 8.1
E83	All work undertaken for the delivery of the CSSI, including those undertaken by third parties (such as utility relocations), must be coordinated to ensure respite periods are provided. This must include: a) rescheduling work to provide respite to impacted noise sensitive land use(s) so that the respite is achieved; or b) the provision of alternative respite or mitigation to impacted noise sensitive land use(s); and c) the provision of documentary evidence to the AA in support of any decision made in relation to respite or mitigation. The consideration of respite must also include all other CSSI, SSI and SSD projects which may cause cumulative and/or consecutive impacts at receivers affected by the delivery of the CSSI.	Section 8.0, Section 8.2
E119	The Proponent must coordinate work with adjoining Inland Rail Projects, including any work to relocate or connect utilities, to minimise cumulative and consecutive noise and vibration impacts and maximise respite for affected sensitive land uses. Coordination and mitigation measures must be detailed in the Construction Noise and Vibration management Sub-plan required by Condition C9.	Section 8.0, Section 8.2, Section 9.0
E120	Before commencement of any work, a structural engineer must undertake condition surveys of all buildings, structures, utilities and the like identified in the documents listed in Condition A1 as being at risk of damage. The results of the surveys must be documented in a Condition Survey Report for each item surveyed. Copies of Condition Survey Reports must be provided to the owners of the items surveyed, and no later than one (1) month before the commencement of construction.	Section 6.0, Section 8.1
E121	After completion of construction, condition surveys of all items for which condition surveys were undertaken in accordance with Condition E120 of this approval must be undertaken by a structural engineer. The results of the surveys must be documented in a Condition Survey Report for each item surveyed. Copies of Condition Survey Reports must be provided to the landowners of the items surveyed, and no later than three (3) months following the completion of construction.	Section 6.0, Section 8.1
E122	Property damage caused directly or indirectly (for example from vibration or from groundwater change) by the construction or operation must be rectified at no cost to the owner. Alternatively, compensation may be provided for the property damage as agreed with the property owner.	Section 6.0, Section 8.1



1.0 Introduction

SLR Consulting Australia Pty Ltd (SLR) has been engaged by Martinus Rail (MR) to prepare a construction noise and vibration impact statement (CNVIS) for The Rock Yard Clearances. This site forms part of the Albury to Illabo (A2I) section of Inland Rail (the Project). This assessment has been prepared in accordance with the Construction Noise and Vibration Management Plan (CNVMP) for the A2I section of the Project.

This report assesses the potential construction noise and vibration impacts for the structure modification work at The Rock Yard. An explanation of the specialist acoustic terminology used in this report is provided in **Appendix A**.

2.0 Project Description

Inland Rail is an approximate 1,600 kilometres (km) freight rail network that will connect Beveridge and Kagaru via regional Victoria, New South Wales and Queensland. The Inland Rail route would involve using approximately 1,000 km of existing track (with enhancements and upgrades where necessary) and 600 km of new track, passing through 30 local government areas. Inland Rail will accommodate double-stacked freight trains up to 1,800 metres (m) long and 6.5 m high.

The Albury to Illabo (A2I) section (the Project) forms a key component of the Inland Rail program. It is a 185 km section of existing rail corridor located in regional NSW between the towns of Albury and Illabo. Works would include track realignment, lowering and/or modification within the existing rail corridor, modification, removal or replacement of bridge structures (rail, road and /or pedestrian bridges), raising or replacing signal gantries, level-crossing modifications and other associated works. This CNVIS is associated with the structure modification work at The Rock Yard.

Relevant noise and vibration conditions from the Conditions of Approval (CoA) are detailed within the compliance table at the beginning of this document and will be complied with during the work.

2.1 Scope of this CNVIS

The focus of this CNVIS is the work associated with the structure modification work at The Rock Yard. Work at this site includes:

- Establishment of temporary site facilities, including site office/shed and materials laydown areas
- Site Compound Operation
- Gantry Modification Works
- Utility and Signalling Works – Removal and replacing existing utilities and signals.

Further details of work activities are outlined in **Section 5.1**. The work areas are surrounded by a combination of a rural residential and commercial receivers. The Project location is within a small rural town surrounded by rural residential, commercial, childcare, medical and educational receivers. The work areas and surrounding receivers are shown in **Figure 1**.



2.2 Hours of work

In accordance with the Construction Noise and Vibration Management Plan (CNVMP) and CoA E69 construction work must be undertaken within the approved standard construction hours:

- a) 7:00am to 6:00pm Monday to Friday, inclusive;
- b) 7:00am to 6:00pm Saturday and
- c) At no time on Sundays or public holidays.

2.2.1 Highly Noise Intensive Work

As outlined in the CoA E70, any highly noise intensive works that result in an exceedance of the applicable NML at the same receiver must only be undertaken:

- a) Between 08:00am – 06:00pm Monday to Friday;
- b) Between 08:00am – 01:00pm Saturday; and
- c) If continuously, then not exceeding (3) hours, with a maximum cessation of work of not less than one hour.

The CoA defines ‘highly noise intensive works’ as those identified as annoying under the Interim Construction Noise Guideline (ICNG) and include:

- Use of power saws, such as used for cutting timber, rail lines, masonry, road pavement or steel work;
- Grinding metal, concrete or masonry;
- Rock drilling;
- Line drilling;
- Vibratory rolling;
- Bitumen milling or profiling;
- Jackhammering, rock hammering or rock breaking;
- Impact piling; and
- Tamping (for rail projects).

2.3 Variation to hours of work

Notwithstanding CoA E69 and E70, work may be undertaken outside the hours specified in the CoA E71 circumstances (a, b, or c):

- a) Safety and Emergencies
- b) Work, that meets specific criteria
- c) By Approval

Note: refer to **Compliance Table** for further detail.



2.4 Justification of Out of Hours Work (OOHW)

Work activities that may be required or proposed to be undertaken outside of standard working hours will be managed in accordance with the OOHW Protocol as defined in CoA E72 and E73, unless the work is regulated by an EPL.

All work on or adjacent to roads would be carried out in accordance with a relevant Traffic Control Plan (TCP), Road Occupancy Licence (ROL) and/or rail possession to facilitate safe work near live road/rail traffic. Where an ROL/rail possession cannot be obtained for the approved project hours and/or proposed works cannot be undertaken safely during these hours, some works will be required to be undertaken outside of standard hours (ie Out of Hours Work, OOHW).

As outlined in the ICNG, work undertaken on public infrastructure may need to be undertaken outside the recommended standard hours. For this project the need is based on a requirement to sustain the operational integrity of public infrastructure, as works to restore operation of the infrastructure provide benefit to the greater community (ie more than just local residents).

Further detail around the specific work tasks, duration and justification of OOHW must be identified in the OOHW permit, required by the OOHW Protocol or EPL.

3.0 Existing Environment

The existing ambient noise environment was described in Environmental Impact Statement (EIS), Technical Paper 6 – Noise and Vibration (Non-Rail) for the Albury to Illabo project. This section provides details of the existing ambient noise environment relevant to The Rock Yard structure modification works. The noise catchment area (NCA) used is consistent with the NCA described in the EIS and is shown in **Figure 1**.

A detailed land use survey was undertaken in August 2024 to confirm sensitive land uses within the project area, results of the land use survey have been incorporated into the receiver classifications shown in **Figure 1**.

3.1 Background Noise Levels

Background noise levels have been referenced from the baseline noise survey undertaken as part of the EIS and reproduced in the CNVMP. The background noise levels relevant to The Rock Yard works are summarised in **Table 1**.

Table 1 Background Noise Levels

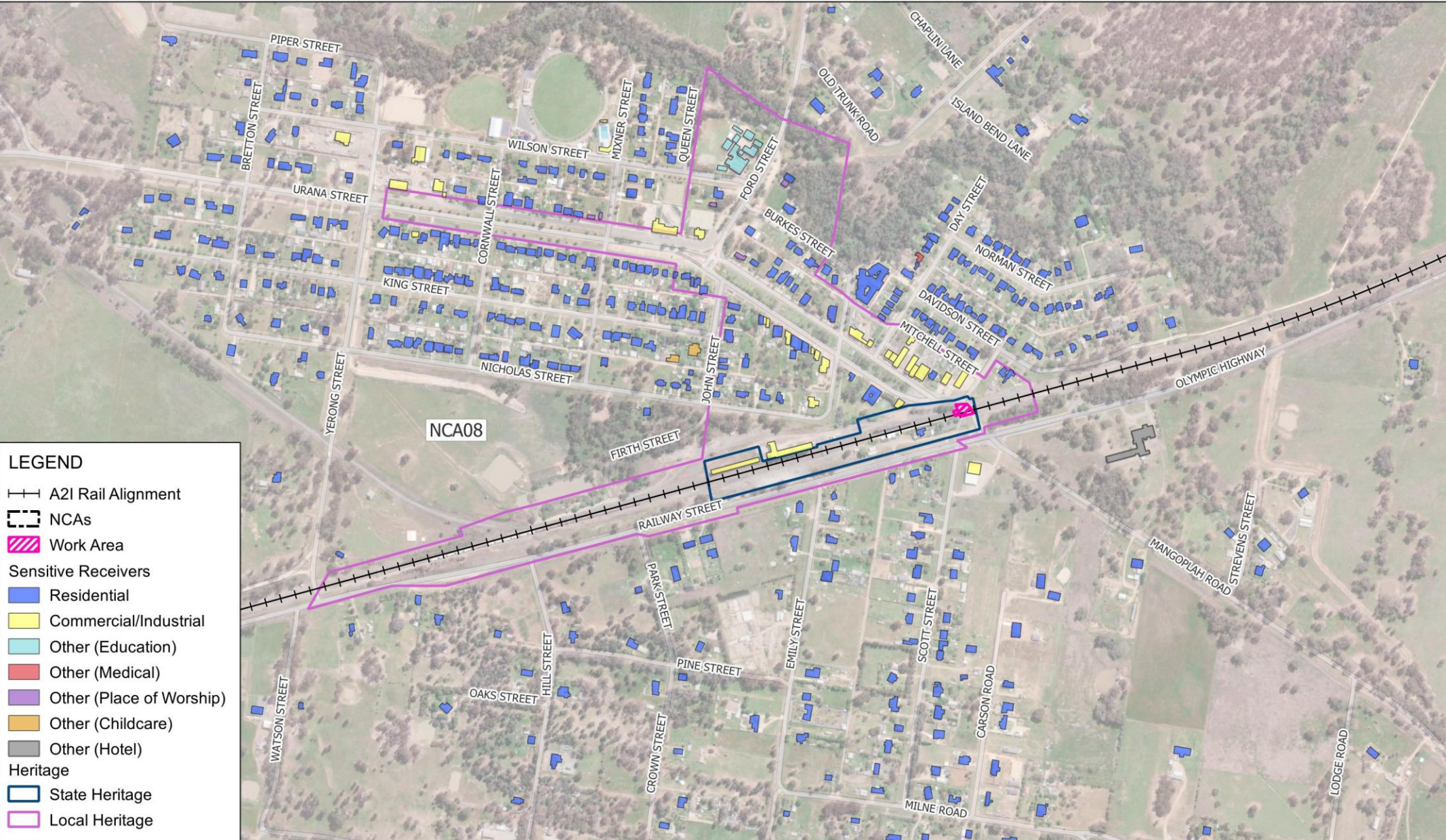
Noise Monitoring Location	NCA	Rating background Level (RBL) dB ICNG defined time periods ¹		
		Daytime period	Evening period	Night-time period
7	8	39	39 ² (41)	30

Note 1: The assessment periods are the daytime which is 7 am to 6 pm Monday to Saturday and 8 am to 6 pm on Sundays and public holidays, the evening which is 6 pm to 10 pm, and the night-time which is 10 pm to 7 am on Monday to Saturday and 10 pm to 8 am on Sunday and public holidays. See the NSW EPA Noise Policy for Industry (NPfI).

Note 2: The evening RBL data has been reduced to the daytime period RBL in this case (bracketed figures indicates the measured value).



H:\Projects-SLR\610-Sydney\610.031317\00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



Data Source:
ESRI World Imagery

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

Project Location and Receiver Classifications

FIGURE 1

4.0 Assessment Criteria

4.1 Construction Noise and Vibration Guidelines

The standards and guidelines relevant to the Project are listed in **Table 2**. These guidelines aim to protect the community and environment from excessive noise and vibration impacts during construction of projects.

Table 2 Construction Noise and Vibration Standards and Guidelines

Guideline/Policy Name	Where Guideline Used
<i>Inland Rail NSW Construction Noise and Vibration Framework</i> (CNVF)	Assessment and management protocols for airborne noise, ground-borne noise and vibration impacts for construction of NSW Inland Rail projects
<i>Interim Construction Noise Guideline</i> (ICNG) (DECC, 2009)	Assessment of airborne noise impacts on sensitive receivers
<i>Environmental Criteria for Road Traffic Noise</i> (ECRTN) (EPA, 1999)	Contains guidance for assessing potential sleep disturbance impacts
<i>Road Noise Policy</i> (RNP) (DECCW, 2011)	Assessment of construction traffic impacts
<i>BS 7385 Part 2-1993 Evaluation and measurement for vibration in buildings Part 2</i> , BSI, 1993	Assessment of vibration impacts (structural damage) to non-heritage sensitive structures
<i>DIN 4150:Part 3-2016 Structural vibration – Effects of vibration on structures</i> , Deutsches Institut für Normung, 2016	Screening assessment of vibration impacts (structural damage) to heritage sensitive structures, where the structure is found to be unsound
<i>Assessing Vibration: a technical guideline</i> (DEC, 2006)	Assessment of vibration impacts on sensitive receivers
<i>AS2187.2:2006 Explosives – Storage and use Part 2: Use of explosives</i>	Assessment of impacts from blasting activities
<i>Construction Noise and Vibration Guideline (Public Transport Infrastructure)</i> (CNVG-PTI) (Transport for NSW, 2023)	Utilised for minimum working distances for vibration intensive work.

4.2 Noise Management Levels

The noise management levels (NMLs) for residential and other sensitive receivers have been adopted from the CNVMP, as determined in the EIS. Receiver types and locations are shown **Figure 1**.

4.2.1 Residential Receivers

Project-specific NMLs for residential receivers were determined for NCA08 which encompasses all assessable receivers within The Rock. NMLs for other sensitive receivers are fixed values adopted from the *Interim Construction Noise Guideline* (ICNG) (DECC, 2009) and outlined in the CNVMP. Residential NMLs for the NCA surrounding the utilities work sites are shown in **Table 3**.



Table 3 Residential Noise Management Levels

NCA	Noise Management Level (LAeq(15minute) - dB)			Sleep disturbance Screening Level (RBL +15dB or 52 dB)	Sleep Awakening Reaction Level
	Approved Hours (RBL +10dB)	Out of Hours ^{1,2}			
		Daytime (RBL +5dB)	Evening (RBL +5dB)		
NCA08	49	44	44	35	65

Note 1: Approved Construction Hours are Monday to Saturday 7 am to 6 pm, as defined in CoA E69.

Note 2: Work outside of the Approved Hours is defined as OOHW = Out of Hours Work. Daytime out of hours is Sunday and public holidays between 8 am to 6 pm. Evening is 6pm to 10pm Monday – Sunday (including public holidays). Night-time is 10pm to 7am Monday – Saturday, and 10pm to 8am Sunday (including public holidays).

Highly Noise Affected

In addition to the NMLs presented above, the ICNG highly noise affected level (>75 dBA) represents the point above which there may be strong community reaction to noise and is applicable to all residential receivers during approved project hours as outlined in the CNVMP and the ICNG.

Sleep Disturbance

Where the sleep disturbance screening level (RBL + 15 dB or 52 dB, whichever is greater, **Table 3**) is exceeded, further assessment is required to determine whether the 'awakening reaction' level of LA_{max} 65 dB (external) would be exceeded and the likely number of these events. The awakening reaction level is the level above which residents are likely to be awoken from sleep.

4.2.2 Other Sensitive Land Uses and Commercial Receivers

The ICNG NMLs for 'other sensitive' non-residential land uses are shown in **Table 4**.

The ICNG references *AS2107:2016 Acoustics – Recommended design sound levels and reverberation times for building interiors* for criteria for 'other sensitive' receivers which are not listed in the guideline. Neither the ICNG nor AS2107 provide criteria for child care centres so the Association of Australian Acoustical Consultants *Guideline for Child Care Centre Acoustic Assessment* (GCCCAA) has been referenced.

Table 4 NMLs for 'Other Sensitive' Receivers

Land Use	Noise Management Level LAeq(15minute) (dB) (Applied when the property is in use)	
	Internal	External
ICNG 'Other Sensitive' Receivers		
Classrooms at schools and other educational institutions	45	55 ^{1,5}
Hospital wards and operating theatres	45	65 ²
Places of worship	45	55 ¹
Active recreation areas (characterised by sporting activities which generate noise)	-	65
Passive recreation areas (characterised by contemplative activities that generate little noise)	-	60
Commercial	-	70
Industrial	-	75



Land Use	Noise Management Level LAeq(15minute) (dB) (Applied when the property is in use)	
	Internal	External
Non-ICNG ‘Other Sensitive’ Receivers		
Hotel – daytime & evening ³	50	60 ^{1,5}
Hotel – night-time ³	35	45 ^{1,5}
Child care centres – activity areas ⁴	40	50 ^{1,5}
Child care centres – sleeping areas ⁴	35	45 ^{1,5}
Library ³	45	55 ¹
Public Building ³	50	60 ¹
Aged Care	Considered as Residential	

Note 1: It is assumed that these receivers have windows partially open for ventilation which results in internal noise levels being around 10 dB lower than the external noise level.

Note 2: It is assumed that these receivers have fixed windows which conservatively results in internal noise levels being around 20 dB lower than the external noise level.

Note 3: Criteria taken from AS2107.

Note 4: Criteria taken from Association of Australian Acoustical Consultants Guideline for Child Care Centre Acoustic Assessment.

Note 5: Some receivers near highways or rail lines may have building façade mitigation and air-conditioning. Where evidence is provided a 20dB reduction from external to internal may be adopted.

4.2.3 Ground-borne Noise

Construction work can cause ground-borne (structure-borne or regenerated) noise impacts in nearby buildings when vibration intensive equipment is in use, such as during tunnelling or excavation work using tunnel boring machines, roadheaders or rockbreakers. Vibration can be transmitted through the ground and into nearby buildings, which can then create audible noise impacts inside the building.

Ground-borne noise NMLs are applicable where ground-borne noise levels are likely to be higher than airborne noise levels, which can occur where work is underground or where surface work is shielded by noise barriers, other structures or façade mitigation at the receiver. Ground-borne noise is generally found to generate impacts during the evening and night-time periods when ambient noise levels are often much lower, and ground-borne noise is more prominent.

The internal ground-borne noise NMLs for residential receivers are shown in **Table 5**.

Table 5 Internal ground-borne NMLs

Receiver Type	Noise Management Level (LAeq(15minute) – dB)		
	Daytime ¹	Evening ²	Night-time ²
Residential	n/a	40	35

Note 1: Daytime ground-borne noise NMLs are not specified in the ICNG of CoA.

Note 2: Specified in the ICNG and CoA E75.

For other sensitive receivers, including commercial receivers such as offices and retail areas, the ICNG does not provide guidance in relation to acceptable ground-borne noise levels. For the purpose of this CNVIS, the internal airborne NMLs presented in **Table 4** will also be adopted for ground-borne noise.



4.3 Vibration Criteria

The effects of vibration from construction work can be divided into three categories:

- Those in which the occupants of buildings are disturbed (**human comfort**). People can sometimes perceive vibration impacts when vibration generating construction work is located close to occupied buildings. Vibration from construction work tends to be intermittent in nature and the EPA's Assessing Vibration: a technical guideline (2006) (AV:ATG) provides criteria for intermittent vibration based on the Vibration Dose Value (VDV), as shown in **Table 6**. While the construction activities for the proposal are generally not expected to result in continuous or impulsive vibration impacts, corresponding criteria are provided in **Table 7**.
- Those where building contents may be affected (**building contents**). People perceive vibration at levels well below those likely to cause damage to building contents. For most receivers, the human comfort vibration criteria are the most stringent and it is generally not necessary to set separate criteria for vibration effects on typical building contents. Exceptions to this can occur when vibration sensitive equipment, such as electron microscopes or medical imaging equipment, are in buildings near to construction work. No such equipment has been identified in the study area.
- Those where the integrity of the building may be compromised (**structural/cosmetic damage**). If vibration from construction work is sufficiently high it can cause cosmetic damage to elements of affected buildings. Industry standard cosmetic damage vibration limits are specified in British Standard BS 7385 and German Standard DIN 4150. The limits are shown in **Table 8** and **Table 9**.

Table 6 Human Comfort Vibration – Vibration Dose Values for Intermittent Vibration

Building Type	Assessment Period	Vibration Dose Value ¹ (m/s ^{1.75})	
		Preferred	Maximum
Critical Working Areas (eg operating theatres or laboratories)	Day or night-time	0.10	0.20
Residential	Daytime	0.20	0.40
	Night-time	0.13	0.26
Offices, schools, educational institutions and places of worship	Day or night-time	0.40	0.80
Workshops	Day or night-time	0.80	1.60

Note 1: The VDV accumulates vibration energy over the daytime and night-time assessment periods, and is dependent on the level of vibration as well as the duration.



Table 7 Human Comfort Vibration – Preferred and Maximum Weighted Root Mean Square Values for Continuous and Impulsive Vibration Acceleration (m/s²) 1–80 Hz

Location	Assessment period	Preferred values		Maximum values	
		z-axis	x- and y-axis	z-axis	x- and y-axis
Continuous vibration					
Residential	Daytime	0.010	0.0071	0.020	0.014
	Night-time	0.007	0.005	0.014	0.010
Offices, schools, educational institutions and places of worship	Day or night-time	0.020	0.014	0.040	0.028
Workshops	Day or night-time	0.04	0.029	0.080	0.058
Impulsive vibration					
Residential	Daytime	0.30	0.21	0.60	0.42
	Night-time	0.10	0.071	0.20	0.14
Offices, schools, educational institutions and places of worship	Day or night-time	0.64	0.46	1.28	0.92
Workshops	Day or night-time	0.64	0.46	1.28	0.92

Table 8 Cosmetic Damage – BS 7385 Transient Vibration Values for Minimal Risk of Damage

Group	Type of Building	Peak Component Particle Velocity in Frequency Range of Predominant Pulse	
		4 Hz to 15 Hz	15 Hz and Above
1	Reinforced or framed structures. Industrial and heavy commercial buildings	50 mm/s at 4 Hz and above	
2	Unreinforced or light framed structures. Residential or light commercial type buildings	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above

Note 1: Where the dynamic loading caused by continuous vibration may give rise to dynamic magnification due to resonance, especially at the lower frequencies where lower guide values apply, then the guide values may need to be reduced by up to 50%.

Table 9 Cosmetic Damage – DIN 4150 Guideline Values for Short-term Vibration on Structures

Group	Type of Structure	Guideline Values Vibration Velocity (mm/s)				
		Foundation, All Directions at a Frequency of			Topmost Floor, Horizontal	Floor Slabs, Vertical
		1 to 10 Hz	10 to 50 Hz	50 to 100 Hz	All frequencies	All frequencies
1	Buildings used for commercial purposes, industrial buildings and buildings of similar design	20	20 to 40	40 to 50	40	20
2	Residential buildings and buildings of similar design and/or occupancy	5	5 to 15	15 to 20	15	20



Group	Type of Structure	Guideline Values Vibration Velocity (mm/s)				
		Foundation, All Directions at a Frequency of			Topmost Floor, Horizontal	Floor Slabs, Vertical
		1 to 10 Hz	10 to 50 Hz	50 to 100 Hz	All frequencies	All frequencies
3	Structures that, because of their particular sensitivity to vibration, cannot be classified as Group 1 or 2 and are of great intrinsic value (eg heritage listed buildings)	3	3 to 8	8 to 10	8	20 ¹

Note 1: It may be necessary to lower the relevant guideline value markedly to prevent minor damage.

4.3.1 Heritage Buildings or Structures

Heritage listed buildings and structures should be considered on a case-by-case basis but BS 7385 notes that buildings of historical value should not be assumed to be more sensitive to vibration, unless structurally unsound. Where a heritage building is deemed to be sensitive, the more stringent DIN 4150 Group 3 guideline values in **Table 9** can be applied.

Heritage Structures

Table 10 includes heritage structures from the State Heritage Register and Local Environment Plan located at The Rock nearby construction work areas. The construction work area is within the area which bounds Rock Station and Yard, The Rock Station and yard group and the The Rock Urban Conservation Area.

Table 10 Heritage Items Nearby Construction Work Areas

Heritage Item	Listing	Construction/Condition
Rock Station and Yard	Local Environmental Plan I10	The Rock Station is a weatherboard structure with a gabled roof clad in corrugated iron sheets. The gantry crane is located in the centre of the railway yard. The Station Master's residence is a simple brick building, which has been rendered. Both buildings appear to be in good condition, although many of the rooms in the station building have been closed up.
The Rock Station and yard group	State Heritage Register 01268	

The residential area surrounding The Rock Yard is part of The Rock Urban Conservation Area, which also includes the eastern extent of The Rock Yard. The conservation area includes a number of nineteenth and early twentieth century buildings. These heritage areas are shown in **Figure 1**.

Further information on the heritage items in **Table 10** are provided in the Construction Cultural Heritage Management Plan (CCHMP). No structures nearby the work areas identified in this CNVIS are flagged as structurally unsound in the CCHMP.

As the works related to The Rock are not expected to require any vibration intensive equipment, surveys of heritage structures (with reference to CoA E120 and E121) are not required.



4.3.2 Buried Pipework and Utilities

The German Standard DIN 4150-3:1999 “Structural Vibration Part 3: Effects of vibration in structures” provides guideline values for evaluating the effect of vibration on buried pipework. The values are based on the assumption that pipes have been manufactured and laid using current technology. Additional considerations may be required at junctions. The recommended limits for short term vibration to ensure minimal risk of damage are presented numerically in **Table 11**.

Table 11 Guideline Values for Short Term Vibration on Buried Pipework

Line	Pipe Material	Guideline value at the Pipe ^{1,2} (PPV mm/s)
1	Steel (including welded pipes)	100
2	Clay, concrete, reinforced concrete, pre stressed concrete, metal (with or without flange)	80
3	Masonry, plastic ³	50

Note 1: Mounting equipment directly onto pipes may not be possible. If the vibration source is not immediately next to the pipework, measurements can be made on the ground surface to obtain an estimate. Generally, this vibration level will be greater than the level measured directly on the pipework.

Note 2: The guideline values may be reduced by 50% without further analysis when evaluating the effects of long-term vibration on buried pipework.

Note 3: Drainpipes shall be evaluated using the values given for Line 3.

Buried Pipework and Utilities

No buried pipework or utilities have been identified in this CNVIS at risk of impact from vibration. Therefore, no additional consideration or assessment has been undertaken in relation to buried pipework and utilities.

4.3.3 Minimum Working Distances for Vibration Intensive Work

Minimum working distances for typical vibration intensive construction equipment have been sourced from the Transport for NSW (TfNSW) Construction Noise and Vibration Guideline (Public Transport Infrastructure) (CNVG-PTI) and are shown in **Table 12**. The minimum working distances are for both cosmetic damage (from BS 7385 and DIN 4150) and human comfort (from the NSW EPA Assessing Vibration: a technical guideline). They are calculated from empirical data which suggests that where work is further from receivers than the quoted minimum distances then impacts are not considered likely.

The minimum working distances listed in the CNVG were used to derive the minimum working distances required for cosmetic damage to industrial and heavy commercial buildings (also reinforced or framed structures). The following pseudo-power law relationship has been used in the derivations:

$$V_2 = V_1 \times \left(\frac{D_1}{D_2} \right)^B$$

where a site exponent value of B = 1.6 is adopted for the calculations, as per AS2187.2:2006



Table 12 Recommended Minimum Working Distances from Vibration Intensive Equipment

Plant Item	Rating/Description	Minimum Distance			
		Cosmetic Damage			Human Response (NSW EPA Guideline) ²
		Residential and Light Commercial (BS 7385)	Heritage Items ¹ (DIN 4150, Group 3)	Industrial and Heavy Commercial (BS 7385)	
Vibratory Roller	<50 kN (1–2 tonne)	5 m	11 m	3 m	15 m to 20 m
	<100 kN (2–4 tonne)	6 m	13 m	3 m	20 m
	<200 kN (4–6 tonne)	12 m	25 m	6 m	40 m
	<300 kN (7–13 tonne)	15 m	31 m	8 m	100 m
	>300 kN (13–18 tonne)	20 m	40 m	10 m	100 m
	>300 kN (>18 tonne)	25 m	50 m	12 m	100 m
Small Hydraulic Hammer	300 kg (5 to 12 t excavator)	2 m	5 m	1 m	7 m
Medium Hydraulic Hammer	900 kg (12 to 18 t excavator)	7 m	15 m	4 m	23 m
Large Hydraulic Hammer	1,600 kg (18 to 34 t excavator)	22 m	44 m	11 m	73 m
Vibratory Pile Driver	Sheet piles	2 m to 20 m	5 m to 40 m	1 to 10 m	20 m
Piling Rig – Bored	≤ 800 mm	2 m (nominal)	5 m	1 m	4 m
Jackhammer	Hand held	1 m (nominal)	3 m	1 m	2 m
Ballast Tamping ²	N/A	5 m	10 m	3 m	30 m

Note 1: Minimum working distances for heritage items that have been identified as structurally unsound or otherwise particularly sensitive to vibration. These distances have been calculated based on the 2.5 mm/s PPV criteria from DIN 4150 and the cosmetic damage minimum working distances presented in the CNVG-PTI with reference to BS 7385.

Note 2: Based on SLR measurement data. The human response minimum working distance for Ballast Tamping is determined based on a residential night-time preferred VDV criterion.

The minimum working distances are indicative and will vary depending on the particular item of equipment and local geotechnical conditions. The distances apply to cosmetic damage of typical buildings under typical geotechnical conditions.



4.4 Traffic on Surrounding Roads

The potential impacts from project related traffic on the surrounding public roads are assessed using the NSW EPA *Road Noise Policy* (RNP). An initial screening test is first applied to evaluate if existing road traffic noise levels are expected to increase by more than 2.0 dB. Where this is considered likely, further assessment is required using the RNP criteria shown in **Table 13**.

Table 13 RNP/NCG Criteria for Assessing Traffic on Public Roads

Road Category	Type of Project/Land Use	Assessment Criteria (dB)	
		Daytime (7 am – 10 pm)	Night-time (10 pm – 7 am)
Freeway/ arterial/ sub-arterial roads	Existing residences affected by additional traffic on existing freeways/arterial/sub-arterial roads generated by land use developments	LAeq(15hour) 60 (external)	LAeq(9hour) 55 (external)
Local roads	Existing residences affected by additional traffic on existing local roads generated by land use developments	LAeq(1hour) 55 (external)	LAeq(1hour) 50 (external)

5.0 Noise Assessment

The potential construction noise levels from the Project have been predicted using ISO 9613:2 algorithm in SoundPLAN noise modelling software. The model includes ground topography, buildings and representative noise sources from the Project.

5.1 Work Scenario

Noise modelling scenarios have been determined based on key Project noise generating stages, supplied by the Project team. A detailed description of each work scenario and the total sound power levels (Lw) are provided in **Table 14**.

A summary of each construction scenario and the indicative work periods required are shown in **Table 15**, as per the working hours defined in the CNVMP. The location of the work area is shown in **Figure 2**.

Table 14 Work Scenario Descriptions

ID	Scenario	Description	Total Lw
W.001	Site Establishment/ Demobilisation	<ul style="list-style-type: none"> Site Compound delivery and set up Laydown construction 	115
W.002	Compound Operation	<ul style="list-style-type: none"> Operation of the site compound Delivery/removal of materials/equipment 	113
W.003	Gantry Modification	<ul style="list-style-type: none"> Removal of existing gantry knee bracing, modification and reinstatement at nominated location 	118
W.004	Utility and Signalling Work	<ul style="list-style-type: none"> Removal and replacement of existing signals and utilities as necessary 	111



Table 15 Scenarios and Periods of Work

ID	Scenario	Hours of Work				Indicative Start Date	Likely Duration
		Approved Hours	Out-of-Hours Work ⁴				
			Day OOH ¹	Evening ²	Night ³		
W.001	Site Establishment / Demobilisation	✓	✓	-	-	Aug-25	1 month
W.002	Compound Operation	✓	✓	✓	✓	Aug-25	1 month
W.003	Gantry Modification	✓	✓	✓	✓	Sep-25	1 month
W.004	Utility and Signalling Work	✓	✓	✓	✓ ⁵	Aug-25	1 month

Note 1: Daytime out of hours is 8 am to 6 pm on Sunday and public holidays.

Note 2: Evening is 6 pm to 10 pm Monday – Sunday (including public holidays).

Note 3: Night is 10 pm to 7 am Monday – Saturday, and 10pm to 8am Sunday (including public holidays).

Note 4: Where works are expected to occur outside of the standard working hours, further detail around the specific work tasks, duration and justification of OOHW must be identified in the OOHW permit, required by the OOHW Protocol or EPL.

Note 5: Night-time works (for W.004) are expected to be limited to the 6am - 7am window during a rail possession.

Figure 2 Construction Work Location



5.1.1 Modelling Scenarios and Equipment

The assessment uses ‘realistic worst-case’ scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario, as required by the ICNG. Sound power levels (L_W) for the construction equipment used in the modelling are listed in **Appendix B**.

5.2 Predicted Noise Levels

The following overview is based on the predicted impacts at the most affected receivers and is representative of the worst-case noise levels that are likely to occur during construction.

The assessment shows the predicted ‘mitigated’ impacts based on the exceedance of the noise management levels, as per the categories in **Table 16**. The mitigation and management measures adopted for this CNVIS are provided in **Section 8.0**.

Table 16 Exceedance Bands and Impact Colouring

Subjective Classification	Exceedance of Noise Management Level		Impact Colouring
	Daytime	Out of Hours	
Negligible	No exceedance	No exceedance	
Noticeable	-	1 to 5 dB	
Clearly Audible	1 to 10 dB	6 to 15 dB	
Moderately Intrusive	11 to 20 dB	16 to 25 dB	
Highly Intrusive	> 20 dB	> 25 dB	

A summary of the number of buildings where NML exceedances were predicted for the various work scenarios is shown in **Table 17**. The number of receivers above the ‘highly noise affected’ (HNA) level are also included in the table. Maps of the predicted worst-case noise impacts are presented in **Appendix C**.

