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# A2I | Albury to Illabo – Yerong Creek Yard Clearances

### **Construction Noise and Vibration Impact Statement**

### **Martinus Rail**

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

Prepared by:

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Making Sustainability Happen

#### **Revision Record**

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### **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.

### **Table of Contents**

Basi	s of Report	i
Acro	nyms and Abbreviations	v
Com	pliance Table	1
1.0	Introduction	6
2.0	Project Description	6
2.1	Scope of this CNVIS	6
2.2	Hours of work	7
2.2.1	Highly Noise Intensive Work	7
2.3	Variation to hours of work	7
2.4	Justification of Out of Hours Work (OOHW)	8
3.0	Existing Environment	9
3.1	Background Noise Levels	9
4.0	Assessment Criteria1	1
4.1	Construction Noise and Vibration Guidelines1	1
4.2	Noise Management Levels1	1
4.2.1	Residential Receivers	1
4.2.2	Other Sensitive Land Uses and Commercial Receivers	2
4.2.3	Ground-borne Noise1	3
4.3	Vibration Criteria14	4
4.3.1	Heritage Buildings or Structures1	6
4.3.2	Buried Pipework and Utilities	7
4.3.3	Minimum Working Distances for Vibration Intensive Work	7
4.4	Traffic on Surrounding Roads1	8
5.0	Noise Assessment1	9
5.1	Work Scenarios	9
5.1.1	Modelling Scenarios and Equipment2	1
5.2	Predicted Noise Levels	1
5.3	Ground-borne Noise	5
6.0	Vibration Assessment2	5
6.1	Cosmetic Damage Assessment	1
6.2	Human Comfort Assessment	2
7.0	Construction Traffic Assessment	3
8.0	Mitigation and Management Measures3	4
8.1	Site Specific Mitigation Measures	4
8.2	Respite	8

8.3	Additional Mitigation and Management Measures for Out of Hours Work	. 38
8.3.1	Receivers Eligible for Additional Mitigation Measures – Noise	. 41
8.3.2	Receivers Eligible for Additional Mitigation Measures – Vibration	. 41
8.4	Community Notification	.42
8.5	Consultation with Affected Receivers	. 42
8.5.1	Consultation approach	.42
8.5.2	Consultation for this CNVIS	. 43
8.5.3	Consultation outcomes	.43
8.6	Occupational Noise Exposure	. 44
8.7	Monitoring	.44
9.0	Cumulative Impacts	. 46

### **Tables in Text**

Table 1	Background Noise Levels	9
Table 2	Construction Noise and Vibration Standards and Guidelines	11
Table 3	Residential Noise Management Levels	12
Table 4	NMLs for 'Other Sensitive' Receivers	12
Table 5	Internal ground-borne NMLs	13
Table 6	Human Comfort Vibration – Vibration Dose Values for Intermittent Vibration	14
Table 7	Human Comfort Vibration – Preferred and Maximum Weighted Root Mean Square Values for Continuous and Impulsive Vibration Acceleration (m/s <sup>2</sup> ) 1–80 Hz	
Table 8	Cosmetic Damage – BS 7385 Transient Vibration Values for Minimal Risk of Damage	15
Table 9	Cosmetic Damage – DIN 4150 Guideline Values for Short-term Vibration on Structures	15
Table 10	Heritage Items Nearby Construction Work Areas	16
Table 11	Values for Short Term Vibration on Buried Pipework	17
Table 12	Recommended Minimum Working Distances from Vibration Intensive Equipmer	
Table 13	RNP/NCG Criteria for Assessing Traffic on Public Roads	19
Table 14	Work Scenario Descriptions	19
Table 15	Scenarios and Periods of Work	20
Table 16	Exceedance Bands and Impact Colouring	21
Table 17	Overview of NML Exceedances	23
Table 18	Vibration Intensive Equipment	25
Table 19	Construction Traffic Assessment	33



Table 20	Site Specific Mitigation Measures	34
Table 21	Additional Mitigation Measures	
Table 22	Airborne Noise – Additional Mitigation Measures Matrix	40
Table 23	Vibration – Additional Mitigation Measures Matrix	41
Table 24	Community Communications Strategy	44
Table 25	Indicative Monitoring Locations	45

### **Figures in Text**

Figure 1	Receiver Classifications and Noise Monitoring Locations	10
Figure 2	Construction Work Locations	21
Figure 3	Vibratory Roller (13-18t) – Minimum Working Distances – W.004	26
Figure 4	Vibratory Roller (13-18t) – Minimum Working Distances – W.009	27
Figure 5	Vibratory Roller (1-2t) – Minimum Working Distances – W.007	28
Figure 6	Hydraulic Hammer (20t) – Minimum Working Distances – W.007	29
Figure 7	Track Tamping – Minimum Working Distances – W.006	30
Figure 8	Hierarchy of Work Practices and Mitigation Measures	34

### Appendices

Appendix A	Acoustic Terminology
Appendix B	Modelling Scenarios and Equipment
Appendix C	Noise Impact Maps
Appendix D	Receivers Triggering Additional Mitigation

### 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	Deutches 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 night-time 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.



LAmax	The maximum noise level during the measurement or assessment period. The LAFmax or Fast is averaged over 0.125 of a second and the LASmax 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 Area
NML	Noise Management Level
NSW	New South Wales
NPfl	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	<ul> <li>The Proponent must carry out the CSSI in accordance with the terms of this approval and generally in accordance with the:</li> <li>a) Inland Rail – Albury to Illabo Environmental Impact Statement (ARTC, August 2022)</li> </ul>	The CNVMP
	<ul> <li>Albury to Illabo Response to Submissions (ARTC, November 2023)</li> </ul>	
	<ul> <li>Albury to Illabo Preferred Infrastructure Report (ARTC, November 2023)</li> </ul>	
	<ul> <li>Albury to Illabo Preferred Infrastructure Report Response to Submissions (ARTC, February 2024)</li> </ul>	
	<ul> <li>e) Inland Rail – Albury to Illabo (SSI-10055) Response to request for additional information – Air Quality Assessment (letter dated 1 May 2024)</li> </ul>	
	<ul> <li>f) Part 1 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024)</li> </ul>	
	<ul> <li>g) Part 2 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024)</li> </ul>	
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	The Construction Noise and Vibration Sub-plan must include, but not limited to:	The CNVMP
	<ul> <li>measures to reduce construction to standard ICNG hours where sensitive land uses are likely to be noise affected for more than 3 months;</li> </ul>	
	<ul> <li>an approach to assess and manage construction fatigue from noise impacts on sensitive receivers on an ongoing basis;</li> </ul>	
	<ul> <li>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;</li> </ul>	
	<ul> <li>d) mitigation for construction traffic noise impacts from additional construction traffic and road diversions;</li> </ul>	
	<ul> <li>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</li> </ul>	
	<ul> <li>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.</li> </ul>	
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	Work must be undertaken during the following hours: a) 7:00am to 6:00pm Mondays to Fridays, inclusive;	Section 2.2

СоА	Requirement	Reference
	b) 7:00am to 6:00pm Saturdays; and	
	c) at no time on Sundays or public holidays.	
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:	Section 2.2.1, Section 8.2
	a) between the hours of 8:00 am to 6:00 pm Monday to Friday;	
	<ul> <li>b) between the hours of 8:00 am to 1:00 pm Saturday; and</li> <li>c) if continuously, then not exceeding three (3) hours, with a</li> </ul>	
	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.	
E71	Notwithstanding Conditions E69 and E70, work may be undertaken outside the hours specified in the following circumstances (a, b, or c):	Section 2.3
	a) Safety and Emergencies, including:	
	<ul> <li>for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or</li> </ul>	
	<li>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.</li>	
	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.	
	b) Work, that meets the following criteria;:	
	i. construction that causes LAeq(15 minute) noise levels:	
	<ul> <li>no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and</li> </ul>	
	<ul> <li>no more than the 'Noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land use(s); and</li> </ul>	
	<ul> <li>ii. 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</li> </ul>	
	iii. construction that causes:	
	<ul> <li>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 Assessing Vibration: a technical guideline (DEC, 2006), or</li> </ul>	
	<ul> <li>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 Assessing Vibration: a technical guideline (DEC, 2006).</li> </ul>	
	c) By Approval, including:	
	<ul> <li>where different construction hours, such as those for a rail possession, are permitted under an EPL in force in respect of the CSSI; or</li> </ul>	
	<li>works which are not subject to an EPL that are approved under an Out-of-Hours Work Protocol as required by Condition E72; or</li>	
	<li>iii. negotiated agreements with directly affected residents and sensitive land use(s).</li>	
E72	An Out-of-Hours Work Protocol must be prepared to identify a process for the consideration, management and approval of work	The CNVMP, Section 2.4

CoA	Requirement	Reference
	<ul> <li>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. The Protocol must include:</li> <li>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: <ol> <li>the ER and AA review all proposed out-of-hours activities and confirm their risk levels,</li> <li>low risk activities can be approved by the ER in consultation with the AA, and</li> <li>high risk activities that are approved by the Planning Secretary;</li> </ol> </li> <li>a process for the consideration of out-of-hours work against the relevant NML and vibration criteria;</li> <li>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;</li> <li>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</li> <li>e) notification arrangements for affected receivers for approved out-of-hours works and notification to the Planning Secretary of approved low risk out-of-hours works. This condition does not apply if the requirements of Condition E71 are met.</li> </ul>	
E73	<ul> <li>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:</li> <li>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</li> <li>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</li> <li>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</li> <li>d) work undertaken in a rail possession for operational or safety reasons.</li> </ul> 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.	Section 2.3
E74	<ul> <li>Mitigation measures must be implemented with the aim of achieving the following construction noise management levels and vibration objectives:</li> <li>a) construction 'Noise affected' NMLs established using the Interim Construction Noise Guideline (DECC, 2009);</li> </ul>	The CNVMP, Section 4.0, Section 8.0

СоА	Requirement	Reference
	<ul> <li>b) vibration criteria established using the Assessing vibration: a technical guideline (DEC, 2006) (for human exposure);</li> </ul>	
	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	
	e) the vibration limits set out in the <i>German Standard DIN 4150-3:</i> <i>Structural Vibration- effects of vibration on structures</i> (for structural damage).	
	Work that exceeds the noise management levels and/or vibration criteria must be managed in accordance with the Noise and Vibration CEMP sub-plan.	
	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.	
E75	Mitigation measures must be applied when the following residential ground-borne noise levels are exceeded:	Section 4.2.3
	a) evening (6:00 pm to 10:00 pm) — internal LAeq(15 minute): 40 dB(A); and	
	b) night (10:00 pm to 7:00 am) — internal LAeq(15 minute): 35 dB(A).	
	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.	
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</i> <i>equipment that may impact the heritage significance or structural</i> <i>integrity of the heritage listed structures.</i>	Section 8.0
E83	<ul> <li>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:</li> <li>a) rescheduling work to provide respite to impacted noise sensitive land use(s) so that the respite is achieved; or</li> <li>b) the provision of alternative respite or mitigation to impacted noise sensitive land use(s); and</li> <li>c) the provision of documentary evidence to the AA in support of any decision made in relation to respite or mitigation.</li> <li>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.</li> </ul>	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 work at the Yerong Creek Yard. These sites form 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 work at Yerong Creek 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 work at Yerong Creek 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 at Yerong Creek Yard. Work at this site includes:

- Site Establishment/Demobilisation
- Compound Operation
- Geotechnical Investigation
- Track work
- Track Tamping
- Drainage Work
- Signaling Work
- Level Crossing Work

Further details of work activities are outlined in **Section 5.1**. The work area is within a small rural town surrounded by a combination of residential, commercial, educational receivers and places of worship. 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 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, including:
  - i. for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or
  - ii. 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.

On becoming aware of the need for emergency work in accordance with Condition (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.

- a) Work, that meets the following criteria;:
  - i. construction that causes LAeq(15 minute) noise levels:
  - 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
  - ii. 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
  - iii. construction that causes:
    - 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 Assessing Vibration: a technical guideline (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 *Assessing Vibration: a technical guideline* (DEC, 2006).
- b) By Approval, including:
  - i. where different construction hours, such as those for a rail possession, are permitted under an EPL in force in respect of the CSSI; or
  - ii. works which are not subject to an EPL that are approved under an Out-of-Hours Work Protocol as required by Condition ; or
  - iii. negotiated agreements with directly affected residents and sensitive land use(s).

#### 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 Yerong Creek Yard clearances work.

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

Sensitive land uses and receiver classifications within the project area were confirmed through a detailed land use survey undertaken in August 2024. Results of the land use survey have been incorporated into the receiver classifications shown in **Figure 1**.

#### 3.1 Background Noise Levels

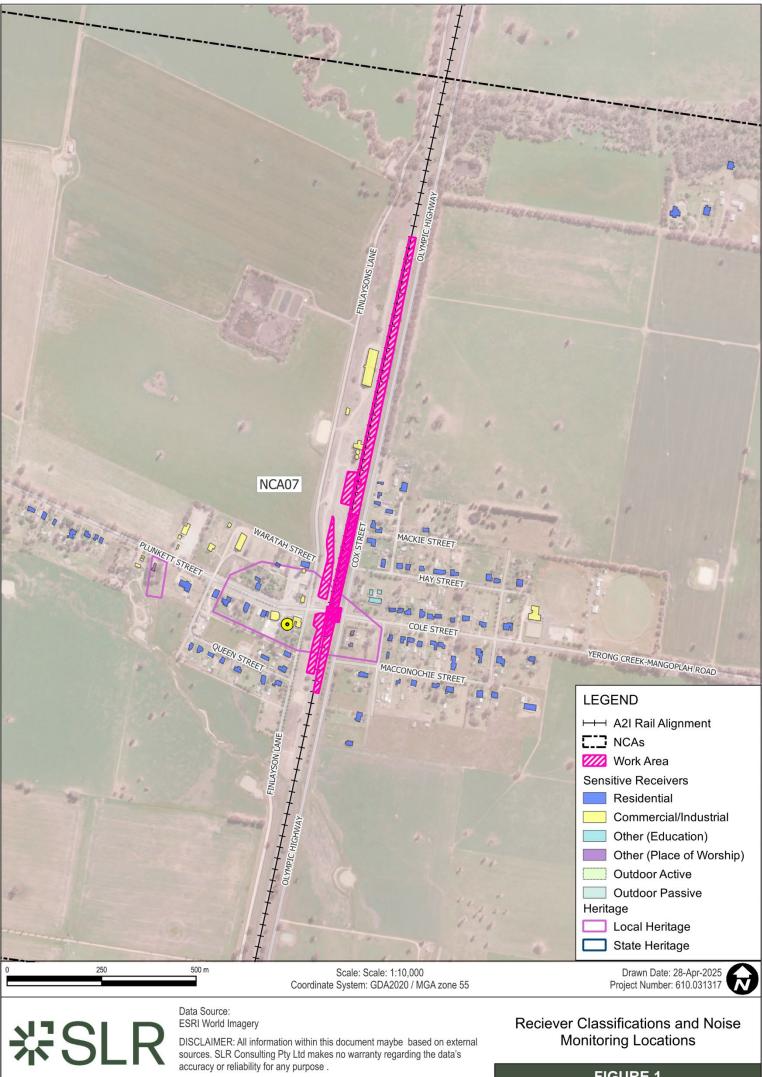
Background noise levels have been referenced from the baseline noise survey undertaken as part of the EIS and reproduced in the CNVMP. The background noise levels relevant to the Yerong Creek Yard Clearances work are summarised in **Table 1**.

#### Table 1 Background Noise Levels

Noise NCA Monitoring Location			Rating background Level (RBL) dBA NPfl defined time periods <sup>1</sup>		
Location		Daytime period	Evening period	Night-time period	
7         NCA07         39         39 <sup>2</sup> (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					

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).



**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
Inland Rail NSW Construction Noise and Vibration Framework (CNVF)	Assessment and management protocols for airborne noise, ground-borne noise and vibration impacts for construction of NSW Inland Rail projects
Interim Construction Noise Guideline (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
Road Noise Policy (RNP) (DECCW, 2011)	Assessment of construction traffic impacts
BS 7385 Part 2-1993 Evaluation and measurement for vibration in buildings Part 2, BSI, 1993	Assessment of vibration impacts (structural damage) to non-heritage sensitive structures
DIN 4150:Part 3-2016 Structural vibration – Effects of vibration on structures, Deutsches Institut für Normung, 2016	Screening assessment of vibration impacts (structural damage) to heritage sensitive structures, where the structure is found to be unsound
Assessing Vibration: a technical guideline (DEC, 2006)	Assessment of vibration impacts on sensitive receivers
AS2187.2:2006 Explosives – Storage and use Part 2: Use of explosives	Assessment of impacts from blasting activities
Construction Noise and Vibration Guideline (Public Transport Infrastructure) (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 NCA07 which encompasses all assessable receivers within the Yerong Creek area. 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 work site are shown in **Table 3**.



Table 3	Residential	Noise	Management Levels
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NCA	Noise Management Level (LAeq(15minute) - dBA)				Sleep	Sleep
Approved Hours Out of Hours <sup>1</sup>		disturbance Screening	Awakening Reaction			
		Daytime (RBL +5dB)	Evening (RBL +5dB)	Night-time (RBL +5dB)	Level (RBL +15dB or 52 dB)	Level
NCA07	49	44	44	35	52	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, see **Table 3**) is exceeded, further assessment is required to determine whether the 'awakening reaction' level of  $L_{Amax}$  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) (dBA) (Applied when the property is in use)		
	Internal	External	
ICNG 'Other Sensitive' Receivers			
Classrooms at schools and other educational institutions	45	55 <sup>1</sup>	
Hospital wards and operating theatres	45	65 <sup>2</sup>	
Places of worship	45	55 <sup>1</sup>	
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	LAeq(1	nagement Level 5minute) (dBA) the property is in use)			
	Internal	External			
Non-ICNG 'Other Sensitive' Receivers					
Hotel – daytime & evening <sup>3</sup>	50	60 <sup>1,5</sup>			
Hotel – night-time <sup>3</sup>	35	45 <sup>1,5</sup>			
Child care centres – activity areas <sup>4</sup>	40	50 <sup>1,5</sup>			
Child care centres – sleeping areas <sup>4</sup>	35	45 <sup>1,5</sup>			
Library <sup>3</sup>	45	55 <sup>1,5</sup>			
Public Building <sup>3</sup>	50	60 <sup>1,5</sup>			
Aged Care	Considered as Re	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) – dBA)			
	Daytime <sup>1</sup>	Evening <sup>2</sup>	Night-time <sup>2</sup>	
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 <sup>1</sup> (m/s <sup>1.75</sup> )	
		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 7Human Comfort Vibration – Preferred and Maximum Weighted Root Mean<br/>Square Values for Continuous and Impulsive Vibration Acceleration (m/s²)<br/>1–80 Hz

Location	Assessment	Preferred values		Maximum values	
	period	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 8Cosmetic Damage – BS 7385 Transient Vibration Values for Minimal Risk of<br/>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	up Type of Structure Guideline Values Vibration Velocity (mm					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 <u>and</u> are of great intrinsic value (eg heritage listed buildings)	3	3 to 8	8 to 10	8	20 <sup>1</sup>	

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 Local Environment Plan that are within 100 m of any construction work areas at Yerong Creek.

Table 10	Heritage Items	Nearby	Construction	Work Areas
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Heritage Item	Listing	Construction/Condition
Yerong Creek Urban Conservation Area	Local (Lockhart LEP) C3	The conservation area is partially located within and adjacent to the railway corridor. The conservation area consists of nineteenth and early twentieth century buildings.
Yerong Creek Railway Station archaeological site	Unregistered potential heritage item.	The platform is of brick construction – stretcher bond capped with four corbelled courses. This is likely the site and remnants of the old railway station demolished in the 1980s.

Further information relating to the heritage items identified in **Table 10** are provided in the Construction Cultural Heritage Management Plan (CCHMP) and the NSW State Heritage Inventory. No structures nearby the work area are flagged as structurally unsound in the CCHMP and the NSW State Heritage Inventory.

As part of the enhancement works at the Yerong Creek Yard, full demolition of the Yerong Creek Railway Station platform is required to achieve safe and compliant track formation. Based on Ground Penetrating Radar Survey (GPR) results, commissioned by ARTC, the likelihood of significant archaeological deposits remaining intact at the site is low. A Martinus Unexpected Finds Protocol will be in place during construction in accordance with the Heritage Management Sub-Plan.

Pre and post-condition surveys of heritage structures are to be conducted when relevant (ie if the heritage buildings are within the minimum working distances for heritage items for nominated vibration-intensive equipment) refer to **Section 4.3.3** and **Section 6.1**.

#### 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**.

Line	Pipe Material	Guideline value at the Pipe <sup>1,2</sup> (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 <sup>3</sup>	50

Table 11	Values for Short Term Vibration on Buried Pipework
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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. Where buried pipework or utilities are uncovered during works, they should be identified and managed in accordance with the measures outlined in the CNVMP.

#### 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	Plant Item Rating/Description Minimum Distance				
		Co	osmetic Damag	9	Human
		Residential and Light Commercial (BS 7385)	Heritage Items <sup>1</sup> (DIN 4150, Group 3)	Industrial and Heavy Commercial (BS 7385)	Response (NSW EPA Guideline) <sup>2</sup>
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 <sup>2</sup>	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	<b>RNP/NCG</b> Criter	ia for Assessing	Traffic on	<b>Public Roads</b>
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Road Category	Type of Project/Land Use	Assessment Criteria (dBA)		
		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 Scenarios

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 construction work periods and schedule required for each scenario is shown in **Table 15**, as per the working hours defined in the CNVMP. The locations of the various work scenarios are shown in **Figure 2**.

Table 14	Work Scenario E	Descriptions
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ID	Scenario	Description	Total Lw
W.001	Site Establishment / Demobilisation	<ul><li>Site Compound delivery and set up</li><li>Laydown and haul road construction</li></ul>	115
W.002	Compound Operation	<ul><li>Operation of the site compound</li><li>Delivery of materials/equipment</li></ul>	113
W.003	Geotechnical Investigation	<ul> <li>Surveying the of properties of the ground under work area</li> </ul>	111
W.004	Track Work - Peak	Track work including highly noise intensive work	119
W.005	Track Work - Typical	Track work excluding highly noise intensive work	114
W.006	Track Tamping	Track tamping work following track work	116
W.007	Drainage Work	Installation of drainage infrastructure	119
W.008	Signalling Work	Installation of signalling infrastructure	112
W.009	Level Crossing Work - Peak	Level crossing work including highly noise intensive work	119
W.010	Level Crossing Work - Typical	<ul> <li>Level crossing work excluding highly noise intensive work</li> </ul>	115



ID	Scenario	H	lours c	Indicative	Likely			
		Approved	Out-	of-Hours W	′ork⁴	Start Date	Duration⁵	
		Hours	Day OOH <sup>1</sup>					
W.001	Site Establishment / Demobilisation	✓	~	-	-	July 2025	1 month	
W.002	Compound Operation	✓	✓	✓	✓	July 2025	3 months	
W.003	Geotechnical Investigation	✓	~	-	-	July 2025	1 week	
W.004	Track Work - Peak	✓	✓	✓	✓	July 2025	2 months	
W.005	Track Work - Typical	$\checkmark$	✓	✓	✓	July 2025	2 months	
W.006	Track Tamping	✓	✓	✓	✓	July 2025	2 months	
W.007	Drainage Work	~	~	-	-	August 2026	1 month	
W.008	Signalling Work	~	~	~	~	September 2025	1 month	
W.009	Level Crossing Work - Peak	~	✓	~	~	September 2025	1 month	
W.010	Level Crossing Work - Typical	√	~	✓	~	September 2025	1 month	

#### Table 15 Scenarios and Periods of Work

Note 1: Daytime out of hours is 7 am to 8 am on Saturday, and 8 am to 6 pm on Sunday and public holidays.

Note 2: Evening is 6 pm to 10 pm Mondays to Saturdays.

Note 3: Night is 10 pm to 7 am for Mondays to Saturdays and 6 pm to 8 am for Sundays and 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: Works scenarios may occur simultaneously during enhancement works and the total duration for the completion of all works is expected to be approximately 3 months.





#### Figure 2 Construction Work Locations

#### 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 (LW) 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**. Recommendations for mitigation and management measures adopted for this CNVIS are provided in **Section 8.0**.

Subjective	Exceedance of Nois	Impact Colouring	
Classification	Daytime		
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	

Table 16 Exceedance Bands and Impact Colouring

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 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 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.



	2 May 2025
	SLR Project No.: 610.031317.00001
Martinus Rail	SLR Ref No.: 6-0052-210-EEC-G3-AS-
A2I   Albury to Illabo – Yerong Creek Yard Clearances	0001_0

#### Table 17 Overview of NML Exceedances

	Scenario	Number of Receivers																	
ID			With NML exceedance (dB) <sup>2</sup>																
			Out of Hours																
		HNA 1	Approved Daytime			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	>65 dB
Residenti	al Receivers																		
W.001	Site Establishment/ Demobilisation	-	41	19	2	9	41	19	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	-	34	8	-	20	34	8	-	20	34	8	-	4	33	30	7	67	21
W.003	Geotechnical Investigation	-	37	14	-	15	37	14	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W.004	Track Work - Peak	4	27	32	10	6	27	32	10	6	27	32	10	4	12	26	41	75	47
W.005	Track Work - Typical	-	42	17	5	5	42	17	5	5	42	17	5	4	15	41	19	67	29
W.006	Track Tamping	-	32	29	5	7	32	29	5	7	32	29	5	2	13	35	29	71	36
W.007	Drainage Work	-	28	33	6	7	28	33	6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W.008	Signalling Work	-	39	6	-	13	39	6	-	13	39	6	-	5	32	35	3	51	3
W.009	Level Crossing Work - Peak	-	40	27	-	7	40	27	-	7	40	27	-	6	9	41	24	73	29
W.010	Level Crossing Work - Typical	-	44	9	-	16	44	9	-	16	44	9	-	1	26	42	6	65	9
Other Ser	nsitive Receivers																		
W.001	Site Establishment/ Demobilisation	n/a	8	2	-	5	5	-	-	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	5	-	-	3	2	-	-	-	2	-	-	-	-	-	-	n/a	n/a
W.003	Geotechnical Investigation	n/a	5	3	-	1	7	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W.004	Track Work - Peak	n/a	4	7	1	2	3	7	-	-	1	2	-	-	-	-	-	n/a	n/a
W.005	Track Work - Typical	n/a	3	7	-	2	7	1	-	1	2	-	-	-	-	-	-	n/a	n/a
W.006	Track Tamping	n/a	3	7	-	2	5	3	-	1	-	2	-	-	-	-	-	n/a	n/a
W.007	Drainage Work	n/a	3	6	1	2	2	6	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W.008	Signalling Work	n/a	5	1	-	2	4	-	-	-	2	-	-	-	-	-	-	n/a	n/a
W.009	Level Crossing Work - Peak	n/a	3	6	-	3	3	3	-	1	-	2	-	-	-	-	-	n/a	n/a
W.010	Level Crossing Work - Typical	n/a	2	4	-	-	6	-	-	-	2	-	-	-	-	-	-	n/a	n/a

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

Note 2: Based on worst-case predicted noise levels



A summary of the predicted worst-case noise levels is shown below for each work area:

#### **Residential Receivers**

- 'Moderately intrusive' noise impacts are predicted at the closest residential receivers for all scenarios during the approved daytime hours, and for scenarios occurring during all three out-of-hours periods.
- 'Highly intrusive' noise impacts are predicted at the closest residential receivers to the works for scenarios *W.001* and *W.004* to *W.007* during approved daytime and daytime out of hours, for scenarios *W.004* to *W.006* during the evening out-of-hours periods and for all scenarios with the potential for works during the night-time period. (*W.002, W.004* to *W.006* and *W.008* to *W.010*).
  - Compound operations outlined in *W.002* are generally expected to be limited to approved daytime hours. OOHWs presented in **Table 17** are only expected when construction works are being undertaken under a rail possession.
- Up to four receivers are predicted to be 'highly noise affected' during works for scenarios *W.004*. The HNA impacts are predicted when track work occurs at the closest work location to each receiver. When track work occurs further from these receivers, impacts are expected to be lower.
- Noise levels are predicted to exceed the sleep disturbance screening level and the 'sleep awakening' criteria for all scenarios with the potential for works during the night-time period. (*W.002*, *W.004* to *W.006* and *W.008* to *W.010*).

#### **Other Sensitive Receivers**

- 'Clearly Audible' noise impacts are predicted at the closest 'other sensitive' receivers for all scenarios during the approved daytime and daytime out-of-hours periods, and for all scenarios occurring during the evening (with the exception of *W*.006 and *W*.009) and night-time out-of-hours periods (with the exception of *W*.004, *W*.006 and *W*.009).
- 'Moderately intrusive' noise impacts are predicted at the closest 'other sensitive' receivers to the works for all scenarios except *W.002* during approved daytime hours, for scenarios *W.004* to *W.*007 and *W.*009 during daytime out-of-hours period and for scenarios *W.004*, *W.*006 and *W.*009 during evening out-of-hours period. No impacts are predicted at 'other sensitive' receivers during the night-time period.
- 'Highly intrusive' noise impacts are predicted at the closest 'other sensitive' receivers to the works for scenarios *W.004* and *W.007* during approved daytime hours only. It is noted that other sensitive receivers should only be considered impacted 'when in use'. Furthermore, these structures are located within the rail corridor and are unoccupied.

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 which would potentially be affected by sleep awakening impacts are generally the same receivers where 'moderately intrusive' and 'highly intrusive' night-time impacts have been predicted (refer to **Appendix C**).

These receivers may be eligible for respite offers (RO), agreements with owners (AO) or alternative accommodation (AltA), refer to **Section 8.3**. Furthermore, for scenarios where 'highly intrusive' impacts are predicted (ie all scenarios except *W.003*), noisy activities will be scheduled during standard daytime hours, where feasible, to minimise disruption during OOHW periods. It is noted however, that this work will occur during a rail possession and will be undertaken within the limitations of the possession.

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** and **Section 8.1**.

#### 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 the use of vibratory rollers, hydraulic hammers and ballast tampers. These items of equipment are required during the work as shown in **Table 18**.

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 18**.

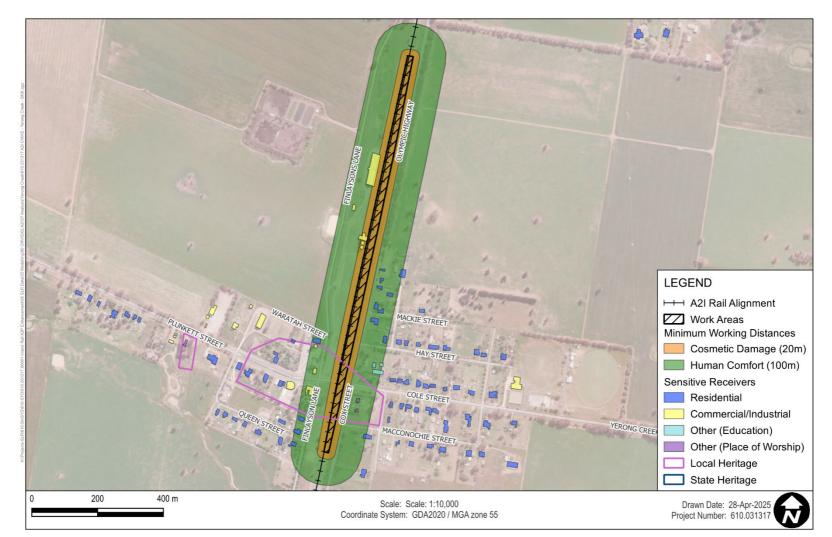
ID	Scenario	Rating/Description	/Description Minimum Distance							
			Cos	Cosmetic Damage						
			Residential and Light Commercial (BS 7385)	Heritage Items (DIN 4150, Group 3)	Industrial and Heavy Commercial (BS 7385)	Response (NSW EPA Guideline)				
W.004	Track Work - Peak	Vibratory Roller >300 kN (13-18 tonne)	20 m	40 m	10 m	100 m				
W.009	Level Crossing Work - Peak									
W.007	Drainage Work	Vibratory Roller <50 kN (1-2 tonne)	5 m	11 m	3 m	15 m to 20 m				
		Large Hydraulic Hammer	22 m	44 m	11 m	73 m				
W.006	Track Tamping	n/a	5 m	10 m	3 m	30 m				

#### Table 18 Vibration Intensive Equipment

Vibration offset distances have been determined from the minimum working distances for cosmetic damage and human comfort in **Table 12** and the assessment is summarised in **Figure 3** to **Figure 7**. 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 identified than those identified in **Table 18**, a vibration impact assessment must be conducted prior to the commencement of work.

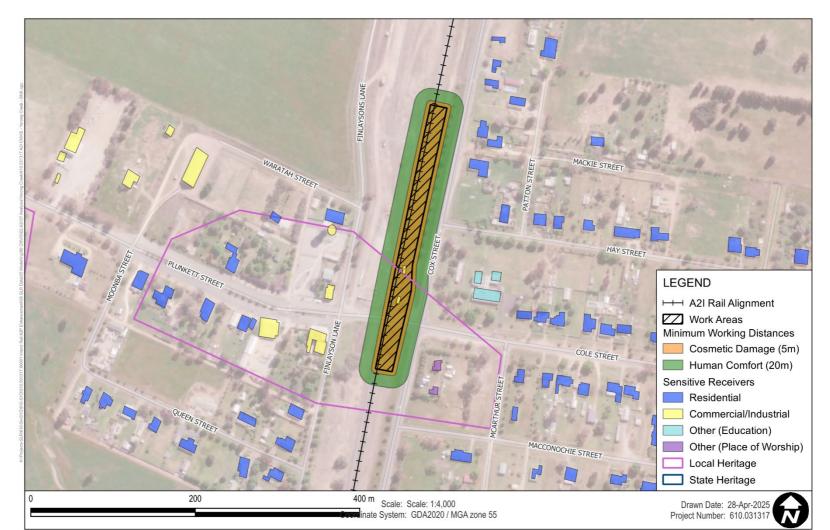




#### Figure 3 Vibratory Roller (13-18t) – Minimum Working Distances – W.004



#### Figure 4 Vibratory Roller (13-18t) – Minimum Working Distances – W.009



#### Figure 5 Vibratory Roller (1-2t) – Minimum Working Distances – W.007



#### Figure 6 Hydraulic Hammer (20t) – Minimum Working Distances – W.007



### Figure 7 Track Tamping – Minimum Working Distances – W.006

## 6.1 Cosmetic Damage Assessment

**Figure 3** to **Figure 5** show that two signal huts within the rail corridor, adjacent to the Plunkett St level crossing, and the GrainCorp silos adjacent to the rail corridor have the potential to fall within the cosmetic damage minimum working distance for light-framed structures when a vibratory rollers are in use during *W.004*, *W.007* and *W.009*.

**Figure 6** and **Figure 7** shows that the two signal huts and the GrainCorp silos have the potential to fall within the cosmetic damage minimum working distance for light-framed structures during works associated with drainage (W.007) and track tamping works (W.006) respectively. It is noted that these structures have been previously exposed to track tamping activities during standard periodic maintenance of the track.

Before commencement of any work, a structural engineer must undertake condition surveys of all buildings, structures, utilities and the like identified as being at risk of damage. For this CNVIS, conditions surveys (based on the 13-18 tonne vibratory roller) should be considered for:

- The signal huts within the rail corridor adjacent to the Plunkett St level crossing
- GrainCorp Silos adjacent to the rail corridor

After completion of construction, condition surveys must be undertaken by a structural engineer for all items for which pre-condition surveys were undertaken.

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 one month before the commencement of construction and three months following the completion of construction.

If the buildings identified above are classified as Line 1-type items from BS 7385 Part 2 (reinforced or framed structure/industrial or heavy commercial structure) then the minimum working distance for cosmetic damage is 3 m. Offset distances from specific vibration intensive plant to the nearest receivers and building construction should be confirmed before commencement of any work.

Feasible and reasonable construction vibration mitigation measures should be applied where vibration intensive work is required within the minimum working distances. Construction vibration mitigation and management measures are discussed in **Section 8.0**.

In accordance with CoA E122, property damage caused directly or indirectly 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.

### **Heritage Structures**

As outlined in **Section 4.3.1**, as part of the enhancement works at the Yerong Creek Yard, full demolition of the Yerong Creek Railway Station platform is required to achieve safe and compliant track formation.

Heritage structures within the Yerong Creek Urban Conservation Area are located outside the minimum working distances for cosmetic damage. Therefore, vibration impacts to heritage structures are not expected.

If other vibration intensive activities are required within minimum working distances to heritage structures, a building condition assessment should be undertaken of the heritage item/s to assess if they are considered to be sensitive to vibration prior to vibration work commencing.



## 6.2 Human Comfort Assessment

**Figure 3** (*W.004*) and **Figure 4** (*W.009*) show that the nearest sensitive receivers have the potential to fall within the human comfort minimum working distances during *W.004* and *W.009* and occupants of these buildings may be able to perceive vibration impacts at times when the vibratory rollers are in use nearby. Where impacts are perceptible, they would likely only be apparent for relatively short durations when vibration intensive equipment is in use nearby. All occupied sensitive receivers are outside the minimum working distances during *W.007* when a small trench roller is in use.

**Figure 6** (*W.007*) shows that the nearest sensitive receivers have the potential to fall within the human comfort minimum working distances during the user of hydraulic hammers. Where impacts are perceptible, they would likely only be apparent for relatively short durations when vibration intensive equipment is in use nearby.

**Figure 7** (*W.006*) shows that the signal huts and silos within the rail corridor have the potential to fall within the minimum working distance when track tamping is occurring nearby. It is noted that these structures are unoccupied and hence human comfort impacts would not occur.

Feasible and reasonable construction vibration mitigation measures should be applied where vibration intensive work is required within the minimum working distances. Construction vibration 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 19**.

Traffic Route	Road Type	ype Predicted Construction Traffic Noise (Both Directions) LAeq (Period) Existing Existing + Proposed		Exceed base criterion?	Potential Increase > 2dB	Potential Noise Impact	
				Day <sup>1</sup>			
Yerong Creek Yard C	Yerong Creek Yard Clearances						
Olympic Highway / Cox Street	Arterial	59.5	61.3	Yes	No	No	
Plunkett Street	Sub-arterial	42.1	46.4	No	Yes	No	
Finlayson Lane	Local	40.1	46.5	No	Yes	No	

Table 19 Construction Traffic Assessment

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 Yerong Creek Yard Clearances work on public roads is compliant 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 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.

Traffic diversions are not proposed for the work assessed in this CNVIS. Extended traffic diversions are not expected for these works, 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 8.0**.



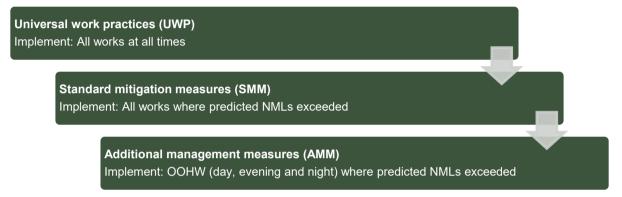
## 8.0 Mitigation and Management Measures

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 8**.

Figure 8 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 also 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 20** 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 20	Site Specific Mitigation Measures
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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 <b>Section 2.2.</b> Some unavoidable OOHW will be required due to road and rail traffic management restrictions, as outlined in <b>Section 2.3</b> .	Best practice CoA E69 CoA E71
Where OOHW is required, an OOHW Permit will be prepared, as required by the OOHW Protocol or EPL.	Best practice CoA E71

Measure	Reference / Notes
Further detail around the specific work tasks, duration and justification of OOHW must	CoA E72
be identified in the OOHW permit.	CoA E73
Scheduling	-
Highly noise intensive works that result in an exceedance of the applicable NML at the same receiver must only be undertaken:	Best practice CoA E70
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.	
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.	Best practice CoA E76
Refer to Community Consultation in <b>Section 8.5</b> .	
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
Where feasible:	Best practice,
<ul> <li>Limit noise generating work outside of standard construction hours as much as possible</li> </ul>	CoA E78
<ul> <li>Limit noise generating work on the weekends as much as possible</li> </ul>	
Construction works should be completed as soon as possible.	
Refer to Community Consultation in Section 8.5	
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 must be selected 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.	



Measure	Reference / Notes	
Where practicable, tonal reversing/motion alarms (beepers) will be replaced with non- tonal alarms (squawkers) on all equipment in use (subject to occupational health and safety requirements).		
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.		
Alternative construction methods will be considered for vibratory rollers (eg static rolling, refer <b>Section 6.0</b> ). Use of these methods will depend on the specific circumstances and therefore the worst-case scenario is included for the purpose of this CNVIS.	Best practice	
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 (eg trucks are fully loaded on each trip).		
Screening		
Where possible, 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	



Measure	Reference / Notes
Owners and occupiers of properties at risk of exceeding the screening criteria for cosmetic damage (and/or human comfort) 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	Best practice CoA E79
a monthly basis for the duration of the potential exceedances, unless otherwise agreed by the owner and occupier.	
Personalised communication and respite offers will be provided to all receivers that are predicted to be highly noise affected (HNA).	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
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	
Where vibration generating works are required within the minimum working distances and considered likely to exceed the criteria:	Best practice CoA E80
• Different construction methods with lower source vibration levels will be investigated and implemented, where feasible (refer <b>Table 11</b> ).	
• Attended vibration measurements will be undertaken at the start of the works to determine actual vibration levels of the item. Vibration intensive works will cease if the monitoring indicates vibration levels are likely to, or do, exceed the relevant cosmetic damage criteria. Work methods will be reviewed and modified prior to recommencing the activity.	
Note: Where feasible, small hydraulic hammers, small vibratory rollers or static rolling will be prioritised to reduce vibration impacts to surrounding receivers.	
Vibration intensive works required within the minimum working distance at the same receiver must only be undertaken:	Best practice CoA E70
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 to Section 8.2.	
Where works are required within the cosmetic damage minimum working distances, building condition surveys will be completed before and after the works to ensure no cosmetic damage has occurred.	Best practice CoA C9
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.	Best practice 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.004 Track Work Peak
- W.006 Track Tamping
- W.007 Drainage Works
- W.009 Level Crossing Work Peak

In accordance with CoA E71, the above works scenarios require 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 8.2**.

# 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 CNVF and CNVMP are listed in **Table 21**. The additional mitigation measures for airborne noise are shown in **Table 22** and the additional mitigation measures for construction vibration are identified in **Table 23**.

Table 21 Additional Mitigation Measure	S
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Mitigation/Management Measure	Abbreviation
Communication (Category 1) <sup>1</sup>	CO1
Communication (Category 2) <sup>2</sup>	CO2
Respite Offer <sup>3</sup>	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, 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.



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

Table 22	Airborne Noise –	Additional M	Mitigation	Measures	Matrix

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.



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	Any	CO1, CO2, RO	CO1, CO2, RO, AltA
	(including public holidays)			

## Table 23 Vibration – Additional Mitigation Measures Matrix

## 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), agreements with owners (AO) or alternative accommodation (AltA) depending on the exceedance level and works period as detailed in **Table 22**.