The assessment presents the combined predicted noise impacts for each scenario. Meaning, the worst-case result at each receiver is considered for the work area where each scenario is to be undertaken.

The assessment is generally considered conservative as the calculations assume several items of construction equipment are in use at the same time within individual scenarios. As outlined in **Section 5.1.1**, the assessment uses ‘realistic worst-case’ scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario.

The exceedances shown in **Table 17** are therefore representative of a ‘realistic worst-case’ 15-minute period, and are unlikely to occur for extended periods of time throughout the entire construction period at any given receiver.

The indicative work durations presented in **Table 15** represent a window of time where the scenarios could occur, and does not represent the entire duration of the exceedances shown in **Table 17**.

In reality, there would frequently be periods when construction noise levels are much lower than the worst-case levels predicted as well as times when no equipment is in use and no noise impacts occur.



Table 17 Overview of NML Exceedances

ID	Scenario	Number of Receivers																	
		HNA ¹	With NML exceedance (dB) ²																
			Approved Daytime			Out of Hours													
						Daytime OOH				Evening				Night-time				Sleep Disturbance	Sleep Awakening
			1-10	11-20	>20	1-5	6-15	16-25	>25	1-5	6-15	16-25	>25	1-5	6-15	16-25	>25	>Screening Level (52 dB)	>65 dB
Residential Receivers																			
W.001	Site Establishment/ Demobilisation	-	55	13	-	58	55	13	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W.002	Compound Operation	-	39	6	-	58	39	6	-	58	39	6	-	125	113	34	5	103	13
W.003	Gantry Modification	-	84	19	2	68	84	19	2	68	84	19	2	108	187	72	17	173	29
W.004	Utility and Signalling Work	-	26	5	-	43	26	5	-	43	26	5	-	108	97	26	3	56	5
Other Sensitive Receivers																			
W.001	Site Establishment/ Demobilisation	n/a	1	-	-	1	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W.002	Compound Operation	n/a	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	n/a	n/a
W.003	Gantry Modification	n/a	2	-	-	2	-	-	-	-	-	-	-	-	1	-	-	n/a	n/a
W.004	Utility and Signalling Work	n/a	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	n/a	n/a

Note 1: Highly noise affected, based on ICNG definition (i.e. predicted LAeq(15minute) noise at residential receiver is greater than 75 dB).

Note 2: Based on worst-case predicted noise levels



A summary of the predicted worst-case noise levels is shown below:

Residential Receivers

- ‘Highly intrusive’ noise impacts are predicted at two residential receivers for ‘*W.003 – Gantry Modification*’ during the approved daytime, daytime OOH and evening periods.
 - ‘Moderately intrusive’ impacts are predicted at the nearest residential receivers for all other works scenarios (*W.001*, *W.002* and *W.004*) during these periods.
 - The impacts are predicted to be the highest where work is conducted nearby to sensitive receivers and/or when noise intensive equipment is required.
- All works scenarios with the potential to occur during the night-time period are predicted to generate ‘highly intrusive’ noise impacts at the nearest residential receivers.
 - The greatest impacts are predicted during *W.003*, where up to 17 residential receivers are predicted to experience ‘highly intrusive’ impacts.
 - Night-time works associated with *W.004* are expected to be limited to the 6 am to 7 am window during a rail possession, as outlined in **Section 5.1.1**.
- Receivers which are further away from the work are subject to correspondingly lower noise levels and impacts. The extent of predicted worst-case noise impacts for each works scenario are presented in **Appendix C**.

Other Sensitive Receivers

- ‘Clearly audible’ impacts are predicted at the closest ‘other sensitive’ receiver during approved construction hours for work associated with *W.001* and *W.003*.
 - ‘Noticeable’ impacts are also predicted during these scenarios at the same receivers during the daytime OOH periods.
- No impacts are predicted at other sensitive receivers during the evening period.
- ‘Clearly audible’ impacts are predicted at the closest ‘other sensitive’ receivers for all scenarios with the potential to occur during the night-time period (*W.002*, *W.003* and *W.004*).
- Other sensitive receivers should only be considered impacted ‘when in use’.

It is noted that for most scenarios, the noisiest work would only be required for a relatively short period of the total duration. Noise levels and impacts at other times would be much lower than the worst-case levels predicted, and there would often be times when noise levels are low and no impacts would occur.

A review of the predictions shows that both the sleep disturbance screening level and sleep awakening reaction level are likely to be exceeded when night work occurs near residential receivers. The receivers that would potentially be affected by sleep awakening impacts are the same receivers where ‘moderately intrusive’ and ‘highly intrusive’ night-time impacts have been predicted (refer to **Appendix C**).

All appropriate feasible and reasonable construction noise mitigation measures will be applied to work where exceedances of the NMLs are predicted. Construction noise mitigation measures are discussed in **Section 8.0**.



5.3 Ground-borne Noise

Ground-borne construction noise impacts from the Project are not anticipated as vibration intensive work with the potential to generate perceptible ground-borne noise, is not included in the scope of work. Vibration intensive work for the Project will be completed outdoors meaning airborne noise levels at the nearest receivers are expected to be higher than the corresponding internal ground-borne noise levels.

Where airborne noise levels are higher than ground-borne noise levels it is not necessary to evaluate potential ground-borne noise impacts and as such, they have not been considered further for this assessment.

6.0 Vibration Assessment

Due to the limited scope of work at The Rock, vibration impacts from the Project are not anticipated as vibration intensive items of equipment are not expected to be required during the gantry modification work.

In the event that additional work is undertaken which requires the use of vibration intensive items of plant, such as those identified in **Table 12**, a vibration impact assessment must be conducted prior to the commencement of work.

Heritage Items

As outlined above, vibration intensive items of equipment are not expected to be required during the gantry modification work. Furthermore, the gantry modification work would likely have a negligible impact on the overall heritage significance of the Railway Station and Yard Group. As a result, vibration impacts from the Project on heritage structures are not anticipated.

In the event that additional work is undertaken which requires the use of vibration intensive items of plant within minimum working distances of heritage structures, these works should be covered in a vibration impact assessment, and the measures outlined in CoA E80, CoAE81 and CoA E120 to E122 implemented as required.



7.0 Construction Traffic Assessment

The EIS identified that during the construction phase of the project, heavy vehicles would be required for materials and equipment delivery while light vehicles will transport workers to and from the site. This additional road traffic may impact receivers along the proposed transport routes.

No additional information has been provided regarding construction road traffic, therefore a summary of the predicted daytime traffic noise levels from the EIS is shown in **Table 18**.

Table 18 Construction Traffic Assessment

Traffic Route	Road Type	Predicted Construction Traffic Noise (Both Directions) LAeq (Period)		Exceed base criterion? Day ¹ (7am – 10pm)	Potential Increase > 2dB	Potential Noise Impact
		Existing	Existing + Proposed			
Olympic Highway /Melville Street	Arterial	59.5	59.8	No	No	No
Urana Street	Sub-arterial	45.6	46.7	No	No	No

Note 1: Freeway/arterial/sub-arterial roads: LAeq(15hour) 60dB(external)
Local roads: LAeq(1hour) 55dB (external)

The EIS found that construction traffic associated with The Rock enhancement works on public roads is likely to comply with the road traffic noise goals.

The EIS did not assess construction traffic during the night-time period, and no additional information has been provided regarding construction road traffic. Therefore, it is conservatively assumed that where night-time construction traffic is required, impacts could be experienced by residences along construction routes on sub-arterial and local roads within close proximity to the work sites. Night-time noise impacts are not anticipated on arterial roads.

Extended traffic diversions are not expected for the works assessed in this CNVIS, and any necessary diversions will be confined to daytime hours. Should night-time diversions be required for construction activities, a more detailed assessment will be undertaken and provided.

Mitigation and management measures to assist in minimising noise impacts from construction traffic are shown in **Section 8.1**.



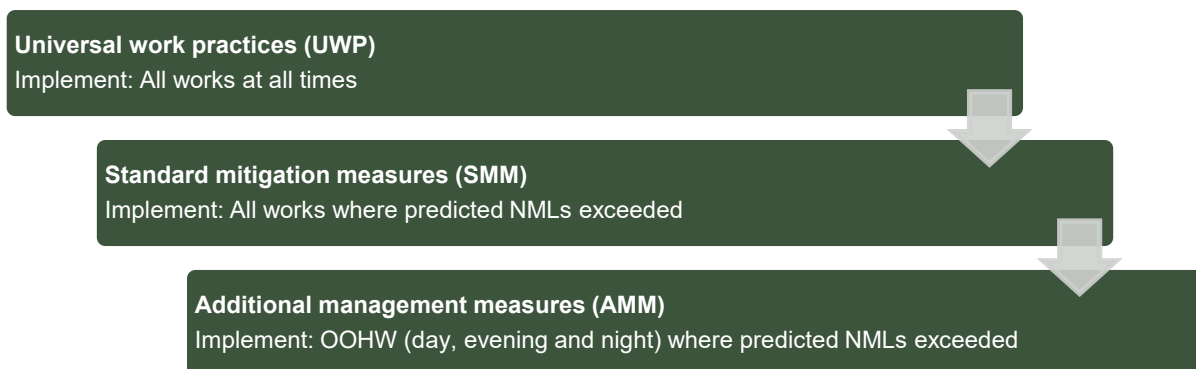
8.0 Mitigation and Management Measures

Noise from the Project may be apparent at the nearest receivers at certain times during construction. The Project should apply all feasible and reasonable mitigation measures to minimise the impacts.

In accordance with CoA E74, works that exceed the noise management levels and/or vibration criteria must be managed in accordance with the CNVMP.

The Inland Rail NSW Construction Noise and Vibration Framework (CNVF) has been adopted as a guideline for this project and outlines a hierarchy of work practices and mitigation measures to minimise the impact of construction noise and vibration on the community. This hierarchy is shown in **Figure 3**.

Figure 3 Hierarchy of Work Practices and Mitigation Measures



The universal work practices (UWP) and standard mitigation measures (SMM) for the overall A2I project are outlined in the CNVMP. All mitigation and management measures outlined in the CNVMP will be adopted in accordance with CoA E74. Site specific mitigation measures are outlined below in **Section 8.1**. These measures have been incorporated into the noise modelling assessment to provide mitigated results. Additional Management Measures (AMM) are outlined in **Section 8.3**.

8.1 Site Specific Mitigation Measures

Table 19 outlines the mitigation and management measures that will be adopted to minimise potential noise and vibration impacts associated with this CNVIS at surrounding sensitive receivers. These measures have been considered in noise modelling based on the total scenario sound power levels, refer **Appendix B**.

Table 19 Site Specific Mitigation Measures

Measure	Reference / Notes
Project Planning	
Use quieter and less vibration emitting construction methods where feasible and reasonable.	Best practice
Works will be completed during the approved daytime construction hours where possible, as outlined in Section 2.2 . Some unavoidable OOHW will be required due to road and rail traffic management restrictions, as outlined in Section 2.3	Best practice CoA E69 CoA E71



Measure	Reference / Notes
Where OOHW is required, an OOHW Permit will be prepared, as required by the OOHW Protocol or EPL. Further detail around the specific work tasks, duration and justification of OOHW must be identified in the OOHW permit.	Best practice CoA E71 CoA E72 CoA E73
Scheduling	
Highly noise intensive works that result in an exceedance of the applicable NML at the same receiver must only be undertaken: a) Between 08:00am – 06:00pm Monday to Friday; b) Between 08:00am – 01:00pm Saturday; and c) if continuously, then not exceeding three (3) hours, with a minimum cessation of work of not less than one hour. Refer Section 8.2 .	Best practice CoA E70
Noise generating work in the vicinity of community, religious, educational institutions, noise and vibration-sensitive businesses and critical working areas (such as exam halls, theatres, laboratories and operating theatres) resulting in noise levels above the NMLs will not be timetabled during sensitive periods, unless other reasonable arrangements with the affected institutions can be made at no cost to the affected institution. Refer to Community Consultation in Section 8.5 .	Best practice CoA E76
All work undertaken for the delivery of the project including those undertaken by third parties (such as utility relocations), must be coordinated to ensure respite periods are provided.	Best practice, CoA E83
Site Layout	
Compounds and worksites have been designed to promote one-way traffic and minimise the need for vehicle reversing.	Best practice
Construction activities must be planned to minimise vehicle movements around the Site.	
Work compounds, parking areas, and equipment and material stockpiles will be positioned away from noise-sensitive locations and take advantage of existing screening from local topography.	
Equipment that is noisy will be started away from sensitive receivers where practicable.	
Training	
Training will be provided to all personnel on noise and vibration requirements for the project. Inductions and toolbox talks to be used to inform personnel of the location and sensitivity of surrounding receivers.	Best practice
The induction protocols must include awareness of noise generating activities and mitigation measures and techniques that should be implemented.	
Training must be conducted for appropriate community behaviours when access/egress the Site.	
Plant and Equipment Source Mitigation	
All plant and equipment must be maintained in a proper and efficient condition, operated in a proper and efficient manner, and feature standard noise reduction measures where applicable.	Best practice CNVF
Plant and equipment will be selected that can be fitted with options to minimise noise such as covers, mufflers, shrouds and other noise suppression equipment. Low noise emission plant and equipment must be selected where available.	
Non-tonal reversing beepers (or an equivalent mechanism) must be fitted and used on all construction vehicles and mobile plant regularly used on site and for any out-of-hours work, including delivery vehicles.	



Measure	Reference / Notes
Stationary noise sources will be sited behind structures (or temporary screens) that act as barriers, or at the greatest distance from the noise-sensitive area (where practicable). Equipment will be oriented so that noise emissions are directed away from any sensitive areas.	
Noise generating equipment will be regularly checked and effectively maintained, including checking of hatches/enclosures regularly to ensure that seals are in good condition and doors close properly against seals.	
Noise monitoring spot checks of equipment will be completed to ensure individual items are operating as expected	
Dropping materials from a height will be avoided.	
Loading and unloading will be carried out as far as possible from noise sensitive areas.	
Alternative construction methods have been considered for activities including site establishment (eg non-vibratory rollers). Use of alternative construction methods for other scenarios will depend on the specific circumstances and therefore the worst-case scenario is included for the purpose of this CNVIS.	
Construction Traffic	
Construction traffic routes to site will be limited to major roads where possible.	Best practice
Trucks will not queue outside residential properties.	
Truck drivers will be instructed to avoid compression braking as far as practicable.	
Delivery vehicles should be fitted with straps rather than chains for unloading, wherever possible.	
Truck movements will be kept to a minimum where possible (ie trucks are fully loaded on each trip).	
Screening	
Install purpose-built screening or enclosures around long-term fixed plant that has the potential to impact nearby receivers.	Best practice CNVF
The layout of the site will take advantage of existing screening from local topography, where possible. Site huts, maintenance sheds and/or containers will be positioned between noisy equipment and the affected receivers.	
Implementation of temporary noise barriers for highly intensive noise activities, such as saw cutting or rock breaking.	
Community Consultation	
Regular communications on the activities and progress of the proposal shall be provided to the community (eg via newsletter, email and/or website).	Best practice CNVF
A telephone, email and web-based community information service shall be established to allow the community to obtain additional information on construction activities, provide feedback or make a complaint.	Best practice CNVF
Notification will be provided to all impacted residences along construction traffic routes (including temporary diversions).	Best practice
Where complaints are received, work practices will be reviewed and feasible and reasonable practices applied to minimise any further impacts.	
Monitoring	
Noise and/or vibration monitoring will be conducted (as appropriate) when noise/vibration intensive works are being undertaken in close proximity to sensitive receivers.	Best practice CNVF CoA E80 CoA E81
Noise and vibration monitoring will be undertaken in accordance with the CNVMP and Monitoring Program.	
See Section 8.7 for details of monitoring requirements.	



Measure	Reference / Notes
Vibration	
No vibration impacts are anticipated for this CNVIS. In the event that additional vibration generating work is undertaken which requires the use of other items of plant (not assessed in this CNVIS), a vibration impact assessment must be conducted prior to the commencement of work, and the measures outlined in CoA E80, CoAE81 and CoA E120 to E122 implemented as required.	Best practice CoA E80 CoA E81 CoA E120 CoA E121 CoA E122

8.2 Respite

In accordance with CoA E70, except as permitted by an EPL, highly noise intensive works that result in an exceedance of the applicable NML at the same receiver must only be undertaken:

- a) *Between 08:00am – 06:00pm Monday to Friday;*
- b) *Between 08:00am – 01:00pm Saturday; and*
- c) *if continuously, then not exceeding three (3) hours, with a minimum cessation of work of not less than one hour.*

For the purposes of this condition, ‘continuously’ includes any period during which there is less than one hour between ceasing and recommencing any of the work.

In accordance with CoA E72 and E83, the procedure outlined in the OOHW Protocol must be implemented to coordinate OOHW (including those approved by an EPL or undertaken by a third party), to ensure appropriate respite is provided. This coordination must include:

- a) rescheduling work to provide respite to impacted noise sensitive land use(s) so that the respite is achieved; or
- b) the provision of alternative respite or mitigation to impacted noise sensitive land use(s); and
- c) the provision of documentary evidence to the AA in support of any decision made in relation to respite or mitigation.

The consideration of respite must also include all other CSSI, SSI and SSD projects which may cause cumulative and/or consecutive impacts at receivers affected by the delivery of the CSSI.

Highly noise intensive works (as defined in **Section 2.2.1**) are required in various work scenarios. As outlined above, highly noise intensive work that results in an exceedance of the applicable NML is restricted to the hours shown above and must have respite periods as defined above.

CoA E70 applies to the following work scenarios where highly noise intensive works are proposed and the NML is predicted to be exceeded:

- W.003 – Gantry Modification

In accordance with CoA E71, W.003 requires approval through the OOHW Protocol or and EPL to occur outside the hours listed above from CoA E70.

Respite offers are also required as part of the additional mitigation measured outlined in **Section 8.3**.



8.3 Additional Mitigation and Management Measures for Out of Hours Work

Where the ‘mitigated’ construction noise levels remain above the NMLs, the Additional Mitigation Measures Matrix (AMMM) adapted from in the CNVF and CNVMP is to be implemented. The approach, guided by the AMMM, is primarily aimed at pro-active engagement with affected sensitive receptors rather than additional noise reducing mitigation. OOHW has been divided into three periods (Day, Evening and Night) as adapted from the CNVF around the approved project hours (CoA E69).

Additional mitigation measures described in the CNVMP are listed in **Table 20**. The additional mitigation measures to be adopted for airborne noise are identified in **Table 21**.. The additional mitigation measures for construction vibration are identified in **Table 22**.

Table 20 Additional Mitigation Measures

Mitigation/Management Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

- Note 1: As outlined in the CNVF, Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.
- Note 2: As outlined in the CNVF, Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.
- Note 3: As outlined in the CNVF, Respite Offers are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.



Table 21 Airborne Noise – Additional Mitigation Measures Matrix

Time Period		Exceedance of NML	Perception	Duration	Communication Category/ Management Measure
OOHW Daytime Period	Sunday 8am – 6pm (including public holidays)	<5	Noticeable	Any	CO1
		5-15	Clearly audible	Any	CO1
		16-25	Moderately intrusive	Any	CO1, CO2
		>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period	Monday – Sunday 6pm – 10pm (including public holidays)	<5	Noticeable	Any	CO1
		5-15	Clearly audible	Any	CO1
		16-25	Moderately intrusive	Any	CO1, CO2
		>25	Highly intrusive	Any	CO1, CO2
				>2 consecutive rest periods ¹	CO1, CO2, RO
OOHW Night Period	Monday – Saturday 10pm – 7am	<5	Noticeable	Any	CO1
		5-15	Clearly audible	Any	CO1
	Sunday 10pm – 8am (including public holidays)	16-25	Moderately intrusive	Any	CO1, CO2
				>2 consecutive sleep periods ¹	CO1, CO2, RO, AO
	>25	Highly intrusive		Any	CO1, CO2, RO
				>2 consecutive sleep periods ¹	CO1, CO2, RO, AO, AltA

Note 1: Where the duration exceeds 2 consecutive rest/sleep periods, the corresponding additional mitigation measures will be provided for all periods where construction exceedances are expected to occur.

Table 22 Vibration – Additional Mitigation Measures Matrix

Time Period		Duration	Exceedance of 'preferred' value	Exceedance of 'maximum' value
OOHW Daytime Period	Sunday 8am – 6pm (including public holidays)	Any	CO1, CO2	CO1, CO2, RO
OOHW Evening Period	Monday – Sunday 6pm – 10pm (including public holidays)	Any	CO1, CO2	CO1, CO2, RO
OOHW Night Period	Monday – Saturday 10pm – 7am Sunday 10pm – 8am (including public holidays)	Any	CO1, CO2, RO	CO1, CO2, RO, AltA



8.3.1 Receivers Eligible for Additional Mitigation Measures - Noise

The receivers eligible for additional mitigation and management measures due to construction noise from the project work are presented in **Appendix C** and **Appendix D**. Where OOHW is required additional mitigation measures as detailed in **Table 21** must be implemented in accordance with the CNVMP and CNVF.

As outlined in **Section 5.2**, 'highly intrusive' impacts at nearest residential receivers are predicted for most work scenarios due to the proximity to the work. The addresses of the impacted receivers for potential OOHW are provided in **Appendix D**.

Work scenarios that are scheduled for OOHW are predicted to create 'highly intrusive' noise levels at residential receivers. Should these works occur for more than two consecutive sleep periods in a row, additional mitigation measures as outlined in as in **Table 21** must be provided to affected sensitive receivers.

Where possible, work would be scheduled to avoid impacting the same receivers for more than two consecutive sleep periods. Receivers that would be impacted for more than two consecutive sleep periods must be identified in the OOHW permit.

8.3.2 Receivers Eligible for Additional Mitigation Measures - Vibration

As defined in **Section 6.0** vibration intensive equipment is not expected to be required as part of the gantry modification works. Therefore, no additional mitigation from vibration activities is required.

Should vibration intensive equipment be required to be used in the OOHW periods, receivers that would be impacted must be identified in an OOHW permit discussed in **Section 2.4**, and any appropriate additional mitigation measures implemented.

8.4 Community Notification

As detailed in the standard management measures outlined in the CNVF:

- A telephone, email and web-based community information service will be established to allow the community to obtain additional information on construction activities, provide feedback or make a complaint.
- Regular communications on the activities and progress of the proposal shall be provided to the community (e.g. via newsletter, email and/or website).

8.5 Consultation with Affected Receivers

In accordance with CoA E78, the CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. Details of this consultation are provided below.

8.5.1 Consultation Approach

This section discusses the consultation approach that has been undertaken for the purposes of the work subject to this CNVIS. It is noted that consultation with affected sensitive land users on what specific mitigation measures they may require is considered to be an ongoing and live process and as such, measures that are personal to individual affected sensitive land user(s) will not be regularly documented in this CNVIS. Consultation records will be made available to the AA upon request.

The purpose of this consultation is to identify receivers who have specific circumstances that need further consideration during construction – for example, households who have children



undertaking exams (HSC or similar), households who have vulnerable persons with disabilities or medical conditions, shift workers, etc.

The consultation approach utilised by Martinus Rail is in accordance with the Community Communications Strategy. The approach involved directly contacting the affected sensitive land user identified by this CNVIS through one or more of the following methods:

- Surveys distributed by email and paper notifications
- Door-knocks with a 'Sorry we missed you' card for those who were not at home
- Notifications
- Phone calls
- Emails
- Community briefings / group meetings.

Affected sensitive land users contacted by Martinus Rail have been made aware of the anticipated duration and nature of construction works that may affect them, as well as mitigation measures that will be implemented in accordance with the CEMP and CNVMP. Contact information for Martinus Rail's Community Team have been provided to assist with ongoing consultation during construction.

Depending on individual needs and circumstances, specific mitigation measures offered by Martinus Rail could include but are not limited to:

- Offers of individually agreed respite to highly noise affected sensitive land users (standard construction hours)
- Consultation on timetabling of highly noise intensive works to avoid sensitive periods
- Offers of attended noise monitoring at the premises to confirm actual levels of impact
- Offers of temporary alternative accommodation or work space
- Individual briefings.

Specific mitigation measures identified in consultation with individual affected sensitive land users will be implemented during works subject to this CNVIS. Further mitigation measures may be identified by the affected community as construction progresses and these will be assessed where reasonable and feasible and on a case by-case basis.

8.5.2 Consultation For This CNVIS

The project website includes the following key information:

- Latest approvals
- All management plans, including the CNVMP and the Construction Environmental Management Plan (CEMP), which provide information on the relevant environmental management measures
- Notifications, including three-month lookaheads, monthly updates and specific OOHW notifications
- Contact mechanisms, including requests for feedback and/or complaints on individual circumstances.

As part of the project's program of regular notifications, the following notifications have included information on the OOHW requirements subject to this CNVIS:

- Project-wide monthly notifications distributed to over 25,000 properties



- Work specific notifications
- Three-month lookahead notifications distributed to over 25,000 properties
- Regular emails with details of upcoming work or changes.

All notifications include the following:

- Link to project website
- 24/7 phone number and email address for enquiries, complaints or comments
- Requests for the community to provide feedback on their individual needs and circumstances.

Prior to commencement of works subject to this CNVIS, targeted consultation occurred with a total of approximately 7,127 residential properties across the entire project alignment, approximately 545 of which were in The Rock. These properties received targeted letterbox drops, emails and newspaper adverts from the Community Team and feedback was sought across (3) three weeks, from 7 August to 28 August 2024.

The team requested feedback from the affected community on their individual needs during this targeted consultation.

8.5.3 Consultation Outcomes

Feedback received during this consultation was primarily related to the existing operational train line and the disturbance the trains cause.

In The Rock, no additional management measures relating to construction noise were identified during this consultation (as required by CoA E78); however, the following general sentiments were noted from respondents:

- Limit noise generating work outside of standard construction hours as much as possible
- Limit noise generating work on the weekends as much as possible
- Construction works should be completed as soon as possible.
- One resident was identified to undertake home schooling. Noise sensitive periods were confirmed to be 8am – 1pm. Exceedance of the NML at this receiver are not predicted during any work scenario in this CNVIS. Nevertheless, construction noise and vibration during this period will be managed in accordance with the mitigation measures detailed in **Section 8.0**.

The CNVIS documents the need to limit noise generating work as much as possible and this will be achieved through the implementation of existing mitigation measures listed in this CNVIS.

Nevertheless, regular consultation with the community will continue throughout construction in accordance with the Community Communications Strategy and the Community Action Plan prepared for the relevant activities. A list of key stakeholders relevant to this CNVIS are included in **Table 23** below.



Table 23 Key Stakeholders for this CNVIS

Precinct Area	Receiver Type	Level of Engagement	Distance from Work Site (m)
The Rock			
Draper Street, Smissen Street, Urana Street, Davidson Street, Scott Street, Olympic Highway and Railway Street	Residential	Consult	Various

8.6 Occupational Noise Exposure

In accordance with CoA E77, worksites will be managed to ensure that noise generated by construction will not exceed the National Standard for exposure to noise in the occupational environment of an eight-hour equivalent continuous A-weighted sound pressure level of LAeq,8h of 85 dB for any employee working at a location near the project.

It is not anticipated that an exceedance will occur at any point during the project, however occupational exposure to noise will primarily be managed under the Work Health and Safety Management Plan.

8.7 Monitoring

Noise and vibration monitoring will be undertaken in accordance with the CNVMP (including monitoring program) and the CNVF.

CoA E81 requires that advice from an independent heritage specialist must be sought on methods and locations for installing equipment used for vibration, movement and noise monitoring at heritage-listed structures prior to the installation of the equipment.

8.7.1 Construction Noise Monitoring

Construction noise monitoring will be carried out at the commencement of activities to confirm that actual noise levels are consistent with the predictions presented in this CNVIS, and that the management measures that have been implemented are effective or as per the CNVMP.

Monitoring locations will be focused to the most impacted receivers identified in **Appendix C**. Indicative locations are identified in **Table 24**, however, these will be subject to provision of safe access and the specific location of work being undertaken at the time of monitoring.

Noise monitoring will, where practicable, be in a position with unobstructed views of general site activities, whilst shielded as much as possible from non-construction site noise (e.g. road traffic, rail noise and other surrounding noise). The preferred measurement height is 1.2-1.5m above the ground. In accordance with *Australian Standard AS1055:2018*, outdoor noise monitoring is to be undertaken at least 3.5m from any reflecting structure other than the ground.

Noise monitoring will be carried out on or near the property boundary at the locations representative of the nominated receivers in **Table 24** (i.e. in publicly accessible areas near the nominated receivers, if it is safe to do so). Noise monitoring results will be assessed against the noise management levels (NMLs) and predicted exceedance category identified in **Appendix C**.

The results will be documented with discussion about the details of work underway at the time and mitigation in place. Noise monitoring results will be recorded on the MR Noise



Monitoring Form in Procore. Noise monitoring data will be made available to the AA and ER for information, upon request.

8.7.2 Construction Vibration monitoring

Attended or unattended vibration monitoring will be undertaken as required. Monitoring locations may vary as work progresses and will be determined on a case-by-case basis or in response to complaints. The focus of monitoring will be at risk buildings, structures and sensitive receivers as identified in **Section 5.3**. If other vibration intensive activities are required, an assessment of their potential impact is required as per the CNVMP.

As vibration intensive items of equipment are not expected to be required during the gantry modification work, no vibration monitoring is anticipated for works related to The Rock at this stage.

Table 24 Indicative Monitoring Locations

Location	Type	Monitoring	Timing
Noise Monitoring			
<ul style="list-style-type: none"> 148 Urana St, The Rock 22 Railway St, The Rock 25 Railway St, The Rock 	Activities based noise monitoring	<ul style="list-style-type: none"> Confirming that actual noise levels are consistent with predicted noise impacts and that the effectiveness of actions and mitigation measures implemented are satisfactory, In response to a noise related complaint(s) (determined on a case-by-case basis) Following implementation of mitigation measures or noise attenuation because of exceedance of predicted noise levels 	At the commencement of the activities being undertaken
	Out of Hours Work	Attended monitoring as required by the Out of Hours Work (OOHW) plan to validate noise levels are consistent with predicted noise impacts and that the effectiveness of actions and mitigation measures implemented are satisfactory	At the commencement of the range of OOHW activities being undertaken.
	Plant / Equipment Checks	Spot checks would be carried out as required on a case-by-case basis, such as <ul style="list-style-type: none"> In response to a specific noise related complaint and During noise verification monitoring when it is possible to isolate the noise from one piece of plant or equipment. 	case-by-case basis



9.0 Cumulative Impacts

Due to the limited scope of the works at The Rock, the likelihood of worst-case noise levels being generated by two different work activities at the same time is considered low. The impact of concurrent work would generally be limited to a potential increase in the duration, and annoyance of noise impacts on the affected receivers.

In practice, construction noise levels in any one location would vary and would be frequently much lower than the worst-case scenario assessed due to construction staging moving work around within the study area and, in many cases, only a few items of equipment being used at any one time.

Martinus Rail will take feasible and reasonable steps to consult and coordinate with other construction projects when they become aware of them and if they have the potential to impact the same receivers concurrently, to minimise cumulative impacts of noise and vibration and maximise respite for affected sensitive receivers (in accordance with CoA E72 and E83).





Appendix A Acoustic Terminology

A2I | Albury to Illabo – The Rock Yard Clearances

Construction Noise and Vibration Impact Statement

Martinus Rail

SLR Project No.: 610.031317.00001

28 August 2025

1. Sound Level or Noise Level

The terms 'sound' and 'noise' are almost interchangeable, except that 'noise' often refers to unwanted sound.

Sound (or noise) consists of minute fluctuations in atmospheric pressure. The human ear responds to changes in sound pressure over a very wide range with the loudest sound pressure to which the human ear can respond being ten million times greater than the softest. The decibel (abbreviated as dB) scale reduces this ratio to a more manageable size by the use of logarithms.

The symbols SPL, L or LP are commonly used to represent Sound Pressure Level. The symbol LA represents A-weighted Sound Pressure Level. The standard reference unit for Sound Pressure Levels expressed in decibels is 2×10^{-5} Pa.

2. 'A' Weighted Sound Pressure Level

The overall level of a sound is usually expressed in terms of dB, which is measured using a sound level meter with an 'A-weighting' filter. This is an electronic filter having a frequency response corresponding approximately to that of human hearing.

People's hearing is most sensitive to sounds at mid frequencies (500 Hz to 4,000 Hz), and less sensitive at lower and higher frequencies. Different sources having the same dB level generally sound about equally loud.

A change of 1 dB or 2 dB in the level of a sound is difficult for most people to detect, whilst a 3 dB to 5 dB change corresponds to a small but noticeable change in loudness. A 10 dB change corresponds to an approximate doubling or halving in loudness. The table below lists examples of typical noise levels.

Sound Pressure Level (dB)	Typical Source	Subjective Evaluation
130	Threshold of pain	Intolerable
120	Heavy rock concert	Extremely noisy
110	Grinding on steel	
100	Loud car horn at 3 m	
90	Construction site with pneumatic hammering	Very noisy
80	Kerbside of busy street	
70	Loud radio or television	
60	Department store	Moderate to quiet
50	General Office	
40	Inside private office	Quiet to very quiet
30	Inside bedroom	
20	Recording studio	

Other weightings (eg B, C and D) are less commonly used than A-weighting. Sound Levels measured without any weighting are referred to as 'linear', and the units are expressed as dB(lin) or dB.

3. Sound Power Level

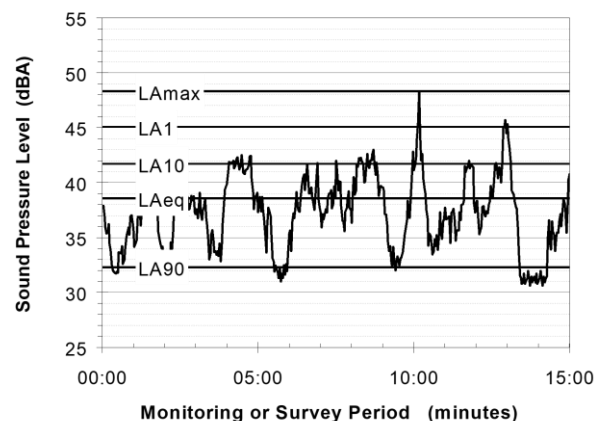
The Sound Power of a source is the rate at which it emits acoustic energy. As with Sound Pressure Levels, Sound Power Levels are expressed in decibel units (dB or dB), but may be identified by the symbols SWL or LW, or by the reference unit 10^{-12} W.

The relationship between Sound Power and Sound Pressure is similar to the effect of an electric radiator, which is characterised by a power rating but has an effect on the surrounding environment that can be measured in terms of a different parameter, temperature.

4. Statistical Noise Levels

Sounds that vary in level over time, such as road traffic noise and most community noise, are commonly described in terms of the statistical exceedance levels LAN, where LAN is the A-weighted sound pressure level exceeded for N% of a given measurement period. For example, the LA1 is the noise level exceeded for 1% of the time, LA10 the noise exceeded for 10% of the time, and so on.

The following figure presents a hypothetical 15 minute noise survey, illustrating various common statistical indices of interest.



Of particular relevance, are:

- LA1 The noise level exceeded for 1% of the 15 minute interval.
- LA10 The noise level exceeded for 10% of the 15 minute interval. This is commonly referred to as the average maximum noise level.
- LA90 The noise level exceeded for 90% of the sample period. This noise level is described as the average minimum background sound level (in the absence of the source under consideration), or simply the background level.
- LAeq The A-weighted equivalent noise level (basically, the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound.
- LAmax The A-weighted maximum sound pressure level of an event measured with a sound level meter.

5. Frequency Analysis

Frequency analysis is the process used to examine the tones (or frequency components) which make up the overall noise or vibration signal.

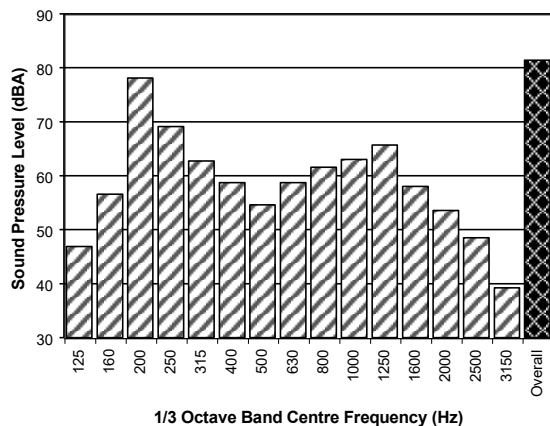
The units for frequency are Hertz (Hz), which represent the number of cycles per second.

Frequency analysis can be in:

- Octave bands (where the centre frequency and width of each band is double the previous band)
- 1/3 octave bands (three bands in each octave band)
- Narrow band (where the spectrum is divided into 400 or more bands of equal width)



The following figure shows a 1/3 octave band frequency analysis where the noise is dominated by the 200 Hz band. Note that the indicated level of each individual band is less than the overall level, which is the logarithmic sum of the bands.



6. Annoying Noise (Special Audible Characteristics)

A louder noise will generally be more annoying to nearby receivers than a quieter one. However, noise is often also found to be more annoying and result in larger impacts where the following characteristics are apparent:

- **Tonality** - tonal noise contains one or more prominent tones (ie differences in distinct frequency components between adjoining octave or 1/3 octave bands), and is normally regarded as more annoying than 'broad band' noise.
- **Impulsiveness** - an impulsive noise is characterised by one or more short sharp peaks in the time domain, such as occurs during hammering.
- **Intermittency** - intermittent noise varies in level with the change in level being clearly audible. An example would include mechanical plant cycling on and off.
- **Low Frequency Noise** - low frequency noise contains significant energy in the lower frequency bands, which are typically taken to be in the 10 to 160 Hz region.

7. Vibration

Vibration may be defined as cyclic or transient motion. This motion can be measured in terms of its displacement, velocity or acceleration. Most assessments of human response to vibration or the risk of damage to buildings use measurements of vibration velocity. These may be expressed in terms of 'peak' velocity or 'rms' velocity.

The former is the maximum instantaneous velocity, without any averaging, and is sometimes referred to as 'peak particle velocity', or PPV. The latter incorporates 'root mean squared' averaging over some defined time period.

Vibration measurements may be carried out in a single axis or alternatively as triaxial measurements (ie vertical, longitudinal and transverse).

The common units for velocity are millimetres per second (mm/s). As with noise, decibel units can also be used, in which case the reference level should always be stated. A vibration level V , expressed in mm/s can be converted to decibels by the formula $20 \log (V/V_0)$, where V_0 is the reference level (10^{-9} m/s). Care is required in this regard, as other reference levels may be used.

8. Human Perception of Vibration

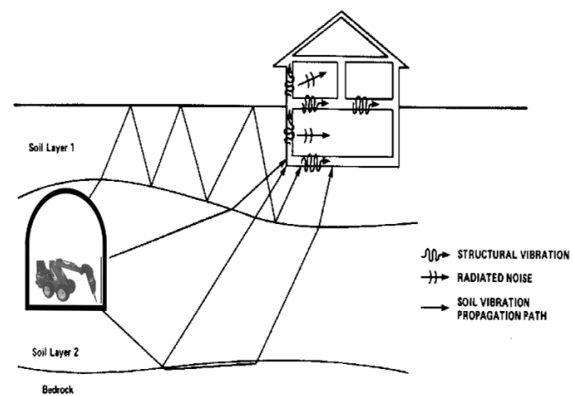
People are able to 'feel' vibration at levels lower than those required to cause even superficial damage to the most susceptible classes of building (even though they may not be disturbed by the motion). An individual's perception of motion or response to vibration depends very strongly on previous experience and expectations, and on other connotations associated with the perceived source of the vibration. For example, the vibration that a person responds to as 'normal' in a car, bus or train is considerably higher than what is perceived as 'normal' in a shop, office or dwelling.

9. Ground-borne Noise, Structure-borne Noise and Regenerated Noise

Noise that propagates through a structure as vibration and is radiated by vibrating wall and floor surfaces is termed 'structure-borne noise', 'ground-borne noise' or 'regenerated noise'. This noise originates as vibration and propagates between the source and receiver through the ground and/or building structural elements, rather than through the air.

Typical sources of ground-borne or structure-borne noise include tunnelling works, underground railways, excavation plant (eg rockbreakers), and building services plant (eg fans, compressors and generators).

The following figure presents an example of the various paths by which vibration and ground-borne noise may be transmitted between a source and receiver for construction activities occurring within a tunnel.



The term 'regenerated noise' is also used in other instances where energy is converted to noise away from the primary source. One example would be a fan blowing air through a discharge grill. The fan is the energy source and primary noise source. Additional noise may be created by the aerodynamic effect of the discharge grill in the airstream. This secondary noise is referred to as regenerated noise.





Appendix B Modelling Scenarios and Equipment

A2I | Albury to Illabo – The Rock Yard Clearances

Construction Noise and Vibration Impact Statement

Martinus Rail

SLR Project No.: 610.031317.00001

28 August 2025

Equipment		Total Lw (dB)	Articulated Dump Truck	Compressor	Crane (mobile)	Crane Franna	Elevated Work Platform	Excavator - Slasher	Front End Loader	Generator	Hand Tool (Electric)	Hi-Rail Crane	Hi-Rail EWP	Hydraulic/Pneumatic Tools ¹	Light Vehicle	Roller - Static	Steel Saw ¹	Truck – Medium Rigid	Truck & Dog	Truck – Vacuum (NDD)	Wacker Packer	Watercart	Welding Equipment
Sound Power Level (Lw) ²			109	109	104	98	97	105	113	92	102	104	103	116	95	107	118	103	108	109	105	105	110
Estimated utilisation (%)			25%	50%	30%	30%	25%	50%	50%	100%	75%	30%	25%	75%	25%	100%	25%	25%	25%	100%	100%	75%	100%
ID	Construction Scenario																						
W.001	Site Establishment/Demobilisation	115	1		1		1	1	1	1	3				2	1		1	2	1			1
W.002	Compound Operation	113		1		1			1	1	1				15				2	1			1
W.003	Removal of Gantry and Footings	118		1			1			1	1	1	1	1	3		1		1				
W.004	Utility and Signalling Work	111			1		1			1	1				5						1	1	

Note 1: Equipment classed as 'annoying' in the ICNG and requires a 5 dB correction.
Note 2: Sound power level data is taken from the DEFRA Noise Database, AS2436, TfNSW Construction Noise and Vibration Guideline.





Appendix C Noise Impact Maps

A2I | Albury to Illabo – The Rock Yard Clearances

Construction Noise and Vibration Impact Statement

Martinus Rail

SLR Project No.: 610.031317.00001

28 August 2025

H:\Projects-SLR\610-Sv\SYD\610-Sv\SYD\610.031317 00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



LEGEND

—+— A21 Rail Alignment

▭ NCAs

▨ Work Area

Noise Impacts

□ <NML

▨ Clearly Audible (1 - 10 dB)

▨ Moderately Intrusive (11 - 20 dB)

0 250 500 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 28-Aug-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

DISCLAIMER: All information within this document maybe based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose .

W.001 - Site Establishment /
Demobilisation - Approved Daytime
Hours

APPENDIX C-1

H:\Projects-SLR\610-SvSYD\610-SvSYD\610.031317 00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



Data Source:
ESRI World Imagery

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W.001 - Site Establishment /
Demobilisation - Out of Hours Daytime

APPENDIX C-2

H:\Projects-SLR\610-SvSYD\610-SvSYD\610.031317 00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



LEGEND

—+— A21 Rail Alignment

▭ NCAs

▨ Work Area

Noise Impacts

□ <NML

▭ Clearly Audible (1 - 10 dB)

▭ Moderately Intrusive (11 - 20 dB)

0 250 500 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 28-Aug-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

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W.002 - Compound Operation -
Approved Daytime Hours

APPENDIX C-3

H:\Projects-SLR\610-Sv\SVD\610-Sv\SVD\610.031317 00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



LEGEND

—+— A21 Rail Alignment

--- NCAs

Work Area

Noise Impacts

<NML

Noticeable (1 - 5 dB)

Clearly Audible (6 - 15 dB)

Moderately Intrusive (16 - 25 dB)

0 250 500 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 28-Aug-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

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W.002 - Compound Operation - Out of
Hours Daytime

APPENDIX C-4

H:\Projects-SLR\610-Sv\SVD\610-Sv\SVD\610.031317 00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



LEGEND

—+— A21 Rail Alignment

--- NCAs

Work Area

Noise Impacts

<NML

Noticeable (1 - 5 dB)

Clearly Audible (6 - 15 dB)

Moderately Intrusive (16 - 25 dB)

0 250 500 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 28-Aug-2025
Project Number: 610.031317



Data Source:
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W.002 - Compound Operation - Out of
Hours Evening

APPENDIX C-5

H:\Projects-SLR\610-SvSYD\610-031317-00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



LEGEND

—+— A21 Rail Alignment

--- NCAs

Work Area

Noise Impacts

<NML

Noticeable (1 - 5 dB)

Clearly Audible (6 - 15 dB)

Moderately Intrusive (16 - 25 dB)

Highly Intrusive (>25 dB)

0 250 500 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 28-Aug-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

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W.002 - Compound Operation - Out of
Hours Night-time

APPENDIX C-6

H:\Projects-SLR\610-SvSYD\610-SvSYD\610.031317 00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



LEGEND

—+— A21 Rail Alignment

▭ NCAs

▨ Work Area

Noise Impacts

□ <NML

▭ Clearly Audible (1 - 10 dB)

▭ Moderately Intrusive (11 - 20 dB)

▭ Highly Intrusive (>20 dB)

0 250 500 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 28-Aug-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

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W.003 - Gantry Modification - Approved
Daytime Hours

APPENDIX C-7

H:\Projects-SLR\610-SvSYD\610-SvSYD\610.031317 00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



0 250 500 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 28-Aug-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

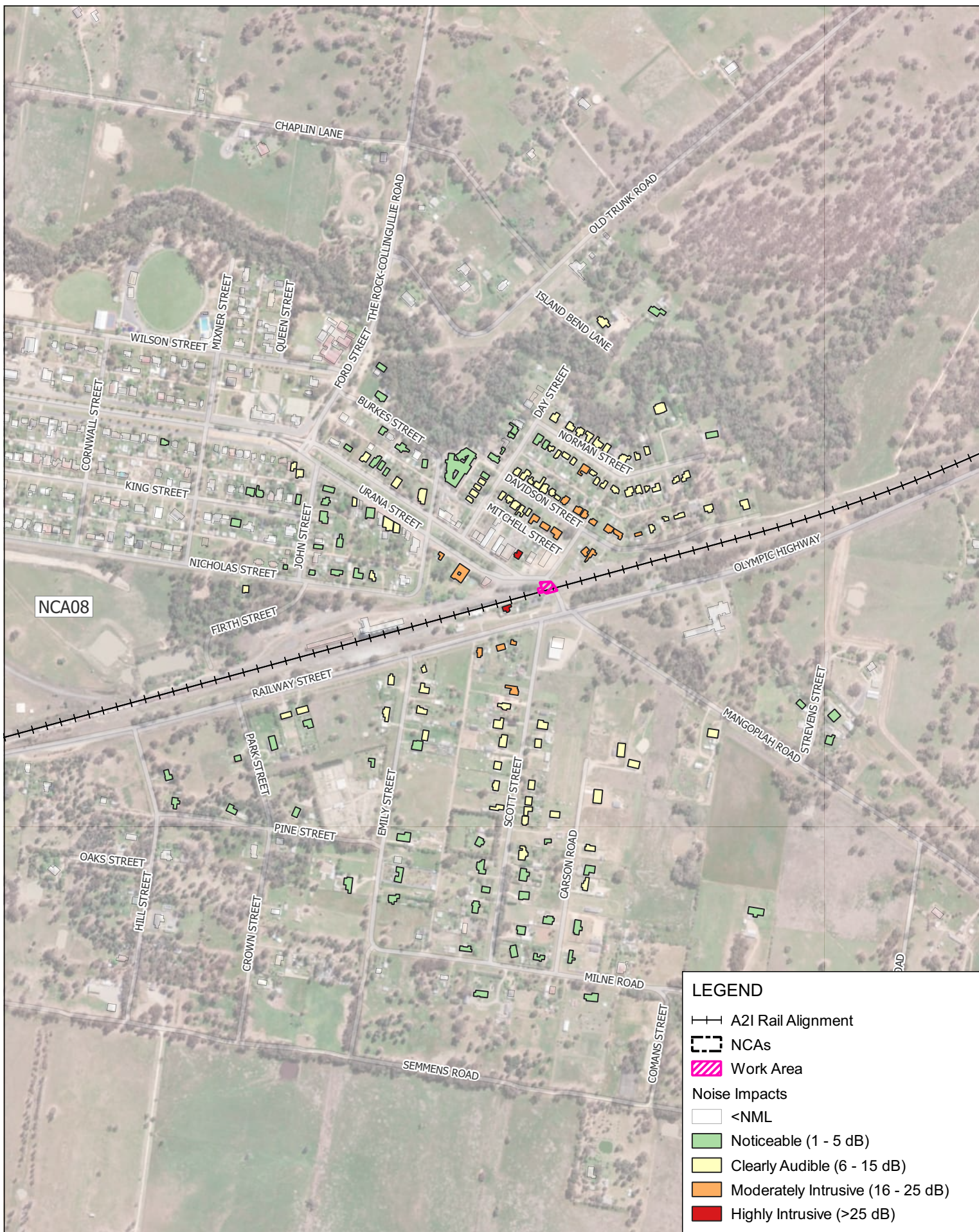
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W.003 - Gantry Modification - Out of
Hours Daytime

APPENDIX C-8



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LEGEND

—+— A21 Rail Alignment

--- NCAs

Work Area

Noise Impacts

<NML

Noticeable (1 - 5 dB)

Clearly Audible (6 - 15 dB)

Moderately Intrusive (16 - 25 dB)

Highly Intrusive (>25 dB)

0 250 500 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 28-Aug-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

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W.003 - Gantry Modification - Out of
Hours Evening

APPENDIX C-9

H:\Projects-SLR\610-SvSYD\610-SvSYD\610.031317 00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



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W.003 - Gantry Modification - Out of
Hours Night-time

APPENDIX C-10

H:\Projects-SLR\610-SvSYD\610-SvSYD\610.031317 00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



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W.004 - Utility and Signalling Work -
Approved Daytime Hours

APPENDIX C-11

H:\Projects-SLR\610-Sv\SVD\610-Sv\SVD\610.031317-00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



LEGEND

—+— A21 Rail Alignment

▭ NCAs

▨ Work Area

Noise Impacts

▭ <NML

▭ Noticeable (1 - 5 dB)

▭ Clearly Audible (6 - 15 dB)

▭ Moderately Intrusive (16 - 25 dB)

0 250 500 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 28-Aug-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

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W.004 - Utility and Signalling Work - Out of Hours Daytime

APPENDIX C-12

H:\Projects-SLR\610-Sv\SYD\610-Sv\SYD\610.031317 00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



0 250 500 m

Scale: Scale: 1:10,000
Coordinate System: GDA2020 / MGA zone 55

Drawn Date: 28-Aug-2025
Project Number: 610.031317



Data Source:
ESRI World Imagery

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W.004 - Utility and Signalling Work - Out of Hours Evening

APPENDIX C-13

H:\Projects-SLR\610-SvSYD\610-SvSYD\610.031317 00001 Inland Rail A2P Enhancement\06 SLR Data\05 Modelling\90 CNVIS\02 A2107 Analysis\The Rock\610.031317 A21 CNVIS - The Rock.qgz



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W.004 - Utility and Signalling Work - Out of Hours Night-time

APPENDIX C-14



Appendix D Receivers Triggering Additional Mitigation

A2I | Albury to Illabo – The Rock Yard Clearances

Construction Noise and Vibration Impact Statement

Martinus Rail

SLR Project No.: 610.031317.00001

28 August 2025

W.001 - Site Establishment / Demobilisation

SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening *(>2 consecutive rest periods)	Additional Mitigation Night *(>2 consecutive sleep periods)
200090	14-16 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	-	-
200098	17-19 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	-	-
200105	18-20 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	-	-
200113	21 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200123	25 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	-	-
200125	23 EMILY ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	-	-
200135	29 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	-	-
200139	25 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	-	-
200142	31 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	-	-
200143	4 PINE ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	-	-
200146	32 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	-	-
200157	33 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	-	-
200167	36-38 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	-	-
200168	39 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	-	-
200176	40-42 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	-	-
200179	LOT 103 RAILWAY STREET, THE ROCK NSW 2655	49	44	44	35	45	CO1	-	-
200193	47 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	-	-
200196	44 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	-	-
200201	43-45 EMILY ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200206	36 MANGOPLAH RD, THE ROCK NSW 2655	49	44	44	35	49	CO1	-	-
200210	49 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	-	-
200212	13 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	-	-
200213	48-50 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	-	-
200221	13A RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	-	-
200222	12 STREVEN ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	-	-
200224	54 EMILY ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200228	LOT 1 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	49	CO1	-	-
200229	13 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	-	-
200234	54 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	-	-
200237	LOT 11 STREVEN STREET, THE ROCK NSW 2655	49	44	44	35	46	CO1	-	-
200242	56 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	57	CO1	-	-
200243	51-53 EMILY ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	-	-
200249	60 EMILY ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	-	-
200253	17 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	-	-
200264	21 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	59	CO1	-	-
200267	23 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	61	CO1, CO2	-	-
200268	25 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	62	CO1, CO2	-	-
200282	29 MORGAN ST, URANQUINTY NSW 2652	49	44	44	35	67	CO1, CO2	-	-
200284	89 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200289	90 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200293	1 JOHN ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	-	-
200308	STATE EMERGENCY SERVICE 150-152 URANA ST	70	70	999	999	71	CO1	-	-
200322	127 URANA ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	-	-
200325	25 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	65	CO1, CO2	-	-
200326	148 URANA ST, THE ROCK NSW 2655	49	44	44	35	67	CO1, CO2	-	-
200332	23 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	64	CO1, CO2	-	-
200368	32 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	57	CO1	-	-
200369	30 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	60	CO1, CO2	-	-
200373	15 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	64	CO1, CO2	-	-
200387	28 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	60	CO1, CO2	-	-
200389	34 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	-	-
200390	121 URANA ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	-	-
200394	13 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	-	-
200403	117 URANA ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	-	-
200411	24 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	61	CO1, CO2	-	-
200425	11 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	60	CO1, CO2	-	-
200427	36 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200441	38 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200450	22 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	60	CO1, CO2	-	-
200460	9 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200463	17 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	-	-
200466	20 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	59	CO1	-	-
200474	40-42 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	-	-
200480	5 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	-	-
200484	44-46 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	-	-
200492	109A URANA ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	-	-
200502	16 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	-	-
200505	2 DAY ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200506	3 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	-	-
200512	14 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	-	-
200516	118 URANA ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	-	-
200518	1 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	-	-
200528	4 DAY ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200532	12 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	-	-
200536	25 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	-	-
200539	27 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	-	-
200540	23 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	-	-
200545	10 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	-	-
200546	27A NORMAN ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	-	-
200549	29 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	-	-
200552	6 DAY ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200558	21 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	-	-
200563	8 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	-	-
200568	112-114 URANA ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	-	-
200570	8 DAY ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	-	-
200573	19 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	-	-
200575	6 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200582	31 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	-	-
200592	33-35 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200594	10 DAY ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	-	-
200599	4 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
200604	101 URANA ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	-	-
200609	17 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	-	-
200612	110 URANA ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	-	-
200613	2 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	-	-
200616	15 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	57	CO1	-	-
200625	99 URANA ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	-	-
200631	9 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	46	CO1	-	-
200648	106 URANA ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	-	-
200650	11 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	-	-
200660	18 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	-	-
200663	16 DAY STREET, THE ROCK NSW 2655	49	44	44	35	46	CO1	-	-
200666	104 URANA ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	-	-
200675	20 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	-	-
200679	9 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	-	-
200684	7 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	-	-
200698	18 DAY ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	-	-
200700	22 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	-	-
200706	5 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	-	-
200708	14 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	-	-
200729	12 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	-	-
200756	10 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	-	-
200762	34 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	-	-
200767	8 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	-	-
200781	6 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	-	-
200806	2 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	-	-
200825	24-32 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	-	-
200975	21 ISLAND BEND LANE, THE ROCK NSW 2655	49	44	44	35	47	CO1	-	-
1000489	LOT 6 12 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	46	CO1	-	-
1000490	LOT 5 10 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	45	CO1	-	-
1000491	10 Carson Rd, The Rock NSW 2655	49	44	44	35	48	CO1	-	-
1000493	4 Carson Rd, The Rock NSW 2655	49	44	44	35	45	CO1	-	-
1000939	LOT 42 RAILWAY STREET, THE ROCK NSW 2655	49	44	44	35	45	CO1	-	-
1105840	131 URANA ST, THE ROCK NSW 2655	49	44	44	35	60	CO1, CO2	-	-
1110364	LOT 13 22 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	51	CO1	-	-
1110365	LOT 10 20 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	48	CO1	-	-
1110366	LOT 13 22 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	50	CO1	-	-

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W.002 - Compound Operation

SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening *(>2 consecutive rest periods)	Additional Mitigation Night *(>2 consecutive sleep periods)
199994	17 MILNE RD, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
199998	9A MILNE RD, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
199999	9B MILNE RD, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200002	15 MILNE RD, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200006	28 MILNE RD, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200009	3 CROWN ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200015	7 MILNE RD, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200020	1 MILNE RD, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200021	20 MILNE RD, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200026	5 CROWN ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200030	12 MILNE RD, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200035	1 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200039	2 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200050	4 MILNE RD, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200057	5-7 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200058	6-8 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200064	5 HILL ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200071	LOT 58 MANGOPLAH RD, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200072	7 CROWN ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200073	26 MILNE RD, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200076	10-12 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200080	6 HILL ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200082	LOT 28 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200085	13-15 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200090	14-18 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200091	30 EMILY ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200098	17-19 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200105	18-20 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200109	17 EMILY ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200110	9 HILL ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200113	21 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200114	10 CROWN ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200121	24 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200122	LOT 113 CROWN STREET, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200123	25 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200124	8 HILL ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200125	23 EMILY ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200135	28 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200139	25 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200141	LOT 101 PARK STREET, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200142	31 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200143	4 PINE ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200146	32 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200154	11 HILL ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200157	33 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200158	LOT 94 HILL STREET, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200166	LOT 95 RAILWAY STREET, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200167	36-38 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200168	39 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200173	13 HILL ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200175	7 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200176	40-42 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200179	LOT 103 RAILWAY STREET, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200181	LOT 88 PARK STREET, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200190	27 EMILY ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200193	47 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200196	44 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200199	LOT 1 STREVS STREET, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200201	43-45 EMILY ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200206	36 MANGOPLAH RD, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200210	49 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1
200212	13 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1, CO2, (RO, AO)*
200213	48-50 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200221	13A RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200222	2 STREVS STREET, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200224	54 EMILY ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200228	LOT 1 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200229	13 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200234	54 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200237	LOT 11 STREVS STREET, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200242	56 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO, AO)*
200243	51-53 EMILY ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200249	60 EMILY ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200253	17 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	CO1	CO1
200257	10 STREVS STREET, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1, CO2, (RO, AO)*
200264	21 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	57	-	CO1	CO1, CO2, (RO, AO)*
200267	23 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	59	CO1	CO1	CO1, CO2, (RO, AO)*
200268	25 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO, AO)*
200282	29 MORGAN ST, URANQUINTY NSW 2652	49	44	44	35	65	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200284	89 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200289	90 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200292	86 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200293	1 JOHN ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200294	82 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200299	2 JOHN ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200305	66 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	35	-	-	CO1
200310	66 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200312	KNIGHTLEIGH COTTAGES 3/2 JOHN ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200318	3 JOHN ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200322	127 URANA ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO, AO)*
200325	25 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200326	148 URANA ST, THE ROCK NSW 2655	49	44	44	35	65	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200330	KNIGHTLEIGH COTTAGES 2/2 JOHN ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200332	23 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	62	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200336	60 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200337	58 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200338	5 JOHN ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200339	54 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200341	52 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200347	4018 OLYMPIC HWY, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200349	62 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200350	5A JOHN ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200351	50 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200352	7-9 JOHN ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200365	117 URANA ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200368	32 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO, AO)*
200369	30 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO, AO)*
200373	15 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	62	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200387	28 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO, AO)*
200389	34 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200390	121 URANA ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200393	91 KING ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200394	13 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200403	117 URANA ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200406	87 KING ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200411	24 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	59	CO1	CO1	CO1, CO2, (RO, AO)*
200425	11 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO, AO)*
200427	36 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200432	13 JOHN ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200434	85 KING ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200441	38 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200444	79 KING ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200450	22 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO, AO)*
200456	113 URANA ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200460	9 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200463	7 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200466	20 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	57	CO1	CO1	CO1, CO2, (RO, AO)*

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W.002 - Compound Operation

SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening *(>2 consecutive rest periods)	Additional Mitigation Night *(>2 consecutive sleep periods)
200474	40-42 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO, AO)*
200480	15 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200484	44-46 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200492	109A URANA ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200496	KNIGHTLEY COTTAGES 15 JOHN ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200502	16 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO, AO)*
200504	96 KING ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200505	2 DAY ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200506	3 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200509	94 KING ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200512	14 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200515	90 KING ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200516	118 URANA ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200518	1 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	38	CO1	CO1	CO1
200523	92 KING ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200528	4 DAY ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200529	88 KING ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200532	12 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200533	86 KING ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200536	25 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200539	27 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200540	23 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200541	84 KING ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200542	103 URANA ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200543	82 KING ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200545	10 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200546	27A NORMAN ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200549	29 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200552	6 DAY ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200556	8 MIXNER ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200557	78 KING ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200558	21 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200563	8 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200568	112-114 URANA ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200570	8 DAY ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200573	19 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200575	6 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200582	31 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200582	33-35 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200584	10 DAY ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200597	66 KING ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200599	4 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200604	101 URANA ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200606	74 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200609	17 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200610	64 KING ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200612	110 URANA ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200613	2 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200616	15 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO, AO)*
200618	62 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200625	98 URANA ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200629	60 KING ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200631	9 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200632	99 URANA ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200635	108 URANA ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200639	13 BURKES ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200648	106 URANA ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200650	11 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200653	97 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200655	95 URANA ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200660	18 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200663	16 DAY STREET, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200664	93 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200666	104 URANA ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200672	91 URANA ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200675	20 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200679	9 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200684	7 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200691	85 URANA ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200698	18 DAY ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200699	83 URANA ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200700	22 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200702	79 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200704	81 URANA ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200706	5 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200708	14 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200709	100 URANA ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200710	9 BURKES ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200717	104 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200723	3 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200724	75 URANA ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200729	12 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200732	73 URANA ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200746	1 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200753	7 BURKES ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200756	10 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200760	22 DAY ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200762	34 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200767	8 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200770	5 BURKES ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200773	59 URANA ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200775	24 DAY ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200779	55 URANA ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200781	6 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200787	26 DAY ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200804	LOT A FORD STREET, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200806	2 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200825	24-32 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200833	30 DAY ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200839	76 URANA ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200844	74 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200847	4 BURKES ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200848	34 DAY ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200849	72 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200854	68 URANA ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200855	66 URANA ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200860	38 DAY ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200863	64 URANA ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200877	Lot 5, Plan 5/4758971, The Rock, NSW 2655	49	44	44	35	38	-	-	CO1
200894	THE ROCK MEMORIAL BOWLING CLUB 86 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200896	67 WILSON ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200901	63 WILSON ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200902	15 MIXNER ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200903	1 FORD ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200905	77 WILSON ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200908	75 WILSON ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200909	69 WILSON ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200913	71 WILSON ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200914	67 WILSON ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200921	63 WILSON ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200935	55 WILSON ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200950	4 QUEEN ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200966	6 QUEEN ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200975	21 ISLAND BEND LANE, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200989	23 ISLAND BEND LANE, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
201002	10 QUEEN ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
201004	LOT 1 OLD TRUNK ROAD, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1

DISCLAIMER: Address data within this document is based on external sources.
SLR Consulting Pty Ltd makes no warranty regarding the data's
accuracy or reliability for any purpose.