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

All scenarios with the potential for OOHWs are predicted to create highly intrusive noise levels at residential receivers with the exception of *W.003*. Scenarios *W.002*, *W.004* to *W.006* and *W.008* to *W.010* have the potential to occur during the evening and night-time periods. Should these works occur for more than two consecutive sleep periods in a row, additional mitigation measures as outlined in **Table 22** 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

**Figure 3** and **Figure 4** identify receivers that have the potential to fall within the minimum working distances for Human Comfort when vibratory rollers are in use.

As defined in **Section 2.2.1** and **Section 8.2** activities involving high noise generating equipment, such as rail tamping or vibratory rolling, 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.

Construction vibration mitigation and management measures are discussed in **Section 8.0**. 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**. Any additional mitigation required (from **Table 23**) for vibration activities must be identified in the OOHW permit.



## 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 (CCS). 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 email 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 75 of which were in Yerong Creek. 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 Yerong Creek, 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, see **Table 24** below.

Table 24 Community Communications Strategy

Precinct Area	Receiver Type	Level of Engagement	Distance from Work Site (m)		
Yerong Creek Yard Cleara	Yerong Creek Yard Clearances				
Olympic Highway, Waratah Street, Plunket Street, Hay and Cole Street	Residential	Consult	Various		
Yerong Creek Public School	Educational	Consult	90 m		

## 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.

## **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 25**, 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 25** (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.

## **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.

Indicative locations are identified in **Table 25**, however, these will be subject to provision of safe access and the specific location of work being undertaken at the time of monitoring. Vibration monitoring data will be made available to the AA and ER for information, upon request.

	Location	Туре	Timing							
No	ise Monitoring									
•	19 Cox St, Yerong Creek 2 Finlayson Lane, Yerong Creek 10 Finlayson Lane, Yerong	Activities based noise monitoring	<ul> <li>Confirming that actual noise levels are consistent with predicted noise impacts and that the effectiveness of actions and mitigation measures implemented are satisfactory,</li> <li>In response to a noise related complaint(s) (determined on a case-by-case basis)</li> <li>Following implementation of mitigation measures or noise attenuation because of exceedance of predicted noise levels</li> </ul>	At the commencement of the activities being undertaken						
	Creek	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	case-by-case basis						

## Table 25 Indicative Monitoring Locations



Location	Туре	Monitoring	Timing						
		<ul> <li>In response to a specific noise related complaint and</li> </ul>							
		<ul> <li>During noise verification monitoring when it is possible to isolate the noise from one piece of plant or equipment.</li> </ul>							
Vibration Monitor	ing								
<ul> <li>Structures within the rail corridor</li> <li>2 Plunkett St, Yerong Creek</li> <li>5 Cox St, Yerong Creek</li> </ul>	Activities based vibration monitoring	<ul> <li>Confirming that vibration levels are below criteria and that the effectiveness of actions and mitigation measures implemented are satisfactory</li> <li>In response to a vibration related complaint(s) (determined on a case-by-case basis)</li> </ul>	Throughout vibration generating activities being undertaken within minimum working distances to nearby receivers.						

# 9.0 Cumulative Impacts

Cumulative construction noise impacts can occur where multiple work activities are being completed near to a particular receiver at the same time. There is potential for cumulative construction impacts from multiple construction activities being completed in different areas of the project.

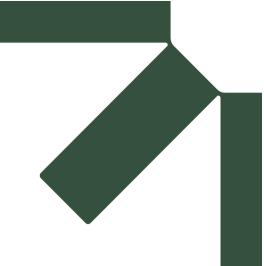
Since the construction scenarios required for various stages of the project would generally require similar items of equipment, concurrent construction work being completed near to a particular area could theoretically increase the worst-case noise levels in this report by around 3 dB (ie a logarithmic adding of two sources of noise at the same level).

The likelihood of worst-case noise levels being generated by two different work activities at the same time is, however, considered low and rather than increase construction noise levels, the impact of concurrent work would generally be a 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 – Yerong Creek Yard Clearances

## **Construction Noise and Vibration Impact Statement**

Martinus Rail

SLR Project No.: 610.031317.00001

2 May 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  $2 \times 10^{-5}$  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
50	General Office	quiet
40	Inside private office	Quiet to
30	Inside bedroom	very quiet
20	Recording studio	Almost silent

Other weightings (eg B, C and D) are less commonly used than Aweighting. 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

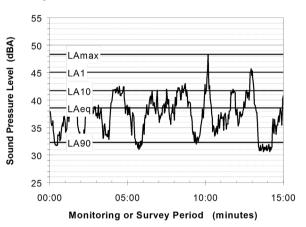
The Sound Power of a source is the rate at which it emits acoustic energy. As with Sound Pressure Levels, Sound Power Levels are expressed in decibel units (dB or dBA), but may be identified by the symbols SWL or LW, or by the reference unit  $10^{-12}$  W.

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.

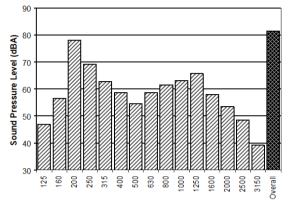
The units for frequency are Hertz (Hz), which represent the number of cycles per second.

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.



1/3 Octave Band Centre Frequency (Hz)

#### 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/Vo), where Vo 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

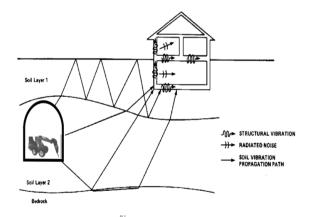
People are able to 'feel' vibration at levels lower than those required to cause even superficial damage to the most susceptible classes of building (even though they may not be disturbed by the motion). An individual's perception of motion or response to vibration depends very strongly on previous experience 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.

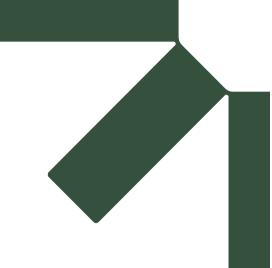
Typical sources of ground-borne or structure-borne noise include tunnelling works, underground railways, excavation plant (eg rockbreakers), and building services plant (eg fans, compressors and generators).

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 – Yerong Creek Yard Clearances

## **Construction Noise and Vibration Impact Statement**

**Martinus Rail** 

SLR Project No.: 610.031317.00001

2 May 2025



### 2 May 2025 SLR Project No.: 610.031317.00001 SLR Ref No.: 6-0052-210-EEC-G3-AS-0001\_0

	Equipment	Total Lw (dBA)	Articulated Dump Truck	Asphalt Paving Machine	Ballast Regulator <sup>1</sup>	Ballast Tamper <sup>1</sup>	Centrifugal fan	Compressor	Crane (mobile)	Crane Franna (20 tonne)	Directional Drill	Elevated Work Platform	Excavator - Slasher	Excavator - Tracked (10 tonne)	Excavator - Tracked (20 tonne)	Excavator - Tracked (20t) + Hammer <sup>1</sup>	Front End Loader	Generator	Grinder <sup>1</sup>	Hand tools (electric)	Hand tools (power)	Hi-Rail Crane	Hi-Rail Excavator	Hi-Rail Truck/Trolley	Hydraulic / Pneumatic Tools <sup>1</sup>	Light Vehicle	Lighting Tower	Pavement Profiler	PEM-LEM	Plate compactor	Rail saw <sup>1</sup>	Roller - Static	Roller – Trench (Vibratory) <sup>1</sup>	Roller - Vibratory <sup>1</sup>	Saw - Concrete <sup>1</sup>	Telescopic Handler	Tractor - Slasher	Truck - Medium Rigid (20 tonne)	Truck - Truck & Dog	Truck - Vacuum (NDD)	Wacker Packer	Watercart
	Sound Power Level (Lw) <sup>2</sup>		109	108	114	115	06	109	104	98	106	97	105	100	105	122	113	92	105	102	102	104	105	103	116	95	80	117	100	104	118	109	108	109	118	66	108	103	108	109	105	105
ID	Estimated utilisation (%)		25	100	75	75	100	50	30	30	50	25	50	50	50	30	50	100	30	75	75	30	50	25	75	25	100	50	50	100	25	100	100	100	25	50	50	25	25	100	100	75
W.001	Site Establishment / Demobilisation	115	1						1			1	1				1	1		1	1					2						1					1	2	1		Т	1
W.002	Compound Operation	113					1	1		1							1	1		1						15												2	1			1
W.003	Geotechnical Investigation	111																		1			1			2												2		1		
W.004	Track Work - Peak	119					1	1	1			1			1		1	1	1	2		1	1	1	1	2	1		1	1	1			1		1		2	1			1
W.005	Track Work - Typical	114					1	1	1			1					1	1		1		1	1	1		2			1	1						1		2	1			1
W.006	Track Tamping	116			1	1																																				
W.007	Drainage Work	119							1						1	1		1		1						2				2		1	1					2	1	1	1	
W.008	Signalling Work	112							1		1	1		1				1		1						2										1		1		1	1	
W.009	Level Crossing Work - Peak	119		1					1						1		1			2						2	2	1				1		1	1	1		2	1			
W.010	Level Crossing Work - Typical	115		1					1						1		1			2						2	2					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 Strategy.



# Appendix C Noise Impact Maps

# A2I | Albury to Illabo – Yerong Creek Yard Clearances

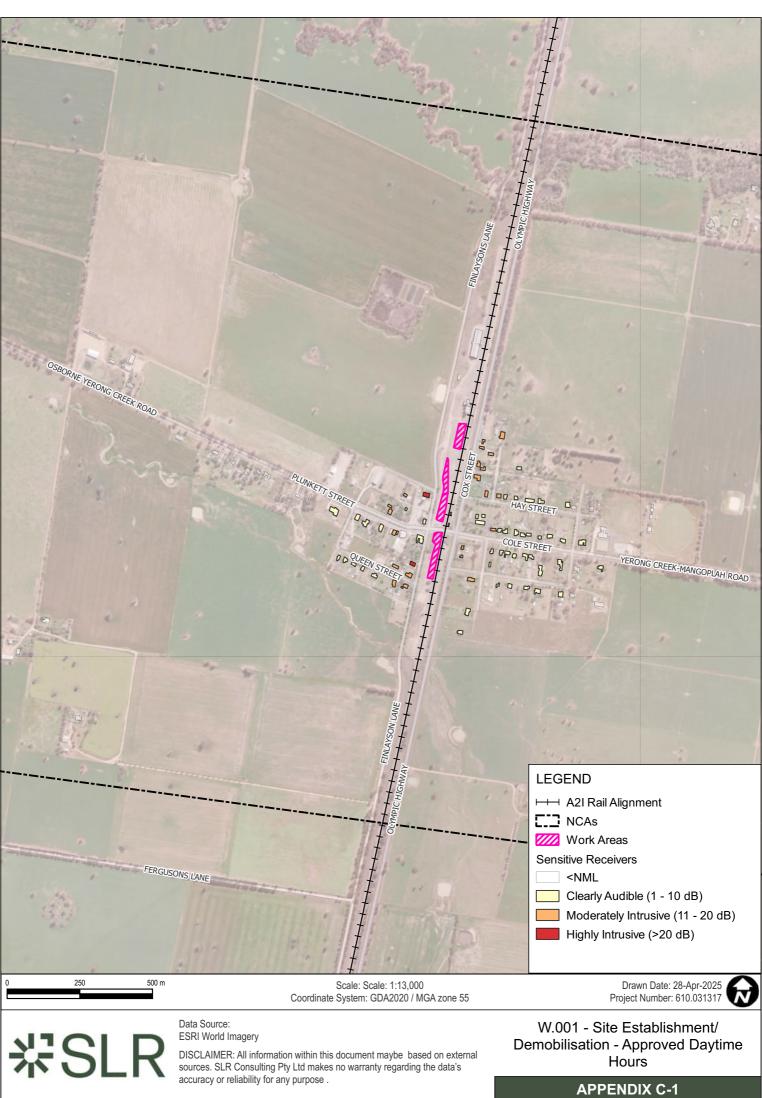
## **Construction Noise and Vibration Impact Statement**

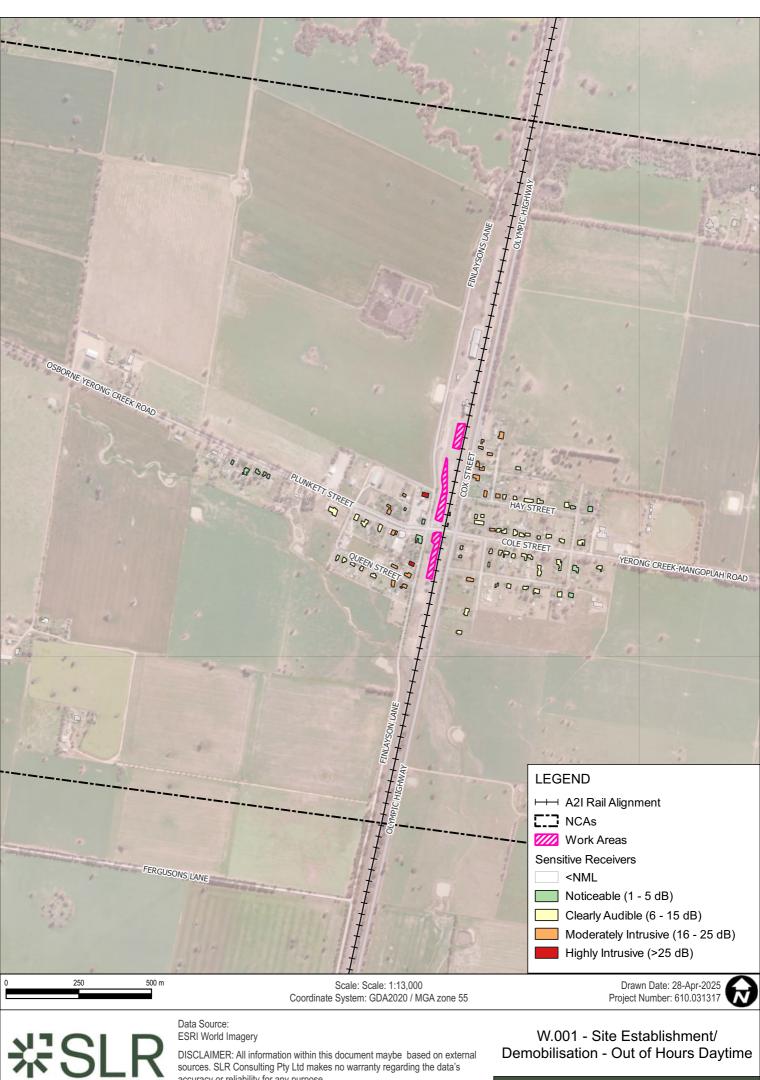
Martinus Rail

SLR Project No.: 610.031317.00001

2 May 2025





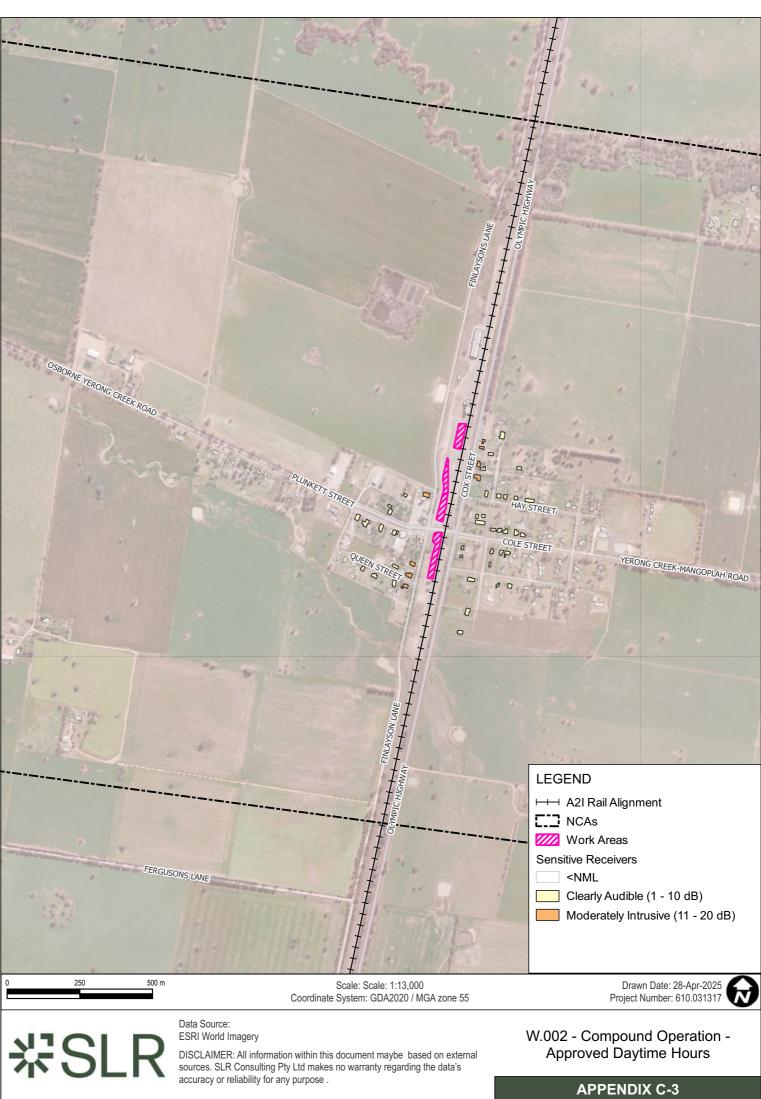


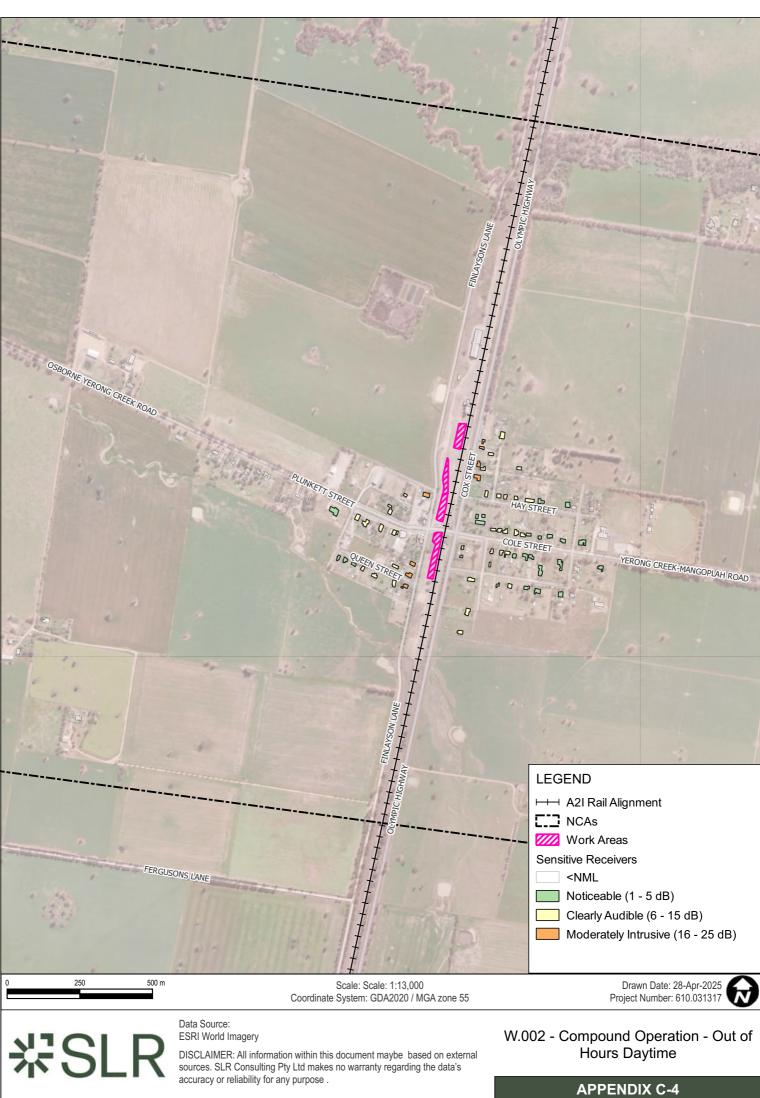
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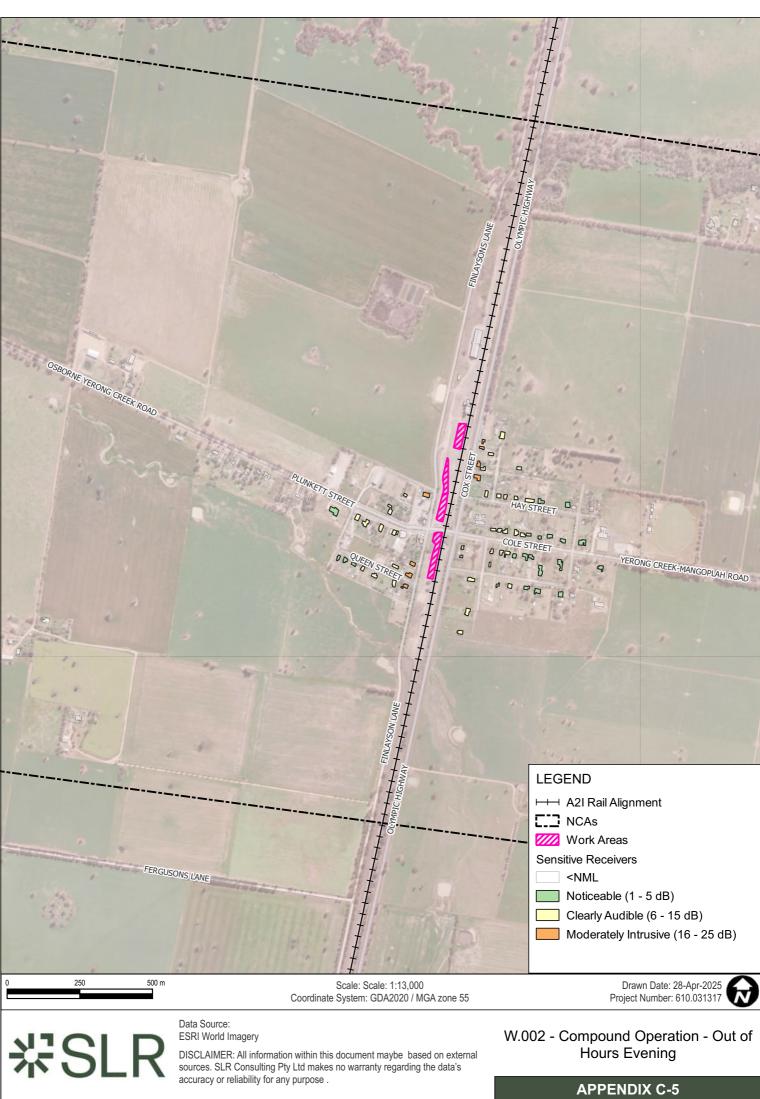
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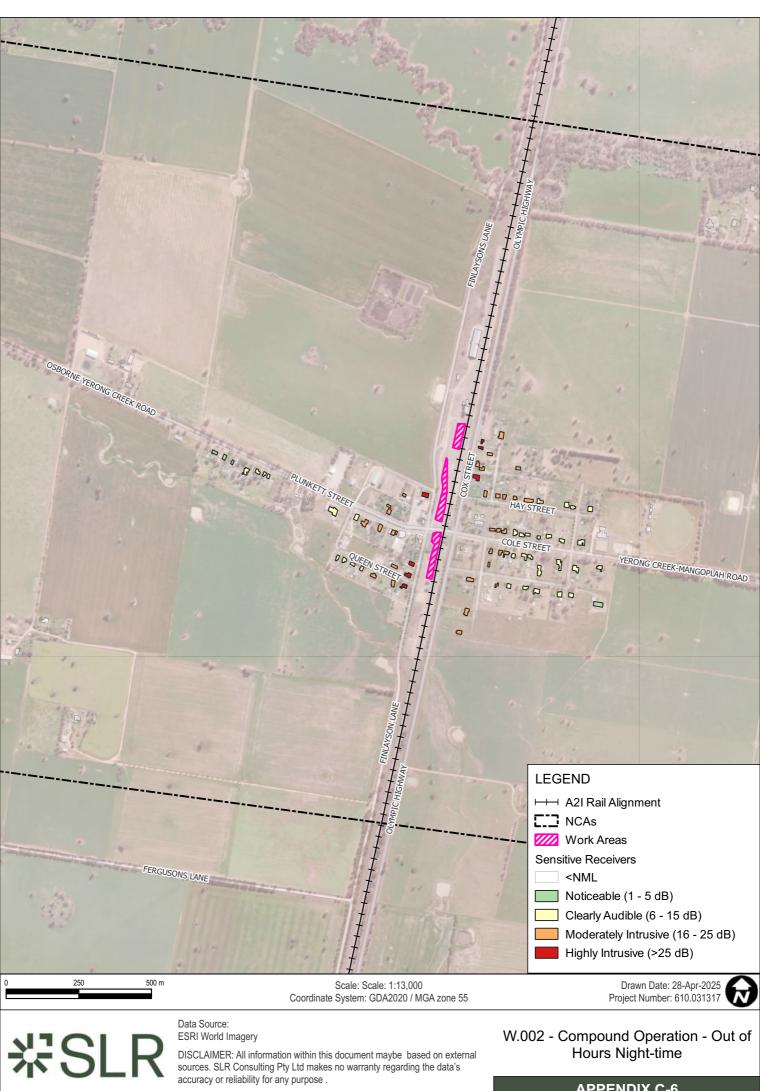
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**APPENDIX C-2** 

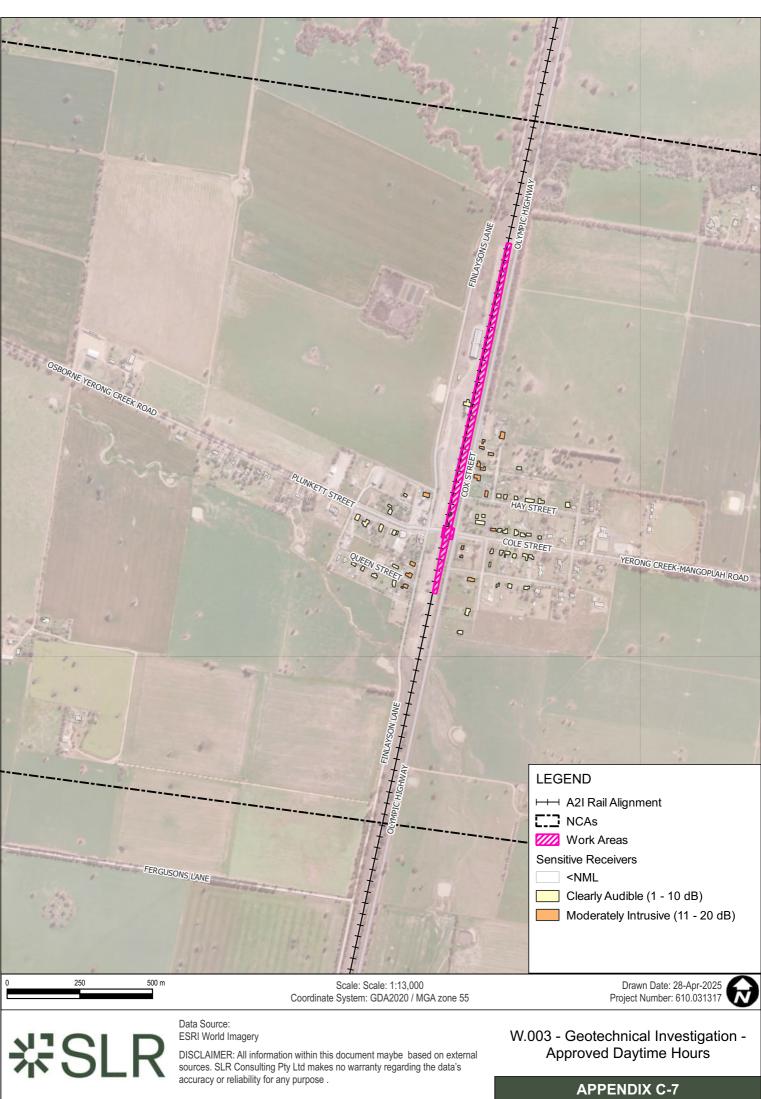




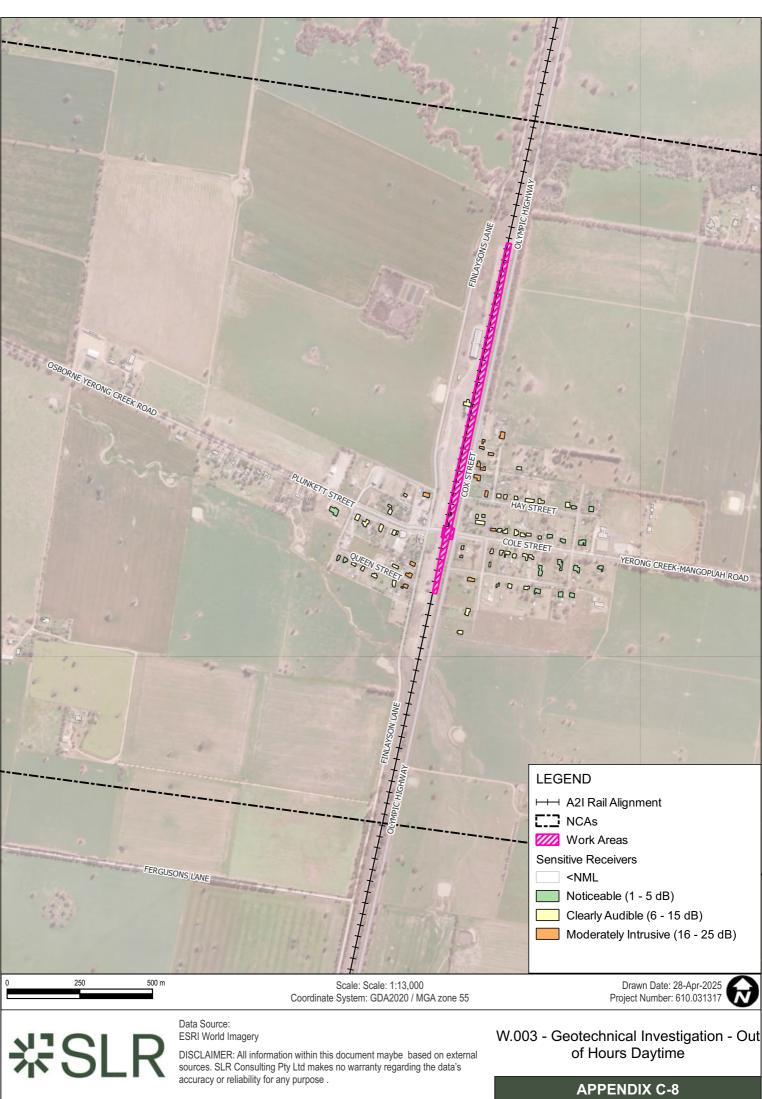


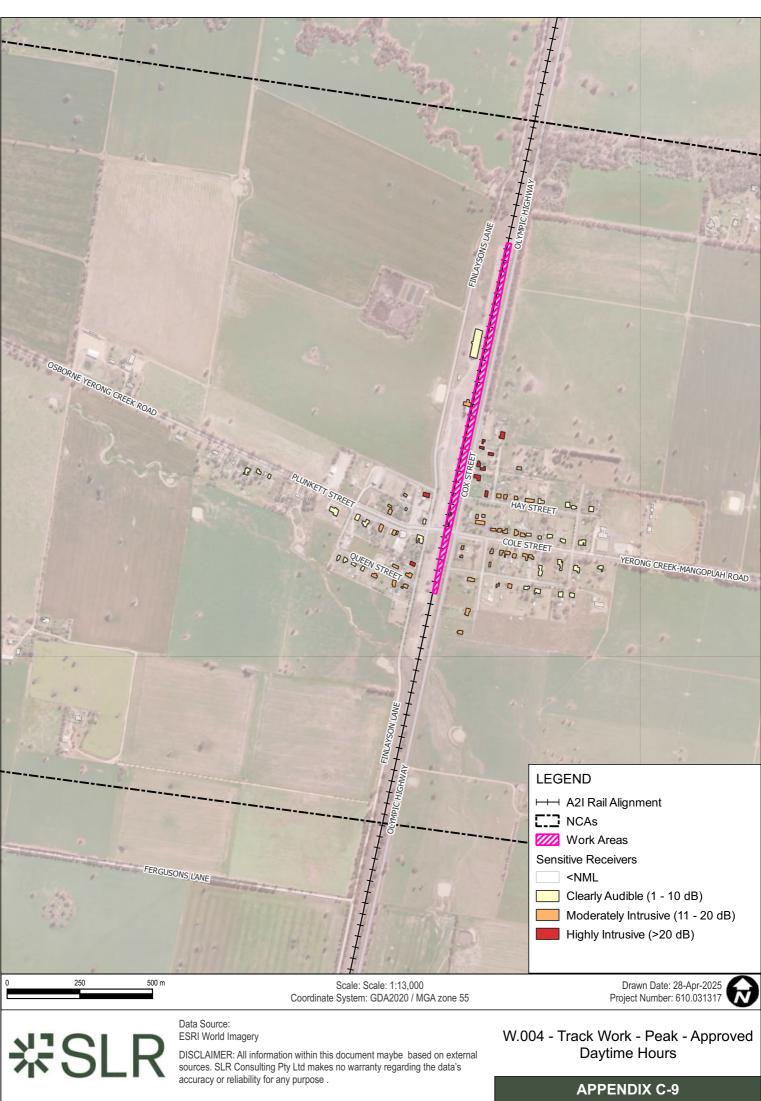


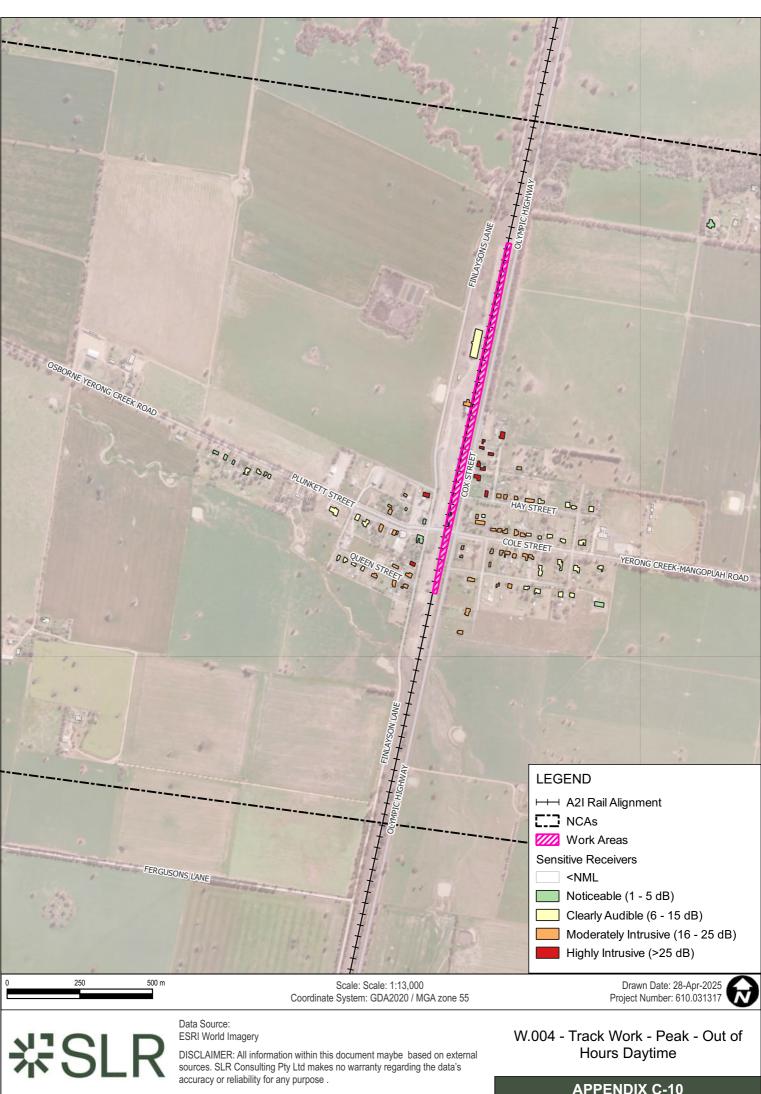
**APPENDIX C-6** 



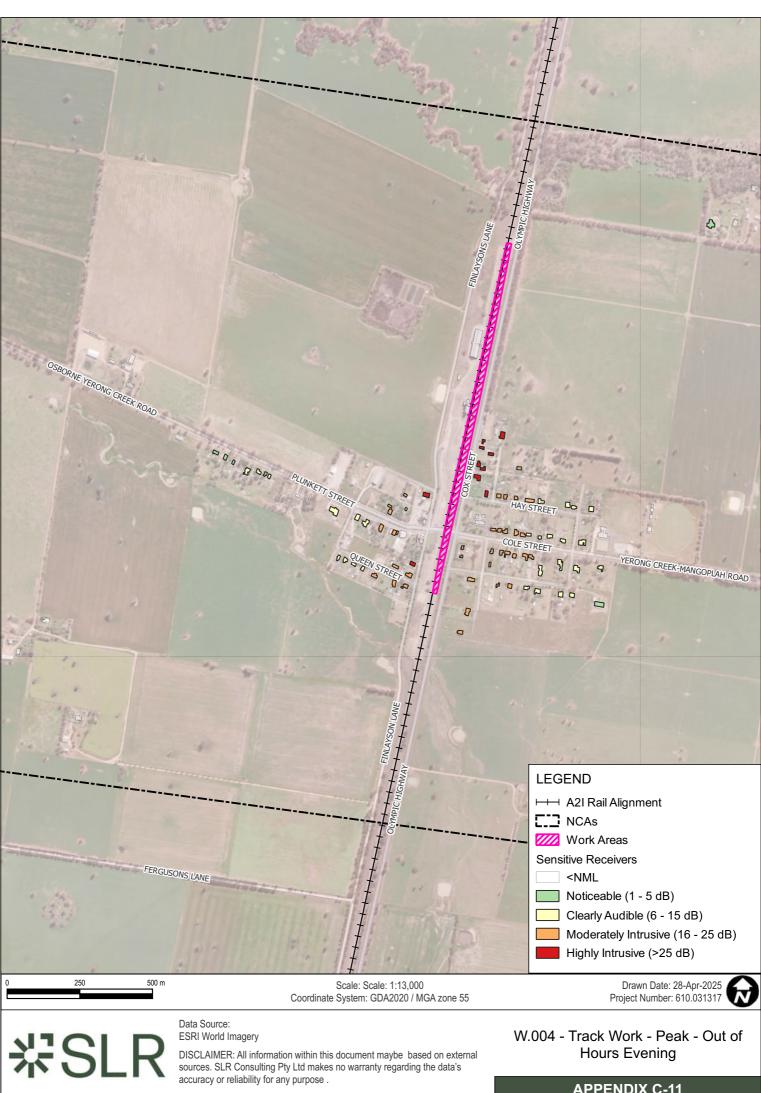
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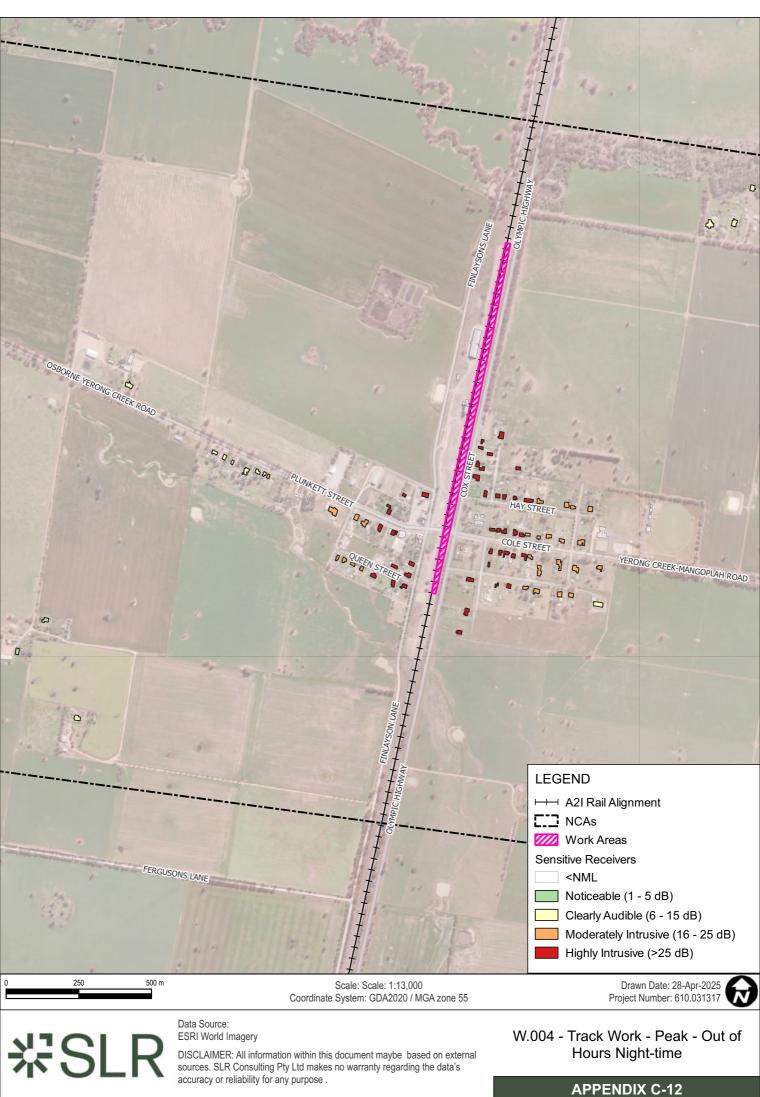