W.002 - Compound Operation

SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening *(>2 consecutive rest periods)	Additional Mitigation Night *(>2 consecutive sleep periods)
201021	13 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
201023	37 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
201026	16 QUEEN ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
201045	13 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
201048	48 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
201059	48 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
201069	119 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
201071	36 THE ROCK-COLLINGULLIE ROAD, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
201085	LOT 84 OLD TRUNK ROAD, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
1000488	LOT 27 13 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
1000489	LOT 6 12 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
1000490	LOT 5 10 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
1000491	10 Carson Rd, The Rock NSW 2655	49	44	44	35	46	CO1	CO1	CO1
1000493	4 Carson Rd, The Rock NSW 2655	49	44	44	35	43	-	-	CO1
1000494	9 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
1000495	LOT 1 2 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
1000838	LOT 42 RAILWAY STREET, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
1105840	131 URANA ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	CO1	CO1, CO2, (R0,A0)*
1105842	4760 OLYMPIC HWY, THE ROCK NSW 2655	60	60	60	45	53	-	-	CO1
1110364	LOT 13 22 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
1110365	LOT 10 20 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
1110366	LOT 13 22 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
1110367	46 Nicholas St, The Rock NSW 2655	49	44	44	35	36	-	-	CO1
1110599	13 MIXNER STREET, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1

W.003 - Gantry Modification

SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening *(>2 consecutive rest periods)	Additional Mitigation Night *(>2 consecutive sleep periods)
199972	Lot 1, Plan 1/597816, The Rock, NSW 2655	49	44	44	35	39	-	-	CO1
199982	2 HILL ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
199994	17 MILNE RD, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
199998	9A MILNE RD, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
199999	9B MILNE RD, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200002	15 MILNE RD, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200006	28 MILNE RD, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200009	3 CROWN ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200015	7 MILNE RD, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200020	1 MILNE RD, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200021	20 MILNE RD, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200026	5 CROWN ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200028	2A HILL ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200030	12 MILNE RD, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200035	1 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200039	2 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200050	4 MILNE RD, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200057	5-7 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200058	6-8 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200064	5 HILL ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200071	LOT 58 MANGOPLAH RD, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200072	7 CROWN ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200073	26 MILNE RD, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200076	10-12 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200080	16 HILL ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200082	LOT 28 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200085	13-15 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200090	14-16 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200091	30 EMILY ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200098	17-19 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200102	Lot 99, Plan 99/754543, The Rock, NSW 2655	49	44	44	35	37	-	-	CO1
200103	Lot 98, Plan 98/754543, The Rock, NSW 2655	49	44	44	35	36	-	-	CO1
200105	18-20 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200109	17 EMILY ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200110	9 HILL ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200113	21 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO, AO)*
200114	10 CROWN ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200121	24 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200122	LOT 113 CROWN STREET, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200123	25 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200124	8 HILL ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200125	23 EMILY ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200135	29 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO, AO)*
200139	25 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO, AO)*
200141	LOT 101 PARK STREET, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200142	31 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200143	4 PINE ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200146	32 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200154	11 HILL ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200157	33 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200158	LOT 94 HILL STREET, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200161	3 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200166	LOT 95 RAILWAY STREET, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200167	36-38 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200168	39 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200173	13 HILL ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200175	7 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200176	40-42 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200179	LOT 103 RAILWAY STREET, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200181	LOT 88 PARK STREET, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200180	27 EMILY ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200193	47 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO, AO)*
200196	44 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO, AO)*
200199	LOT 1 STREVS STREET, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200201	43-45 EMILY ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200206	36 MANGOPLAH RD, THE ROCK NSW 2655	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO, AO)*
200209	3 YERONG ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200210	49 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO, AO)*
200212	13 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200213	48-50 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO, AO)*
200221	13A RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200222	2 STREVS ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200224	54 EMILY ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200228	LOT 1 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	42	CO1	CO1	CO1, CO2, (RO, AO)*
200229	13 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200234	54 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO, AO)*
200237	LOT 11 STREVS STREET, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200242	56 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO, AO)*
200243	51-53 EMILY ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO, AO)*
200249	60 EMILY ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200253	17 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO, AO)*
200257	10 STREVS ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200263	6 YERONG ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200264	21 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	62	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200267	23 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	64	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200268	25 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	65	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200282	29 MORGAN ST, URANQUINTY NSW 2652	49	44	44	35	70	CO1, CO2	CO1, CO2, (RO)*	CO1, CO2, RO, (AO, AIA)*
200284	89 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200289	90 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200292	86 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200293	1 JOHN ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200294	82 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200299	2 JOHN ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200305	66 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200308	STATE EMERGENCY SERVICE 150-152 URANA ST	70	70	999	999	74	CO1	-	-
200310	66 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200312	KNIGHTLEIGH COTTAGES 3/2 JOHN ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200316	3 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200318	3 JOHN ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200319	STATE EMERGENCY SERVICE 158 URANA ST, THE ROCK NSW 2655	70	70	999	999	72	CO1	-	-
200322	127 URANA ST, THE ROCK NSW 2655	49	44	44	35	61	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200324	16 YERONG ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200325	25 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	68	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200326	148 URANA ST, THE ROCK NSW 2655	49	44	44	35	70	CO1, CO2	CO1, CO2, (RO)*	CO1, CO2, RO, (AO, AIA)*
200330	KNIGHTLEIGH COTTAGES 2/2 JOHN ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200332	23 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	67	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200336	60 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200337	58 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200338	5 JOHN ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200339	54 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200341	52 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200347	4018 OLYMPIC HWY, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200349	62 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200350	5A JOHN ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200351	50 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200352	7-9 JOHN ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200355	7-7 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200365	117 URANA ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200368	32 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO, AO)*
200369	30 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200373	15 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	66	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200376	40 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200383	38 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200387	28 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200388	36 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200389	34 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO, AO)*
200390	121 URANA ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO, AO)*

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W.003 - Gantry Modification

SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening *(>2 consecutive rest periods)	Additional Mitigation Night *(>2 consecutive sleep periods)
200391	34 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200393	41 KING ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200394	13 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO, AO)*
200402	32 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200403	117 URANA ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200404	30 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200406	87 KING ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200411	24 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	64	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200425	11 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200427	36 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200429	83 KING ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200432	13 JOHN ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200434	85 KING ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200435	81 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200441	38 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200443	22 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200444	79 KING ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200450	22 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200455	20 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200456	113 URANA ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200460	9 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200463	7 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200466	20 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	62	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200472	71 KING ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200474	40-42 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	57	CO1	CO1	CO1, CO2, (RO, AO)*
200476	10 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200480	15 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO, AO)*
200484	44-46 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200487	67 KING ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200492	109A URANA ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200494	4 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200496	KNIGHTLEY COTTAGES 15 JOHN ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200501	63 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200502	16 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	61	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200504	96 KING ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200505	2 DAY ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200506	3 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200507	61 KING ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200509	94 KING ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200512	14 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO, AO)*
200514	57 KING ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200515	90 KING ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200516	118 URANA ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO, AO)*
200518	1 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200523	92 KING ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200528	4 DAY ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200529	88 KING ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200532	12 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO, AO)*
200533	86 KING ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200534	55 KING ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200536	25 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO, AO)*
200538	51 KING ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200539	27 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	56	-	CO1	CO1, CO2, (RO, AO)*
200540	23 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	59	CO1	CO1	CO1, CO2, (RO, AO)*
200541	84 KING ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200542	103 URANA ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200543	82 KING ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200545	10 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO, AO)*
200546	27A NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200549	29 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200552	6 DAY ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200556	8 MIXNER ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200557	78 KING ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200558	21 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200563	8 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1, CO2, (RO, AO)*
200565	76 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200566	43 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200568	112-114 URANA ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200570	8 DAY ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO, AO)*
200573	19 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	59	CO1	CO1	CO1, CO2, (RO, AO)*
200575	6 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200582	31 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200590	39 KING ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200592	33-35 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200594	10 DAY ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200597	66 KING ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200599	4 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200604	101 URANA ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200606	74 KING ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200607	35 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200608	10 MIXNER ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200609	17 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO, AO)*
200610	64 KING ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200612	110 URANA ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200613	2 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200616	15 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO, AO)*
200618	62 KING ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200625	99 URANA ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200629	60 KING ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200631	9 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200632	99 URANA ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200635	108 URANA ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200637	58 KING ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200639	13 BURKES ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200648	106 URANA ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200650	11 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO, AO)*
200651	54 KING ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200653	97 URANA ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200655	95 URANA ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200658	52 KING ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200660	18 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO, AO)*
200663	16 DAY STREET, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200664	93 URANA ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200666	104 URANA ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200668	50 KING ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200670	48 KING ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200672	91 URANA ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200675	20 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200676	46 KING ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200679	9 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200680	44 KING ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200682	11 BURKES ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200683	89 URANA ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200684	7 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200685	87 URANA ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200691	85 URANA ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200698	18 DAY ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200699	83 URANA ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200700	22 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200701	40 KING ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200702	79 URANA ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200704	81 URANA ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200706	5 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200708	14 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200709	100 URANA ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200710	9 BURKES ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200717	104 URANA ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1

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W.003 - Gantry Modification

SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening (>2 consecutive rest periods)	Additional Mitigation Night (>2 consecutive sleep periods)
200722	38 KING ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200723	3 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200724	75 URANA ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200729	12 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO,AO)*
200732	73 URANA ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200735	36 KING ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200740	28 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200741	38A KING ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200746	1 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200747	71 URANA ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200748	69 URANA ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200753	7 BURKES ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200756	10 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
200757	65 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200758	26 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200760	22 DAY ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200761	63 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200762	34 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200767	8 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO,AO)*
200770	5 BURKES ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200772	22 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200773	59 URANA ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200775	24 DAY ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200776	57 URANA ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200779	55 URANA ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200781	6 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200782	53 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200785	49 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200787	26 DAY ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200788	45 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200800	41 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200804	LOT A FORD STREET, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200806	2 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200820	39 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200821	37 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200825	24-32 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200833	30 DAY ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200839	76 URANA ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200844	74 URANA ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200846	19 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200847	4 BURKES ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200848	34 DAY ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200849	72 URANA ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200850	15 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200854	68 URANA ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200855	66 URANA ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200860	38 DAY ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200861	58 URANA ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200863	64 URANA ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200877	Lot 5, Plan 54/758971, The Rock, NSW 2655	49	44	44	35	43	-	-	CO1
200881	56 URANA ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200894	THE ROCK MEMORIAL BOWLING CLUB 86 URANA ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200896	67 WILSON ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200898	36 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200901	63 WILSON ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200902	15 MIXNER ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200903	1 FORD ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200905	77 WILSON ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200906	36 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200908	75 WILSON ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200909	69 WILSON ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200913	71 WILSON ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200914	67 WILSON ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200917	32 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200918	28 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200921	63 WILSON ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200931	59 WILSON ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200933	2 QUEEN ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200935	55 WILSON ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200940	51 WILSON ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200944	82 WILSON ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200950	4 QUEEN ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200966	6 QUEEN ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200968	21 WILSON ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200971	25 WILSON ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200973	21 MIXNER ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200975	21 ISLAND BEND LANE, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200978	25 BRETTON ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200989	23 ISLAND BEND LANE, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200990	23 MIXNER ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200997	24 YERONG ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
201000	25 MIXNER ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
201002	10 QUEEN ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
201004	LOT 1 OLD TRUNK ROAD, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
201006	34 WILSON ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
201008	32 WILSON ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
201012	26 YERONG ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
201015	28 WILSON ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
201019	22 WILSON ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
201021	13 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
201023	37 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
201026	16 QUEEN ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
201037	28 YERONG ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
201045	13 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
201048	48 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
201050	28 YERONG ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
201057	25 PIPER ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
201059	48 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
201060	21 PIPER ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
201067	1 Piper St, The Rock NSW 2655	49	44	44	35	36	-	-	CO1
201069	119 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
201071	36 THE ROCK-COLLINGULLIE ROAD, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
201082	JENWAY 33 THE ROCK-COLLINGULLIE ROAD, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
201085	LOT 84 OLD TRUNK ROAD, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
201086	29 CHAPLIN LANE, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
201092	65 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
201094	MAYFAIR 40 CHAPLIN LANE, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
201103	97 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
201111	Lot 67, Plan 67/754555, The Rock, NSW 2655	49	44	44	35	37	-	-	CO1
201112	Lot 67, Plan 67/754555, The Rock, NSW 2655	49	44	44	35	36	-	-	CO1
201117	CARRINGTON 71 THE ROCK-COLLINGULLIE ROAD, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
201126	33 LAGETTIE LANE, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
201134	Lot 1, Plan 1/834912, The Rock, NSW 2655	49	44	44	35	36	-	-	CO1
201135	93 LAGETTIE LANE, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
1000488	LOT 27 13 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
1000489	LOT 6 12 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
1000490	LOT 5 10 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
1000491	10 Carson Rd, The Rock NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO,AO)*
1000493	4 Carson Rd, The Rock NSW 2655	49	44	44	35	48	CO1	CO1	CO1
1000494	9 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
1000495	LOT 1 2 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
1000838	LOT 42 RAILWAY STREET, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
1105840	131 URANA ST, THE ROCK NSW 2655	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIta)*
1105842	4760 OLYMPIC HWY, THE ROCK NSW 2655	60	60	60	45	58	-	-	CO1
1110363	1 Nicholas St, The Rock NSW 2655	49	44	44	35	35	-	-	CO1
1110364	LOT 13 22 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
1110365	LOT 10 20 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO,AO)*

DISCLAIMER: Address data within this document is based on external sources.
SLR Consulting Pty Ltd makes no warranty regarding the data's
accuracy or reliability for any purpose.

W.003 - Gantry Modification

SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening *(>2 consecutive rest periods)	Additional Mitigation Night *(>2 consecutive sleep periods)
1110366	LOT 13 22 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RQ, AO)*
1110367	46 Nicholas St, The Rock NSW 2655	49	44	44	35	41	-	-	CO1
1110368	73 King St, The Rock NSW 2655	49	44	44	35	37	-	-	CO1
1110599	13 MIXNER STREET, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
1110600	24 Urana St, The Rock NSW 2655	49	44	44	35	36	-	-	CO1
1110634	29 Piper St, The Rock NSW 2655	49	44	44	35	36	-	-	CO1

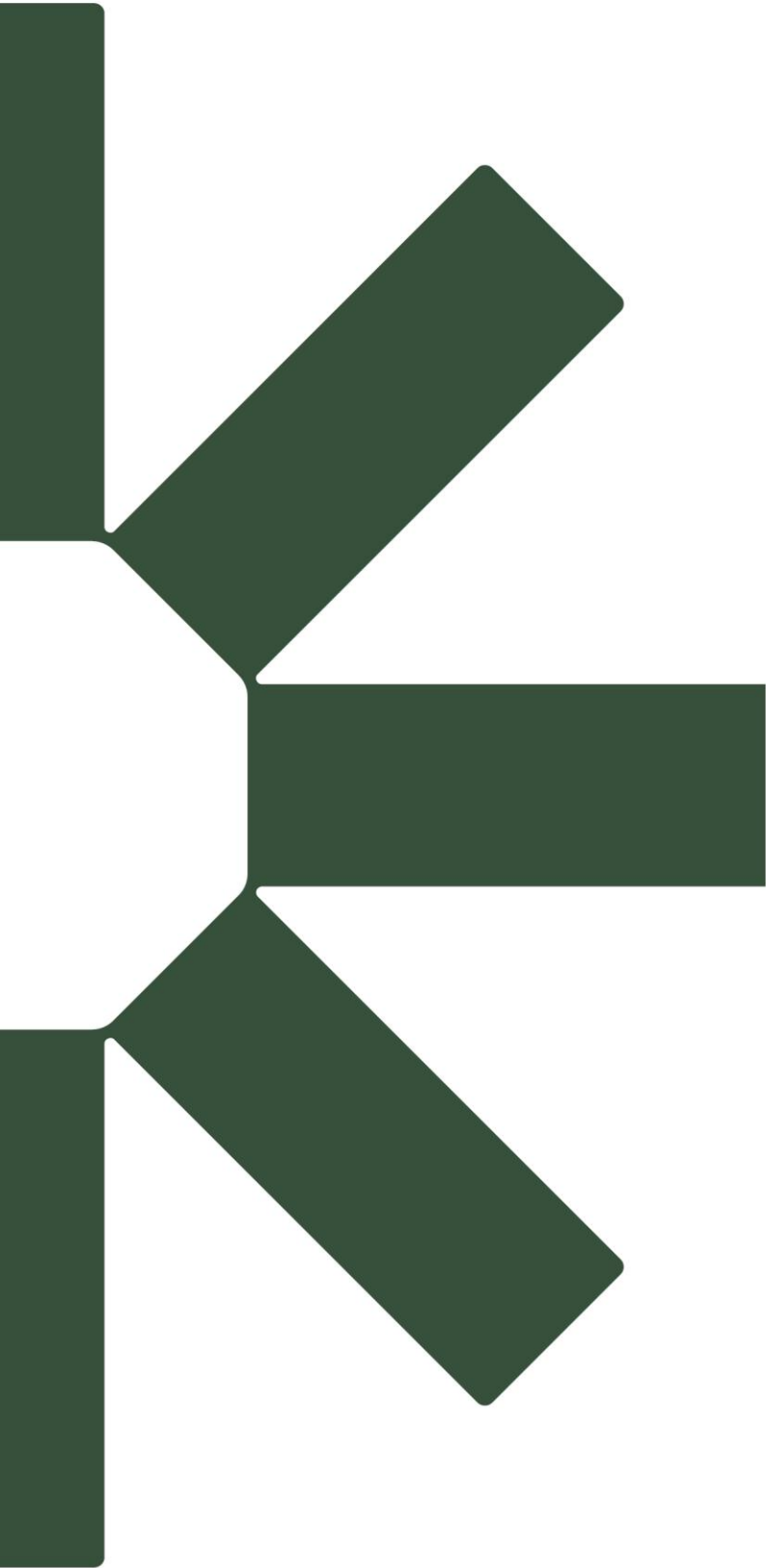
W.004 - Utility and Signalling Work

SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening (>2 consecutive rest periods)	Additional Mitigation Night (>2 consecutive sleep periods)
199994	17 MILNE RD, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
199998	9A MILNE RD, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
199999	9B MILNE RD, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200002	15 MILNE RD, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200006	28 MILNE RD, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200015	7 MILNE RD, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200020	1 MILNE RD, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200021	20 MILNE RD, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200026	5 CROWN ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200030	12 MILNE RD, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200035	1 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200039	2 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200050	4 MILNE RD, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200057	5-7 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200058	6-8 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200064	5 HILL ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200072	7 CROWN ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200073	26 MILNE RD, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200076	10-12 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200082	LOT 28 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200085	13-15 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200090	14-16 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200091	30 EMILY ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200098	17-19 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200105	18-20 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200109	17 EMILY ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200110	9 HILL ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200113	21 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200114	10 CROWN ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200121	24 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200122	LOT 113 CROWN STREET, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200123	25 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200125	23 EMILY ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200135	29 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200139	25 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200141	LOT 101 PARK STREET, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200142	31 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200143	4 PINE ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200146	32 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200154	11 HILL ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200157	33 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200158	LOT 94 HILL STREET, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200167	36-38 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200168	39 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200173	13 HILL ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200176	40-42 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200179	LOT 103 RAILWAY STREET, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200181	LOT 88 PARK STREET, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200190	127 EMILY ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200193	47 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200196	44 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200199	LOT 1 STREVS STREET, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200201	43-45 EMILY ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200206	36 MANGOPLAH RD, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200210	49 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200212	13 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200213	48-50 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200221	13A RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200222	2 STREVS ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200224	54 EMILY ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200228	LOT 1 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200229	13 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200234	54 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200237	LOT 11 STREVS STREET, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200242	56 SCOTT ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200243	51-53 EMILY ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200249	60 EMILY ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200253	17 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200257	10 STREVS ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200264	21 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO, AO)*
200267	23 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	57	CO1	CO1	CO1, CO2, (RO, AO)*
200268	25 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO, AO)*
200282	29 MORGAN ST, URAQUINTY NSW 2652	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200284	89 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200289	90 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200292	86 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200293	1 JOHN ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200294	82 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200299	2 JOHN ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200318	3 JOHN ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200322	127 URANA ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200325	25 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	61	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200326	148 URANA ST, THE ROCK NSW 2655	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AIA)*
200332	23 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO, AO)*
200336	60 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200338	5 JOHN ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200339	54 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200341	52 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200347	4018 OLYMPIC HWY, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200349	62 NICHOLAS ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200350	5A JOHN ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200352	7-9 JOHN ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200365	117 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200368	32 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO, AO)*
200369	30 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO, AO)*
200373	15 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO, AO)*
200387	28 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO, AO)*
200389	34 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO, AO)*
200390	121 URANA ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200393	91 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200394	13 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO, AO)*
200403	117 URANA ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200406	87 KING ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200411	24 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	57	CO1	CO1	CO1, CO2, (RO, AO)*
200425	11 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO, AO)*
200427	36 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200432	13 JOHN ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200434	85 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200441	38 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200450	22 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO, AO)*
200456	113 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200460	9 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200463	7 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200466	20 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO, AO)*
200474	40-42 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	50	CO1	CO1	CO1
200480	5 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200484	44-46 RAILWAY ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200492	109A URANA ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200496	KNIGHTLEY COTTAGES 15 JOHN ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200502	16 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO, AO)*
200504	96 KING ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200505	2 DAY ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200506	3 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200512	14 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200515	90 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200516	118 URANA ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200518	1 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1

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W.004 - Utility and Signalling Work

SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Additional Mitigation Evening *(>2 consecutive rest periods)	Additional Mitigation Night *(>2 consecutive sleep periods)
200523	92 KING ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200528	4 DAY ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200529	88 KING ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200532	12 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200533	86 KING ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200536	25 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO,AO)*
200539	27 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200540	23 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO,AO)*
200541	84 KING ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200542	103 URANA ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200543	82 KING ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200545	10 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200546	27A NORMAN ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200549	29 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200552	6 DAY ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200556	8 MIXNER ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200557	78 KING ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200558	21 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO,AO)*
200563	8 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200568	112-114 URANA ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200570	8 DAY ST, THE ROCK NSW 2655	49	44	44	35	45	CO1	CO1	CO1
200573	19 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO,AO)*
200575	6 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200582	31 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200592	33-35 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200594	10 DAY ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200599	4 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
200604	101 URANA ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200609	17 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200612	110 URANA ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200613	2 DAVIDSON ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200616	15 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO,AO)*
200625	99 URANA ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200631	9 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200635	108 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200639	13 BURKES ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200648	106 URANA ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200650	11 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	48	CO1	CO1	CO1
200653	97 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200655	95 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200660	18 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO,AO)*
200663	16 DAY STREET, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200666	104 URANA ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200672	91 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200675	20 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200679	9 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200684	7 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200698	18 DAY ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200699	83 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200700	22 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200702	79 URANA ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200704	81 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200706	5 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200708	14 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
200709	100 URANA ST, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
200710	9 BURKES ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200717	104 URANA ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200723	3 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200724	75 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200729	12 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200732	73 URANA ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200746	1 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200756	10 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
200760	22 DAY ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200762	34 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
200767	8 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	49	CO1	CO1	CO1
200770	5 BURKES ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200775	24 DAY ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200781	6 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200787	26 DAY ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200804	LOT A FORD STREET, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200806	2 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200825	24-32 NORMAN ST, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
200833	30 DAY ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200839	76 URANA ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200844	74 URANA ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200847	4 BURKES ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200848	34 DAY ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200860	38 DAY ST, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
200877	Lot 5, Plan 54/758971, The Rock, NSW 2655	49	44	44	35	36	-	-	CO1
200894	THE ROCK MEMORIAL BOWLING CLUB 86 URANA/	49	44	44	35	36	-	-	CO1
200903	1 FORD ST, THE ROCK NSW 2655	49	44	44	35	39	-	-	CO1
200905	77 WILSON ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
200909	69 WILSON ST, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
200975	21 ISLAND BEND LANE, THE ROCK NSW 2655	49	44	44	35	43	-	-	CO1
200989	23 ISLAND BEND LANE, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
201002	10 QUEEN ST, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
201004	LOT 1 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
201021	13 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
201023	37 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
201045	13 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
201048	48 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
201059	48 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1
201069	119 OLD TRUNK RD, THE ROCK NSW 2655	49	44	44	35	36	-	-	CO1
1000488	LOT 27 13 EMILY STREET, THE ROCK NSW 2655	49	44	44	35	40	-	-	CO1
1000489	LOT 6 12 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	42	-	-	CO1
1000490	LOT 5 10 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
1000491	10 Carson Rd, The Rock NSW 2655	49	44	44	35	44	-	-	CO1
1000493	4 Carson Rd, The Rock NSW 2655	49	44	44	35	41	-	-	CO1
1000494	9 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
1000495	LOT 1 2 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	38	-	-	CO1
1000838	LOT 42 RAILWAY STREET, THE ROCK NSW 2655	49	44	44	35	41	-	-	CO1
1105840	131 URANA ST, THE ROCK NSW 2655	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO,AO)*
1105842	4760 OLYMPIC HWY, THE ROCK NSW 2655	60	60	60	45	51	-	-	CO1
1110364	LOT 13 22 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	47	CO1	CO1	CO1
1110365	LOT 10 20 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	44	-	-	CO1
1110366	LOT 13 22 CARSON ROAD, THE ROCK NSW 2655	49	44	44	35	46	CO1	CO1	CO1
1110599	13 MIXNER STREET, THE ROCK NSW 2655	49	44	44	35	37	-	-	CO1



Making Sustainability Happen

Appendix B Construction Noise and Vibration Impact Statement – Addendum



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THE ROCK YARD - CONSTRUCTION NOISE AND VIBRATION IMPACT STATEMENT ADDENDUM

A2I | Albury to Illabo

CONTRACT NUMBER: 0052

PROJECT DOCUMENT NUMBER:

6-0052-210-EEC-G4-AS-0001_ADD

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GLOSSARY

Specific terms and acronyms used throughout this plan are listed and described in Table 1 below.

TABLE 1: DEFINITIONS

TERM	DEFINITION
A2I	Albury to Illabo Project approved under Section 5.19 of the EP&A Act on 8 October 2024 and modified 13 August 2025.
Addendum	Addendum to the endorsed Construction Noise and Vibration Impact Statement
CA	Consistency Assessment
CoA	Conditions of Approval for SSI-10055
CNVIS	Construction Noise and Vibration Impact Statement
km	Kilometres
m	Metres
NDD	Non-destructive digging
NML	Noise Management Levels
OOH	Out-of-hours
Project	Albury to Illabo Project approved under Section 5.19 of the EP&A Act on 8 October 2024
RBL	Rating Background Level
SLR Predict	SLR Predict, the A2I noise and vibration management tool
SSI	State Significant Infrastructure
The Rock Yard	The Rock Yard Clearances enhancement site
T	Tonnes
W.001	Work Scenario 1 – Site establishment
W.002	Work Scenario 2 – Site operation

1 INTRODUCTION

1.1 Purpose of this Addendum

This Construction Noise and Vibration Impact Statement Addendum (Addendum) has been prepared to identify and assess the additional work area required to support and enable the wider scope of activities associated with The Rock Yard clearances enhancement site (The Rock Yard), as shown in Figure 2 below.

This Addendum will form part of the endorsed Construction Noise and Vibration Impact Statement (CNVIS) (Doc No: 6-0052-210-EEC-G4-AS-0001) for The Rock Yard. This Addendum should be reviewed in conjunction with the CNVIS for The Rock Yard, including adopted Rating Background Levels (RBL), Noise Management Levels (NML) and assessment criteria in accordance with the Conditions of Approval (CoA) (SSI-10055).



FIGURE 1: REVISED WORK AREA FOR W.001 AND W.002 (THE ROCK YARD CNVIS ADDENDUM)

2 NOISE ASSESSMENT

2.1 Site establishment (W.001)

2.1.1 Scope

The additional work area required for The Rock Yard forms part of the wider scope associated at The Rock Yard clearances enhancement site and will enable site establishment works. This CNVIS addendum has assessed the revised work area, which consists of the work area identified in the endorsed CNVIS and additional work area identified in The Rock Yard Consistency Assessment (CA) (Doc No: 6-0052-210-EAP-00-AS-0003).

The revised work area will be assessed using SLR Predict, the A2I noise and vibration management tool, with the following noted (as per the endorsed CNVIS):

Activity

- Site compound delivery and set up
- Access road and laydown construction

Plant and equipment

- Articulated dump truck
- Crane (mobile)
- Elevated work platform
- Excavator – slasher
- Front end loader
- Generator
- Hand tools (electric)
- Light vehicles
- Roller (static)
- Truck – medium rigid
- Truck & dogs
- Truck – vacuum (NDD)
- Welding equipment

Construction hours

- Standard approved construction hours:
 - 7am to 6pm Monday to Friday, inclusive
 - 7am to 6pm Saturday
- Daytime out-of-hours (OOH)
 - 8am to 6pm Sunday and Public Holidays

The same activities, plant and equipment and construction hours are relevant for this CNVIS Addendum.

2.1.2 Assessment

As noted above, the revised work area has been assessed utilising SLR Predict. The full plant and equipment list (as per the endorsed CNVIS) has been considered as a worst-case scenario within a 15-minute assessment period. The operating time (utilisation %) of each plant and equipment has remained the same as per the endorsed CNVIS.

2.1.3 Results

The SLR Predict results are presented in Appendix A, for daytime out of hours, as the most affected period.

Table 2 provides a summary of the exceedances identified through various assessments. It compares the following:

- W.001 exceedances identified in The Rock Yard CNVIS
- W.001B exceedances identified in the SLR Predict results for the revised work areas shown in Figure 1.

TABLE 2: EXCEEDANCE COMPARISONS FOR W.001

ASSESSMENT RESULTS (DAY OOH)	NUMBER OF RESIDENTIAL RECEIVERS WITH NML EXCEEDANCE	
	CNVIS – W.001	SLR Predict – W.001 (revised work area)
Total Lw (dBA)	115	116
Noticeable (1-5 dB)	58	87
Clearly Audible (6-15 dB)	55	115
Moderately Intrusive (16-25 dB)	13	26
Highly Intrusive (>25 dB)	0	7

Table 2 shows an overall increase in the intensity of impacts resulting from the current proposed scenario (last column) due to the revised work area for the scenario. There is an increased number of receivers experiencing higher noise levels including moderately intrusive (16-25 dB) and highly intrusive (>25 dB) noise levels. This is likely due to the increased size of the work area.

Three receivers will potentially experience highly noise affected impacts (>75 dBA) and will be managed accordingly as noted in Section 4 below.

2.2 Site operation (W.002)

2.2.1 Scope

The additional work area required for The Rock Yard forms part of the wider scope associated at The Rock Yard clearances enhancement site and will enable site operational works. This CNVIS addendum has assessed the revised work area, which consists of the work area identified in the endorsed CNVIS and additional work area identified in The Rock Yard Consistency Assessment (CA) (Doc No: 6-0052-210-EAP-00-AS-0003).

The revised work area will be assessed using SLR Predict, the A2I noise and vibration management tool, with the following noted (as per the endorsed CNVIS):

Activity

- Operation of the site compound
- Delivery of materials, plant and equipment
- Facilitating two-way construction traffic

Plant and equipment

- Compressor
- Crane – franna
- Front end loader
- Generator
- Hand tools (electric)
- Light vehicles
- Truck & dogs
- Truck – vacuum (NDD)
- Welding equipment

Construction hours

- Standard approved construction hours:
 - 7am to 6pm Monday to Friday, inclusive
 - 7am to 6pm Saturday

- Daytime out-of-hours (OOH)
 - 8am to 6pm Sunday and Public Holidays
- Evening OOH:
 - 6pm to 10pm Monday to Sunday (including Public Holidays)
- Night OOH:
 - 10pm to 7am Monday to Saturday
 - 10pm to 8am Sunday (including Public Holidays)

The same activities, plant and equipment and construction hours are relevant for this CNVIS Addendum.

2.2.2 Assessment

As noted above, the revised work area has been assessed utilising SLR Predict. The full plant and equipment list (as per the endorsed CNVIS) has been considered as a worst-case scenario within a 15-minute assessment period. The operating time (utilisation %) of each plant and equipment has remained the same as per the endorsed CNVIS.

2.2.3 Results

The SLR Predict results are presented in Appendix B, for night out of hours, as the most affected period.

Table 2 provides a summary of the exceedances identified through various assessments. It compares the following:

- W.002 exceedances identified in The Rock Yard CNVIS
- W.002 exceedances identified in the SLR Predict results for the revised work areas shown in Figure 1.

TABLE 3: EXCEEDANCE COMPARISONS FOR W.002

ASSESSMENT RESULTS (NIGHT OOH)	NUMBER OF RESIDENTIAL RECEIVERS WITH NML EXCEEDANCE	
	CNVIS – W.002	SLR Predict – W.002 (revised work area)
Total Lw (dBA)	113	116
Noticeable (1-5 dB)	125	86
Clearly Audible (6-15 dB)	113	198
Moderately Intrusive (16-25 dB)	34	103
Highly Intrusive (>25 dB)	5	25
Above Sleep Disturbance (>Screening level)	103	99
Above Sleep Awake (>65 dB)	13	13

Table 3 shows an overall increase in the intensity of impacts resulting from the current proposed scenario (last column), due to the revised work area for the scenario. There is an increased number of receivers experiencing higher noise levels including moderately intrusive (16-25 dB) and highly intrusive (>25 dB) noise levels. This is likely due to the increased size of the work area.

Three receivers will potentially experience highly noise affected impacts (>75 dBA) and will be managed accordingly as noted in Section 4 below.

3 VIBRATION ASSESSMENT

3.1 Site establishment (W.001)

There are no vibration intensive plant and equipment proposed as part of W.001 and therefore, no vibration impacts are expected.

3.2 Site operation (W.002)

There are no vibration intensive plant and equipment proposed as part of W.002 and therefore, no vibration impacts are expected.

4 CONCLUSION

4.1 Mitigation and management measures

As this Addendum forms part of the endorsed CNVIS for The Rock Yard, the same noise and vibration management measures apply as noted in Section 8 of the CNVIS.

4.2 Additional mitigation measures

As noted in Figure 2 and under Appendix A and Appendix B, the SLR Predict results include a section on all applicable additional mitigation measures. These additional mitigation measures will be implemented where appropriate.

Airborne Noise - Additional Mitigation Measures Matrix				
Time Period	Exceedance of NML	Perception	Duration	Communication Category/Management Measure
OOHW Daytime Period Sunday 7am - 6pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
			>2 consecutive rest periods	CO1, CO2, RO
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
			>2 consecutive sleep periods	CO1, CO2, RO, AO
	>25	Highly intrusive	Any	CO1, CO2, RO
			>2 consecutive sleep periods	CO1, CO2, RO, AO, AltA

FIGURE 2: ADDITIONAL MITIGATION MEASURES MATRIX – NOISE

Additional Mitigation Measures			
Measure		Abbreviation	
Communication (Category 1) ¹		CO1	
Communication (Category 2) ²		CO2	
Respite Offer ³		RO	
Alternative Accommodation		AltA	
Agreement with Owners		AO	
Note 1: CO1: Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.			
Note 2: CO2: Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.			
Note 3: RO are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.			
Receiver Types			
Code	Description	Code	Description
RES	Residential	OED	Other Educational
COM	Commercial	OHO	Other Hotel
IND	Industrial	OLI	Other Library
OOA	Other Outdoor Active Recreation	OME	Other Medical
OOP	Other Outdoor Passive Recreation	OPW	Other Place of Worship
OCC	Other Child Care	OPB	Other Public Building

FIGURE 3: ADDITIONAL MITIGATION MEASURES MATRIX – NOISE & VIBRATION



APPENDICES



APPENDIX A

SLR Predict (W.001)



Construction Noise and Vibration Impact Statement (CNVIS)

This report presents the outcomes of detailed noise/vibration modelling relating to specific construction activities proposed on site in accordance with the methodology outlined in the *Construction Noise and Vibration Management Plan* (CNVMP) and overarching *Construction Noise and Vibration Impact Statement* (CNVIS).

Prior to detailed noise/vibration modelling being undertaken, work activities are reviewed and considered in relation to industry best practice, consistent with the requirements of the CNVMP. Consideration is first given to eliminating the noise/vibration emissions so far as reasonably practicable. Where elimination is not practicable, efforts are been made to reduce the risk as far as practical by implementing noise and vibration management measures as outlined in the overarching CNVIS and CNVMP.

Examples of these measures include selecting the quietest equipment and processes to complete the works, considering staging and periods of respite to minimise prolonged periods of noise and vibration exposure, and maximising distances between construction activities and sensitive receivers.

Consultation with Affected Receivers

In accordance with CoA E78, the CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. Details of this consultation are provided in the overarching CNVIS for each enhancement site.

Assessment Details

Author Name	
Author Email	noiseassessments@martinus.com.au
Author Organisation	Martinus Rail
Project Name	A2I - Albury to Illabo
Assessment Name	The Rock Addendum - W.001
Stage	A2I Construction
Permit Number	N/A
Start Date	2025-12-01
End Date	2025-12-02
Assessment Period	Day - out of hours

Equipment Details

Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
1: Work Area (Height: Ground)	Total: 116		
Articulated Dump Truck 25% operation	109	1	No
Crane (mobile) 30% operation	104	1	No
Elevated Work Platform 25% operation	97	1	No
Excavator - Tracked (10T) 50% operation	100	1	No
Front End Loader 50% operation	113	1	No
Generator - attenuated 100% operation	92	1	No
Hand tools (electric) 75% operation	102	3	No
Light Vehicle (accelerating) 25% operation	95	2	No
Roller - static 100% operation	107	1	No

Note 1: Equipment classed as 'annoying' in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

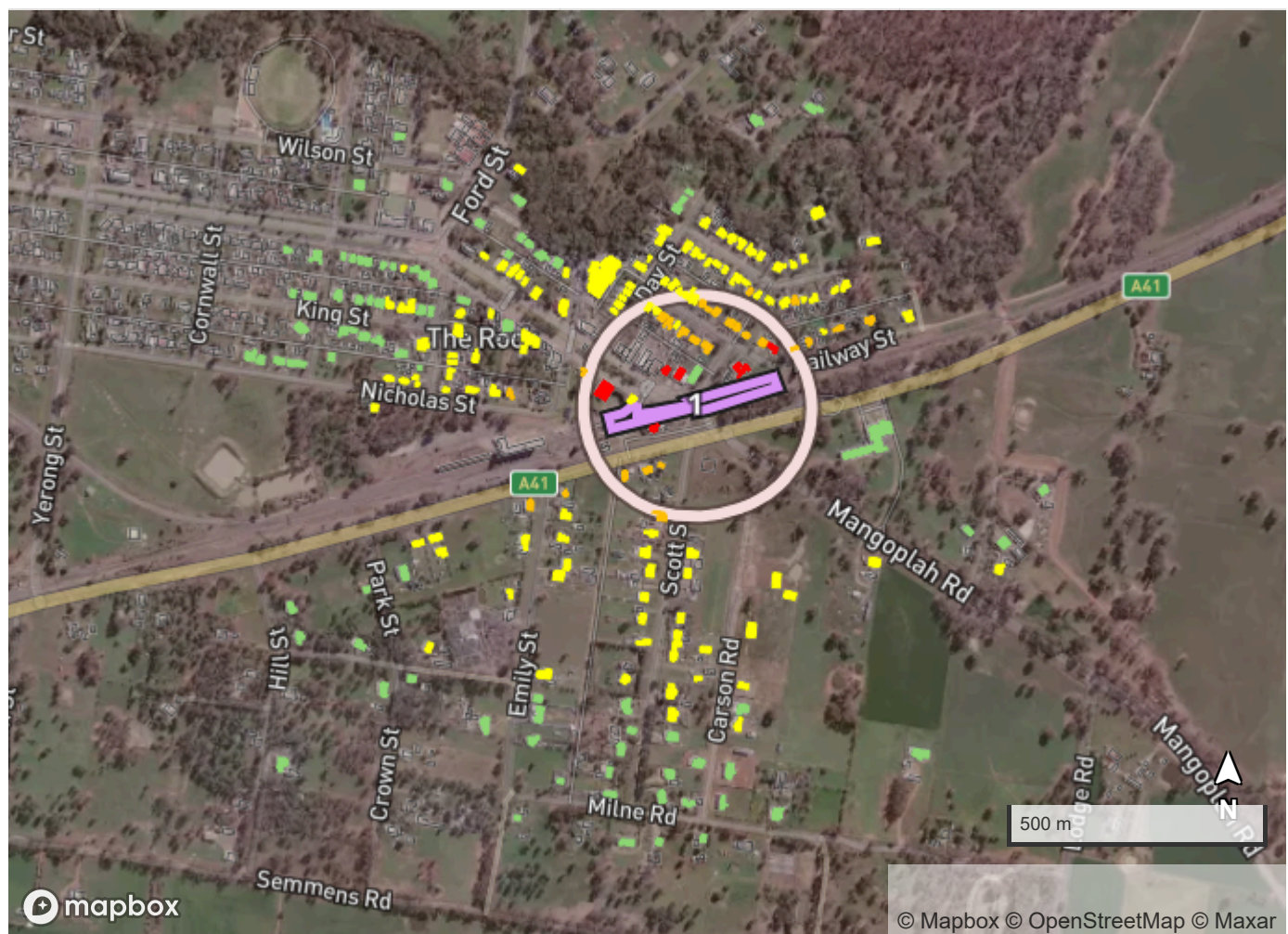
Equipment Details

Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
Truck - medium rigid (20T) 25% operation	103	1	No
Truck - road truck/ truck & dog (30T) 25% operation	108	2	No
Truck - vacuum (NDD or non-destructive digger) 100% operation	109	1	No
Welding Equipment 100% operation	110	1	No

Note 1: Equipment classed as 'annoying' in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Assessment Results





Residential

Non-Residential

Assessment Results

	Highly Intrusive	7 properties	0 property
	Moderately Intrusive	26 properties	0 property
	Clearly Audible	113 properties	2 properties
	Noticeable	84 properties	3 properties

Legend

	Project Boundary
	Work Areas
	Barriers

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
22 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	81	37	Highly Intrusive
25 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	80	36	Highly Intrusive
23 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	76	32	Highly Intrusive
131 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	74	30	Highly Intrusive
158 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	71	27	Highly Intrusive
30 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	71	27	Highly Intrusive
148 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	70	26	Highly Intrusive

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
32 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	69	25	Moderately Intrusive
28 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	69	25	Moderately Intrusive
23 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	68	24	Moderately Intrusive
25 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	67	23	Moderately Intrusive
15 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	67	23	Moderately Intrusive
21 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	66	22	Moderately Intrusive
24 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	66	22	Moderately Intrusive
127 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	65	21	Moderately Intrusive
34 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	65	21	Moderately Intrusive
13 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	65	21	Moderately Intrusive
22 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	64	20	Moderately Intrusive
11 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	63	19	Moderately Intrusive
20 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	63	19	Moderately Intrusive
17 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	62	18	Moderately Intrusive

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
16 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	62	18	Moderately Intrusive
56 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	61	17	Moderately Intrusive
60 EMILY ST, THE ROCK NSW 2655	RES	NCA08	44	61	17	Moderately Intrusive
38 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	61	17	Moderately Intrusive
7 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	61	17	Moderately Intrusive
14 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	61	17	Moderately Intrusive
12 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	61	17	Moderately Intrusive
27 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	61	17	Moderately Intrusive
90 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	44	60	16	Moderately Intrusive
40-42 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	60	16	Moderately Intrusive
5 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	60	16	Moderately Intrusive
19 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	60	16	Moderately Intrusive
82 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	44	59	15	Clearly Audible
36 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	59	15	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
9 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	59	15	Clearly Audible
2 DAY ST, THE ROCK NSW 2655	RES	NCA08	44	59	15	Clearly Audible
25 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	59	15	Clearly Audible
10 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	59	15	Clearly Audible
15 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	59	15	Clearly Audible
48-50 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	58	14	Clearly Audible
54 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	58	14	Clearly Audible
51-53 EMILY ST, THE ROCK NSW 2655	RES	NCA08	44	58	14	Clearly Audible
135 URANA ST, THE ROCK NSW 2655	COM	NCA08	70	84	14	Clearly Audible
86 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	44	58	14	Clearly Audible
117 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	58	14	Clearly Audible
23 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	58	14	Clearly Audible
27A NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	58	14	Clearly Audible
21 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	58	14	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
8 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	58	14	Clearly Audible
6 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	58	14	Clearly Audible
9 EMILY STREET, THE ROCK NSW 2655	RES	NCA08	44	58	14	Clearly Audible
11 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	58	14	Clearly Audible
49 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	57	13	Clearly Audible
54 EMILY ST, THE ROCK NSW 2655	RES	NCA08	44	57	13	Clearly Audible
3 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	57	13	Clearly Audible
118 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	57	13	Clearly Audible
29 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	57	13	Clearly Audible
18 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	57	13	Clearly Audible
8 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	57	13	Clearly Audible
LOT 1 EMILY STREET, THE ROCK NSW 2655	RES	NCA08	44	56	12	Clearly Audible
5A JOHN ST, THE ROCK NSW 2655	RES	NCA08	44	56	12	Clearly Audible
44-46 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	56	12	Clearly Audible
1 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	56	12	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
4 DAY ST, THE ROCK NSW 2655	RES	NCA08	44	56	12	Clearly Audible
31 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	56	12	Clearly Audible
33-35 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	56	12	Clearly Audible
4 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	56	12	Clearly Audible
2 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	44	56	12	Clearly Audible
108 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	56	12	Clearly Audible
12 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	56	12	Clearly Audible
47 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	55	11	Clearly Audible
44 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	55	11	Clearly Audible
1 JOHN ST, THE ROCK NSW 2655	RES	NCA08	44	55	11	Clearly Audible
121 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	55	11	Clearly Audible
117 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	55	11	Clearly Audible
13 JOHN ST, THE ROCK NSW 2655	RES	NCA08	44	55	11	Clearly Audible
KNIGHTLEY COTTAGES 15 JOHN ST, THE ROCK NSW 2655	RES	NCA08	44	55	11	Clearly Audible
17 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	55	11	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
110 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	55	11	Clearly Audible
13 BURKES ST, THE ROCK NSW 2655	RES	NCA08	44	55	11	Clearly Audible
106 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	55	11	Clearly Audible
104 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	55	11	Clearly Audible
33 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	54	10	Clearly Audible
89 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	44	54	10	Clearly Audible
5 JOHN ST, THE ROCK NSW 2655	RES	NCA08	44	54	10	Clearly Audible
7-9 JOHN ST, THE ROCK NSW 2655	RES	NCA08	44	54	10	Clearly Audible
112-114 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	54	10	Clearly Audible
10 DAY ST, THE ROCK NSW 2655	RES	NCA08	44	54	10	Clearly Audible
16 DAY STREET, THE ROCK NSW 2655	RES	NCA08	44	54	10	Clearly Audible
20 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	54	10	Clearly Audible
9 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	54	10	Clearly Audible
22 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	54	10	Clearly Audible
LOT 13 22 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	44	54	10	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
32 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	53	9	Clearly Audible
36 MANGOPLAH RD, THE ROCK NSW 2655	RES	NCA08	44	53	9	Clearly Audible
13 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	53	9	Clearly Audible
13 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	53	9	Clearly Audible
6 DAY ST, THE ROCK NSW 2655	RES	NCA08	44	53	9	Clearly Audible
5 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	53	9	Clearly Audible
14 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	53	9	Clearly Audible
10 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	53	9	Clearly Audible
LOT 13 22 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	44	53	9	Clearly Audible
25 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible
31 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible
39 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible
40-42 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible
13A RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible
2 JOHN ST, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
3 JOHN ST, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible
8 DAY ST, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible
7 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible
100 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible
3 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible
1 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible
LOT 6 12 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible
LOT 10 20 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	44	52	8	Clearly Audible
17-19 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	51	7	Clearly Audible
21 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	51	7	Clearly Audible
36-38 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	51	7	Clearly Audible
LOT 103 RAILWAY STREET, THE ROCK NSW 2655	RES	NCA08	44	51	7	Clearly Audible
43-45 EMILY ST, THE ROCK NSW 2655	RES	NCA08	44	51	7	Clearly Audible
66 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	44	51	7	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
66 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	44	51	7	Clearly Audible
109A URANA ST, THE ROCK NSW 2655	RES	NCA08	44	51	7	Clearly Audible
90 KING ST, THE ROCK NSW 2655	RES	NCA08	44	51	7	Clearly Audible
92 KING ST, THE ROCK NSW 2655	RES	NCA08	44	51	7	Clearly Audible
18 DAY ST, THE ROCK NSW 2655	RES	NCA08	44	51	7	Clearly Audible
6 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	51	7	Clearly Audible
24-32 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	51	7	Clearly Audible
24 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
25 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
23 EMILY ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
29 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
LOT 101 PARK STREET, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
27 EMILY ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
LOT 1 STREVS STREET, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
KNIGHTLEIGH COTTAGES 3/2 JOHN ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
99 KING ST, THE ROCK NSW 2655	OCC	NCA08	45	51	6	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
88 KING ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
95 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
22 DAY ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
34 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
24 DAY ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
26 DAY ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
2 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
1 FORD ST, THE ROCK NSW 2655	RES	NCA08	44	50	6	Clearly Audible
10 Carson Rd, The Rock NSW 2655	RES	NCA08	44	50	6	Clearly Audible
4 PINE ST, THE ROCK NSW 2655	RES	NCA08	44	49	5	Noticeable
LOT 11 STREVS STREET, THE ROCK NSW 2655	RES	NCA08	44	49	5	Noticeable
STATE EMERGENCY SERVICE 150-152 URANA ST, THE ROCK NSW 2655	COM	NCA08	70	75	5	Noticeable
KNIGHTLEIGH COTTAGES 2/2 JOHN ST, THE ROCK NSW 2655	RES	NCA08	44	49	5	Noticeable
60 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	44	49	5	Noticeable
91 KING ST, THE ROCK NSW 2655	RES	NCA08	44	49	5	Noticeable

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
94 KING ST, THE ROCK NSW 2655	RES	NCA08	44	49	5	Noticeable
101 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	49	5	Noticeable
11 BURKES ST, THE ROCK NSW 2655	RES	NCA08	44	49	5	Noticeable
9 BURKES ST, THE ROCK NSW 2655	RES	NCA08	44	49	5	Noticeable
LOT A FORD STREET, THE ROCK NSW 2655	RES	NCA08	44	49	5	Noticeable
34 DAY ST, THE ROCK NSW 2655	RES	NCA08	44	49	5	Noticeable
LOT 42 RAILWAY STREET, THE ROCK NSW 2655	RES	NCA08	44	49	5	Noticeable
10 CROWN ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
58 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
54 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
LOT 4 KING STREET, THE ROCK NSW 2655	OCC	NCA08	45	49	4	Noticeable
83 KING ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
96 KING ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
86 KING ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
84 KING ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
99 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
91 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
7 BURKES ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
5 BURKES ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
30 DAY ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
4 BURKES ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
38 DAY ST, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
21 ISLAND BEND LANE, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
LOT 5 10 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	44	48	4	Noticeable
LOT 28 EMILY STREET, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable
14-16 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable
18-20 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable
13 HILL ST, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable
LOT 88 PARK STREET, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable
2 STREVS ST, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable
52 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
113 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable
103 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable
82 KING ST, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable
99 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable
83 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable
Lot 5, Plan 5/4/758971, The Rock, NSW 2655	RES	NCA08	44	47	3	Noticeable
23 ISLAND BEND LANE, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable
4 Carson Rd, The Rock NSW 2655	RES	NCA08	44	47	3	Noticeable
9 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	44	47	3	Noticeable
9A MILNE RD, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable
4 MILNE RD, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable
6-8 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable
30 EMILY ST, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable
11 HILL ST, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable
62 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable
87 KING ST, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
85 KING ST, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable
8 MIXNER ST, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable
78 KING ST, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable
87 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable
85 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable
104 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable
LOT 1 2 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	44	46	2	Noticeable
9B MILNE RD, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
15 MILNE RD, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
1 MILNE RD, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
20 MILNE RD, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
12 MILNE RD, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
1 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
2 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
5-7 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
5 HILL ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
26 MILNE RD, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
10-12 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
13-15 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
17 EMILY ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
LOT 113 CROWN STREET, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
10 STREVENS ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
50 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
79 KING ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
76 KING ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
97 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
93 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
79 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
81 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
73 URANA ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
4 QUEEN ST, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable
LOT 27 13 EMILY STREET, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
4760 OLYMPIC HWY, THE ROCK NSW 2655	OHO	NCA08	60	61	1	Noticeable
13 MIXNER STREET, THE ROCK NSW 2655	RES	NCA08	44	45	1	Noticeable

Recommended Mitigation Measures

This assessment has been conducted with regard to the relevant CNVIS and CNVMP. To manage noise and vibration impacts, project specific mitigation measures may be considered such as reviewing construction staging methodology to identify opportunities to schedule intensive works during less sensitive time periods and by providing a clear process for community engagement and complaints. Likewise, the requirements and actionable items within the overarching CNVIS and CNVMP should be considered and adopted where appropriate. Following the consideration of project specific noise mitigation measures, additional noise mitigation measures to be explored are described in the Inland Rail NSW Construction Noise and Vibration Framework (CNVF) and summarised below.

Airborne Noise - Additional Mitigation Measures Matrix				
Time Period	Exceedance of NML	Perception	Duration	Communication Category/Management Measure
OOHW Daytime Period Sunday 7am - 6pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any >2 consecutive rest periods	CO1, CO2
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
			>2 consecutive sleep periods	CO1, CO2, RO, AO
	>25	Highly intrusive	Any >2 consecutive sleep periods	CO1, CO2, RO

Vibration - Additional Mitigation Measures Matrix

Time Period	Duration	Exceedance of 'preferred' value	Exceedance of 'maximum' value
OOHW Daytime Period Sunday 8am-6pm	Any	CO1, CO2	CO1, CO2, RO
OOHW Evening Period Mon-Sun 6pm-10pm	Any	CO1, CO2	CO1, CO2, RO
OOHW Night Period Mon-Sat 10pm-7am Sun 10pm-8am	Any	CO1, CO2, RO	CO1, CO2, RO, AltA

Additional Mitigation Measures

Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

Note 1: CO1: Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.

Note 2: CO2: Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.

Note 3: RO are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.

Receiver Types

Code	Description	Code	Description
RES	Residential	OED	Other Educational
COM	Commercial	OHO	Other Hotel
IND	Industrial	OLI	Other Library
OOA	Other Outdoor Active Recreation	OME	Other Medical
OOP	Other Outdoor Passive Recreation	OPW	Other Place of Worship
OCC	Other Child Care	OPB	Other Public Building



APPENDIX B

SLR Predict (W.002)



Construction Noise and Vibration Impact Statement (CNVIS)

This report presents the outcomes of detailed noise/vibration modelling relating to specific construction activities proposed on site in accordance with the methodology outlined in the *Construction Noise and Vibration Management Plan* (CNVMP) and overarching *Construction Noise and Vibration Impact Statement* (CNVIS).

Prior to detailed noise/vibration modelling being undertaken, work activities are reviewed and considered in relation to industry best practice, consistent with the requirements of the CNVMP. Consideration is first given to eliminating the noise/vibration emissions so far as reasonably practicable. Where elimination is not practicable, efforts are been made to reduce the risk as far as practical by implementing noise and vibration management measures as outlined in the overarching CNVIS and CNVMP.

Examples of these measures include selecting the quietest equipment and processes to complete the works, considering staging and periods of respite to minimise prolonged periods of noise and vibration exposure, and maximising distances between construction activities and sensitive receivers.

Consultation with Affected Receivers

In accordance with CoA E78, the CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. Details of this consultation are provided in the overarching CNVIS for each enhancement site.

Assessment Details

Author Name	
Author Email	noiseassessments@martinus.com.au
Author Organisation	Martinus Rail
Project Name	A2I - Albury to Illabo
Assessment Name	The Rock Addendum - W.002
Stage	A2I Construction
Permit Number	N/A
Start Date	2025-12-01
End Date	2025-12-02
Assessment Period	Night - out of hours

Equipment Details

Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
1: Work Area (Height: Ground)	Total: 116		
Compressor 100% operation	109	1	No
Crane Franna (20 tonne) 30% operation	98	1	No
Front End Loader 50% operation	113	1	No
Generator - attenuated 100% operation	92	1	No
Hand tools (electric) 75% operation	102	1	No
Light Vehicle (accelerating) 25% operation	95	15	No
Truck - road truck/ truck & dog (30T) 25% operation	108	2	No
Truck - vacuum (NDD or non-destructive digger) 100% operation	109	1	No

Note 1: Equipment classed as 'annoying' in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Equipment Details

Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
Welding Equipment 100% operation	110	1	No

Note 1: Equipment classed as ‘annoying’ in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Assessment Results



		Residential	Non-Residential
	Highly Intrusive	25 properties	0 property
	Moderately Intrusive	103 properties	0 property
	Clearly Audible	197 properties	1 property
	Noticeable	86 properties	0 property
	Above Sleep Disturbance	99 properties	0 property

Assessment Results



Above Sleep Awake

13 properties

0 property

Legend



Project Boundary



Work Areas



Barriers

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
22 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	80	45	Highly Intrusive Above Sleep Dist Above Sleep Awake
25 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	80	45	Highly Intrusive Above Sleep Dist Above Sleep Awake
23 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	76	41	Highly Intrusive Above Sleep Dist Above Sleep Awake

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
131 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	73	38	Highly Intrusive Above Sleep Dist Above Sleep Awake
158 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	71	36	Highly Intrusive Above Sleep Dist Above Sleep Awake
30 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	71	36	Highly Intrusive Above Sleep Dist Above Sleep Awake
148 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	70	35	Highly Intrusive Above Sleep Dist Above Sleep Awake
28 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	69	34	Highly Intrusive Above Sleep Dist Above Sleep Awake
32 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	68	33	Highly Intrusive Above Sleep Dist Above Sleep Awake

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
23 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	67	32	Highly Intrusive Above Sleep Dist Above Sleep Awake
25 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	67	32	Highly Intrusive Above Sleep Dist Above Sleep Awake
15 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	67	32	Highly Intrusive Above Sleep Dist Above Sleep Awake
21 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	66	31	Highly Intrusive Above Sleep Dist Above Sleep Awake
24 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	66	31	Highly Intrusive Above Sleep Dist
127 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	65	30	Highly Intrusive Above Sleep Dist
34 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	65	30	Highly Intrusive Above Sleep Dist

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
13 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	64	29	Highly Intrusive Above Sleep Dist
22 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	64	29	Highly Intrusive Above Sleep Dist
20 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	63	28	Highly Intrusive Above Sleep Dist
17 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	62	27	Highly Intrusive Above Sleep Dist
11 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	62	27	Highly Intrusive Above Sleep Dist
60 EMILY ST, THE ROCK NSW 2655	RES	NCA08	35	61	26	Highly Intrusive Above Sleep Dist
7 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	61	26	Highly Intrusive Above Sleep Dist
16 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	61	26	Highly Intrusive Above Sleep Dist
27 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	61	26	Highly Intrusive Above Sleep Dist
56 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	60	25	Moderately Intrusive Above Sleep Dist

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
90 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	60	25	Moderately Intrusive Above Sleep Dist
38 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	60	25	Moderately Intrusive Above Sleep Dist
40-42 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	60	25	Moderately Intrusive Above Sleep Dist
5 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	60	25	Moderately Intrusive Above Sleep Dist
14 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	60	25	Moderately Intrusive Above Sleep Dist
12 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	60	25	Moderately Intrusive Above Sleep Dist
19 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	60	25	Moderately Intrusive Above Sleep Dist
9 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	59	24	Moderately Intrusive Above Sleep Dist
2 DAY ST, THE ROCK NSW 2655	RES	NCA08	35	59	24	Moderately Intrusive Above Sleep Dist
25 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	59	24	Moderately Intrusive Above Sleep Dist

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
10 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	59	24	Moderately Intrusive Above Sleep Dist
15 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	59	24	Moderately Intrusive Above Sleep Dist
54 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	58	23	Moderately Intrusive Above Sleep Dist
51-53 EMILY ST, THE ROCK NSW 2655	RES	NCA08	35	58	23	Moderately Intrusive Above Sleep Dist
86 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	58	23	Moderately Intrusive Above Sleep Dist
82 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	58	23	Moderately Intrusive Above Sleep Dist
36 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	58	23	Moderately Intrusive Above Sleep Dist
23 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	58	23	Moderately Intrusive Above Sleep Dist
27A NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	58	23	Moderately Intrusive Above Sleep Dist
21 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	58	23	Moderately Intrusive Above Sleep Dist

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
6 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	58	23	Moderately Intrusive Above Sleep Dist
9 EMILY STREET, THE ROCK NSW 2655	RES	NCA08	35	58	23	Moderately Intrusive Above Sleep Dist
11 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	58	23	Moderately Intrusive Above Sleep Dist
49 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	57	22	Moderately Intrusive Above Sleep Dist
48-50 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	57	22	Moderately Intrusive Above Sleep Dist
54 EMILY ST, THE ROCK NSW 2655	RES	NCA08	35	57	22	Moderately Intrusive Above Sleep Dist
117 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	57	22	Moderately Intrusive Above Sleep Dist
3 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	57	22	Moderately Intrusive Above Sleep Dist
118 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	57	22	Moderately Intrusive Above Sleep Dist
29 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	57	22	Moderately Intrusive Above Sleep Dist

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
8 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	57	22	Moderately Intrusive Above Sleep Dist
18 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	57	22	Moderately Intrusive Above Sleep Dist
LOT 1 EMILY STREET, THE ROCK NSW 2655	RES	NCA08	35	56	21	Moderately Intrusive Above Sleep Dist
5A JOHN ST, THE ROCK NSW 2655	RES	NCA08	35	56	21	Moderately Intrusive Above Sleep Dist
1 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	56	21	Moderately Intrusive Above Sleep Dist
31 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	56	21	Moderately Intrusive Above Sleep Dist
33-35 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	56	21	Moderately Intrusive Above Sleep Dist
4 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	56	21	Moderately Intrusive Above Sleep Dist
108 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	56	21	Moderately Intrusive Above Sleep Dist
12 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	56	21	Moderately Intrusive Above Sleep Dist

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
8 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	56	21	Moderately Intrusive Above Sleep Dist
47 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	55	20	Moderately Intrusive Above Sleep Dist
1 JOHN ST, THE ROCK NSW 2655	RES	NCA08	35	55	20	Moderately Intrusive Above Sleep Dist
121 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	55	20	Moderately Intrusive Above Sleep Dist
117 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	55	20	Moderately Intrusive Above Sleep Dist
13 JOHN ST, THE ROCK NSW 2655	RES	NCA08	35	55	20	Moderately Intrusive Above Sleep Dist
44-46 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	55	20	Moderately Intrusive Above Sleep Dist
4 DAY ST, THE ROCK NSW 2655	RES	NCA08	35	55	20	Moderately Intrusive Above Sleep Dist
17 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	55	20	Moderately Intrusive Above Sleep Dist
110 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	55	20	Moderately Intrusive Above Sleep Dist

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
2 DAVIDSON ST, THE ROCK NSW 2655	RES	NCA08	35	55	20	Moderately Intrusive Above Sleep Dist
106 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	55	20	Moderately Intrusive Above Sleep Dist
104 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	55	20	Moderately Intrusive Above Sleep Dist
44 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	54	19	Moderately Intrusive Above Sleep Dist
5 JOHN ST, THE ROCK NSW 2655	RES	NCA08	35	54	19	Moderately Intrusive Above Sleep Dist
7-9 JOHN ST, THE ROCK NSW 2655	RES	NCA08	35	54	19	Moderately Intrusive Above Sleep Dist
KNIGHTLEY COTTAGES 15 JOHN ST, THE ROCK NSW 2655	RES	NCA08	35	54	19	Moderately Intrusive Above Sleep Dist
112-114 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	54	19	Moderately Intrusive Above Sleep Dist
10 DAY ST, THE ROCK NSW 2655	RES	NCA08	35	54	19	Moderately Intrusive Above Sleep Dist
13 BURKES ST, THE ROCK NSW 2655	RES	NCA08	35	54	19	Moderately Intrusive Above Sleep Dist

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
16 DAY STREET, THE ROCK NSW 2655	RES	NCA08	35	54	19	Moderately Intrusive Above Sleep Dist
20 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	54	19	Moderately Intrusive Above Sleep Dist
9 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	54	19	Moderately Intrusive Above Sleep Dist
22 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	54	19	Moderately Intrusive Above Sleep Dist
LOT 13 22 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	35	54	19	Moderately Intrusive Above Sleep Dist
32 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	53	18	Moderately Intrusive
33 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	53	18	Moderately Intrusive Above Sleep Dist
36 MANGOPLAH RD, THE ROCK NSW 2655	RES	NCA08	35	53	18	Moderately Intrusive Above Sleep Dist
13 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	53	18	Moderately Intrusive
13 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	53	18	Moderately Intrusive Above Sleep Dist
89 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	53	18	Moderately Intrusive Above Sleep Dist

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
6 DAY ST, THE ROCK NSW 2655	RES	NCA08	35	53	18	Moderately Intrusive Above Sleep Dist
5 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	53	18	Moderately Intrusive Above Sleep Dist
14 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	53	18	Moderately Intrusive
10 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	53	18	Moderately Intrusive Above Sleep Dist
LOT 13 22 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	35	53	18	Moderately Intrusive Above Sleep Dist
25 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	52	17	Moderately Intrusive
31 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	52	17	Moderately Intrusive
39 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	52	17	Moderately Intrusive
40-42 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	52	17	Moderately Intrusive
13A RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	52	17	Moderately Intrusive
8 DAY ST, THE ROCK NSW 2655	RES	NCA08	35	52	17	Moderately Intrusive
7 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	52	17	Moderately Intrusive
100 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	52	17	Moderately Intrusive
3 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	52	17	Moderately Intrusive

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
1 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	52	17	Moderately Intrusive
LOT 6 12 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	35	52	17	Moderately Intrusive
LOT 10 20 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	35	52	17	Moderately Intrusive
21 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive
36-38 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive
LOT 103 RAILWAY STREET, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive
43-45 EMILY ST, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive
2 JOHN ST, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive
66 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive
66 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive
3 JOHN ST, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive
109A URANA ST, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive
90 KING ST, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive
92 KING ST, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive
18 DAY ST, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
6 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive
24-32 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	51	16	Moderately Intrusive
17-19 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible
24 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible
25 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible
23 EMILY ST, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible
29 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible
LOT 101 PARK STREET, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible
27 EMILY ST, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible
LOT 1 STREVS STREET, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible
KNIGHTLEIGH COTTAGES 3/2 JOHN ST, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible
88 KING ST, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible
22 DAY ST, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible
34 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible
24 DAY ST, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible
2 NORMAN ST, THE ROCK NSW 2655	RES	NCA08	35	50	15	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
4760 OLYMPIC HWY, THE ROCK NSW 2655	OHO	NCA08	45	60	15	Clearly Audible
60 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	49	14	Clearly Audible
91 KING ST, THE ROCK NSW 2655	RES	NCA08	35	49	14	Clearly Audible
94 KING ST, THE ROCK NSW 2655	RES	NCA08	35	49	14	Clearly Audible
101 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	49	14	Clearly Audible
95 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	49	14	Clearly Audible
11 BURKES ST, THE ROCK NSW 2655	RES	NCA08	35	49	14	Clearly Audible
9 BURKES ST, THE ROCK NSW 2655	RES	NCA08	35	49	14	Clearly Audible
26 DAY ST, THE ROCK NSW 2655	RES	NCA08	35	49	14	Clearly Audible
1 FORD ST, THE ROCK NSW 2655	RES	NCA08	35	49	14	Clearly Audible
10 Carson Rd, The Rock NSW 2655	RES	NCA08	35	49	14	Clearly Audible
LOT 42 RAILWAY STREET, THE ROCK NSW 2655	RES	NCA08	35	49	14	Clearly Audible
10 CROWN ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
4 PINE ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
LOT 11 STREVS STREET, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
KNIGHTLEIGH COTTAGES 2/2 JOHN ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
58 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
54 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
83 KING ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
96 KING ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
86 KING ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
99 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
91 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
7 BURKES ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
5 BURKES ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
LOT A FORD STREET, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
30 DAY ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
4 BURKES ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
34 DAY ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
38 DAY ST, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
21 ISLAND BEND LANE, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
LOT 5 10 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	35	48	13	Clearly Audible
LOT 28 EMILY STREET, THE ROCK NSW 2655	RES	NCA08	35	47	12	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
14-16 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	47	12	Clearly Audible
18-20 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	47	12	Clearly Audible
13 HILL ST, THE ROCK NSW 2655	RES	NCA08	35	47	12	Clearly Audible
2 STREVENS ST, THE ROCK NSW 2655	RES	NCA08	35	47	12	Clearly Audible
52 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	47	12	Clearly Audible
84 KING ST, THE ROCK NSW 2655	RES	NCA08	35	47	12	Clearly Audible
103 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	47	12	Clearly Audible
82 KING ST, THE ROCK NSW 2655	RES	NCA08	35	47	12	Clearly Audible
99 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	47	12	Clearly Audible
83 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	47	12	Clearly Audible
Lot 5, Plan 5/4/758971, The Rock, NSW 2655	RES	NCA08	35	47	12	Clearly Audible
4 Carson Rd, The Rock NSW 2655	RES	NCA08	35	47	12	Clearly Audible
9 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	35	47	12	Clearly Audible
9A MILNE RD, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
4 MILNE RD, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
6-8 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
30 EMILY ST, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
11 HILL ST, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
LOT 88 PARK STREET, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
62 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
87 KING ST, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
113 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
78 KING ST, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
87 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
85 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
104 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
23 ISLAND BEND LANE, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
LOT 1 2 CARSON ROAD, THE ROCK NSW 2655	RES	NCA08	35	46	11	Clearly Audible
15 MILNE RD, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
20 MILNE RD, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
12 MILNE RD, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
1 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
2 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
5-7 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
5 HILL ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
26 MILNE RD, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
10-12 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
13-15 SCOTT ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
17 EMILY ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
LOT 113 CROWN STREET, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
10 STREVENS ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
85 KING ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
79 KING ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
8 MIXNER ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
76 KING ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
97 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
93 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
79 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
81 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
73 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
4 QUEEN ST, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
LOT 27 13 EMILY STREET, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
13 MIXNER STREET, THE ROCK NSW 2655	RES	NCA08	35	45	10	Clearly Audible
17 MILNE RD, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
9B MILNE RD, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
7 MILNE RD, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
1 MILNE RD, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
LOT 94 HILL STREET, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
4018 OLYMPIC HWY, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
50 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
38 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
36 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
34 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
61 KING ST, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
10 MIXNER ST, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
76 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
71 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
82 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
6 QUEEN ST, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
LOT 1 OLD TRUNK ROAD, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
37 OLD TRUNK RD, THE ROCK NSW 2655	RES	NCA08	35	44	9	Clearly Audible
28 MILNE RD, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
5 CROWN ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
7 CROWN ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
8 HILL ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
7-7 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
44 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
42 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
28 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
30 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
71 KING ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
65 KING ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
66 KING ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
74 KING ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
64 KING ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
62 KING ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
60 KING ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
71 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
63 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
59 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
74 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
72 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
68 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
THE ROCK MEMORIAL BOWLING CLUB 86 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
75 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
69 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
2 QUEEN ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
10 QUEEN ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
13 OLD TRUNK RD, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
29 MIXNER ST, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
48 OLD TRUNK RD, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
48 OLD TRUNK RD, THE ROCK NSW 2655	RES	NCA08	35	43	8	Clearly Audible
73 King St, The Rock NSW 2655	RES	NCA08	35	43	8	Clearly Audible
LOT 58	RES	NCA08	35	42	7	Clearly Audible
6 HILL ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
9 HILL ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
LOT 95 RAILWAY STREET, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
40 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
81 KING ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
63 KING ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
89 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
75 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
57 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
49 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
66 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
64 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
56 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
67 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
21 MIXNER ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
23 MIXNER ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
16 QUEEN ST, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
13 OLD TRUNK RD, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
119 OLD TRUNK RD, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
36 THE ROCK-COLLINGULLIE ROAD, THE ROCK NSW 2655	RES	NCA08	35	42	7	Clearly Audible
3 CROWN ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
7 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
16 YERONG ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
32 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
67 KING ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
57 KING ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
55 KING ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
51 KING ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
39 KING ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
58 KING ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
56 KING ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
54 KING ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
52 KING ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
50 KING ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
65 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
61 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
55 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
53 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
58 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
15 MIXNER ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
77 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
67 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
63 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
6 QUEEN ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
25 MIXNER ST, THE ROCK NSW 2655	RES	NCA08	35	41	6	Clearly Audible
LOT 84 OLD TRUNK ROAD, THE ROCK NSW 2655-	RES	NCA08	35	41	6	Clearly Audible
46 Nicholas St, The Rock NSW 2655	RES	NCA08	35	41	6	Clearly Audible
6 YERONG ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
20 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
4 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
45 KING ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
31 KING ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
48 KING ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
46 KING ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
44 KING ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
69 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
41 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
37 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
59 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
55 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
51 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
JENWAY 33 THE ROCK-COLLINGULLIE ROAD, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
65 OLD TRUNK RD, THE ROCK NSW 2655	RES	NCA08	35	40	5	Noticeable
2A HILL ST, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
16 BRAITHWAITES LANE, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable
3 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable
22 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable
3 BRETTON ST, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable
43 KING ST, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable
40 KING ST, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable
45 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable
36 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable
63 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable
36 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable
29 CHAPLIN LANE, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable
97 OLD TRUNK RD, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable
CARRINGTON 71 THE ROCK-COLLINGULLIE ROAD, THE ROCK NSW 2655	RES	NCA08	35	39	4	Noticeable
1 Nicholas St, The Rock NSW 2655	RES	NCA08	35	39	4	Noticeable
Lot 1, Plan 1/597816, The Rock, NSW 2655	RES	NCA08	35	38	3	Noticeable

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
2 HILL ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
Lot 99, Plan 99/754543, The Rock, NSW 2655	RES	NCA08	35	38	3	Noticeable
16 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
10 NICHOLAS ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
35 KING ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
27 KING ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
38 KING ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
36 KING ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
38A KING ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
67 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
39 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
19 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
15 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
32 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
28 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
21 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
24 YERONG ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
26 YERONG ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
27 MIXNER ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
28 YERONG ST, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
MAYFAIR 40 CHAPLIN LANE, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
Lot 67, Plan 67/754555, The Rock, NSW 2655	RES	NCA08	35	38	3	Noticeable
93 LAGETTIE LANE, THE ROCK NSW 2655	RES	NCA08	35	38	3	Noticeable
3 RAILWAY ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
23 KING ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
3 KING ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
28 KING ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
26 KING ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
22 KING ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
16 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
25 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
25 BRETTON ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
34 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
32 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
28 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
22 WILSON ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
28 YERONG ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
21 PIPER ST, THE ROCK NSW 2655	RES	NCA08	35	37	2	Noticeable
1 Piper St, The Rock NSW 2655	RES	NCA08	35	37	2	Noticeable
Lot 67, Plan 67/754555, The Rock, NSW 2655	RES	NCA08	35	37	2	Noticeable
29-31 Urana St, The Rock NSW 2655	RES	NCA08	35	37	2	Noticeable
24 Urana St, The Rock NSW 2655	RES	NCA08	35	37	2	Noticeable
29 Piper St, The Rock NSW 2655	RES	NCA08	35	37	2	Noticeable
37 KING ST, THE ROCK NSW 2655	RES	NCA08	35	36	1	Noticeable
19 KING ST, THE ROCK NSW 2655	RES	NCA08	35	36	1	Noticeable
15 KING ST, THE ROCK NSW 2655	RES	NCA08	35	36	1	Noticeable
18 KING ST, THE ROCK NSW 2655	RES	NCA08	35	36	1	Noticeable
51 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	36	1	Noticeable
11 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	36	1	Noticeable

Results by Receiver

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
3 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	36	1	Noticeable
20 URANA ST, THE ROCK NSW 2655	RES	NCA08	35	36	1	Noticeable
27 BRETTON ST, THE ROCK NSW 2655	RES	NCA08	35	36	1	Noticeable
25 PIPER ST, THE ROCK NSW 2655	RES	NCA08	35	36	1	Noticeable
Lot 1, Plan 1/1266277, The Rock, NSW 2655	RES	NCA08	35	36	1	Noticeable

Recommended Mitigation Measures

This assessment has been conducted with regard to the relevant CNVIS and CNVMP. To manage noise and vibration impacts, project specific mitigation measures may be considered such as reviewing construction staging methodology to identify opportunities to schedule intensive works during less sensitive time periods and by providing a clear process for community engagement and complaints. Likewise, the requirements and actionable items within the overarching CNVIS and CNVMP should be considered and adopted where appropriate. Following the consideration of project specific noise mitigation measures, additional noise mitigation measures to be explored are described in the Inland Rail NSW Construction Noise and Vibration Framework (CNVF) and summarised below.