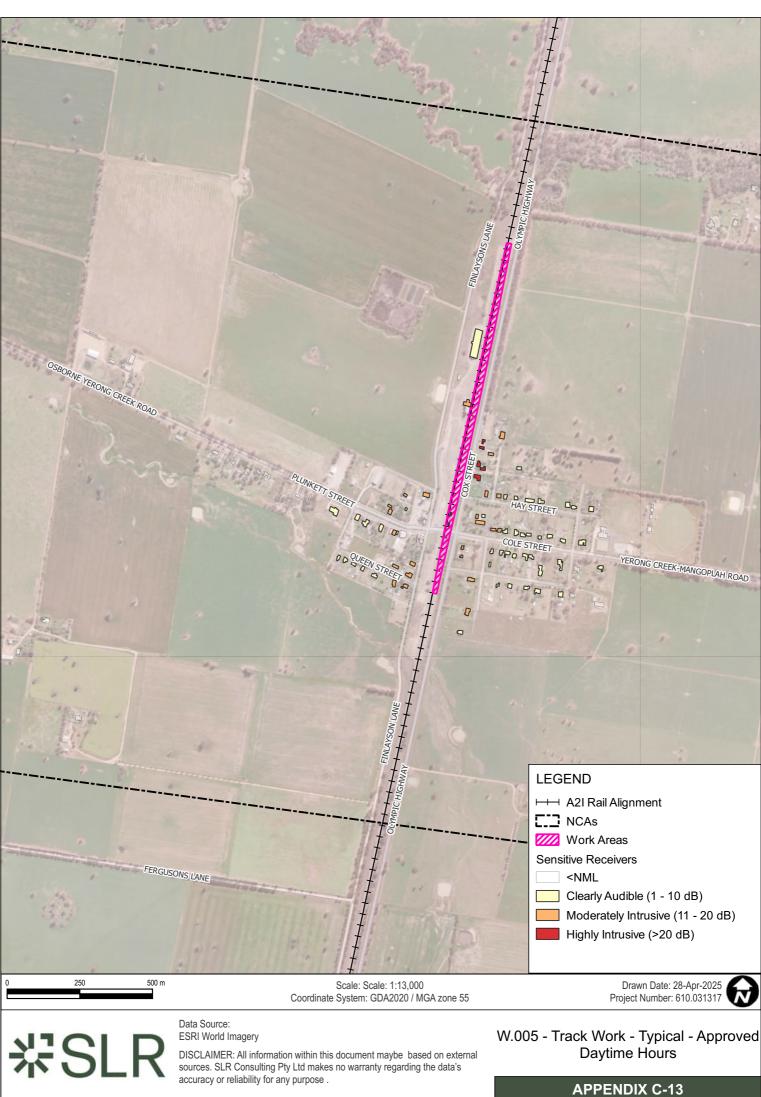


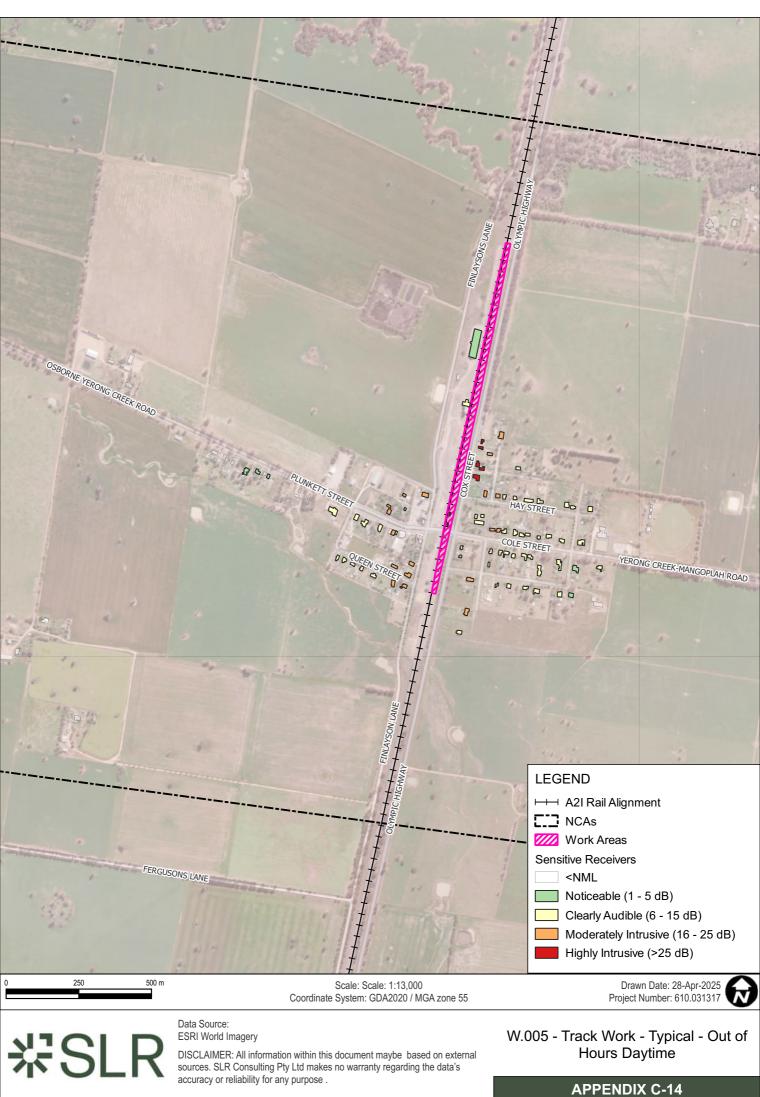
**APPENDIX C-10** 

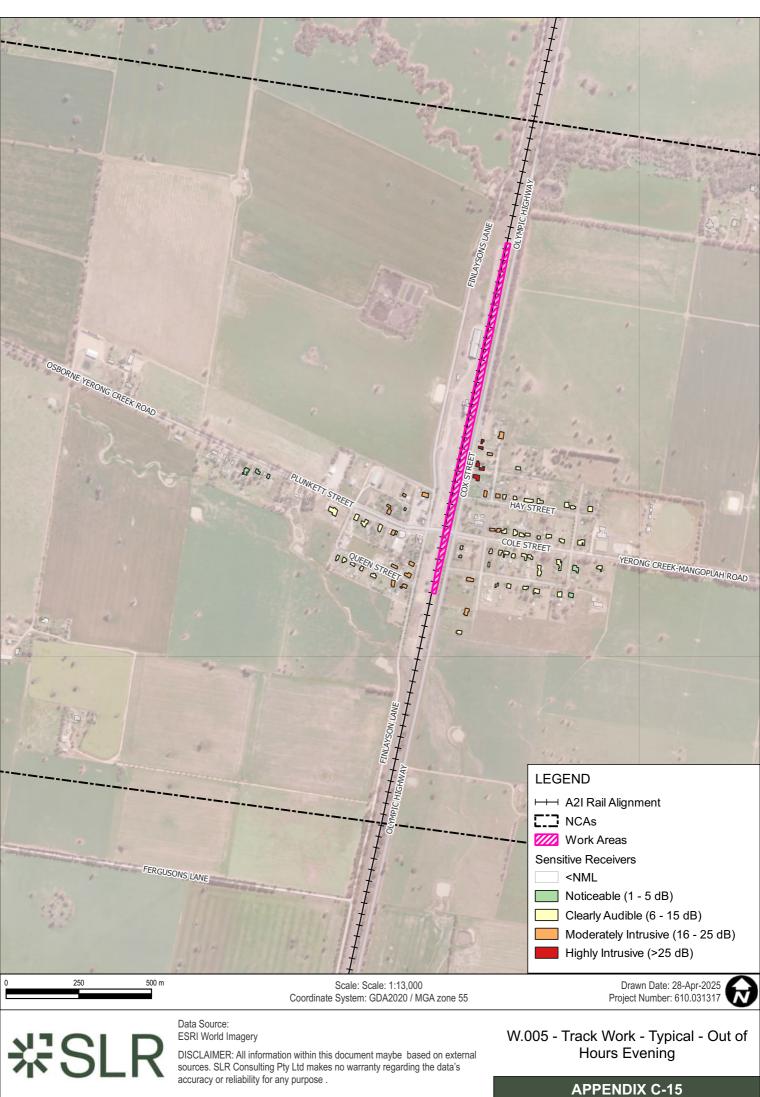


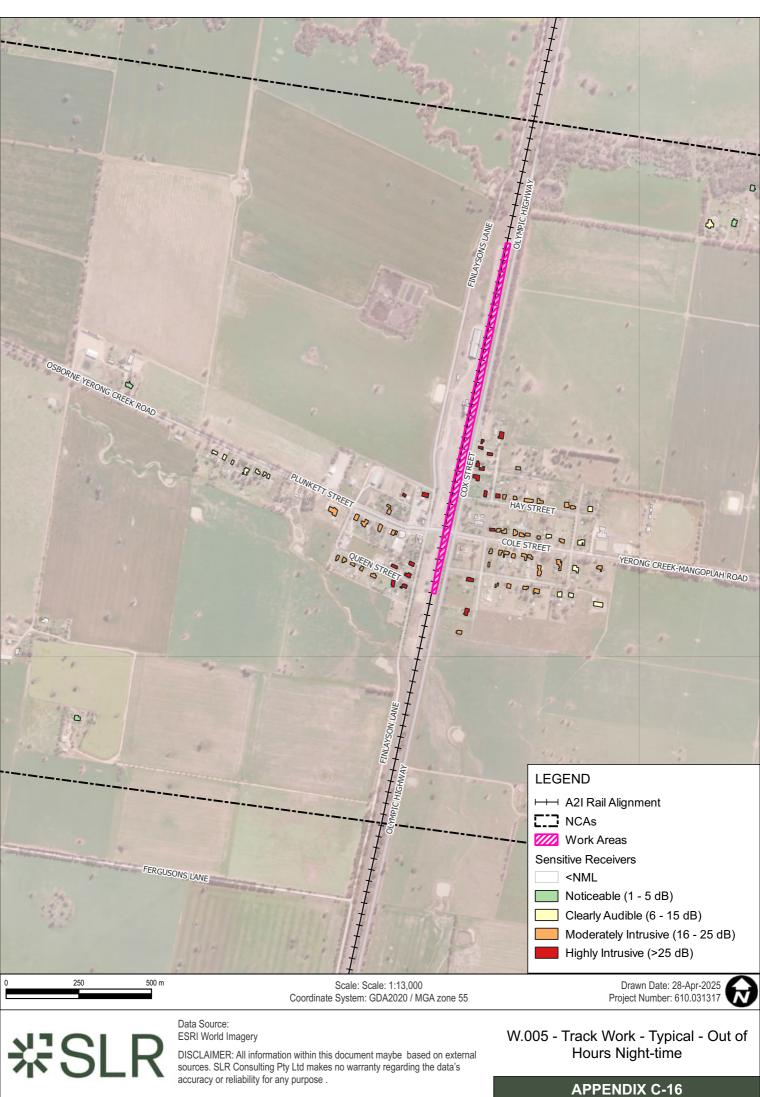
**APPENDIX C-11** 

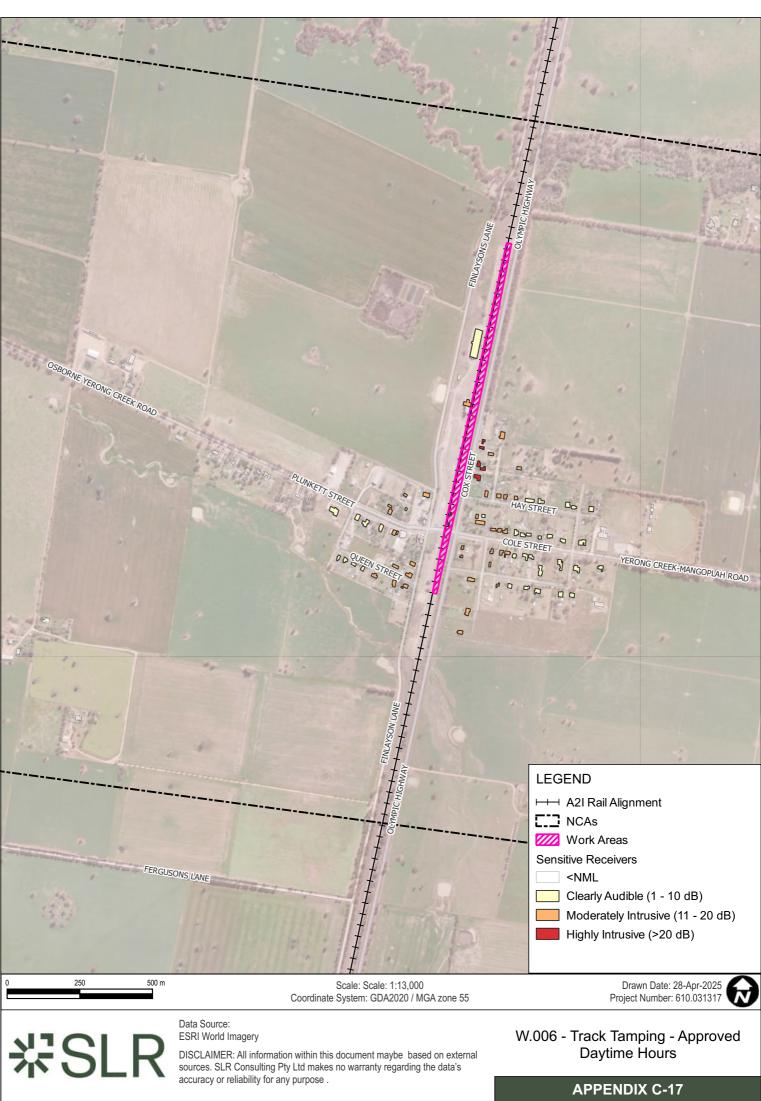


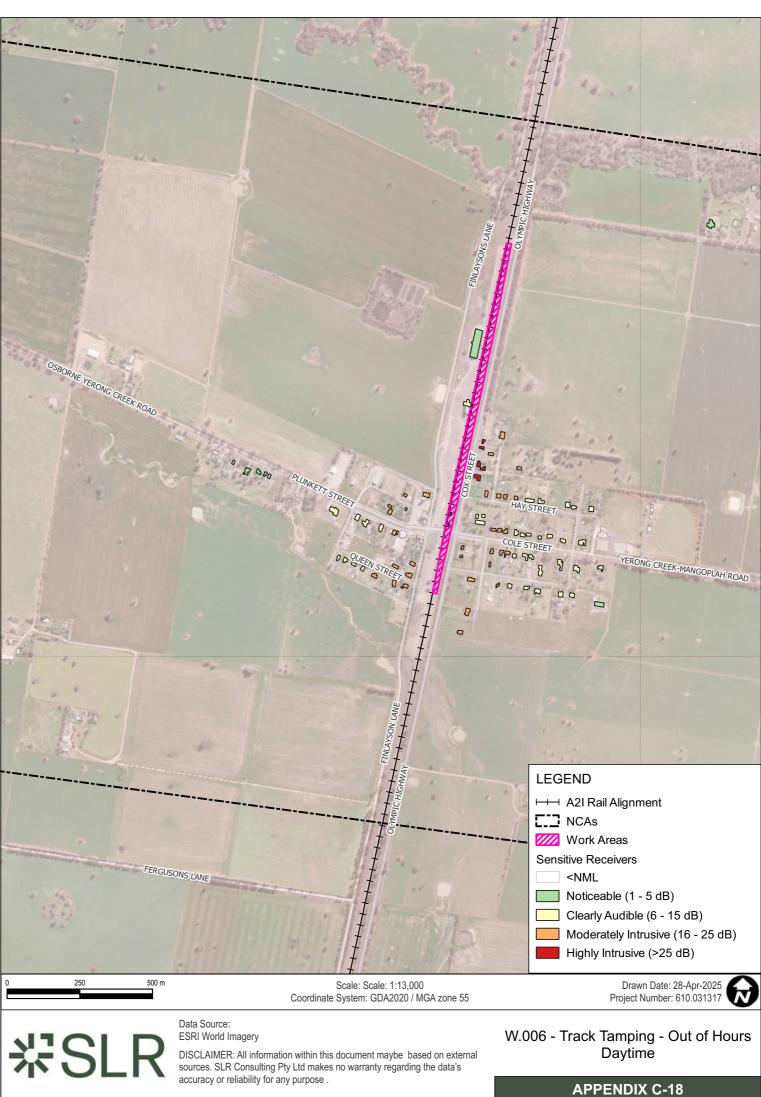


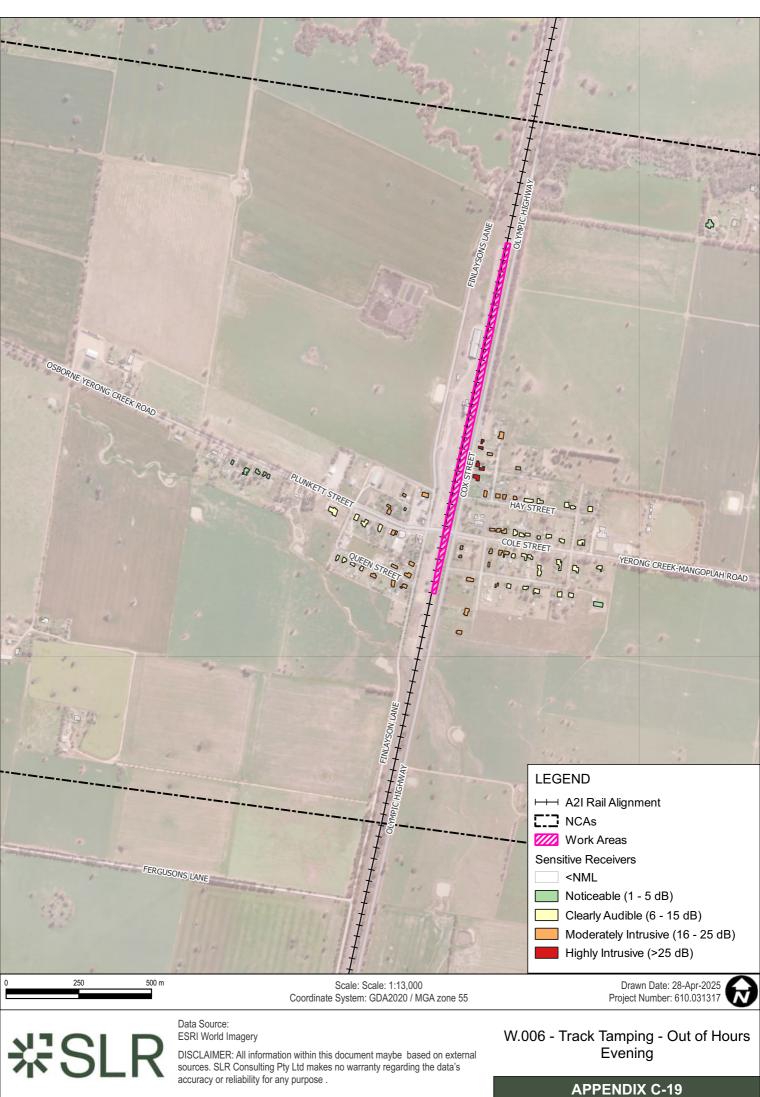


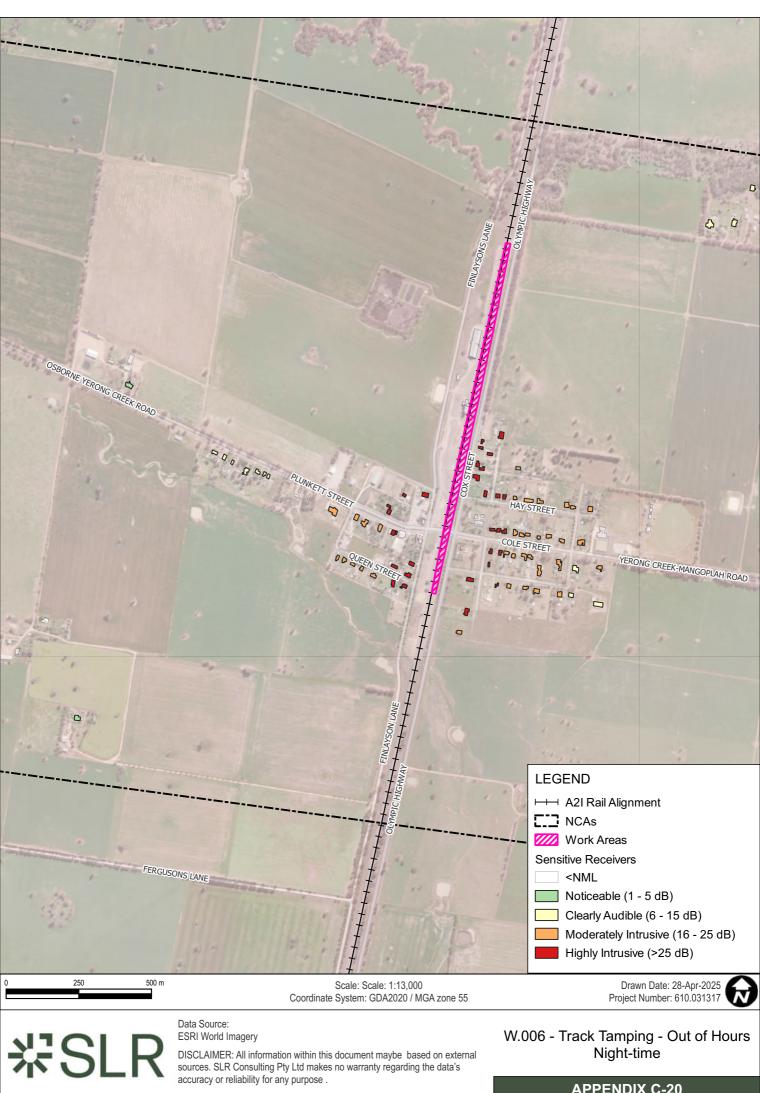




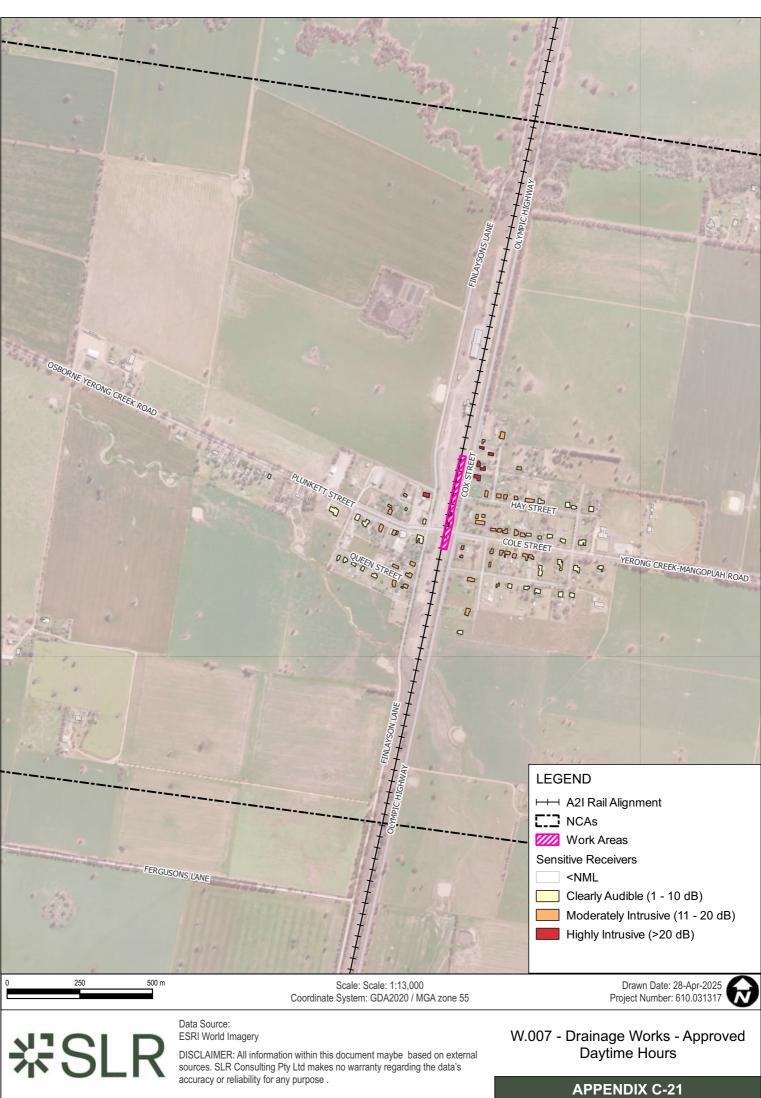


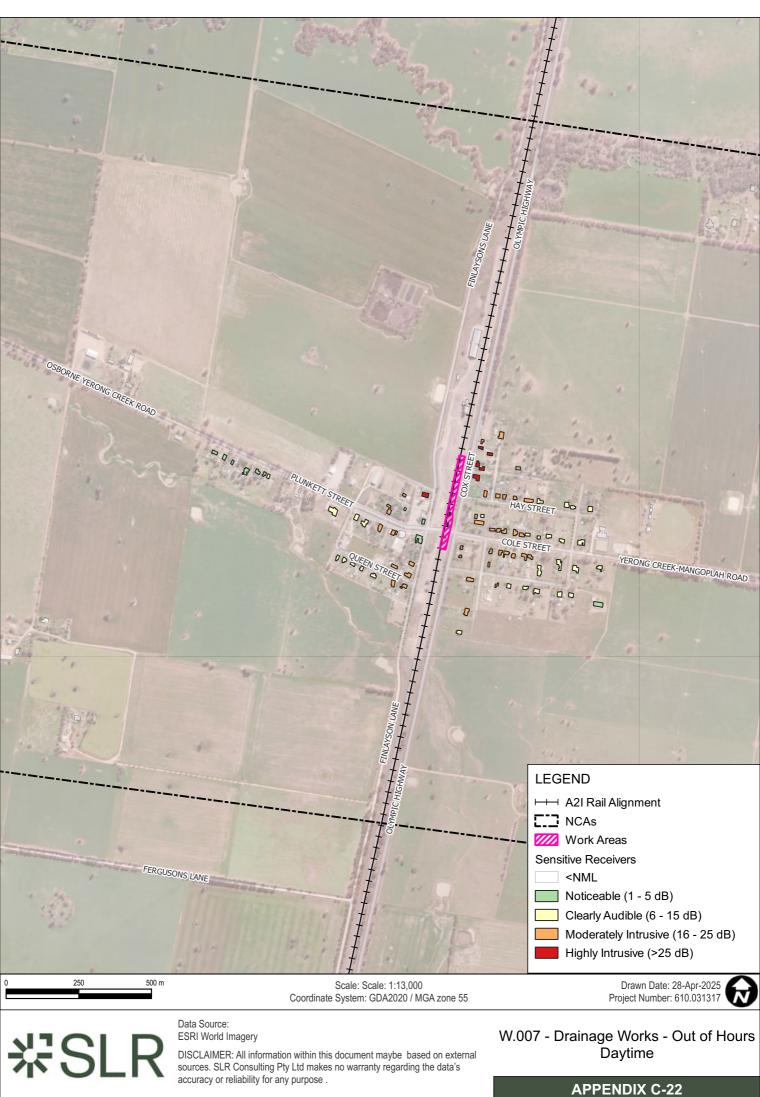






**APPENDIX C-20** 

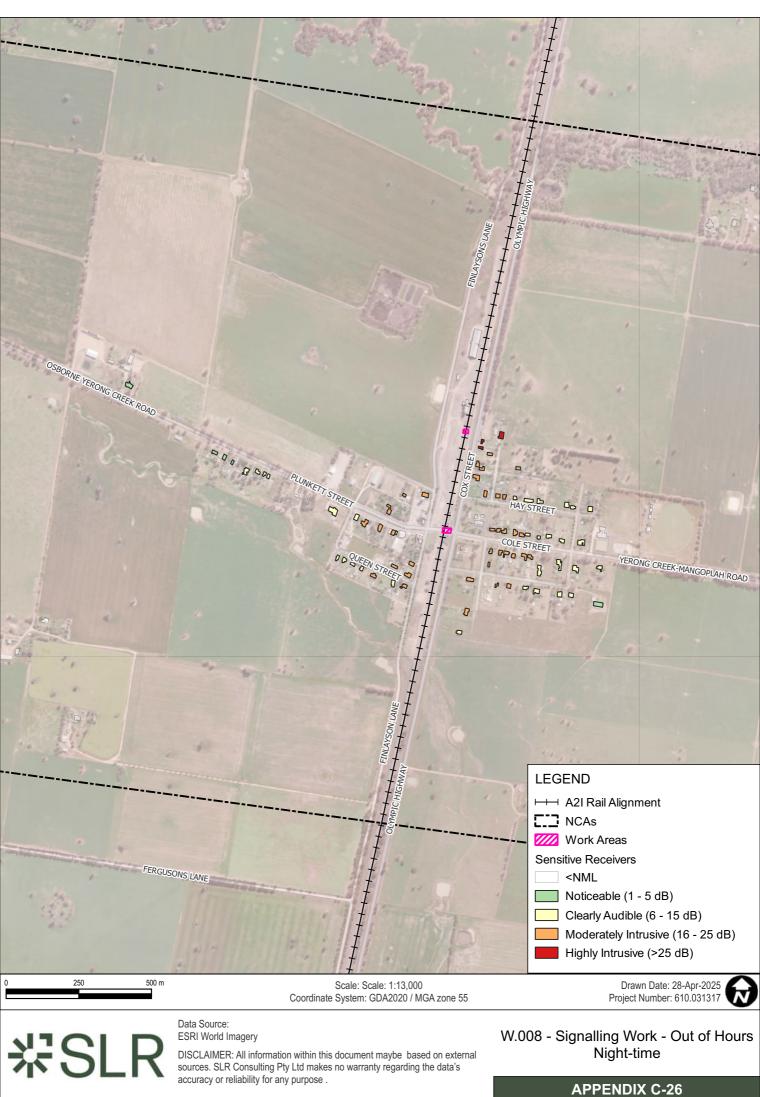




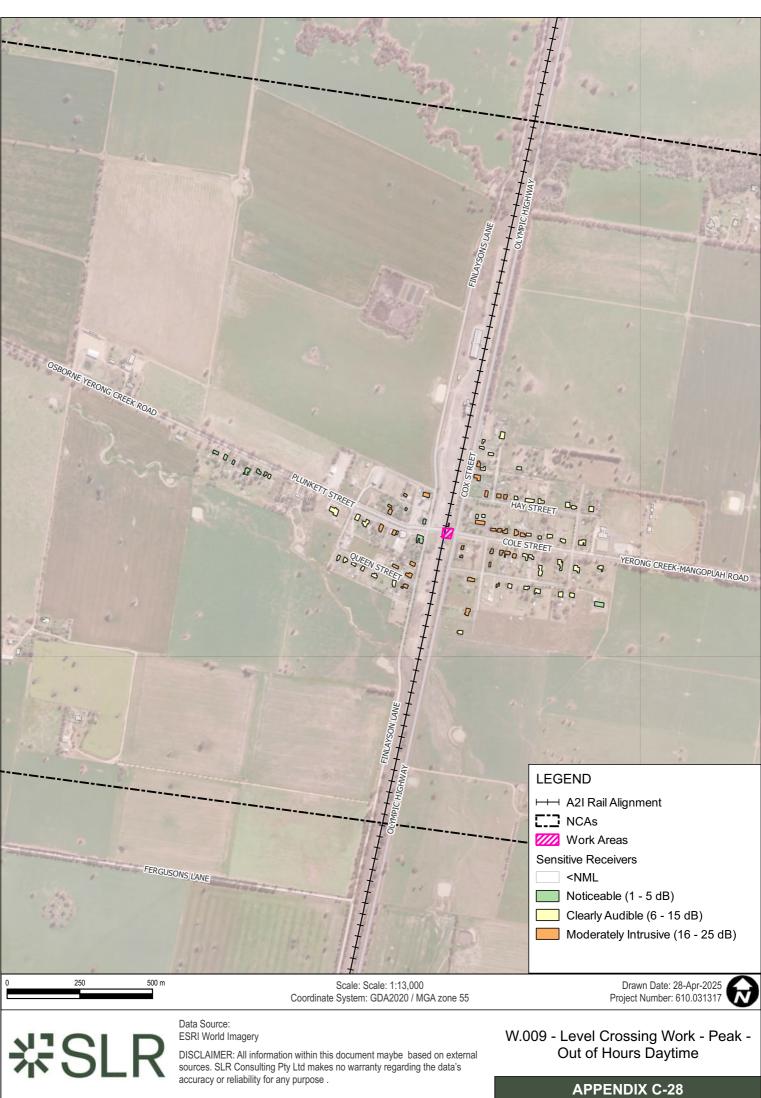












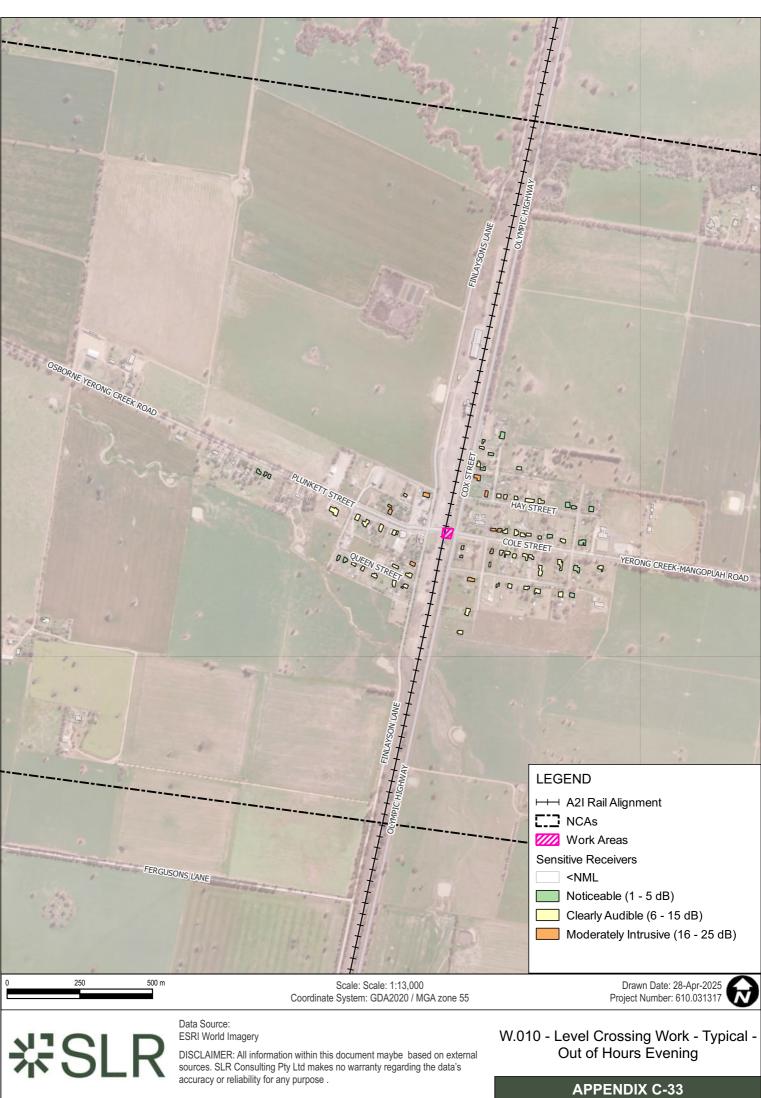


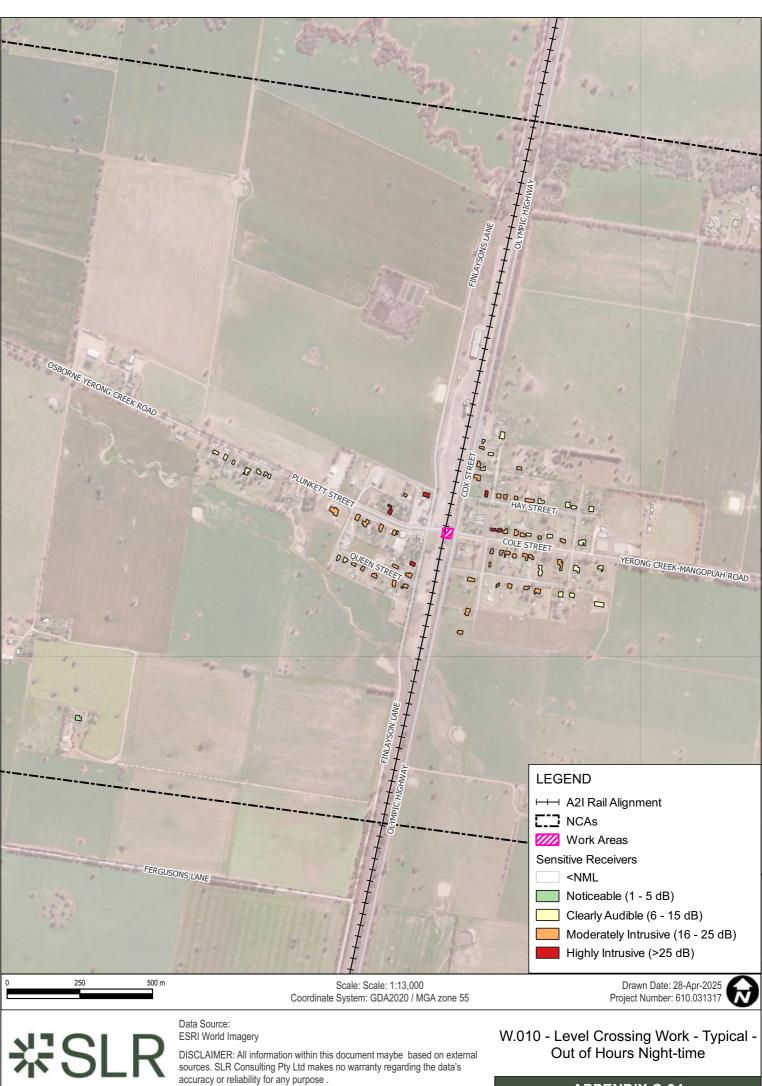


**APPENDIX C-30** 









**APPENDIX C-34** 

# Appendix D Receivers Triggering Additional Mitigation

## A2I | Albury to Illabo – Yerong Creek Yard Clearances

### **Construction Noise and Vibration Impact Statement**

**Martinus Rail** 

SLR Project No.: 610.031317.00001

2 May 2025



		NML	NML	NML	NML	Predicted Level	Additional Mitigation	Additional Mitigation Evening	Additional Mitigation Night
SLR ID	ADDRESS	Daytime	Daytime OOH	Evening	Night-time	LAeq(15min)	Daytime OOH	*(>2 consecutive rest periods)	*(>2 consecutive sleep perio
99596 99603	12-14 COX ST, YERONG CREEK NSW 2642 32 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44	44	35	59 48	CO1		-
99605	28 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35 35	51	CO1 CO1		
99609	20 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	51	CO1	-	
99611		49	44	44	35	54	CO1		-
99616	16 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	66	CO1, CO2	-	-
99617	12 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	55	CO1	-	•
99618 99619	8 MACCONOCHIE ST, YERONG CREEK NSW 2642 1-3 QUEEN ST, YERONG CREEK NSW 2642	49 49	44	44 44	35 35	58 64	CO1 CO1, CO2	-	•
99619	2 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2		
	14 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	69	CO1, CO2		
99635	20 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	51	CO1	-	-
99638	30 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	-	
	15 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	-	-
99641	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	-	-
99649 99651	LOT 2 MACCONOCHIE ST, YERONG CREEK NSW 2642 17 QUEEN ST, YERONG CREEK NSW 2642	49 49	44	44	35	58 54	CO1 CO1	-	•
99653	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35 35	50	C01		
99655	10 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	70	CO1, CO2	-	
99663	21 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	-	-
99664	23 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1	-	-
99666	18 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1	-	-
99668	LOT 2, COX STREET, YERONG CREEK NSW 2642	55	55	55	-	68	CO1	-	-
99669 99670	14 COLE ST, YERONG CREEK NSW 2642 10 COLE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	54 54	CO1 CO1	-	-
99670	10 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	-	-
	6 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	58	CO1	-	
99675	2 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	59	C01	-	-
99678	LOT 2, COX STREET, YERONG CREEK NSW 2642	55	55	55	-	67	CO1	-	-
99681	29 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	-	-
	25 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1		-
99684 99685	1-3 PLUNKETT ST, YERONG CREEK NSW 2642 19 COLE ST, YERONG CREEK NSW 2642	70 49	70	- 44	- 35	74 53	CO1 CO1	-	•