Airborne Noise - Additional Mitigation Measures Matrix				
Time Period	Exceedance of NML	Perception	Duration	Communication Category/Management Measure
OOHW Daytime Period Sunday 7am - 6pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
			>2 consecutive rest periods	CO1, CO2, RO
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
			>2 consecutive sleep periods	CO1, CO2, RO, AO
			Any	CO1, CO2, RO
	>25	Highly intrusive	>2 consecutive sleep periods	CO1, CO2, RO, AO, AltA

Vibration - Additional Mitigation Measures Matrix

Time Period	Duration	Exceedance of 'preferred' value	Exceedance of 'maximum' value
OOHW Daytime Period Sunday 8am-6pm	Any	CO1, CO2	CO1, CO2, RO
OOHW Evening Period Mon-Sun 6pm-10pm	Any	CO1, CO2	CO1, CO2, RO
OOHW Night Period Mon-Sat 10pm-7am Sun 10pm-8am	Any	CO1, CO2, RO	CO1, CO2, RO, AltA

Additional Mitigation Measures

Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

Note 1: CO1: Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.

Note 2: CO2: Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.

Note 3: RO are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.

Receiver Types

Code	Description	Code	Description
RES	Residential	OED	Other Educational
COM	Commercial	OHO	Other Hotel
IND	Industrial	OLI	Other Library
OOA	Other Outdoor Active Recreation	OME	Other Medical
OOP	Other Outdoor Passive Recreation	OPW	Other Place of Worship
OCC	Other Child Care	OPB	Other Public Building



MARTINUS 

Head Office | 1/23-27 Waratah Street | KIRRAWEE NSW 2232

Appendix C Heritage Assessment Memos (OzArk)

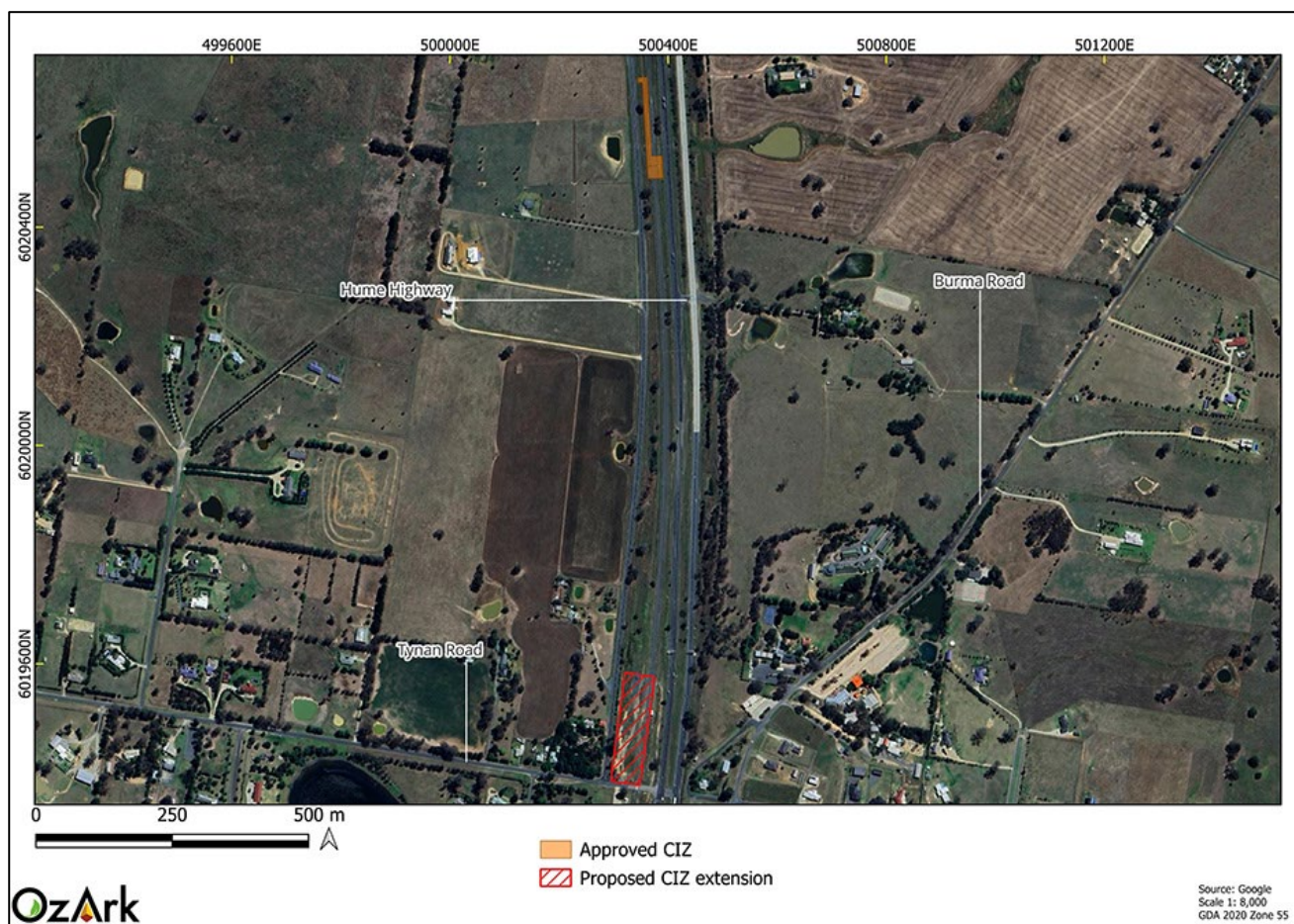
7 October 2025

INLAND RAIL: ALBURY TO ILLABO (A2I) – TABLE TOP CIZ EXTENSION HERITAGE ASSESSMENT: MEMORANDUM OF FINDINGS

1 INTRODUCTION

OzArk Environment & Heritage (OzArk) has been engaged by Inland Rail Pty Ltd (IR, the client), on behalf of Australian Rail Track Corporation (ARTC, the proponent) to provide this memorandum regarding the proposed expansion of the Inland Rail Albury to Illabo (A2I) Construction Impact Zone (CIZ) at Table Top. The additional area required to complete the A2I works was not included in the original assessment covered by the Environmental Impact Statement (EIS) (**Figure 1-1**). The proposed CIZ extension area is in the Albury Local Government Area (LGA).

Figure 1-1: Aerial of the proposed CIZ extension.



1.1 BACKGROUND - PREVIOUS HERITAGE ASSESSMENT / APPROVALS

The A2I section of the Inland Rail project requires the modification of the existing track and associated overhead structures to a sufficient height and width to support the safe running of double-stacked freight trains. In 2022, GML Heritage prepared a *Statement of Heritage Impact* (SOHI) and an *Aboriginal Cultural Heritage Assessment Report* to support the Environment Impact Statement (EIS) for the A2I section of the Inland Rail project

The A2I section of the Inland Rail project is Critical State Significant Infrastructure (CSSI) and was approved on 8 October 2024 (Infrastructure Approval). The approval covered all works proposed within the approved CIZ.

As per Condition of Approval (CoA) A15 for the A2I project, ancillary facilities not specifically listed in the A2I EIS and associated documentation (as listed in CoA A1) can be established, if “they have no impacts on heritage items (including areas of archaeological sensitivity)” (A15(c)).

The following memo will assess whether CoA A15 can be met in terms of the proposed CIZ extension at Table Top.

2 APPROACH

OzArk has prepared this Heritage Memorandum of Findings with reference to the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (Due Diligence Code), Heritage Council’s *Investigating Heritage Significance, A guide to identifying and examining heritage items in NSW* and the *Historical Archaeology Code of Practice* to assess whether Aboriginal objects or items of historic significance may be harmed by the proposed CIZ extension. This memorandum will inform a Consistency Assessment as per CoA A15.

3 PROPOSED ACTIVITY

The CIZ extension is required for ancillary activities that will enable approved works to a signal gantry approximately 919 metres (m) north of the CIZ extension along the rail line (see Approved CIZ on **Figure 1-1**). These approved works will require use of Hi-Rail equipment which is to be mounted on the rail line within the CIZ extension. A temporary Portaloo will also be installed for the duration of the works. All vehicle movements facilitating these works will be constrained to within the existing access roads within the CIZ extension area, with vehicles entering off Tynan Road.

The study area for this CIZ extension covers approximately 1.2 hectares, as shown on **Figure 1-1**.

The proposed works are shown on **Figure 3-1**.

Figure 3-1: Table Top CIZ extension project components.



4 ABORIGINAL CULTURAL HERITAGE ASSESSMENT

4.1 AHIMS SEARCH

On 30 September 2025, a basic search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken centred on the CIZ extension (GDA 2020 Zone 55 Eastings: 500163-500478 Northings: 6019272-6019640) (**Appendix 1**).

The search results show that no Aboriginal sites have been registered within, or adjacent to, the CIZ extension area.

There are no other sources of information to indicate that Aboriginal objects are likely within the CIZ extension at Table Top.

4.2 LANDFORM

The CIZ extension is within gentle foot slopes of the surrounding low rolling hill landform, situated approximately 240 m above sea level (Australian Height Datum). The CIZ extension is situated 617 m north of Nine Mile Creek at its closest point.

As the study area is distant to water, landforms with identified archaeological sensitivity as set out in the *Due Diligence Code of Practice* are not present within the CIZ extension.

4.3 DESKTOP INSPECTION

Given the limited size of the CIZ extension, the levels of disturbance and distance to reliable water, a desktop level inspection has been deemed appropriate in this case.

The CIZ extension area appears to have been disturbed by works associated with nearby road and rail corridors, with an existing access road stretching across the CIZ extension visible at the desktop level. Ground cover vegetation is present across sections of the CIZ extension outside of the existing access tracks, which have been cleared of mid or upper storey vegetation.

It is clear from desktop review that the CIZ extension has been highly disturbed by works associated with nearby rail and road corridor infrastructure, as well as ongoing vehicle movements associated with the continued use of existing access tracks.

5 CONCLUSION – ABORIGINAL HERITAGE

The assessment for Aboriginal heritage using the Due Diligence Code has determined that the proposed CIZ extension has a low likelihood of harming Aboriginal objects or landscape features with archaeological sensitivity (see **Table 5-1**).

No previously recorded Aboriginal sites are within, or near to, the CIZ extension area, and it was determined that due to land use disturbance as well as distance to watercourses, there is a low likelihood of intact, subsurface archaeological deposits. As documented in **Table 5-1**, no further archaeological investigation is required.

The works may proceed with caution and in the unlikely event that Aboriginal objects are encountered, refer to the Cultural Heritage Unexpected Find Procedure in Appendix A of the *Inland Rail A2P Albury to Illabo Construction Management Plan*.

Table 5-1: Due Diligence Code of Practice application

Step	Reasoning	Answer
Step 1 Will the activity disturb the ground surface or any culturally modified trees?	The proposed activities will involve plant movement to facilitate works. The proposal activity is not an exempt activity or a low impact activity.	Yes
If the answer to Step 1 is 'yes', proceed to Step 2		
Step 2a Are there any relevant records of Aboriginal heritage on AHIMS to indicate presence of Aboriginal objects?	The AHIMS search indicated that there are no Aboriginal sites within or adjacent to the CIZ extension area.	No
Step 2b Are there other sources of information to indicate presence of Aboriginal objects?	There are no other sources of information to indicate that Aboriginal objects are likely in the CIZ extension area.	No
Step 2c Will the activity impact landforms with archaeological sensitivity as defined by the Due Diligence Code?	Landforms with identified archaeological sensitivity are not present in the CIZ extension area.	No
If the answer to any stage of Step 2 is 'yes', proceed to Step 3		
Step 3 Can harm to Aboriginal objects listed on AHIMS or identified by other sources of information and/or can the carrying out of the activity at the relevant landscape features be avoided?	The proposal will avoid harm to known Aboriginal sites, and landforms with identified archaeological sensitivity are not present. Visual inspection of the CIZ extension area not required. Works may proceed with caution.	Yes
Conclusion		
Proceed with caution		

6 NON-ABORIGINAL HERITAGE ASSESSMENT

6.1 DESKTOP SEARCH

A desktop search was conducted on the following databases to identify historic heritage items in proximity to the CIZ extension area. The results of this search are summarised in **Table 6-1**.

Table 6-1: Historic heritage: desktop-database search results.

Name of Database Searched	Date of Search	Type of Search	Comment
National and Commonwealth Heritage Listings	3 October 2025	Albury LGA	No sites within study area.
State Heritage Register	3 October 2025	NSW	No sites within study area.
Local Environment Plan (LEP)	3 October 2025	Albury LEP 2010	No LEP items within or near to the study area

A search of the Heritage Council of NSW administered heritage databases and Albury LEP 2010 returned no heritage items within, or adjacent to, the CIZ extension. The closest heritage item to the CIZ extension is LEP item "Maryvale" (I310), located approximately 2.5 kilometres (km) south of the CIZ extension.

Figure 6-1: Aerial showing nearby LEP items



6.2 DESKTOP ASSESSMENT

Given the limited nature of the study area and the high level of land use disturbance evident from aerial imagery, a desktop level inspection has been deemed appropriate in this case.

No previously listed LEP, SHR, or Commonwealth Heritage Listings are within the CIZ extension. The closest LEP-listed item "Maryvale" (I310) is sufficiently distant from the CIZ extension that potential impacts to this item are considered to be negligible.

The CIZ extension has a low likelihood to contain unrecorded, significant, historic archaeological deposits. This result is consistent with the findings of the SOHI prepared for this project by GML Heritage (GML 2022).

7 CONCLUSION – HISTORIC HERITAGE ASSESSMENT

There are no historic heritage items located within, or near to, the proposed CIZ extension area. As such, the assessment for historic heritage has determined that impacts to historic heritage as a result of the proposed CIZ extension will be negligible.

The works may proceed with caution with no further management measures. In the unlikely event that historic objects are encountered, refer to the Cultural Heritage Unexpected Find Procedure in Appendix A of the *Inland Rail A2P Albury to Illabo Construction Management Plan*.

8 REFERENCES

DECCW 2010. *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*. Department of Environment, Climate Change and Water, Sydney.

Department of Planning and Environment 2023. *Assessing heritage significance. Guidelines for assessing places and objects against the Heritage Council of NSW criteria*.

GML Heritage 2022. *Inland Rail – Albury to Illabo, Aboriginal Cultural Heritage Assessment Report*. Report prepared for ARTC.

GML Heritage 2022. *Inland Rail – Albury to Illabo, Non-Aboriginal Heritage, Statement of Heritage Impact*. Report prepared for ARTC.

NSW Heritage Council 2006. *Historical Archaeology Code of Practice*. Department of Planning and Environment, Sydney.

APPENDIX 1: AHIMS BASIC SEARCH SEARCH



Your Ref/PO Number : Table top

Client Service ID : 1049871

OzArk Environmental and Heritage Management - Dubbo

Date: 30 September 2025

PO Box 2069
Dubbo New South Wales 2830
Attention: Imogen Crome
Email: imogen@ozarkehm.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Datum:GDA, Zone : 55, Eastings : 500163.0 - 500478.0, Northings : 6019272.0 - 6019640.0 with a Buffer of 0 meters, conducted by Imogen Crome on 30 September 2025.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

7 October 2025

INLAND RAIL: ALBURY TO ILLABO (A2I) – URANQUINTY
CIZ EXTENSION HERITAGE ASSESSMENT: MEMORANDUM OF FINDINGS

1 INTRODUCTION

OzArk Environment & Heritage (OzArk) has been engaged by Inland Rail Pty Ltd (IR, the client), on behalf of Australian Rail Track Corporation (ARTC, the proponent), to provide this memorandum regarding the proposed extension of the Inland Rail Albury to Illabo (A2I) Construction Impact Zone (CIZ). The additional area required is located at The Rock Railway Station (the Station, The Rock), and was not part of the original assessment covered by the Environmental Impact Statement (EIS). The CIZ extension area is located in the Lockhart Local Government Area (LGA).

2 BACKGROUND

The A2I section of the Inland Rail project is Critical State Significant Infrastructure (CSSI) and was approved on 8 October 2024 (Infrastructure Approval). The approval covered all works proposed within the CIZ.

2.1 PREVIOUS ASSESSMENT / OTHER DOCUMENTATION

In 2022, GML prepared a *Statement of Heritage Impact* and an *Aboriginal Cultural Heritage Assessment Report* for the Albury to Illabo (A2I) section of the Inland Rail project to enable the required modification of the existing track and associated overhead structures to a sufficient height and width to support the safe running of double-stacked freight trains. The parcel of land at The Rock that is the CIZ extension for this assessment, was not included in the previous studies.

As per Condition of Approval (CoA) A15 for the A2I project, ancillary facilities not specifically listed in the A2I EIS and associated documentation (as listed in CoA A1) can be established, as long as “they have no impacts on heritage items (including areas of archaeological sensitivity)” (A15(c)).

The following memo will assess whether CoA A15 can be met in terms of the proposed inclusion of the additional land parcel at Uranquinty.

3 APPROACH

OzArk has prepared this Heritage Memorandum of Findings with reference to the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (Due Diligence Code), Heritage Council's *Investigating Heritage Significance, A guide to identifying and examining heritage items in NSW* and the *Historical Archaeology Code of Practice* to assess whether Aboriginal objects or items of historic significance may be harmed by the proposed CIZ extension. This assessment will inform a Consistency Assessment as per CoA A15.

4 PROPOSED ACTIVITY

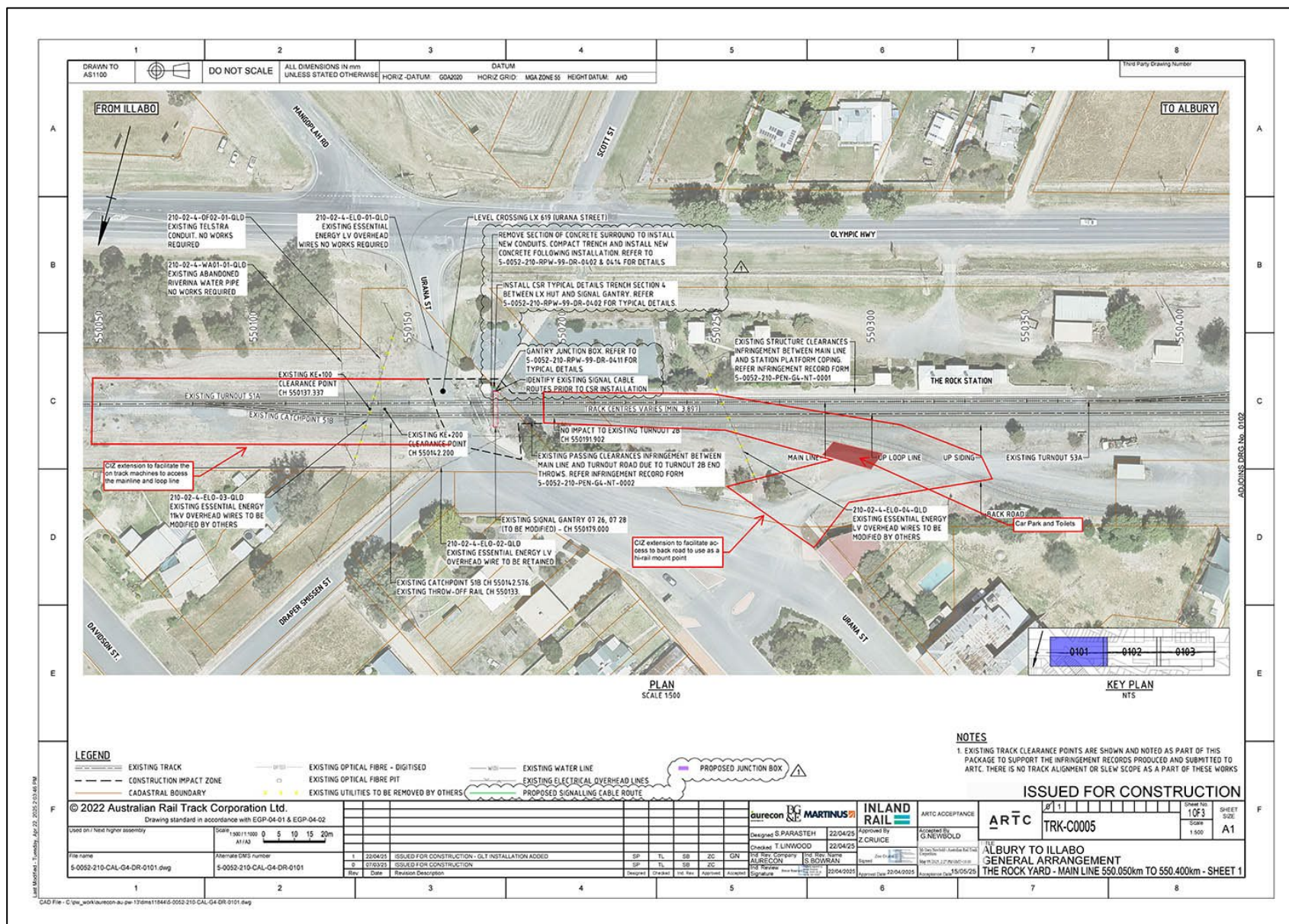
The extension of the CIZ at The Rock is to facilitate the approved signalling works and will accommodate access for track machines on the mainline and loop line, parking area with toilets and back road access to use a hi-rail mount (**Figure 4-2**). These activities will not disturb the ground surface beyond what is exempt under the Due Diligence code of practice.

The CIZ extension covers approximately 5886.8 m² across two separate areas along the rail corridor at The Rock, as shown on **Figure 4-1**.

Figure 4-1: Aerial showing the CIZ extension in relation to approved CIZ.



Figure 4-2: The Rock CIZ extension project components (Martinus 2025).



5 ABORIGINAL CULTURAL HERITAGE ASSESSMENT

5.1 AHIMS SEARCH

On 30 September 2025, a basic search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken over a 1 kilometre (km) x 1 km area centred on the proposed CIZ extension (GDA, Zone: 55, Eastings: 510383–510380, Northings: 6096363–6097360) (see **Appendix 1**).

The results showed that no Aboriginal sites have been registered within the search area. The Rock Nature Reserve and Kengal Aboriginal Place is situated approximately 4 km west of the CIZ extension.

There are no other sources of information to indicate that Aboriginal objects are likely in the CIZ extension.

5.2 LANDFORM

The CIZ extension extends across flat alluvial plains, situated approximately 210 metres (m) above sea level (Australian Height Datum). The closest named watercourse to the CIZ extension is Burkes Creek located 300 m north.

No landforms defined in the *Due Diligence Code of Practice* as archaeologically sensitive (land within 200 m of waters) are present within the CIZ extension, however the precautionary measure of a visual inspection has been applied due to the proximity of Burkes Creek.

5.3 VISUAL INSPECTION

A visual inspection of the CIZ extension area was completed by Project Archaeologist Imogen Crome on 1 October 2025. No Registered Aboriginal Party representatives attended the inspection (**Figure 5-1**). The CIZ extension area was noted as being heavily disturbed by the construction of the Station and ground surface visibility was very low outside of the existing access tracks (**Figure 5-2**).

Areas of archaeological sensitivity at Sandy Creek, as identified at the desktop level, were considered to have low archaeological potential following the visual inspection, owing to the limited nature of the CIZ extension and existing disturbance from the initial establishment of the railway and associated bridge.

Figure 5-1: Pedestrian transect over the CIZ extension.

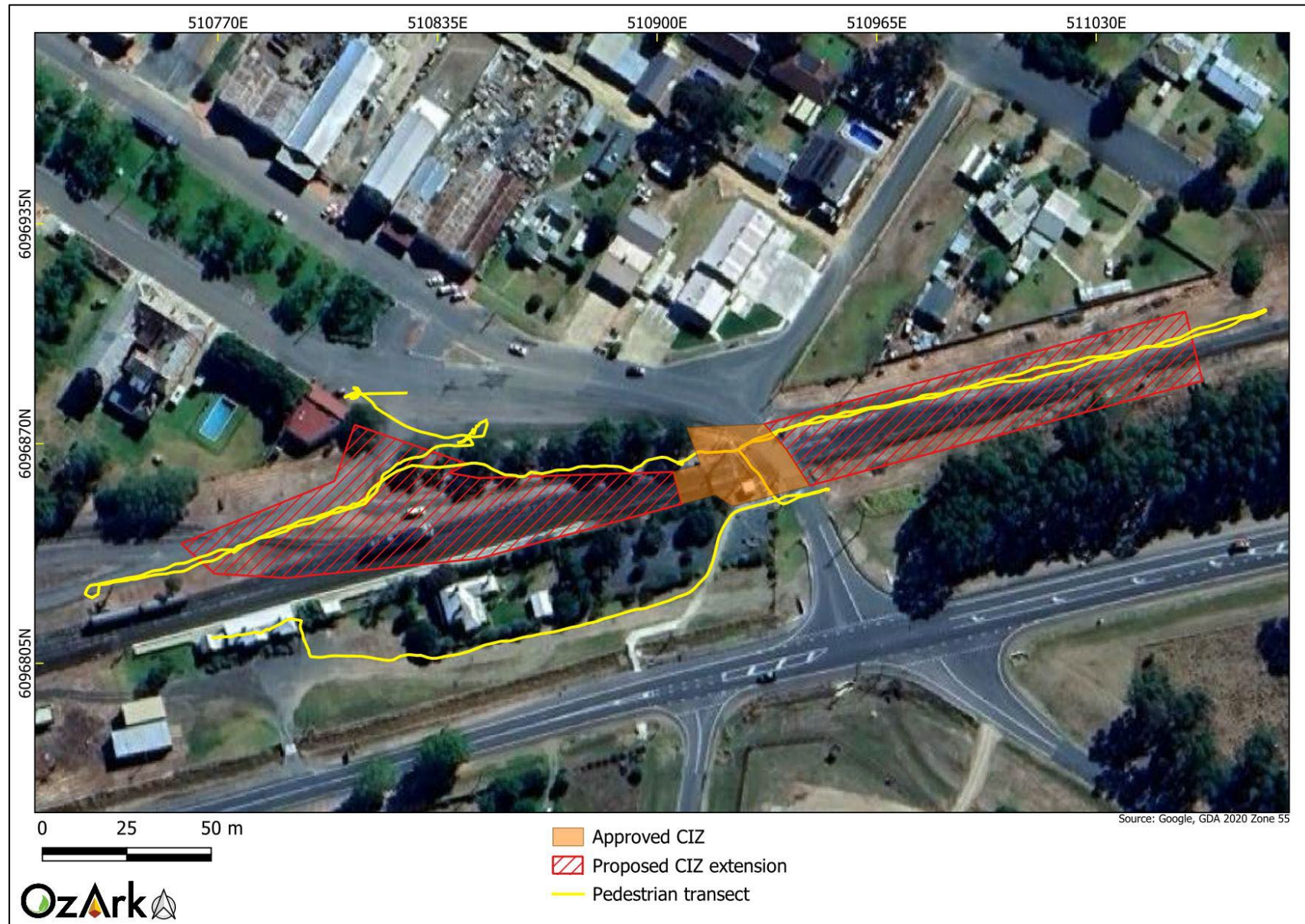
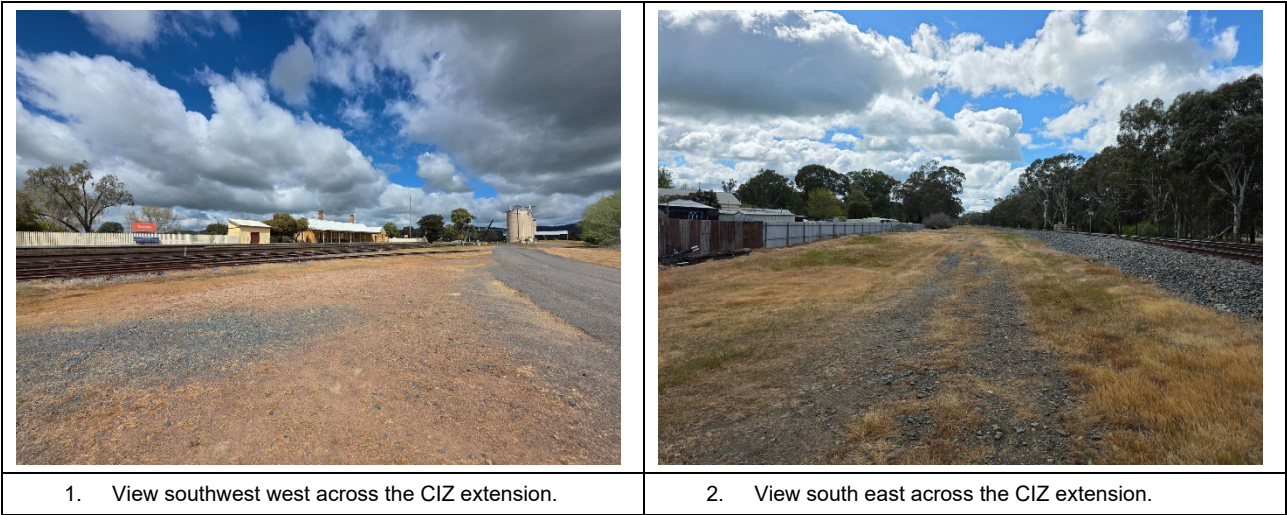


Figure 5-2: Views of the CIZ extension.



6 CONCLUSION – ABORIGINAL HERITAGE

The assessment for Aboriginal heritage using the Due Diligence Code has determined that the proposed CIZ extension has a low likelihood of harming Aboriginal objects or landscape features with archaeological sensitivity (see **Table 6-1**).