99686	23 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	53	C01		• •
99690	13-15 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2		
99691	15 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	55	CO1	-	
99692	13 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	52	CO1		-
99697	11 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	-	-
	11 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	55	CO1	-	
99702	7 COLE ST, YERONG CREEK NSW 2642	49 49	44	44 44	35	58	CO1 CO1	-	-
99704 99705	5 COLE ST, YERONG CREEK NSW 2642 3 COLE ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	59 60	CO1, CO2	-	•
99709	21 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	58	C01, C02	-	
99713	LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642	75	75		-	76	CO1	-	
99715	23 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1		-
99717	2 PLUNKETT ST, YERONG CREEK NSW 2642	70	70	-	-	72	CO1	-	
99719	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55	55	-	-	63	CO1	-	-
99726	LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642	75	75			79	CO1	-	-
99728	27-39 PLUNKETT ST, YERONG CREEK NSW 2642 10 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	52 62	CO1 CO1, CO2		
	6 PLUNKETT ST, YERONG CREEK NSW 2642	49 60	60	44 60	35	63	C01, C02	-	•
99733	17 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	-	
99734	15 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	49	C01		
99737	15 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	52	CO1	-	-
99740	15-23 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1	-	
99742	5 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1		-
99745	5-9 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	-	-
99749 99750	3 HAY ST, YERONG CREEK NSW 2642 1 HAY ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	57 60	CO1 CO1, CO2	-	-
99750 99752	5 WARATAH ST, YERONG CREEK NSW 2642	49	44	44	35	60	CO1, CO2		-
	2 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	71	C01, C02	-	-
99754	15 COX ST, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	-	-
99773	19 COX ST, YERONG CREEK NSW 2642	49	44	44	35	66	CO1, CO2	-	-
99774	51 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	49	CO1	-	
	51 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	46	CO1	-	
99778	53 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	46	CO1	-	-
	67 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44	44 44	35	46 64	CO1	-	-
00786	13 COX ST, YERONG CREEK NSW 2642 5 MACKIE ST, YERONG CREEK NSW 2642	49	44	44	35 35	56	CO1, CO2 CO1		-
99790	11 COX ST, YERONG CREEK NSW 2642	49	44	44	35	65	CO1, CO2	-	-
99792	63 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	45	CO1	-	-
99799	7 COX ST, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	-	-
	5 COX ST, YERONG CREEK NSW 2642	49	44	44	35	68	CO1, CO2	-	-
99802	3 COX ST, YERONG CREEK NSW 2642	49	44	44	35	67	CO1, CO2	-	-
99804	1 PATTON ST, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2		-
	13 Queen St, Yerong Creek NSW 2642	49	44	44	35	58	CO1	-	-
00506		49	44	44 44	35	57	CO1	-	-
00891	2-4 QUEEN ST, YERONG CREEK NSW 2642 25 Plunkett St, Yerong Creek NSW 2642	49 49	44 44	44	35 35	64 55	CO1, CO2 CO1	-	-
00032	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 2642	49 55	44 55			61	C01	-	-
00033	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, TERONG CREEK NSW 20 YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 20	55	55	-		64	C01	-	
	BOLL ON LENGTH OF LENGTH OF LENGTH OF LENGTH OF LENGTH OF LENGTH	50			1		1		