No previously recorded Aboriginal sites are within or near to the CIZ extension, and it was determined that due to previous land use disturbance, there is a very low likelihood of intact, subsurface archaeological deposits. As documented in **Table 6-1** no further archaeological investigation is required.

The works may proceed with caution and in the unlikely event that Aboriginal objects are encountered, refer to the Cultural Heritage Unexpected Find Procedure in Appendix A of the *Inland Rail A2P Albury to Illabo Construction Management Plan*.

Table 6-1: Due Diligence Code of Practice application.

Step	Reasoning	Answer
Step 1 Will the activity disturb the ground surface or any culturally modified trees?	The activities of ARTC will involve not require ground disturbance as defined within the Due Diligence Code of Practice and as such, is an exempt activity or a low impact activity.	Yes
If the answer to Step 1 is 'yes', proceed to Step 2		
Step 2a Are there any relevant records of Aboriginal heritage on AHIMS to indicate presence of Aboriginal objects?	A search of AHIMS indicated that there are no Aboriginal sites within the CIZ extension.	No
Step 2b Are there other sources of information to indicate presence of Aboriginal objects?	There are no other sources of information to indicate that Aboriginal objects are likely in the CIZ extension.	No
Step 2c Will the activity impact landforms with archaeological sensitivity as defined by the Due Diligence Code?	Landforms with identified archaeological sensitivity are not present in the CIZ extension.	No
If the answer to any stage of Step 2 is 'yes', proceed to Step 3		
Step 3 Can harm to Aboriginal objects listed on AHIMS or identified by other sources of information and/or can the carrying out of the activity at the relevant landscape features be avoided?	The proposal will not impact landforms with archaeological sensitivity as identified in the Due Diligence Code of Practice.	Yes.
If the answer to Step 3 is 'no', a visual inspection is required. Proceed to Step 4		
Step 4 Does the visual inspection confirm that there are Aboriginal objects or that they are likely?	The visual inspection recorded no Aboriginal objects in the proposed CIZ extension. No landforms with identified archaeological sensitivity were found during the inspection. Proceed with caution.	No
Conclusion		
Proceed with caution.		

7 NON-ABORIGINAL HERITAGE ASSESSMENT

The CIZ extension extends into The Rock Station and Yard Group State Heritage Register (SHR) curtilage and interacts with heritage items of both local and state significance as illustrated in **Figure 7-1** and outlined below.

7.1 SUMMARY OF SIGNIFICANCE

7.1.1 *The Rock Urban Conservation Area- LEP C2*

The CIZ extension interacts with The Rock Urban Conservation Area listed as item C2 on the Lockhart Local Environmental Plan (LEP) 2012. The Rock Urban Conservation Area encompasses structures with unique architectural, historical and/or cultural value important to the urban townscape and affords protection to historical buildings within the township.

The Local heritage significance of The Rock Urban Conservation Area relate specifically to the area's visual amenity and streetscape.

7.1.2 *The Rock Station and Yard Group - SHR 01268; LEP I10; s170 Register 4280256*

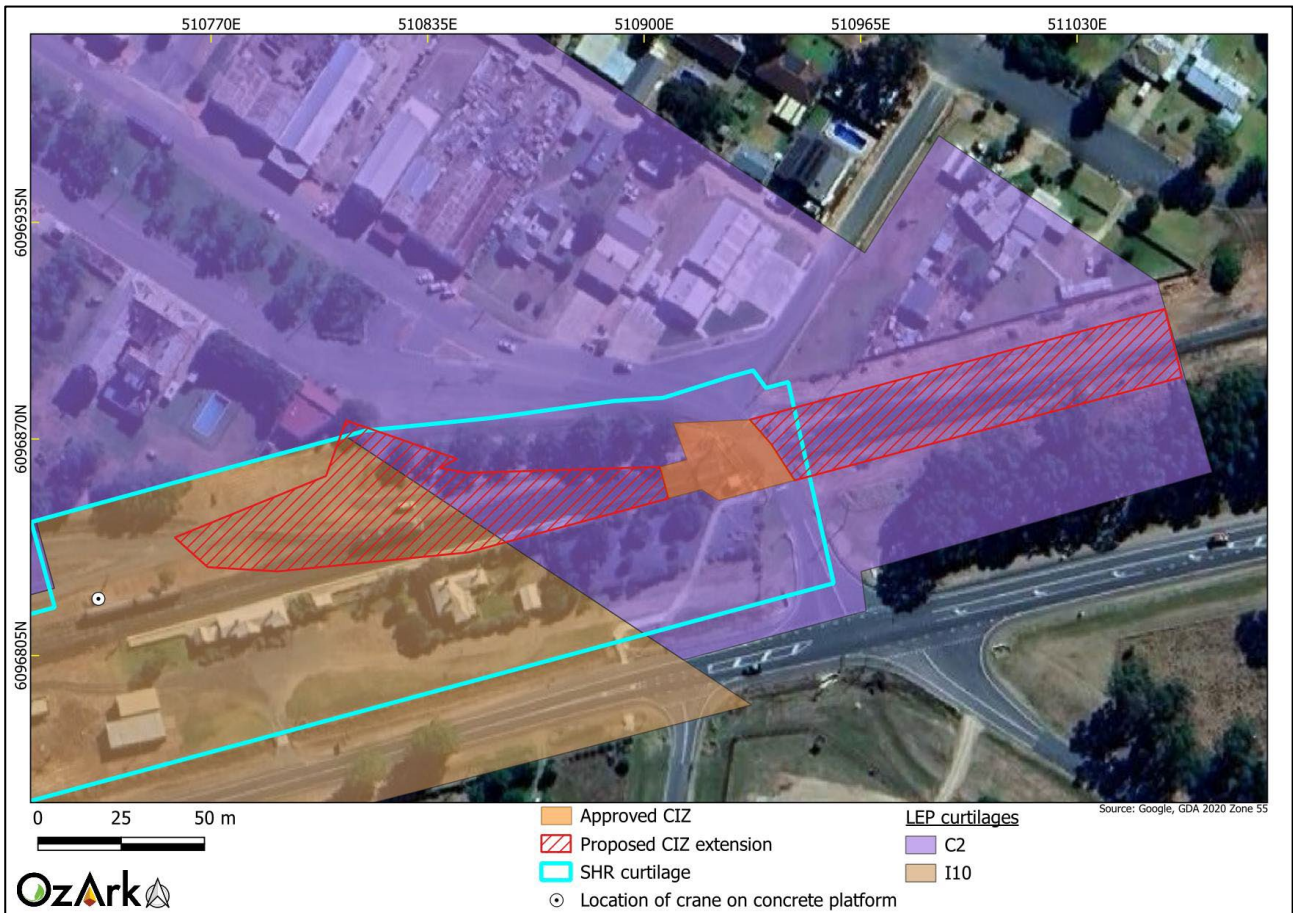
The Rock Railway Station holds local and state heritage significance. It is listed on the SHR as the "The Rock Station and Yard Group" (SHR 01268); on the ARTC's s170 Heritage and Conservation Register (4280256) titled as "The Rock Railway Precinct", and "The Rock Station and Yard" on the Lockhart LEP, item I10.

The State Heritage Inventory (SHI) describes the significance of the Station as a tangible reminder of the growth and prosperity of The Rock during NSW's railway expansion program into regional agricultural areas during the late 19th Century. The Station is in good condition with late Victorian railway architecture and a weatherboard 'third class' station building.

The Station and Yard is an enduring landmark with a prominent position on the main street. Overall, the Station has been previously assessed as holding high aesthetic, historical, research and social significance with strong representativeness and integrity.

The main elements of significance listed under the SHI are:

- Buildings
 - Railway station - type 4, standard roadside timber, 1880
 - Residence - station master's, type 5, brick, 1880
- Structures
 - Platform face - brick, 1880
 - Crane and platform
- Artefacts
 - Platform signs

Figure 7-1: Aerial showing affected and nearby LEP items.

7.2 IMPACT ASSESSMENT

A visual inspection of the CIZ extension was undertaken by Project Archaeologist Imogen Crome on 1 October 2025 and the results are summarised below.

7.2.1 The Rock Station and Yard group - SHR 01268

The visual inspection confirmed that the railway 'crane and platform' which has been identified as holding contributory heritage significance to the Station, is located south beyond the CIZ extension. It is considered that the item is a suitable distance from the proposed works as to not be at risk of any potential indirect impacts (**Figure 7-2**).

While the northeastern most portion of the platform is located within the CIZ extension, the proposed works will not require alterations to the platform or adjacent railway lines. Instead, this portion of the CIZ extension will only require the transit of railway machinery on existing lines. Furthermore, all platform signage will be retained and avoided. As such, all heritage fabric will be avoided by the proposed works and there will be negligible impact to the heritage values of the Station.

7.2.2 The Rock Urban Conservation Area- LEP C2

The temporary and minor nature of the proposed activities within the CIZ extension are considered to have a negligible impact on The Rock Urban Conservation Area's visual amenity and streetscape.

7.2.3 Archaeological assessment

The proposed CIZ extension is assessed as having a low likelihood to contain unrecorded, significant, historic archaeological deposits. The elements of the Station within the CIZ extension are still extant with no potential footings or areas indicating subsurface features identified during the visual inspection. Additionally, the proposed works are temporary and will cause minimal disturbance to the ground surface.

Figure 7-2: View of Station heritage elements from within CIZ extension.



8 CONCLUSION – HISTORIC HERITAGE

The proposed works associated with the CIZ extension do not entail significant ground disturbing works and all heritage fabric within the LEP and SHR curtilages will be avoided. As such, there will be negligible impact to the heritage values of The Rock Urban Conservation Area (C2) and The Rock Station and Yard Group (SHR 01268).

It is assessed that the proposed works may proceed with caution with no further management measures. In the unlikely event that historic objects are encountered, refer to the Cultural Heritage Unexpected Find Procedure in Appendix A of the *Inland Rail A2P Albury to Illabo Construction Management Plan*.

9 REFERENCES

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Appendix D Biodiversity Assessment Report Memos (ECE)

18th November 2025

Biodiversity Memorandum: Inland Rail (Albury to Illabo) - Table Top

Dear Constance,

Martinus Rail Pty Ltd (Martinus) on behalf of the Australian Rail Track Corporation (ARTC) propose to conduct vegetation removal and thinning in Table Top, NSW to help facilitate the construction of the Albury to Illabo (A2I) Inland Rail upgrade (the Proposed Change).

The Proposed Change is located outside of the approved construction boundary of the Inland Rail program (the Project) and was not assessed as a part of the Inland Rail, Albury to Illabo Revised Technical Paper 8: Biodiversity Development Assessment Report (BDAR) (WSP, 2024).

1.1 Scope of Assessment

East Coast Ecology Pty Ltd (ECE) was commissioned by ARTC c/- Martinus to prepare a Biodiversity Memo, for the Proposed Change. The scope of this assessment was to identify and assess impacts to species and ecological communities listed as threatened under the *Biodiversity Conservation Act 2016* (NSW) (BC Act), *Fisheries Management Act 1994* (FM Act) and Matters of National Environmental Significance (MNES) listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and where relevant, the requirements of the *Biosecurity Act 2015* (NSW), and relevant State Environmental Planning Policies (SEPPs).

The area assessed in this memo has been defined by representatives of Martinus, this memo has been prepared to accompany a Consistency Assessment (CA) in relation to the Proposed Change and is hereafter referred to as the Subject Land.

1.2 Study Limitations

The scope of this assessment is limited to what ECE could observe within project specific documentation and public datasets. In the absence of a site-based survey, the following constraints around desktop assessments must be considered:

- All photographs used to complete the desktop assessment were taken from Google Street View. As such, the following limitations are acknowledged:
 - The time at which these photographs were taken may not coincide with the emergence of some threatened flora (e.g. herbs and orchids) and the activity of some fauna (e.g. nesting birds and nocturnal fauna).
 - These photographs may not depict the entire Subject Land, therefore important biodiversity features and incidental observations of flora and fauna fall outside the scope of assessment.

- Diagnostic features of flora essential to identification are limited to what is observable in said photograph.

1.3 The Subject Land

The Subject Land is located in the suburb of Table Top within the Albury Local Government Area (LGA), covering an area of approximately 1.05ha. The location of the Subject Land is provided in **Figure 1**.

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Figure 1. Location of the Subject Land.



Figure 2. The Subject Land.

2. METHODS

A thorough literature review of local information relevant to the Subject Land was undertaken. Searches using NSW Wildlife Atlas (BioNet) (NSW DCCEEW, 2025a), the Commonwealth Protected Matters Search Tool (PMST) (DCCEEW, 2025) and the Fisheries Spatial Data Portal (DPI, 2025) were conducted to identify all current threatened flora and fauna, as well as migratory fauna records, within a 5km radius of the Subject Land. A literature review was also undertaken of all relevant project documentation, including;

- Biodiversity Development Assessment Report (WSP, 2024), and
- Environmental Impact Statement (ARTC, 2022).

This assessment provides the results of the assessment of the sites that were determined to not contain PCT's vegetation or other ecological constraints.

2.1 Native Vegetation

A review of the State Vegetation Type Map (NSW DCCEEW, 2025b) was used to assist in the identification of Plant Community Types (PCTs) within and surrounding the Subject Land. The PCT of 'best-fit' was determined based on the floristic descriptions within the BioNet Vegetation Classification System database (NSW DCCEEW, 2025c).

2.2 Threatened Flora Survey Methods

Threatened flora that are known or likely to occur within the Subject Land and immediate surrounds (i.e. within 5km) were identified following a review of BioNet and the PMST. Soil mapping (NSW DCCEEW, 2025d) and topography (Google Earth) were also used to provide further context on habitat constraints for threatened flora.

No targeted surveys were undertaken within the Subject Land. In the absence of a field-based assessment, all impacts have been assessed based on information obtained remotely during the desktop assessment.

2.3 Threatened Fauna Survey Methods

No habitat assessments were undertaken within the Subject Land. Potential habitat constraints within the broader area (500m buffer) were assessed using Google Earth, soil landscape mapping (NSW DCCEEW, 2025d) and recent vegetation mapping (NSW DCCEEW, 2025b).

3. EXISTING ENVIRONMENT

3.1 Rivers, streams, estuaries and wetlands

No mapped watercourse occurs within the Subject Land.

3.2 Habitat Connectivity

Negligible terrestrial habitat connectivity exists between the Subject Land and the broader landscape due to historical clearing and existing infrastructure (e.g. roads, railway and built areas).

The Subject Land may provide mobile species with minor refuge while moving throughout the landscape, however due to the degraded condition of the vegetation, it is not considered likely that threatened species would be reliant on this area as a part of their life cycle.

3.3 Karst, Caves, Crevices, Cliffs, Rocks or Other of Geological Features of Significance

The Subject Land did not contain any areas of geological significance, such as karsts, caves, cliffs or crevices. The Subject Land was not mapped as occurring on acid sulfate soils nor mapped as having risk/probability of exhibiting occurrence of acid sulfate soils.

3.4 Areas of Outstanding Biodiversity Value

No Areas of Outstanding Biodiversity Value occur on the Subject Land or the surrounding area.

3.5 Topography, Geology and Soils

The Subject Land is mapped as occurring on both the 'Ettamogah' soil landscape, characterised by undulating plain on Silurian volcanics. The Subject Land occurs on gently inclined terrain, ranging from 243m above sea level (asl) in the southern extent to 241m asl in the northern extent (Google Earth).

3.6 Mapped Native Vegetation Communities – NSW State Vegetation Type Map

The NSW State Vegetation Type Map (NSW DCCEW, 2025b) indicated the presence of five PCT's within or close proximity to the Subject Land :

- PCT 24: Canegrass swamp tall grassland wetland of drainage depressions, lakes and pans of the inland plains
- PCT 266: White Box grassy woodland in the upper slopes sub-region of the NSW South Western Slopes Bioregion
- PCT 268: White Box - Blakely's Red Gum - Long-leaved Box - Nortons Box - Red Stringybark grass-shrub woodland on shallow soils on hills in the NSW South Western Slopes Bioregion
- PCT 277: Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion, and
- PCT 278: Riparian Blakely's Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Of these, the following PCT's are associated with the below threatened ecological communities (TEC):

- PCT 24:
 - BC Act Listed; Artesian Springs Ecological Community in the Great Artesian Basin (Critically Endangered)
- PCT 266, PCT 268 & PCT 278:
 - BC Act Listed; White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions (Critically Endangered)
 - EPBC Act Listed; White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Critically Endangered)

The Subject Land has been mapped as PCT 0: Not classified. The State Vegetation Map is presented in **Figure 3**.



Figure 3. NSW State Vegetation Type Map.

4. RESULTS

4.1 Vegetation Communities.

Based on information available for the desktop assessment, the following vegetation community type described by WSP (2024) was identified within the Subject Land.


- Miscellaneous Ecosystems – ‘Highly Disturbed areas with no or limited Native Vegetation’.

This vegetation community type is consistent with the vegetation type described in the approved BDAR. Details pertaining to vegetation identified is provided in **Table 2**. The desktop vegetation mapping is depicted in **Figure 4**.

Table 1. Vegetation communities identified within the Subject Land.

Community Name	Area within the Subject Land (ha)
Miscellaneous Ecosystems – Highly Disturbed areas with no or limited Native Vegetation	0.73ha
Total Area 0.73ha	

Table 2. Miscellaneous Ecosystems - Highly Disturbed areas with no or limited Native Vegetation, vegetation identified within the Subject Land.

Miscellaneous Ecosystems - Highly Disturbed areas with no or limited Native Vegetation	
Novel Vegetation Type	Miscellaneous Ecosystems - Highly Disturbed areas with no or limited Native Vegetation
	
Extent	0.73ha
Description of vegetation	The Subject Land displayed a long history of disturbance from infrastructure (rail and road) and industrial use, the Subject Land is

Miscellaneous Ecosystems - Highly Disturbed areas with no or limited Native Vegetation	
Novel Vegetation Type	Miscellaneous Ecosystems - Highly Disturbed areas with no or limited Native Vegetation
	comprised of no or limited native species and is dominated by exotic species, and provides limited ecological function (WSP, 2024). The regions this vegetation occurred, were almost entirely developed and displayed a long history of disturbance from infrastructure such as roads, rail, carparks and concrete footpaths.

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Figure 4. Desktop based vegetation mapping within the Subject Land.

4.2 Threatened Flora

BioNet and PMST searches revealed six threatened flora species occur, or have potential to occur, within a ~5km radius of the Subject Land.

Table 3. Threatened flora with potential to occur within the Subject Land.

Scientific Name	Common Name	BC Act	EPBC Act	Records within 5km
<i>Amphibromus fluitans</i>	Floating Swamp Wallaby-grass	V	V	10
<i>Caladenia concolor</i>	Crimson Spider-orchid	E	V	Modelled Only
<i>Prasophyllum petilum</i>	Tarengo Leek Orchid	E	E	Modelled Only
<i>Prasophyllum validum</i>	Sturdy Leek-orchid	-	V	Modelled Only
<i>Swainsona murrayana</i>	Slender Darling-pea	V	V	Modelled Only
<i>Swainsona recta</i>	Small Purple-pea	E	E	Modelled Only

V – Vulnerable; E – Endangered; EP – Endangered Population; CE – Critically Endangered

The results from the desktop assessment were used to assess each species' likelihood of occurrence within the Subject Land. As such, it was determined that the habitat is substantially degraded such that all potential threatened flora species are unlikely to occur within the Subject Land. However, in the absence of a field-assessment, the presence of threatened flora cannot be completely ruled out.

4.3 Threatened Fauna

BioNet and PMST searches revealed 41 threatened fauna occur, or have potential to occur, within a ~5km radius of the Subject Land.

Table 4. Threatened fauna with potential to occur within the Subject Land.

Scientific Name	Common Name	BC Act	EPBC Act	Records within 5km
<i>Anthochaera phrygia</i>	Regent Honeyeater	CE	CE	Modelled Only
<i>Aphelocephala leucopsis</i>	Southern Whiteface	V	V	Modelled Only
<i>Aprasia parapulchella</i>	Pink-tailed Worm-lizard	V	V	Modelled Only
<i>Artamus cyanopterus cyanopterus</i>	Dusky Woodswallow	V	-	6
<i>Botaurus poiciloptilus</i>	Australasian Bittern	E	E	Modelled Only
<i>Burhinus grallarius</i>	Bush Stone-curlew	E	-	1
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	V	V	Modelled Only
<i>Calidris ferruginea</i>	Curlew Sandpiper	CE	CE	Modelled Only

Scientific Name	Common Name	BC Act	EPBC Act	Records within 5km
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	E	E	Modelled Only
<i>Climacteris picumnus victoricae</i>	Brown Treecreeper (eastern subspecies)	V	V	10
<i>Crinia sloanei</i>	Sloane's Froglet	E	E	156
<i>Daphoenositta chrysoptera</i>	Varied Sittella	V	-	2
<i>Dasyurus maculatus</i>	Spot-tailed Quoll	V	E	Modelled Only
<i>Delma impar</i>	Striped Legless Lizard	V	V	Modelled Only
<i>Falco hypoleucos</i>	Grey Falcon	V	V	1
<i>Gallinago hardwickii</i>	Latham's Snipe	V	V	1
<i>Grantiella picta</i>	Painted Honeyeater	V	V	Modelled Only
<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	V	-	2
<i>Hirundapus caudacutus</i>	White-throated Needletail	V	V	1
<i>Keyacris scurra</i>	Key's Matchstick Grasshopper	E	E	Modelled Only
<i>Lathamus discolor</i>	Swift Parrot	E	CE	3
<i>Litoria raniformis</i>	Southern Bell Frog	E	V	1
<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded Robin	E	E	1
<i>Melithreptus gularis gularis</i>	Black-chinned Honeyeater (eastern subspecies)	V	-	3
<i>Neophema chrysostoma</i>	Blue-winged Parrot	V	V	Modelled Only
<i>Neophema pulchella</i>	Turquoise Parrot	V	-	5
<i>Ninox connivens</i>	Barking Owl	V	-	3
<i>Oxyura australis</i>	Blue-billed Duck	V	-	1
<i>Parvipsitta pusilla</i>	Little Lorikeet	V	-	1
<i>Pedionomus torquatus</i>	Plains-wanderer	E	CE	Modelled Only
<i>Petaurus norfolcensis</i>	Squirrel Glider	V	-	94
<i>Petroica boodang</i>	Scarlet Robin	V	-	5
<i>Petroica phoenicea</i>	Flame Robin	V	-	3

Scientific Name	Common Name	BC Act	EPBC Act	Records within 5km
<i>Phascolarctos cinereus</i>	Koala	E	E	2
<i>Polytelis swainsonii</i>	Superb Parrot	V	V	1
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V	V	8
<i>Rostratula australis</i>	Australian Painted Snipe	E	E	Modelled Only
<i>Stagonopleura guttata</i>	Diamond Firetail	V	V	6
<i>Stictonetta naevosa</i>	Freckled Duck	V	-	1
<i>Synemon plana</i>	Golden Sun Moth	V	V	Modelled Only
<i>Tringa nebularia</i>	Common Greenshank	E	E	Modelled Only

V – Vulnerable; E – Endangered; EP – Endangered Population; CE – Critically Endangered

The degraded vegetation within the Subject Land would only provide low-quality foraging habitat for threatened species.

On the basis that the Subject Land is highly degraded and vacant of high-quality foraging and/or breeding habitat, it was determined that potential threatened fauna are unlikely to utilise the Subject Land in preference of surrounding areas. However, in the absence of a field-assessment, the presence of threatened fauna cannot be completely ruled out.

4.1 Species Polygons

No species polygons were mapped in the BDAR (WSP, 2024), nor do any threatened species habitat constraints occur within the Subject Land.

4.1 Migratory Species

Database searches revealed seven migratory terrestrial species, or their habitat, are known to occur within the Subject Land (**Table 5**). These species are unlikely to occur due to the lack of suitable habitat in the Subject Land (i.e. ornamental tree dominated), and these species do not breed in Australia.

Table 5. Migratory terrestrial species with potential to occur in the Subject Land.

Species	EPBC Act Status
<i>Actitis hypoleucos</i> (Common Sandpiper)	Migratory, CAMBA, JAMBA, ROKAMBA
<i>Calidris acuminata</i> (Sharp-tailed Sandpiper)	Migratory, CAMBA, JAMBA, ROKAMBA
<i>Calidris ferruginea</i> (Curlew Sandpiper)	Critically Endangered, Migratory, CAMBA, JAMBA, ROKAMBA
<i>Calidris melanotos</i> (Pectoral Sandpiper)	Migratory, JAMBA, ROKAMBA
<i>Gallinago hardwickii</i> (Latham's Snipe)	Vulnerable, Migratory, JAMBA, ROKAMBA
<i>Hirundapus caudacutus</i> (White-throated Needletail)	Vulnerable, Migratory, CAMBA, JAMBA, ROKAMBA

CAMBA = China-Australia Migratory Bird Agreement, JAMBA = Japan-Australia Migratory Bird Agreement, ROKAMBA = Republic of Korea-Australia Migratory Bird Agreement and Bonn = Convention on the Conservation of Migratory Species of Wild Animals

5. IMPACT SUMMARY

The proposed activity will impact 0.73ha of Miscellaneous Ecosystems - Highly Disturbed areas with no or limited Native Vegetation from within the Subject Land.

6. LEGISLATION

6.1 Matters of National Environmental Significance

Under the EPBC Act, a proponent must not take an action if that action will have, or is likely to have, a significant impact on matters protected under the EPBC Act, referred to as MNES. The EPBC Act identifies eight MNES:

- World Heritage properties
- National Heritage places
- Wetlands of international importance (those listed under the Ramsar Convention)
- Listed threatened species and communities
- Migratory species listed under international agreements
- Great Barrier Reef Marine Park
- Commonwealth marine areas
- Nuclear actions

The PMST identified the following as potentially occurring within the Subject Land or surrounding area:

- 3 Threatened Ecological Communities
- 39 Threatened species
- 9 Migratory species

No MNES have been identified in or adjoining the Subject Land.

6.2 State Environmental Planning Policy (Resilience and Hazards) 2021

The State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP) commenced on the 1st of March 2022 and replaces the following former SEPPs:

- State Environmental Planning Policy (Coastal Management) 2018
- State Environmental Planning Policy 33 – Hazardous and Offensive Development, and
- State Environmental Planning Policy 55 – Remediation of Land.

The Subject Land is not situated within the 'Coastal Zone' therefore this SEPP does not apply.

6.3 Fisheries Management Act 1994

The FM Act aims to conserve, develop, and share the fishery resources of NSW for the benefit of present and future generations including conserving fish stocks and key fish habitats and promoting ecologically sustainable development.

The proposed activity does not require works within the mapped KFH, nor did threatened aquatic species or marine vegetation protected under the FM Act occur within the Subject Land. As such, the activity would not impact upon KFH, nor are there any legislative requirements or notifications required under this Act.

6.4 Biosecurity Act 2015

The *Biosecurity Act 2015* (NSW) provides a framework for the prevention, elimination and minimisation of biosecurity risks posed by an activity as a matter of biosecurity. As defined in Part 3, section 23 of this Act, any non-conformance by an individual is defined as guilty of an offence. All priority weeds are to be appropriately managed in accordance with the *Biosecurity Act 2015*.

7. MANAGEMENT MEASURES AND IMPLEMENTATION

The potential impacts on biodiversity identified for the Proposed Change can be appropriately managed in accordance with the Conditions of Approval and through implementation of the Updated Mitigation Measures outlined in the Construction Biodiversity Management Plan for the Project.

8. CONCLUSION

The proposed activity will impact 0.73ha of Miscellaneous Ecosystems - Highly Disturbed areas with no or limited Native Vegetation from within the Subject Land.

If you have any queries, please feel free to contact me.

Sincerely,



Alex Graham BSc (Biology), Grad Dip (Bushfire Protection)

Director/ Principal Ecologist - Accredited Biodiversity Assessor (BAAS19040)

E: alex.graham@ececology.com.au

9. REFERENCES

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18th November 2025

Biodiversity Memorandum: Inland Rail (Albury to Illabo) – The Rock Yard

Dear Constance,

Martinus Rail Pty Ltd (Martinus) on behalf of the Australian Rail Track Corporation (ARTC) propose to conduct vegetation removal and thinning in The Rock, NSW to help facilitate the construction of the Albury to Illabo (A2I) Inland Rail upgrade (the Proposed Change).

The Proposed Change is located outside of the approved construction boundary of the Inland Rail program (the Project) and was not assessed as a part of the Inland Rail, Albury to Illabo Revised Technical Paper 8: Biodiversity Development Assessment Report (BDAR) (WSP, 2024).

1.1 Scope of Assessment

East Coast Ecology Pty Ltd (ECE) was commissioned by ARTC c/- Martinus to prepare a Biodiversity Memo, for the Proposed Change. The scope of this assessment was to identify and assess impacts to species and ecological communities listed as threatened under the *Biodiversity Conservation Act 2016* (NSW) (BC Act), *Fisheries Management Act 1994* (FM Act) and Matters of National Environmental Significance (MNES) listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and where relevant, the requirements of the *Biosecurity Act 2015* (NSW), and relevant State Environmental Planning Policies (SEPPs).

The area assessed in this memo has been defined by representatives of Martinus, this memo has been prepared to accompany a Consistency Assessment (CA) in relation to the Proposed Change and is hereafter referred to as the Subject Land.

1.2 The Subject Land

The Subject Land is located in the suburb of The Rock within the Lockhart Shire Local Government Area (LGA), covering an area of approximately 0.59ha. The location of the Subject Land is provided in **Figure 1**.



Figure 1. The Subject Land.

2. METHODS

A thorough literature review of local information relevant to the Subject Land was undertaken. Searches using NSW Wildlife Atlas (BioNet) (NSW DCCEEW, 2025a), the Commonwealth Protected Matters Search Tool (PMST) (DCCEEW, 2025) and the Fisheries Spatial Data Portal (DPI, 2025) were conducted to identify all current threatened flora and fauna, as well as migratory fauna records, within a 5km radius of the Subject Land. A literature review was also undertaken of all relevant project documentation, including;

- Biodiversity Development Assessment Report (WSP, 2024), and
- Environmental Impact Statement (ARTC, 2022).

This assessment provides the results of the assessment of the sites that were determined to not contain PCT's vegetation or other ecological constraints.

2.1 Native Vegetation

A review of the State Vegetation Type Map (NSW DCCEEW, 2025b) was used to assist in the identification of Plant Community Types (PCTs) within and surrounding the Subject Land. The PCT of 'best-fit' was determined based on the floristic descriptions within the BioNet Vegetation Classification System database (NSW DCCEEW, 2025c).

2.2 Threatened Flora Survey Methods

Threatened flora that are known or likely to occur within the Subject Land and immediate surrounds (i.e. within 5km) were identified following a review of BioNet and the PMST. Soil mapping (NSW DCCEEW, 2025d) and topography (Google Earth) were also used to provide further context on habitat constraints for threatened flora.

Targeted surveys were undertaken by Ecologist Josh Brown on the 9th of January 2025, using parallel field traverses in accordance with the 'Surveying threatened plants and their habitats - NSW survey guide for the Biodiversity Assessment Method' (DPIE, 2020). All vegetated areas within the Subject Land were surveyed.

2.3 Threatened Fauna Survey Methods

Threatened fauna were recorded opportunistically however, their habitats (e.g. waterbodies, rocky areas, tree hollows), were targeted during the parallel field traverses. Potential habitat constraints within the broader area (500m buffer) were assessed using Google Earth, soil landscape mapping (NSW DCCEEW, 2025d) and recent vegetation mapping (NSW DCCEEW, 2025b).

3. EXISTING ENVIRONMENT

3.1 Rivers, streams, estuaries and wetlands

No mapped watercourse occurs within the Subject Land.

3.2 Habitat Connectivity

Negligible terrestrial habitat connectivity exists between the Subject Land and the broader landscape due to historical clearing and existing infrastructure (e.g. roads, railway and built areas).

The Subject Land may provide mobile species with minor refuge while moving throughout the landscape, however due to the degraded condition of the vegetation, it is not considered likely that threatened species would be reliant on this area as a part of their life cycle.

3.3 Karst, Caves, Crevices, Cliffs, Rocks or Other of Geological Features of Significance

The Subject Land did not contain any areas of geological significance, such as karsts, caves, cliffs or crevices. The Subject Land was not mapped as occurring on acid sulfate soils nor mapped as having risk/probability of exhibiting occurrence of acid sulfate soils.

3.4 Areas of Outstanding Biodiversity Value

No Areas of Outstanding Biodiversity Value occur on the Subject Land or the surrounding area.

3.5 Topography, Geology and Soils

The Subject Land is mapped as occurring on both the 'Mangoplah' soil landscape, characterised by extensive level plains of Burkes Creek alluvial sediments. The Subject Lands occurs on a consistent gradient of approximately 216m above sea level (asl) (Google Earth).

3.6 Mapped Native Vegetation Communities – NSW State Vegetation Type Map

The NSW State Vegetation Type Map (NSW DCCEW, 2025b) indicated the presence of two PCTs within or proximity to the Subject Land:

- PCT 79: River Red Gum shrub/grass riparian tall woodland or open forest wetland mainly in the upper slopes sub-region of the NSW South Western Slopes Bioregion and western South Eastern Highlands Bioregion, and
- PCT 267: White Box - White Cypress Pine - Western Grey Box shrub/grass/forb woodland in the NSW South Western Slopes Bioregion.

PCT 267 is associated with the below threatened ecological communities (TEC):

- BC Act Listed; White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions (Critically Endangered)
- EPBC Act Listed; White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Critically Endangered)
- BC Act Listed; Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Penepain, Nandewar and Brigalow Belt South Bioregions (Endangered), and
- EPBC Act Listed; Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia (Endangered).

The Subject Land has been mapped as PCT 0: Not classified. The State Vegetation Map is presented in **Figure 2**.



Figure 2. NSW State Vegetation Type Map.

4. RESULTS

4.1 Vegetation Communities.

Field surveys revealed the following vegetation community types described by WSP (2024):

- Miscellaneous Ecosystems – ‘Ornamental Plantings’, and
- Miscellaneous Ecosystems – ‘Highly Disturbed areas with no or limited Native Vegetation’.

These vegetation community types are consistent with the vegetation types described in the approved BDAR/ Details pertaining to vegetation identified is provided in **Table 2** and **Table 3**. The field-validated vegetation mapping is provided in **Figure 3**.