								Additional Mitigation	Additional Mitigation
		NML	NML	NML	NML	Predicted Level	Additional Mitigation	Evening *(>2 consecutive rest periods)	Night
IR ID 99596	ADDRESS 12-14 COX ST, YERONG CREEK NSW 2642	Daytime 49	Daytime OOH 44	Evening 44	Night-time 35	LAeq(15min) 54	Daytime OOH CO1	CO1	*(>2 consecutive sleep period CO1, CO2, (RO,AO)*
99603	32 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	44	-	-	CO1
99605	28 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	46	CO1	CO1	CO1
99609 99611	20 MACCONOCHIE ST, YERONG CREEK NSW 2642 18 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	46 49	CO1 CO1	C01 C01	CO1 CO1
99611 99616	16 FINLAYSON LANE, YERONG CREEK NSW 2642	49 49	44	44	35	49 61	CO1, CO2	C01, C02	CO1, CO2, RO, (AO, Alt/
99617	12 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	CO1	CO1
99618	8 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO,AO)*
99619	1-3 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	59	CO1	CO1	CO1, CO2, (RO,AO)*
99621 99628	2 MACCONOCHIE ST, YERONG CREEK NSW 2642 14 FINLAYSON LANE, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	<u>56</u> 64	CO1 CO1, CO2	CO1 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, Alt/
99626	20 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	46	CO1	C01, C02	CO1 CO2, RO, (AO, AID
99638	30 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	43	-	-	CO1
99639	15 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	CO1	CO1
99641	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	45	CO1	CO1	CO1
99649 99651	LOT 2 MACCONOCHIE ST, YERONG CREEK NSW 2642 17 QUEEN ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	54 49	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1
99653	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	49	C01	C01	C01
99655	10 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, Alt/
99663	21 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	49	CO1	CO1	CO1
99664	23 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	CO1	CO1
99666	18 COLE ST, YERONG CREEK NSW 2642	49	44 55	44	35	48	CO1	CO1	CO1
99668 99669	LOT 2, COX STREET, YERONG CREEK NSW 2642 14 COLE ST, YERONG CREEK NSW 2642	55 49	55 44	55 44	- 35	63 49	CO1 CO1	CO1 CO1	- CO1
99670	10 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	49	CO1	C01	CO1
99673	10 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO,AO)*
99674	6 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO,AO)*
99675	2 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
99678 99681	LOT 2, COX STREET, YERONG CREEK NSW 2642	55	55 44	55 44	-	62 45	CO1	CO1	- CO1
99683	29 COLE ST, YERONG CREEK NSW 2642 25 COLE ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	45	CO1 CO1	CO1 CO1	C01
99685	19 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	48	C01	C01	CO1
99686	23 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	46	CO1	CO1	CO1
99690	13-15 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO,AO)*
99691	15 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	50 47	C01	CO1	C01
99692 99697	13 COLE ST, YERONG CREEK NSW 2642 11 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	47	CO1 CO1	CO1 CO1	CO1 CO1, CO2, (RO,AO)*
99700	11 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	CO1	CO1
99702	7 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO,AO)*
99704	5 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
99705	3 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO,AO)*
99709 99715	21 PLUNKETT ST, YERONG CREEK NSW 2642 23 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	54 51	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
99719	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55	55	-		58	C01	-	
99728	27-39 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	47	CO1	CO1	CO1
99729	10 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	57	CO1	CO1	CO1, CO2, (RO,AO)*
99733	17 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	43	-	-	CO1
99734 99737	15 HAY ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35	44 46	-	- CO1	CO1
99740	15 HAY ST, YERONG CREEK NSW 2642 15-23 HAY ST, YERONG CREEK NSW 2642	49	44	44	35 35	40	CO1 CO1	CO1	CO1 CO1
99742	5 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO,AO)*
99745	5-9 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO,AO)*
99749	3 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO,AO)*
99750 99752	1 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	55 57	CO1	CO1	CO1, CO2, (RO,AO)*
99752 99753	5 WARATAH ST, YERONG CREEK NSW 2642 2 FINLAYSON LANE, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	57	CO1 CO1, CO2	CO1 CO1. CO2	CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, Alt
99754	15 COX ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	C01, C02	CO1, CO2, (RO, AO)*
99773	19 COX ST, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, Alt
99774	51 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	44	-	-	CO1
99776	51 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	41	-	-	CO1
99778 99779	53 PLUNKETT ST, YERONG CREEK NSW 2642 67 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	41	1		CO1 CO1
99779	13 COX ST, YERONG CREEK NSW 2642	49	44	44	35	59	- CO1	- CO1	CO1, CO2, (RO,AO)*
99786	5 MACKIE ST, YERONG CREEK NSW 2642	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO,AO)*
99790	11 COX ST, YERONG CREEK NSW 2642	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO,AO)*
99792	63 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	40	-	-	CO1
99795 99798	65 PLUNKETT ST, YERONG CREEK NSW 2642 83-85 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	38 38	-	-	CO1 CO1
99798 99799	7 COX ST, YERONG CREEK NSW 2642	49	44	44	35	59	- CO1	- CO1	CO1, CO2, (RO,AO)*
99801	5 COX ST, YERONG CREEK NSW 2642	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, Alt
99802	3 COX ST, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, Alt
99804	1 PATTON ST, YERONG CREEK NSW 2642	49	44	44	35	57	CO1	CO1	CO1, CO2, (RO,AO)*
	13 Queen St, Yerong Creek NSW 2642	49	44	44	35	53	C01	CO1	CO1, CO2, (RO,AO)*
00506	28 Cox St, Yerong Creek NSW 2642	49	44	44	35	52	CO1	CO1 CO1	CO1, CO2, (RO,AO)*
000891	2-4 QUEEN ST, YERONG CREEK NSW 2642 25 Plunkett St, Yerong Creek NSW 2642	49 49	44 44	44 44	35 35	58 50	CO1 CO1	C01	CO1, CO2, (RO,AO)* CO1
00030	LOT 1,34 MACCONOCHIE STREET, YERONG CREEK NSW 2642	49	44	44	35	39		-	CO1
	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55	55	-		56	CO1	-	-
	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55	55			59	CO1		

	Geotechnical Investigation								
								Additional Mitigation	Additional Mitigation
.R ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeg(15min)	Additional Mitigation Daytime OOH	Evening *(>2 consecutive rest periods)	Night *(>2 consecutive sleep pe
	ADDRESS 12-14 COX ST, YERONG CREEK NSW 2642	49	Daytime OOH 44	Evening 44	Night-time 35	LAeq(15min) 58	CO1	- (>2 consecutive rest periods)	(>2 consecutive sleep pe
	32 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	45	C01	-	-
9605	28 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	47	C01	-	
9609	20 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	-	
9611	18 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	51	CO1	-	
	16 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	-	-
9617	12 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1		-
9618	8 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	-	
9619 9621	1-3 QUEEN ST, YERONG CREEK NSW 2642 2 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	59 60	CO1 CO1. CO2	-	-
9621	14 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	-	-
9635		49	44	44	35	48	CO1	-	
	30 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	45	C01	-	-
9639	15 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	51	CO1	-	-
9641	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	-	-
9649	LOT 2 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	-	-
9651	17 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	-	
9653	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	49	CO1	-	-
9655	10 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	-	-
9663	21 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	49	CO1		-
	23 QUEEN ST, YERONG CREEK NSW 2642	49 49	44 44	44	35	48	CO1	-	•
9668	18 COLE ST, YERONG CREEK NSW 2642 LOT 2, COX STREET, YERONG CREEK NSW 2642				35	52	CO1	-	-
	14 COLE ST, YERONG CREEK NSW 2642	55 49	55 44	55 44	35	67 53	CO1 CO1	-	-
9670	10 COLE ST, YERONG CREEK NSW 2042	49	44	44	35	54	C01		-
9673	10 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	55	CO1		_
	6 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	-	
9675	2 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1		
9678	LOT 2, COX STREET, YERONG CREEK NSW 2642	55	55	55	-	66	CO1	-	-
681	29 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	47	CO1	-	
9683	25 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	49	CO1	-	
685	19 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	51	CO1	-	
	23 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	47	CO1	-	-
	13-15 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	-	
9691	15 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1	-	-
9692	13 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1		-
9697 9700	11 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44	35	56 54	CO1	-	
9700	11 COLE ST, YERONG CREEK NSW 2642 7 COLE ST, YERONG CREEK NSW 2642	49	44	44	35 35	56	CO1 CO1	-	-
	5 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	57	C01		-
9705	3 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	60	CO1, CO2	-	
9709	21 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1	-	
9713	LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642	75	75		-	89	CO1	-	-
9715	23 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	51	CO1		
719	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55	55	-	-	63	CO1	-	-
726	LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642	75	75	-	-	85	CO1	-	
728	27-39 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	49	CO1	-	-
729	10 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	57	CO1	-	-
733	17 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	47	CO1	-	-
	15 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	-	-
	15 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	-	-
	15-23 HAY ST, YERONG CREEK NSW 2642	49	44 44	44	35	51	CO1	-	-
742	5 HAY ST, YERONG CREEK NSW 2642	49			35	53	CO1	-	-
745 749	5-9 HAY ST, YERONG CREEK NSW 2642 3 HAY ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	54 56	CO1 CO1	-	-
750	1 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	58	C01	-	
752	5 WARATAH ST, YERONG CREEK NSW 2642	49	44	44	35	58	C01		
753	2 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	-	
	15 COX ST, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	-	-
773	19 COX ST, YERONG CREEK NSW 2642	49	44	44	35	69	CO1, CO2	-	-
785	13 COX ST, YERONG CREEK NSW 2642	49	44	44	35	67	CO1, CO2	-	-
786	5 MACKIE ST, YERONG CREEK NSW 2642	49	44	44	35	55	CO1	-	-
790	11 COX ST, YERONG CREEK NSW 2642	49	44	44	35	68	CO1, CO2	-	
799	7 COX ST, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	-	-
801	5 COX ST, YERONG CREEK NSW 2642	49	44	44	35	68	CO1, CO2	-	-
802	3 COX ST, YERONG CREEK NSW 2642	49	44	44	35	68	CO1, CO2	-	-
804	1 PATTON ST, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	-	-
811	26 FINLAYSON LANE, YERONG CREEK NSW 2642	75	75	-		84	CO1	-	-
0504	13 Queen St, Yerong Creek NSW 2642	49	44	44	35	55	CO1	-	-
	28 Cox St, Yerong Creek NSW 2642	49	44	44	35	55	CO1	-	-
	2-4 QUEEN ST, YERONG CREEK NSW 2642	49	44	44 44	35	58	CO1	-	r
0030	25 Plunkett St, Yerong Creek NSW 2642 YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	49 55	44 55	44	35	50 60	CO1 CO1		E
	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, TERONG CREEK NSW 20 YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55	55		-	64	C01		
		~~	55	-	-	57	1-2.		

1.004 -	Track Work - Peak		1						
								Additional Mitigation	Additional Mitigation
SLR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Evening *(>2 consecutive rest periods	Night ) *(>2 consecutive sleep period
	HILLTOP 96 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	42	-	-	CO1
	PLUNKETT ST, YERONG CREEK NSW 2642 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44	44 44	35 35	37 38	-	-	CO1 CO1
199596	12-14 COX ST, YERONG CREEK NSW 2642	49	44	44	35	66	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
199603 199605	32 MACCONOCHIE ST, YERONG CREEK NSW 2642 28 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	53 55	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
199609	20 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO,AO)*
	18 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	59	CO1	CO1	CO1, CO2, (RO,AO)*
	16 FINLAYSON LANE, YERONG CREEK NSW 2642 12 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	69 61	CO1, CO2 CO1, CO2	CO1, CO2 CO1, CO2	CO1, CO2, RO, (AO, AltA)* CO1, CO2, RO, (AO, AltA)*
199618	8 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
199619 199621	1-3 QUEEN ST, YERONG CREEK NSW 2642 2 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	67 68	CO1, CO2 CO1, CO2	CO1, CO2 CO1, CO2	CO1, CO2, RO, (AO, AltA)* CO1, CO2, RO, (AO, AltA)*
199628	14 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	69	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
199635 199638	20 COLE ST, YERONG CREEK NSW 2642 30 COLE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	56 53	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
199639	15 QUEEN ST, YERONG CREEK NSW 2042	49	44	44	35	59	C01	CO1	CO1, CO2, (RO,AO)*
	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO,AO)*
	LOT 2 MACCONOCHIE ST, YERONG CREEK NSW 2642 17 QUEEN ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	64 58	CO1, CO2 CO1	CO1, CO2 CO1	CO1, CO2, RO, (AO, AltA)* CO1, CO2, (RO,AO)*
199653	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	57	CO1	CO1	CO1, CO2, (RO,AO)*
199655 199663	10 FINLAYSON LANE, YERONG CREEK NSW 2642 21 QUEEN ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	70 57	CO1, CO2 CO1	CO1, CO2, (RO)* CO1	CO1, CO2, RO, (AO, AltA)* CO1, CO2, (RO,AO)*
	23 QUEEN ST, YERONG CREEK NSW 2642 23 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	56	C01	C01	CO1, CO2, (RO,AO)*
199666	18 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO,AO)*
199668 199669	LOT 2, COX STREET, YERONG CREEK NSW 2642 14 COLE ST, YERONG CREEK NSW 2642	55 49	55 44	55 44	- 35	75 61	CO1, CO2 CO1, CO2	CO1, CO2 CO1, CO2	- CO1, CO2, RO, (AO, AltA)*
199670	10 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)
199673 199674	10 COLE ST, YERONG CREEK NSW 2642 6 COLE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	63 64	CO1, CO2 CO1, CO2	CO1, CO2 CO1, CO2	CO1, CO2, RO, (AO, AltA)* CO1, CO2, RO, (AO, AltA)*
	2 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	64	C01, C02	C01, C02	CO1, CO2, RO, (AO, AltA) CO1, CO2, RO, (AO, AltA)
199678	LOT 2, COX STREET, YERONG CREEK NSW 2642	55	55	55	-	74	CO1, CO2	CO1, CO2	-
	29 COLE ST, YERONG CREEK NSW 2642 25 COLE ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	55 57	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
199684	1-3 PLUNKETT ST, YERONG CREEK NSW 2642	70	70	-	-	72	CO1	-	-
199685	19 COLE ST, YERONG CREEK NSW 2642 23 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	59	CO1	C01	CO1, CO2, (RO,AO)*
	13-15 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	55 64	CO1 CO1, CO2	CO1 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA)
199691	15 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)
	13 COLE ST, YERONG CREEK NSW 2642 11 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	58 64	CO1 CO1, CO2	CO1 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA)
199700	11 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA) CO1, CO2, RO, (AO, AltA)
199702	7 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
	5 COLE ST, YERONG CREEK NSW 2642 3 COLE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	65 68	CO1, CO2 CO1, CO2	CO1, CO2 CO1, CO2	CO1, CO2, RO, (AO, AltA)* CO1, CO2, RO, (AO, AltA)*
	21 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)
199713	LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642	75	75	-		97	CO1, CO2		
199715 199717	23 PLUNKETT ST, YERONG CREEK NSW 2642 2 PLUNKETT ST, YERONG CREEK NSW 2642	49 70	44 70	- 44	35	59 72	CO1 CO1	CO1	CO1, CO2, (RO,AO)*
199719	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55	55	-		71	CO1, CO2	-	-
	LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642 27-39 PLUNKETT ST, YERONG CREEK NSW 2642	75	75 44	- 44	- 35	93 57	CO1, CO2	- CO1	- CO1, CO2, (RO,AO)*
	10 PLUNKETT ST, YERONG CREEK NSW 2042	49 49	44	44	35	65	CO1 CO1, CO2	CO1, CO2	CO1, CO2, (RO, AO) CO1, CO2, RO, (AO, AltA)
199732	6 PLUNKETT ST, YERONG CREEK NSW 2642	60	60	60	-	66	CO1	CO1	-
	17 HAY ST, YERONG CREEK NSW 2642 15 HAY ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	55 56	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
	15 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	58	CO1	C01	CO1, CO2, (RO,AO)*
	15-23 HAY ST, YERONG CREEK NSW 2642	49	44 44	44 44	35	59 61	CO1 CO1, CO2	CO1	CO1, CO2, (RO,AO)*
	5 HAY ST, YERONG CREEK NSW 2642 5-9 HAY ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	62	CO1, CO2	CO1, CO2 CO1, CO2	CO1, CO2, RO, (AO, AltA)* CO1, CO2, RO, (AO, AltA)*
199749	3 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
199750 199752	1 HAY ST, YERONG CREEK NSW 2642 5 WARATAH ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	66 66	CO1, CO2 CO1, CO2	CO1, CO2 CO1, CO2	CO1, CO2, RO, (AO, AltA)* CO1, CO2, RO, (AO, AltA)*
	2 FINLAYSON LANE, YERONG CREEK NSW 2042	49	44	44	35	70	CO1, CO2	CO1, CO2, (RO)*	CO1, CO2, RO, (AO, AltA)
199754	15 COX ST, YERONG CREEK NSW 2642	49	44	44	35	70	CO1, CO2	CO1, CO2, (RO)*	CO1, CO2, RO, (AO, AltA)
	19 COX ST, YERONG CREEK NSW 2642 51 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	77 52	CO1, CO2 CO1	CO1, CO2, (RO)* CO1	CO1, CO2, RO, (AO, AltA)* CO1, CO2, (RO,AO)*
199776	51 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	49	CO1	CO1	CO1
199778	53 PLUNKETT ST, YERONG CREEK NSW 2642 67 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	50 50	CO1 CO1	CO1 CO1	CO1 CO1
	13 COX ST, YERONG CREEK NSW 2642	49	44	44	35	75	CO1, CO2	CO1, CO2, (RO)*	CO1, CO2, RO, (AO, AltA)
199786	5 MACKIE ST, YERONG CREEK NSW 2642	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)
199790 199792	11 COX ST, YERONG CREEK NSW 2642 63 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	76 48	CO1, CO2 CO1	CO1, CO2, (RO)* CO1	CO1, CO2, RO, (AO, AltA) CO1
199795	65 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44	44	35	48	C01	C01	C01
199798	83-85 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	46	CO1	CO1	CO1
	7 COX ST, YERONG CREEK NSW 2642 5 COX ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	72	CO1, CO2 CO1, CO2	CO1, CO2, (RO)* CO1, CO2, (RO)*	CO1, CO2, RO, (AO, AltA) CO1, CO2, RO, (AO, AltA)
199802	3 COX ST, YERONG CREEK NSW 2642	49	44	44	35	76	CO1, CO2	CO1, CO2, (RO)*	CO1, CO2, RO, (AO, AltA)
199804	1 PATTON ST, YERONG CREEK NSW 2642	49	44	44	35	70	CO1, CO2	CO1, CO2, (RO)*	CO1, CO2, RO, (AO, AltA)
199813	26 FINLAYSON LANE, YERONG CREEK NSW 2642 WINDANA 3455 OSBORNE YERONG CREEK RD, YERONG CREEK NSW 2	75 49	75 44	- 44	35	92 43	CO1, CO2	-	- CO1
199819	26 FINLAYSON LANE, YERONG CREEK NSW 2642	75	75	-	-	82	CO1	-	
199829 199835	YERONG CREEK-MANGOPLAH ROAD YERONG CREEK NSW 2642 3308 OLYMPIC HWY, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	38 48	- CO1	- CO1	CO1 CO1
199837	3308 OLYMPIC HWY, YERONG CREEK NSW 2642	49	44	44	35	44	-	-	CO1
199848	3308 OLYMPIC HWY, YERONG CREEK NSW 2642	49	44	44	35	44			CO1
	13 Queen St, Yerong Creek NSW 2642 28 Cox St, Yerong Creek NSW 2642	49 49	44	44 44	35 35	63 63	CO1, CO2 CO1, CO2	CO1, CO2 CO1, CO2	CO1, CO2, RO, (AO, AltA) CO1, CO2, RO, (AO, AltA)
1000891	2-4 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	66	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)
1100030	25 Plunkett St, Yerong Creek NSW 2642	49	44	44	35	57	CO1	CO1	CO1, CO2, (RO,AO)*
	LOT 1,34 MACCONOCHIE STREET, YERONG CREEK NSW 2642 YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	49 55	44 55	- 44	35	49 68	CO1 CO1	CO1	CO1
		55				72		1	1
100033	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55	55	•		12	CO1, CO2	-	-

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.