Table 1. Vegetation Communities identified within the Subject Land.

Community Name	Area within the Subject Land (ha)
Miscellaneous Ecosystems – Ornamental Plantings	0.01ha
Miscellaneous Ecosystems – Highly Disturbed areas with no or limited Native Vegetation	0.25ha
Total Area	0.26ha

Table 2. Miscellaneous Ecosystems - Ornamental plantings vegetation identified within the Subject Land.

Miscellaneous Ecosystems – Ornamental Plantings	
Novel Vegetation Type	Miscellaneous Ecosystems – Ornamental Plantings
	
Extent	0.01ha
Description of vegetation	<p>The Subject Land displayed historical and ongoing residential and community use comprised of ornamental native and exotic species planted for aesthetic purposes and was therefore determined to have limited ecological function (WSP, 2024).</p> <p>The vegetation within this zone was comprised of native ornamental plantings. Vegetation was mostly planted in the street verge or nature strip and consisted of <i>Brachychiton populneus</i>.</p>

Table 3. Miscellaneous Ecosystems - Highly Disturbed areas with no or limited Native Vegetation, vegetation identified within the Subject Land.


Miscellaneous Ecosystems - Highly Disturbed areas with no or limited Native Vegetation	
Novel Vegetation Type	Miscellaneous Ecosystems - Highly Disturbed areas with no or limited Native Vegetation
	
Extent	0.25ha
Description of vegetation	The Subject Land displayed a long history of disturbance from infrastructure (rail and road) and industrial use, the Subject Land is comprised of no or limited native species and is dominated by exotic species, and provides limited ecological function (WSP, 2024).



Figure 3. Field-validated Vegetation Communities.

4.2 Threatened Flora

BioNet and PMST searches revealed 12 threatened flora species occur, or have potential to occur, within a ~5km radius of the Subject Land.

Table 4. Threatened flora with potential to occur within the Subject Land.

Scientific Name	Common Name	BC Act	EPBC Act	Records within 5km
<i>Amphibromus fluitans</i>	River Swamp Wallaby-grass	V	V	Modelled Only
<i>Brachyscome muelleroides</i>	Mueller Daisy	V	V	Modelled Only
<i>Caladenia arenaria</i>	Sand-hill Spider-orchid	E	E	Modelled Only
<i>Caladenia concolor</i>	Crimson Spider-orchid	E	V	Modelled Only
<i>Lepidium aschersonii</i>	Spiny Peppercress	E	E	Modelled Only
<i>Lepidium monoplacoides</i>	Winged Pepper-cress	E	E	Modelled Only
<i>Prasophyllum petilum</i>	Tarengo Leek Orchid	E	E	Modelled Only
<i>Prasophyllum validum</i>	Sturdy Leek-orchid	-	V	Modelled Only
<i>Senecio garlandii</i>	Woolly Ragwort	V	-	33
<i>Senecio macrocarpus</i>	Large-fruit Fireweed	-	V	Modelled Only
<i>Swainsona murrayana</i>	Slender Darling-pea	V	V	Modelled Only
<i>Swainsona recta</i>	Small Purple-pea	E	E	Modelled Only

V – Vulnerable; E – Endangered; EP – Endangered Population; CE – Critically Endangered

The results from the site assessment, including targeted flora surveys and habitat assessment, were used to assess each species' likelihood of occurrence within the Subject Land. After carrying out the assessment, the assessor determined that the habitat is substantially degraded such that all potential threatened flora species are unlikely to occur within the Subject Land.

4.3 Threatened Fauna

BioNet and PMST searches revealed 40 threatened fauna occur, or have potential to occur, within a ~5km radius of the Subject Land.

Table 5. Threatened fauna with potential to occur within the Subject Land.

Scientific Name	Common Name	BC Act	EPBC Act	Records within 5km
<i>Anthochaera phrygia</i>	Regent Honeyeater	CE	CE	Modelled Only
<i>Antigone rubicunda</i>	Brolga	V	-	1
<i>Aphelocephala leucopsis</i>	Southern Whiteface	V	V	1
<i>Aprasia parapulchella</i>	Pink-tailed Worm-lizard	V	V	Modelled Only
<i>Artamus cyanopterus cyanopterus</i>	Dusky Woodswallow	V	-	8
<i>Botaurus poiciloptilus</i>	Australasian Bittern	E	E	Modelled Only
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	V	V	1
<i>Calidris ferruginea</i>	Curlew Sandpiper	CE	CE	Modelled Only
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	E	E	1
<i>Calyptorhynchus lathami lathami</i>	South-eastern Glossy Black-Cockatoo	V	V	4
<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (eastern subspecies)	V	V	39
<i>Crinia sloanei</i>	Sloane's Froglet	E	E	Modelled Only
<i>Daphoenositta chrysoptera</i>	Varied Sittella	V	-	15
<i>Dasyurus maculatus</i>	Spot-tailed Quoll	V	E	Modelled Only
<i>Falco hypoleucos</i>	Grey Falcon	V	V	Modelled Only
<i>Gallinago hardwickii</i>	Latham's Snipe	V	V	Modelled Only
<i>Grantiella picta</i>	Painted Honeyeater	V	V	Modelled Only
<i>Hieraaetus morphnoides</i>	Little Eagle	V	-	5
<i>Hirundapus caudacutus</i>	White-throated Needletail	V	V	Modelled Only
<i>Keyacris scurra</i>	Key's Matchstick Grasshopper	E	E	Modelled Only
<i>Lathamus discolor</i>	Swift Parrot	E	CE	3

Scientific Name	Common Name	BC Act	EPBC Act	Records within 5km
<i>Leipoa ocellata</i>	Malleefowl	E	V	Modelled Only
<i>Litoria raniformis</i>	Southern Bell Frog	E	V	Modelled Only
<i>Lophochroa leadbeateri</i>	Major Mitchell's Cockatoo	V	E	Modelled Only
<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded Robin	E	E	6
<i>Neophema chrysostoma</i>	Blue-winged Parrot	V	V	Modelled Only
<i>Neophema pulchella</i>	Turquoise Parrot	V	-	15
<i>Nyctophilus corbeni</i>	Corben's Long-eared Bat	V	V	Modelled Only
<i>Oxyura australis</i>	Blue-billed Duck	V	-	1
<i>Pedionomus torquatus</i>	Plains-wanderer	E	CE	Modelled Only
<i>Petaurus norfolcensis</i>	Squirrel Glider	V	-	2
<i>Petroica boodang</i>	Scarlet Robin	V	-	16
<i>Petroica phoenicea</i>	Flame Robin	V	-	16
<i>Phascolarctos cinereus</i>	Koala	E	E	Modelled Only
<i>Polytelis swainsonii</i>	Superb Parrot	V	V	1
<i>Pomatostomus temporalis temporalis</i>	Grey-crowned Babbler (eastern subspecies)	V	-	2
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V	V	3
<i>Pyrrholaemus sagittatus</i>	Speckled Warbler	V		39
<i>Rostratula australis</i>	Australian Painted Snipe	E	E	Modelled Only
<i>Stagonopleura guttata</i>	Diamond Firetail	V	V	14

V – Vulnerable; E – Endangered; EP – Endangered Population; CE – Critically Endangered

The degraded vegetation within the Subject Land would only provide low-quality foraging habitat for threatened species. There was no breeding habitat identified (in the form of hollow-bearing trees, rocky outcrops/ caves, large trees or human-made structures).

On the basis that the Subject Land is highly degraded and vacant of high-quality foraging and/or breeding habitat, it was determined that potential threatened fauna are unlikely to utilise the Subject Land in preference of surrounding areas.

4.1 Species Polygons

No species polygons were mapped in the BDAR (WSP, 2024), nor do any threatened species habitat constraints occur within the Subject Land.

4.1 Migratory Species

Database searches revealed seven migratory terrestrial species, or their habitat, are known to occur within the Subject Land (**Table 6**). These species are unlikely to occur due to the lack of suitable habitat in the Subject Land (i.e. ornamental tree dominated), and these species do not breed in Australia.

Table 6. Migratory terrestrial species with potential to occur in the Subject Land.

Species	EPBC Act Status
<i>Actitis hypoleucos</i> (Common Sandpiper)	Migratory, CAMBA, JAMBA, ROKAMBA
<i>Calidris acuminata</i> (Sharp-tailed Sandpiper)	Migratory, CAMBA, JAMBA, ROKAMBA
<i>Calidris ferruginea</i> (Curlew Sandpiper)	Critically Endangered, Migratory, CAMBA, JAMBA, ROKAMBA
<i>Calidris melanotos</i> (Pectoral Sandpiper)	Migratory, JAMBA, ROKAMBA
<i>Gallinago hardwickii</i> (Latham's Snipe)	Vulnerable, Migratory, JAMBA, ROKAMBA
<i>Hirundapus caudacutus</i> (White-throated Needletail)	Vulnerable, Migratory, CAMBA, JAMBA, ROKAMBA
<i>Motacilla flava</i> (Yellow Wagtail)	Migratory, CAMBA, JAMBA, ROKAMBA

CAMBA = China-Australia Migratory Bird Agreement, JAMBA = Japan-Australia Migratory Bird Agreement, ROKAMBA = Republic of Korea-Australia Migratory Bird Agreement and Bonn = Convention on the Conservation of Migratory Species of Wild Animals

5. IMPACT SUMMARY

The proposed activity will impact:

- 0.01ha of Miscellaneous Ecosystems - Ornamental Plantings, and
- 0.25ha of Miscellaneous Ecosystems - Highly Disturbed areas with no or limited Native Vegetation.

6. LEGISLATION

6.1 Matters of National Environmental Significance

Under the EPBC Act, a proponent must not take an action if that action will have, or is likely to have, a significant impact on matters protected under the EPBC Act, referred to as MNES. The EPBC Act identifies eight MNES:

- World Heritage properties
- National Heritage places
- Wetlands of international importance (those listed under the Ramsar Convention)
- Listed threatened species and communities
- Migratory species listed under international agreements

- Great Barrier Reef Marine Park
- Commonwealth marine areas
- Nuclear actions

The PMST identified the following as potentially occurring within the Subject Land or surrounding area:

- 3 Threatened Ecological Communities
- 43 Threatened species
- 8 Migratory species

No MNES have been identified in or adjoining the Subject Land.

6.2 State Environmental Planning Policy (Resilience and Hazards) 2021

The State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP) commenced on the 1st of March 2022 and replaces the following former SEPPs:

- State Environmental Planning Policy (Coastal Management) 2018
- State Environmental Planning Policy 33 – Hazardous and Offensive Development, and
- State Environmental Planning Policy 55 – Remediation of Land.

The Subject Land is not situated within the ‘Coastal Zone’ therefore this SEPP does not apply.

6.3 Fisheries Management Act 1994

The FM Act aims to conserve, develop, and share the fishery resources of NSW for the benefit of present and future generations including conserving fish stocks and key fish habitats and promoting ecologically sustainable development.

The proposed activity does not require works within the mapped KFH, nor did threatened aquatic species or marine vegetation protected under the FM Act occur within the Subject Land. As such, the activity would not impact upon KFH, nor are there any legislative requirements or notifications required under this Act.

6.4 Biosecurity Act 2015

The *Biosecurity Act 2015* (NSW) provides a framework for the prevention, elimination and minimisation of biosecurity risks posed by an activity as a matter of biosecurity. As defined in Part 3, section 23 of this Act, any non-conformance by an individual is defined as guilty of an offence. All priority weeds are to be appropriately managed in accordance with the *Biosecurity Act 2015*.

7. MANAGEMENT MEASURES AND IMPLEMENTATION

The potential impacts on biodiversity identified for the Proposed Change can be appropriately managed in accordance with the Conditions of Approval and through implementation of the Updated Mitigation Measures outlined in the Construction Biodiversity Management Plan for the Project.

8. CONCLUSION

The proposed activity will impact:

- 0.01ha of Miscellaneous Ecosystems - Ornamental Plantings, and
- 0.25ha of Miscellaneous Ecosystems - Highly Disturbed areas with no or limited Native Vegetation.

If you have any queries, please feel free to contact me.

Sincerely,



Alex Graham *BSc (Biology), Grad Dip (Bushfire Protection)*

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DRAFT

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Appendix E Unexpected Finds Procedure (Heritage and Human Remains)

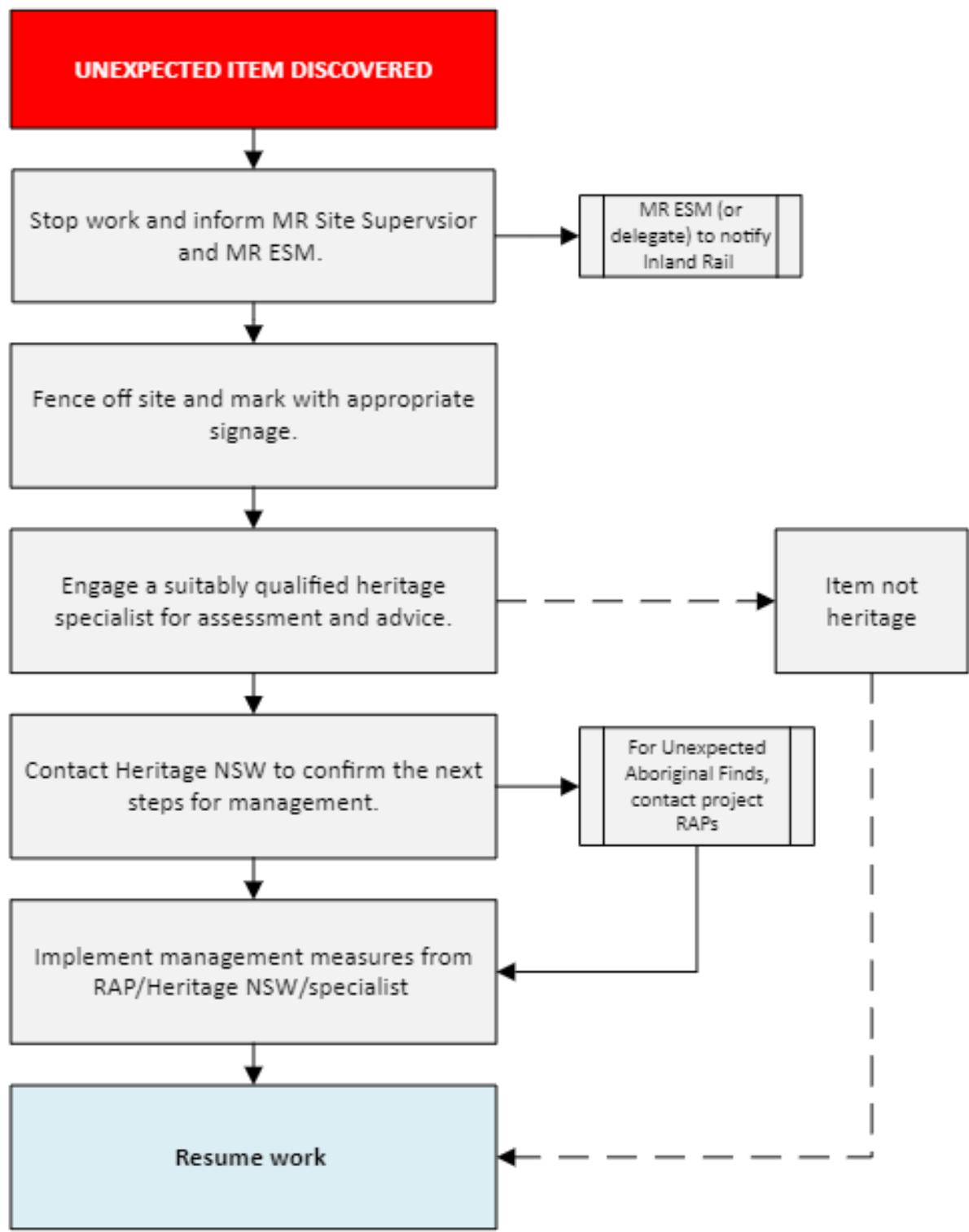
ABORIGINAL AND NON-ABORIGINAL HERITAGE: UNEXPECTED FINDS PROCEDURE

An Aboriginal artefact is anything that is the result of past Aboriginal activity. This includes stone (artefacts, rock engravings etc.), plant (culturally scarred trees) and animal bone (if showing signs of modification; i.e. smoothing, use). Human bone (skeletal remains) may also be uncovered while onsite.

A historic artefact is anything that is the result of past activity not related to Aboriginal occupation. This includes pottery, wood, glass and metal objects as well as the built remains of structures, sometimes heavily ruined.

In the event of an unexpected heritage find, the following protocol will apply:

1. All ground-disturbance work in the vicinity of the find must cease immediately. The Site Supervisor is to be made aware of the object(s) and is to notify the MR Construction Manager and MR ESM. The MR ESM (or delegate) will notify the relevant Inland Rail (IR) representative.
2. The find will be temporarily fenced off as quickly as possible to ensure no damage/further damage to the object(s). Signage on the fencing is to state that the area is subject to environmental protection, that no ground disturbance is allowed, and should include relevant contact details for the MR ESM.
3. The MR ESM (or delegate) will contact a suitably qualified heritage specialist to assess the find. The heritage specialist will then determine the need for further investigation or management. The heritage specialists assessment may be undertaken using good quality images, with a scale and several angles, however, if photographic evidence does not allow for certainty, then a site visit from the suitably qualified heritage specialist will be required.
4. If the find is an Aboriginal object, the MR ESM (or delegate) and/or heritage specialist will contact the RAPs to attend the site to inspect the find and to determine, in consultation, the next steps for management. These measures will include registration of the object in the Aboriginal Heritage Information Management System within a reasonable time.
5. The MR ESM (or delegate) and/or heritage specialist will also contact Heritage NSW (phone 02 9873 8500) to confirm the next steps for management.
6. Ground disturbance work in the vicinity of the find can only continue under supervision of a suitably qualified heritage specialist, having regard to any advice from Heritage NSW and RAPs.



Flow Chart: Unexpected heritage finds

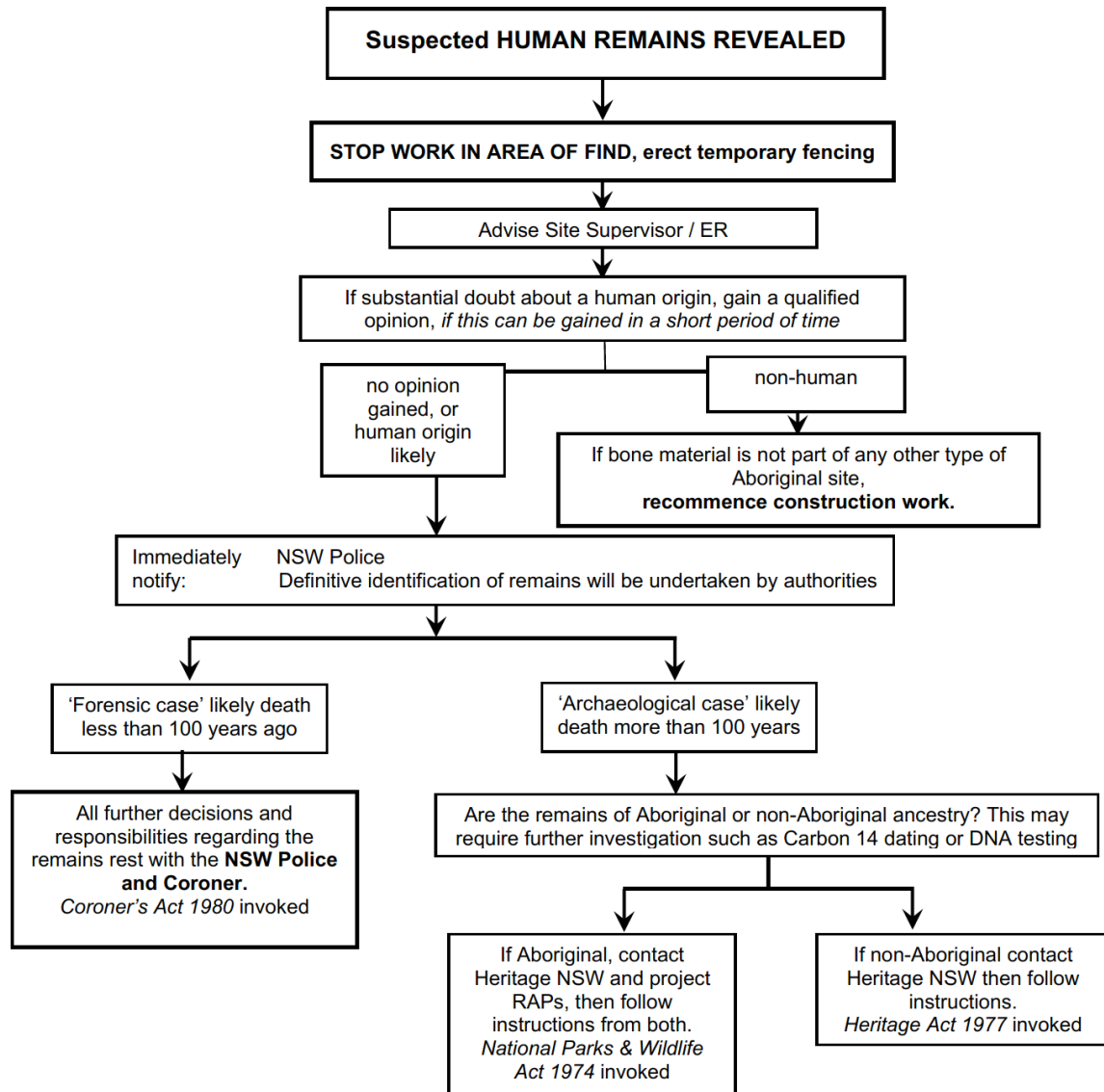
UNEXPECTED HUMAN REMAINS PROCEDURE

The procedure related to the discovery of suspected human skeletal material is based on Requirement 25 of the *Code of Practice for Archaeological Investigation of Aboriginal objects in NSW* (DECCW 2010b) and the *Skeletal Remains: Guidelines for the management of human skeletal remains under Heritage Act 1977* (NSW Heritage Office 1998). A flow chart is supplied below.

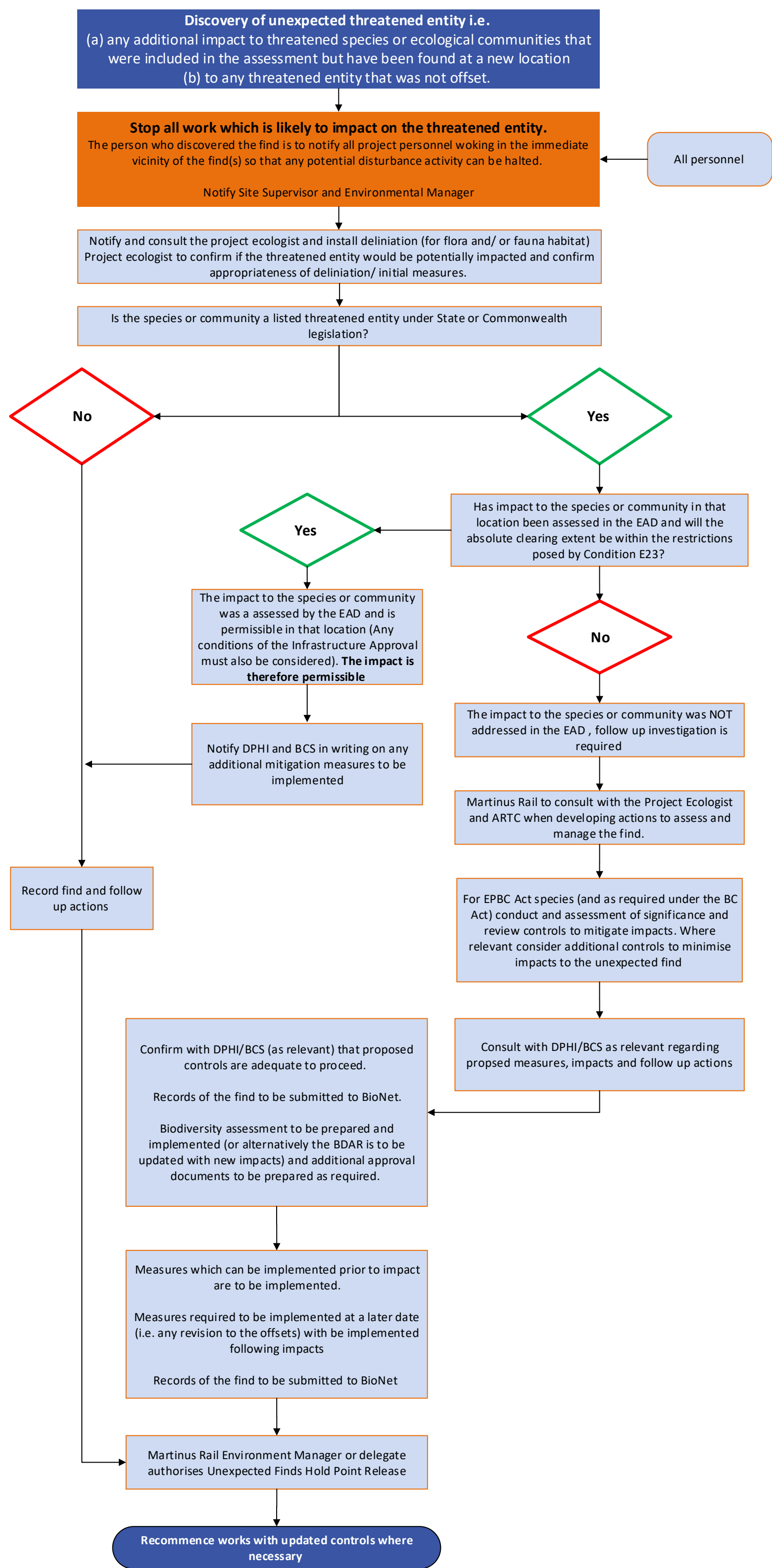
If known, or suspected skeletal remains are encountered during the construction and/or operation of the project, the following procedure will be followed:

1. The area will be temporarily fenced immediately to ensure no damage/further damage to skeletal material. No skeletal material that remains in place should be disturbed from its location;
2. Works in the vicinity are to be stopped immediately;
3. The Site Supervisor is to be made aware of the skeletal material and is to notify the MR Environmental Manager and MR Construction Manager. Inland Rail Representatives are to be contacted at this stage;
4. Attempt to determine if the bones are animal or human. May require photos of the bones to be sent to the MR Heritage Consultant to determine if the remains are likely to be human or not;
5. If a qualified opinion concludes the bones are not human in origin and are unlikely to be part of an archaeological site works may recommence;
6. If no qualified opinion can be gained or the bones are suspected of being human, undertake the following:
 - i) MR will contact Police, allowing Police to conduct an assessment to determine if the remains are part of a forensic case (less than 100 years old), or are archaeological (more than 100 years old);
 - ii) If the remains are assessed as 'archaeological', there then needs to be an attempt to determine if they are Aboriginal or non-Aboriginal;
 - iii) Inland Rail will contact the relevant stakeholders, including Heritage NSW (phone 02 9873 8500) and RAPs (if the remains are Aboriginal);
 - iv) All further activities will be determined by Heritage NSW and the RAPs (if the remains are Aboriginal);
 - v) No work may recommence in the area of the find until Heritage NSW provides the approval to do so.

Flow Chart: Suspected Human remains



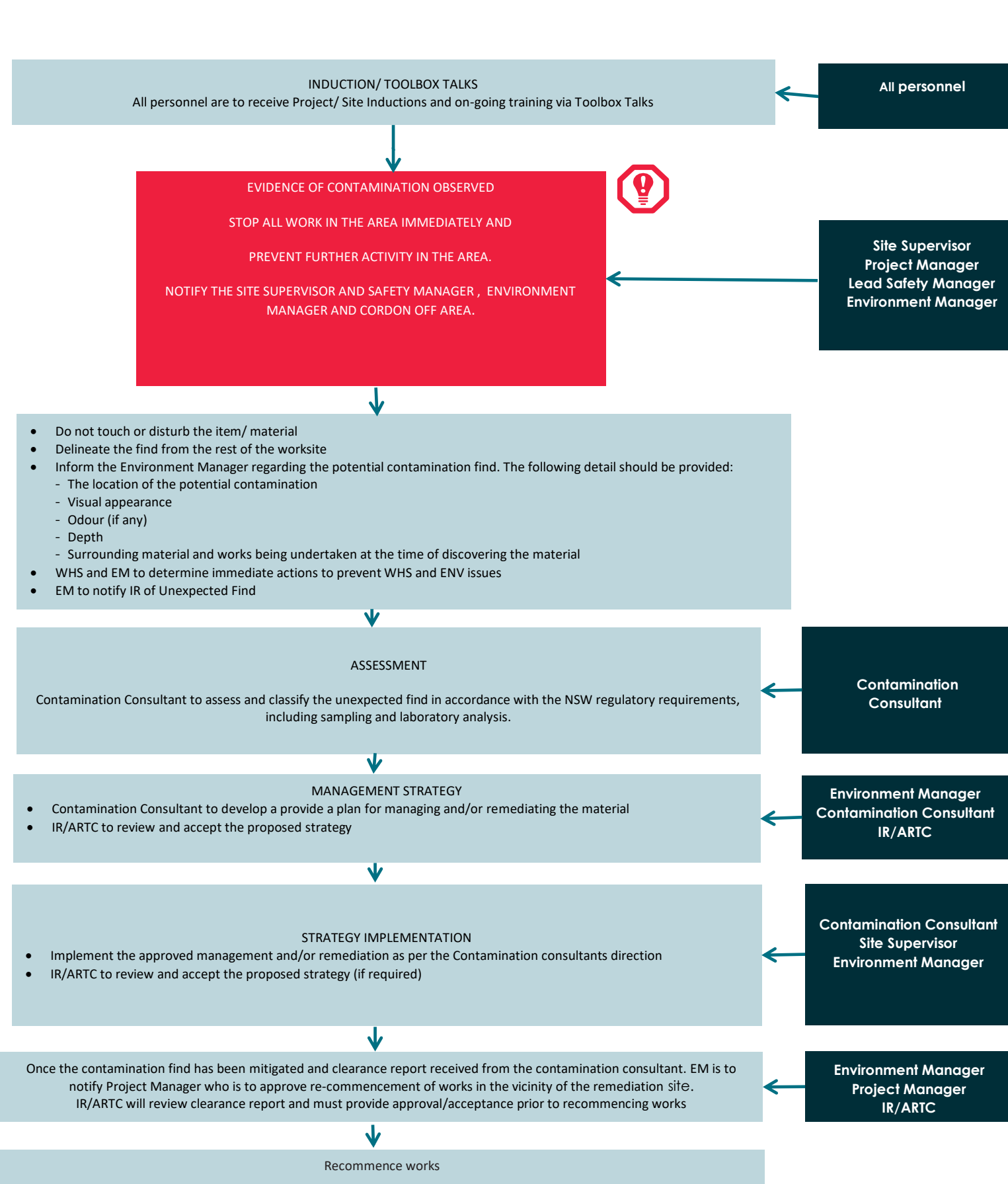
Appendix F Unexpected Finds Procedure (Flora and Fauna)



Appendix G Unexpected Finds Procedure (Contamination)

UNEXPECTED FINDS PROCEDURE FOR CONTAMINATION

MANAGEMENT AND RESPONSIBILITY



Asbestos

An unexpected find occurs when Asbestos Containing Material (ACM) not identified in the Asbestos Register is found on site. In the event of an unexpected find the below steps are to be followed:

1. The area is to be demarcated, works in the area to cease and workers notified
2. Notify the Site Supervisor first. Site Supervisor will then notify the Project Manager, Safety Manager and Environment Manager.
3. Notify IR/ARTC within five (5) business days after the discovery.
4. Control dust by with dust suppression
5. A certified occupational hygienist is to be engaged to provide recommendations to manage the area
6. Occupational hygienist arrange for testing of the suspected ACM and monitoring of the area (if required)
7. The area is to be made safe as per the certified

Contamination Consultant

Works undertaken in relation to Contamination to investigate, assess, remediate or validate remediation or land use suitability shall be undertaken by a suitably qualified person holding valid 'Site Contamination' certification under the Certified Environment Practitioners Scheme (CEnvP) - Environment Institute of Australia and New Zealand or Certified Professional Soil Scientist – Contaminated Site Assessment and Management under the Soil Science Australia Certification Scheme.

With relevant qualifications and experience in keeping with the National Environmental Protection (Assessment of Site Contamination) Measure 1999 Amendment 2013 (ASC NEPM 2013).



Procedure

- 1) Potential contaminated soil/material encountered during construction activities. STOP ALL WORK AND NOTIFY IMMEDIATELY
- 2) Undertake a site/area contamination investigation. The Environment Manager (EM) is to assess the situation and if considered necessary, commission a suitably qualified contamination specialist to undertake a contamination investigation in the area of the find.
- 3) The consultation specialists in consultation with the EM will determine the appropriate management measures to be implemented. This may include leaving contamination undisturbed if it does not pose unacceptable risks to human health or the environment, capping of contamination, treatment or offsite disposal. If the material is to be disposed of offsite, ensure the waste facility is appropriately licensed. Contaminated material requiring off-site disposal is to be classified in accordance with the Waste Classification Guidelines – Part 1: Classification of Waste, NSW EPA 2014. Maintain records to demonstrate waste material was appropriately managed
- 4) If the material is determined to be Acid Sulfate Soil (ASS) or Potential Acid Sulfate Soil (PASS), an Acid Sulfate Soil Management Plan would be prepared and implemented in accordance with the Acid Sulfate Soil Manual (Acid Sulfate Soil Management Advisory Committee, August 1998).
- 5) Prior to any contamination investigation, management or remediation activities appropriate work method documentation encompassing safety and environmental risk management will be prepared for review and approval by the EM and IR
- 6) If required a Remedial Action Plan (RAP) will be prepared in accordance with legislative requirements
- 7) If material is to be treated and reused or left in situ ensure appropriate records are maintained and location of material (survey) is undertaken and provided to IR
- 8) Once the contamination find has been mitigated and clearance report received from the contamination consultant. This report is to be submitted to IR/ARTC for acceptance prior to recommencement of work
- 9) EM is to notify Project Manager who is to approve re-commencement of works in the vicinity of the remediation site.