NAME         NAME <th< th=""><th>SLR ID</th><th>ADDRESS</th><th>NML Daytime</th><th>NML Daytime OOH</th><th>NML Evening</th><th>NML Night-time</th><th>Predicted Level LAeq(15min)</th><th>Additional Mitigation Daytime OOH</th><th>Additional Mitigation Evening *(&gt;2 consecutive rest periods)</th><th>Additional Mitigation Night *(&gt;2 consecutive sleep period</th></th<>	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 period
Series         JunchConcols B. T. ENDING CREEN VOLT ABOL         40         44         44         45         54         64         001         001         001         001           Series         JuncConcols B. T. ENDING CREEN VOLT ABOL         40         44         44         45         54         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         001         00		HILLTOP 96 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	36	-	-	CO1
Bioles         BioleCondone ST. FERRING CREEK NOW ARL         64         44         44         55         50         COD		32 MACCONOCHIE ST, YERONG CREEK NSW 2642	49			35			C01, C02	CO1, CO2, RO, (AO, AltA)* CO1
Bit II         Bit ALCONDUCE B, T. FEDRIG CERE, NEW AGA         6         44         44         55         54         CO         CO         CO         CO           STO ALCONDUCE S, T. FEDRIG CERE, NEW AGA         6         44         44         55         59         CO         CO <td></td> <td>28 MACCONOCHIE ST, YERONG CREEK NSW 2642</td> <td>49</td> <td></td> <td></td> <td>35</td> <td>50</td> <td>CO1</td> <td>CO1</td> <td></td>		28 MACCONOCHIE ST, YERONG CREEK NSW 2642	49			35	50	CO1	CO1	
BIO         IFINAL YOULAWE, YELDON CREEK MAY 2642         IPI         IFINAL YOULAWE, YELDON CREEK MAY 2642         IFINAL YOULAWE, YELDON CREEK MAY 2642 <thifinal 2642<="" creek="" may="" th="" yeldon="" youlawe,=""> <th< td=""><td></td><td>20 MACCONOCHIE ST, YERONG CREEK NSW 2642</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>CO1, CO2, (RO,AO)*</td></th<></thifinal>		20 MACCONOCHIE ST, YERONG CREEK NSW 2642								CO1, CO2, (RO,AO)*
BERY IF UNCCENCOME BY TERMO OPERA TINEY PARA         6         4         4         4         5         50         CON         CON <t< td=""><td></td><td>16 FINLAYSON LANE VERONG CREEK NSW 2642</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA)</td></t<>		16 FINLAYSON LANE VERONG CREEK NSW 2642								CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA)
986         15         14         44         44         85         60         CO1, CO2         CO2         CO1, CO2         CO2         CO1, CO2         CO2         CO1, CO2         CO2         CO2 <thco2< th=""> <thco2< th=""></thco2<></thco2<>										CO1, CO2, (RO,AO)*
Sett         LALCZABOCHE ET. YENNE CEEE NEW 242.         69         44         44         50         60         COL, COL, COL, COL, COL, COL, COL, COL,	199618	8 MACCONOCHIE ST, YERONG CREEK NSW 2642								CO1, CO2, (RO,AO)*
Bits         Line Auronal (Law, Tendon Catter) Name         -0         -4         -4         -5         -6         -001, CO2         CO1, CO2         CO1, CO3         CO1         CO	99619	1-3 QUEEN ST, YERONG CREEK NSW 2642							CO1, CO2	CO1, CO2, RO, (AO, AltA)
BIOL IS         DOL IS         VERNON CREEN NOV 242         -0         44         44         55         64         COIL										CO1, CO2, RO, (AO, AltA) CO1, CO2, RO, (AO, AltA)
Name         No. Line B         VEX.DES         Optimization         Optimization <t< td=""><td></td><td></td><td></td><td></td><td>44</td><td></td><td></td><td></td><td></td><td>CO1, CO2, (RO,AO)*</td></t<>					44					CO1, CO2, (RO,AO)*
1981.         200.1         CO1		30 COLE ST, YERONG CREEK NSW 2642	49			35		CO1	CO1	
9986         DOI 1         ADD 1         DOI 1000000000000000000000000000000000000		15 QUEEN ST, YERONG CREEK NSW 2642	49			35	54	CO1	CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
108011         TOLERS FT VERDAG CEREK NOW 242         40         44         44         35         53         COD		LOT 2 MACCONOCHIE ST. YERONG CREEK NSW 2642								CO1, CO2, (RO,AO)*
19865.         IPPEAR YOUL LAKE, YRANG CREEN NOV 242.         49         44.         44.         35.         66.         COT, CO2			49	44					CO1	CO1, CO2, (RO,AO)*
Bill Process         Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process Process P										CO1, CO2, (RO,AO)*
NUMBER 2002ERS IN TREDUC GREEK NEW 2842         40         44         44         35         50         COIL										CO1, CO2, RO, (AO, AltA) CO1, CO2, (RO,AO)*
Image         ECCLE ST. VERONG CREEK NEW 242         49         44         44         36         56         Col         Col<										CO1, CO2, (RO,AO)*
99888         IOT 2, DOX ETTREET, VERMOL CREEK NSW 2442         45         55         55         .         TO         CO1	199666		49	44	44	35	55	C01	CO1	CO1, CO2, (RO,AO)*
98870         0.02.R.E.T. YERDON, CEEEN NW 242         49         44         44         35         97         CO1         CO	199668	LOT 2, COX STREET, YERONG CREEK NSW 2642	55	55	55	-	70	CO1	CO1	-
BERT         IDCLE ST. YEENONG CREEK NAW 242         40         44         45         58         60         COI         COI<		14 COLE ST, YERONG CREEK NSW 2642					56		CO1	CO1, CO2, (RO,AO)*
9874 B COL ET, VERDAG CEEK NAW 242         40         44         44         55         59         C01         C01         C01.         C01		10 COLE ST, TERONG CREEK NSW 2642		44		35		C01		CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
99675         2 COLE ST. YERONG CREEK NSW 2442         40         44         45         59         CD 1         CD 1         CD 1         CD 1           199851         LOT 2, COLE ST. YERONG CREEK NSW 2442         40         44         44         35         52         CD 1	199674	6 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	59	CO1	CO1	CO1, CO2, (RO,AO)*
99881         90 COL 51 YERONG CREEK NSW 2842         40         44         44         55         50         C01         C01         C01           99881         20 COL 51 YERONG CREEK NSW 2842         40         44         44         35         50         C01         C01         C01         C01         C01           99880         15 SULMENT ST, YERONG CREEK NSW 2842         40         44         44         35         60         C01		2 COLE ST, YERONG CREEK NSW 2642	49	44			59	CO1	CO1	CO1, CO2, (RO,AO)*
99885         20 COLE ST. YERONG CREEK NSW 2442         40         44         45         52         C01         C01         C01.00           99805         10 CLE ST. YERONG CREEK NSW 2442         40         44         44         35         64         C01.00         C01		LOT 2, COX STREET, YERONG CREEK NSW 2642				-				-
99868         99CAL E 7. VERONG CREEK NSW 2442         49         44         44         35         54         CO1         CO1         CO1         CO1           19808         12 CAL E 7. VERONG CREEK NSW 2442         49         44         44         35         56         CO1         CO1 <t< td=""><td></td><td>29 COLE ST, YERONG CREEK NSW 2642</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>CO1, CO2, (RO,AO)*</td></t<>		29 COLE ST, YERONG CREEK NSW 2642								CO1, CO2, (RO,AO)*
998888         20 COL 51, TRENON CREEK NSW 242         49         44         44         35         60         CO1         CO1         CO1         CO1           99888         CLOL 51, TERDAG CREEK NSW 242         49         44         44         35         60         CO1_CO2         CO		19 COLE ST, YERONG CREEK NSW 2642								CO1, CO2, (RO,AO)*
99891         IS COLE 5T, VERDAG CREEK NBW 2442         49         44         44         35         56         CO1         C		23 COLE ST, YERONG CREEK NSW 2642								CO1
99862         13 COLE ST, VERONG CREEK NSW 242         49         44         44         35         53         CO1         CO		13-15 PLUNKETT ST, YERONG CREEK NSW 2642				35		CO1, CO2	CO1, CO2	CO1, CO2, (RO,AO)*
99897         If LUNKETT ST, TREONG CREEK NSW 2442         49         44         44         35         57         CO1         CO1 <t< td=""><td></td><td>15 COLE ST, YERONG CREEK NSW 2642</td><td></td><td></td><td></td><td>35</td><td></td><td>C01</td><td>C01</td><td>CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*</td></t<>		15 COLE ST, YERONG CREEK NSW 2642				35		C01	C01	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
99700         II COLE ST, VERONG CREEK NSW 2642         49         44         44         35         57         CO1         C		11 PLUNKETT ST, YERONG CREEK NSW 2642				35	59	CO1	CO1	CO1, CO2, (RO,AO)*
99704         5COLE ST, YEENON CREEK NSW 2842         49         44         44         35         60         CO1, CO2         CO1,	199700	11 COLE ST, YERONG CREEK NSW 2642	49	44		35	57	CO1	CO1	CO1, CO2, (RO,AO)*
19705       3 COLE 5T, YERONG CREEK NSW 2442       49       44       44       35       63       CO1, CO2		7 COLE ST, YERONG CREEK NSW 2642	49	44						CO1, CO2, (RO,AO)*
199709       21 PLUNKETT ST, VERONG CREEK NSW 2642       49       44       44       35       56       CO1       CO1 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA)</td>										CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA)
1071 S5.7 ORANGE FLAT LANE, YERONG CREEK NSW 2842       75       75       -       92       C01.C02       -       -       -         19971 22       LOT S557 ORANGE FLAT LANE, YERONG CREEK NSW 2842       49       44       44       35       54       C01		21 PLUNKETT ST. YERONG CREEK NSW 2642	49	44				C01, C02	C01, C02	CO1, CO2, RO, (AO, AIA) CO1, CO2, (RO,AO)*
199719         VERONG CREEK PUBLIC SCHOOL 10LE 5T, VERONG CREEK NSW 2842         55         55         .         .         66         CO1         .         .           199726         LOT SSOT DANCE FLAT LUNG, YERONG CREEK NSW 2842         49         44         44         45         52         CO1         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         . <td< td=""><td></td><td>LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642</td><td>75</td><td>75</td><td>-</td><td>-</td><td></td><td>CO1, CO2</td><td>-</td><td>-</td></td<>		LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642	75	75	-	-		CO1, CO2	-	-
199728         LOT 555* ORANGE FLAT LANE, YERONG CREEK NSW 2842         75         75         7.         88         CO1         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .		23 PLUNKETT ST, YERONG CREEK NSW 2642			44	35			CO1	CO1, CO2, (RO,AO)*
199728       27.39 PLUNKETT ST, YERONG CREEK NSW 2642       49       44       44       35       52       CO1       CO1       CO1, CO2       CO1, CO2<						-			-	-
199725       10 PLUNKETT ST, YERONG CREEK NSW 2642       49       44       44       35       60       CO1, CO2       CO1, CO2       CO1, CO1       CO1         199728       FPLUNKETT ST, YERONG CREEK NSW 2642       49       44       44       35       50       CO1					44	35			- CO1	- CO1, CO2, (RO,AO)*
199722         6 PLUNKETT ST, YERONG CREEK NSW 2642         60         60         -         61         CO1         CO1         -           199731         17 HAYST, YERONG CREEK NSW 2642         49         44         44         35         53         CO1		10 PLUNKETT ST, YERONG CREEK NSW 2642								CO1, CO2, (RO,AO)*
19973       15 HAY ST, YERONG CREEK NSW 2842       49       44       44       35       51       CO1	199732	6 PLUNKETT ST, YERONG CREEK NSW 2642				-		CO1	CO1	-
19773       15 HAY ST, YERONG CREEK NSW 2642       49       44       44       35       53       C01	199733	17 HAY ST, YERONG CREEK NSW 2642	49	44		35	50			CO1 CO1, CO2, (RO,AO)*
19740       15-23 HAY ST, YERONG CREEK NSW 2642       49       44       44       35       54       CO1       CO1       CO1, CC         199742       5HAY ST, YERONG CREEK NSW 2642       49       44       44       35       58       CO1       CO1       CO1, CC         199743       5HAY ST, YERONG CREEK NSW 2642       49       44       44       35       59       CO1       CO1       CO1, CO2		15 HAY ST, YERONG CREEK NSW 2042	49	44		35	53			CO1, CO2, (RO,AO)*
199745       59 HAY ST, YERONG CREEK NSW 2842       49       44       44       35       58       CO1								C01	CO1	CO1, CO2, (RO,AO)*
99749       3 HAY ST, YERONG CREEK NSW 2642       49       44       44       35       59       CO1		5 HAY ST, YERONG CREEK NSW 2642	49			35	56	CO1	CO1	CO1, CO2, (RO,AO)*
199750       1 HAY ST, YERONG CREEK NSW 2642       49       44       44       35       61       CO1, CO2       CO1       CO1<		5-9 HAY ST, YERONG CREEK NSW 2642								CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
199752       5 WARATAH ST, YERONG CREEK NSW 2642       49       44       44       35       61       CO1, CO2       CO1										CO1, CO2, (RO, AO) CO1, CO2, RO, (AO, AltA)
199754       16 COX ST, VERONG CREEK NSW 2642       49       44       44       35       65       CO1.CO2	199752	5 WARATAH ST, YERONG CREEK NSW 2642								CO1, CO2, RO, (AO, AltA)
192773       19207X										CO1, CO2, RO, (AO, AltA)
19977       51 PLUNKETT ST, YERONG CREEK NSW 2642       49       44       44       35       46       CO1										CO1, CO2, RO, (AO, AltA)
199776       51 PLUNKETT ST, YERONG CREEK NSW 2642       49       44       44       35       44       -       -       CO1	199773	19 COX S1, YERONG CREEK NSW 2642							CO1, CO2, (RO) <sup>-</sup>	CO1, CO2, RO, (AO, AltA)
199778       53 PLUNKETT ST, YERONG CREEK NSW 2642       49       44       44       35       45       CO1       CO1 <td>199776</td> <td>51 PLUNKETT ST, YERONG CREEK NSW 2642</td> <td></td> <td></td> <td></td> <td></td> <td>44</td> <td>-</td> <td>-</td> <td></td>	199776	51 PLUNKETT ST, YERONG CREEK NSW 2642					44	-	-	
198785       13 COX ST, YERONG CREEK NSW 2642       49       44       44       35       70       CO1, CO2, (RO)*       CO1, CO2       CO1, CO2, (RO)*       CO	199778	53 PLUNKETT ST, YERONG CREEK NSW 2642								
5         SMACKIE ST, YERONG CREEK NSW 2642         49         44         44         35         58         CO1         CO2         CO1 </td <td></td> <td>67 PLUNKETT ST, YERONG CREEK NSW 2642</td> <td>49</td> <td></td> <td></td> <td>35</td> <td></td> <td></td> <td></td> <td></td>		67 PLUNKETT ST, YERONG CREEK NSW 2642	49			35				
11 COX ST, YERONG CREEK NSW 2642     49     44     44     35     72     C01, CO2, (RO)*     CO1, CO2, (RO)* <td>99785</td> <td>13 COX S1, YERONG CREEK NSW 2642</td> <td>49</td> <td></td> <td></td> <td>35</td> <td>70</td> <td>CO1, CO2</td> <td>CO1, CO2, (RO)*</td> <td>CO1, CO2, RO, (AO, AltA) CO1, CO2, (RO,AO)*</td>	99785	13 COX S1, YERONG CREEK NSW 2642	49			35	70	CO1, CO2	CO1, CO2, (RO)*	CO1, CO2, RO, (AO, AltA) CO1, CO2, (RO,AO)*
99792     63 PLUNKETT ST, YERONG CREEK NSW 2642     49     44     44     35     43     -     -     CO1       99795     65 PLUNKETT ST, YERONG CREEK NSW 2642     49     44     44     35     42     -     CO1       99795     65 PLUNKETT ST, YERONG CREEK NSW 2642     49     44     44     35     41     -     -     CO1       99795     65 PLUNKETT ST, YERONG CREEK NSW 2642     49     44     44     35     67     CO1, CO2     CO1     CO1		11 COX ST, YERONG CREEK NSW 2642	49			35	72	CO1. CO2	CO1, CO2, (RO)*	CO1, CO2, RO, (AO, AltA)
199798     83-85 PLUMETT ST. YERONG CREEK NSW 2842     49     44     44     35     41     -     -     CO1       199799     7C X5T YERONG CREEK NSW 2842     49     44     44     35     67     CO1.CO2	99792	63 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44		43	-	-	
199799     7 COX ST, YERONG CREEK NSW 2642     49     44     44     35     67     CO1, CO2								-	-	
99801         5 COX ST VERONG CREEK NSW 2842         49         44         44         36         71         CO1_CO2_CO1_CO2_(RO)*         CO1_CO2           99802         3 COX ST VERONG CREEK NSW 2842         49         44         44         35         71         CO1_CO2_CO1_CO2_(RO)*         CO1_CO2           99802         3 COX ST VERONG CREEK NSW 2842         49         44         44         35         71         CO1_CO2_CO1_CO2_(RO)*         CO1_CO2           99801         1 PATTON ST VERONG CREEK NSW 2842         49         44         44         35         64         CO1_CO2_CO1_CO2_(RO)*         CO1_CO2           99811         26 FINLAYSON LANE, VERONG CREEK NSW 2842         75         -         -         87         CO1         -         -           99813         WINDANA 3450 OSBORNE VERONG CREEK NSW 2842         75         7         -         -         77         CO1         -         -         -         CO1           99813         WINDANA 3450 OSBORNE VERONG CREEK NSW 2842         49         44         44         35         38         -         -         CO1           99835         3308 OLYMPIC HWY, VERONG CREEK NSW 2842         49         44         44         35         39         -         -								-	-	CO1 CO1, CO2, RO, (AO, AltA
98802         3 COX ST, YERONG CREEK NSW 2642         49         44         44         35         71         CO1, CO2         CO1         CO1 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>CO1, CO2, RO, (AO, AltA CO1, CO2, RO, (AO, AltA</td>										CO1, CO2, RO, (AO, AltA CO1, CO2, RO, (AO, AltA
99804         1 PATTON ST, VERONG CREEK NSW 2642         49         44         44         35         64         CO1, CO2         CO1, CO2         CO1, CO2         CO1, CO2         CO1         -         -         87         CO1         -         -         -         CO1         -         -         -         CO1         <										CO1, CO2, RO, (AO, AltA
99813         WINDANA 34S5 OSBORNE YERONG CREEK NSW 2642         49         44         44         35         38         -         -         C01           99813         26 FILAXSON LANE, YERONG CREEK NSW 2642         75         -         -         77         CO1         -         -         C01	99804	1 PATTON ST, YERONG CREEK NSW 2642			44	35		CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA
99819         26 FINLAYSON LANE, YERONG CREEK NSW 2642         75         -         -         77         CO1         -         -         -         -         CO1         -         -         CO1         -         CO1         -         -         CO1         -         CO1         -         -         CO1         9987         3308 OLYMPIC HWY, YERONG CREEK NSW 2642         49         44         44         35         39         -         -         CO1		26 FINLAYSON LANE, YERONG CREEK NSW 2642			-			CO1	-	-
99835         3308         0.LVMPIC HWY, YERONG CREEK NSW 2642         49         44         44         35         43         -         -         C01           99845         3308 0.LVMPIC HWY, YERONG CREEK NSW 2642         49         44         44         35         39         -         -         C01           99845         3308 0.LVMPIC HWY, YERONG CREEK NSW 2642         49         44         44         35         39         -         -         C01           000504         13 Queen SI, Yerong Creek NSW 2642         49         44         44         35         58         C01         C01         C01, C0           000504         13 Queen SI, Yerong Creek NSW 2642         49         44         44         35         58         C01         C01         C01, C0         C01, C0 <td< td=""><td></td><td></td><td></td><td></td><td>44</td><td>35</td><td>38</td><td>-</td><td></td><td>-</td></td<>					44	35	38	-		-
199837         3308 OLYMPIC HWY, YERONG CREEK NSW 2642         49         44         44         35         39         -         -         CD1           199848         3308 OLYMPIC HWY, YERONG CREEK NSW 2642         49         44         44         35         39         -         -         CD1           000504         13 Queen St, Yerong Creek NSW 2642         49         44         44         35         58         CO1         CO1         CO1         CO1, CO2					44	35	43	-	-	CO1
99848         3308 OLYMPIC HWY, YERONG CREEK NSW 2642         49         44         44         35         39         -         -         CO1           000504         13 Queen St, Yerong Creak NSW 2642         49         44         44         35         58         CO1         CO1         CO1, CO           000504         13 Queen St, Yerong Creak NSW 2642         49         44         44         35         58         CO1         CO1         CO1, CO           000504         13 Queen St, Yerong Creak NSW 2642         49         44         44         35         61         CO1, CO2         CO1         CO3         CO3	99837	3308 OLYMPIC HWY, YERONG CREEK NSW 2642	49	44	44	35	39	-	-	CO1
000506         28 Cox St, Yerong Creek NSW 2642         49         44         44         35         58         CO1         C		3308 OLYMPIC HWY, YERONG CREEK NSW 2642	49	44	44	35	39			CO1
3000801         2-4 QUEEN ST, YERONG CREEK NSW 2642         49         44         44         35         61         CO1, CO2         CO1         CO1, CO2         CO1         CO1, CO2         CO1         CO1         CO1, CO2         CO1         CO1         CO1, CO2         CO1										CO1, CO2, (RO,AO)*
100030         25 Plunkett St, Yerong Creek NSW 2642         49         44         44         35         52         CO1         CO1         CO1, C01, C01, C01, C01, C01           100031         LCD 1,34 MACCONOCHIE STREET, YERONG CREEK NSW 2642         49         44         44         35         44         -         -         C01         C01, C01, C01, C01, C01, C01, C01, C01,		28 Cox St, Yerong Creek NSW 2642 24 OLIEEN ST, YERONG CREEK NSW 2642								CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA
100031         LOT 1,34         MACCONOCHIE STREET, YERONG CREEK NSW 2642         49         44         44         35         44         -         -         CO1           100032         YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26         55         55         -         63         CO1         -         -         -         -         -         -         -         -         -         CO1										CO1, CO2, RO, (AO, AIA CO1, CO2, (RO,AO)*
100032   YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26 55 55 63 CO1	100031	LOT 1,34 MACCONOCHIE STREET, YERONG CREEK NSW 2642	49	44			44	-	-	
100033   YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26 55 55 67 CO1 -	100032	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26		55				CO1	-	-
	00033	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55	55		-	67	CO1	-	

#### W.005 - Track Work - Typical

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 period
199582 199596	HILLTOP 96 FINLAYSON LANE, YERONG CREEK NSW 2642 12-14 COX ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	38 63	- CO1, CO2	- CO1, CO2	CO1 CO1, CO2, RO, (AO, AltA)*
199603	32 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	CO1	CO1
199605 199609	28 MACCONOCHIE ST, YERONG CREEK NSW 2642 20 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	52 53	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
199609	18 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	56	C01	C01	CO1, CO2, (RO,AO)*
199616	16 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	66	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
199617 199618	12 MACCONOCHIE ST, YERONG CREEK NSW 2642 8 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	58 61	CO1 CO1, CO2	CO1 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA)*
199619	1-3 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
199621	2 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	65	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
199628 199635	14 FINLAYSON LANE, YERONG CREEK NSW 2642 20 COLE ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	66 53	CO1, CO2 CO1	CO1, CO2 CO1	CO1, CO2, RO, (AO, AltA)* CO1, CO2, (RO,AO)*
199638	30 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	CO1	CO1
	15 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO,AO)*
	26 COLE ST, YERONG CREEK NSW 2642 LOT 2 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	53 61	CO1 CO1, CO2	CO1 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA)*
199651	17 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO,AO)*
99653	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
	10 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	67	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
99663	21 QUEEN ST, YERONG CREEK NSW 2642 23 QUEEN ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	54 53	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
199666	18 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	57	CO1	CO1	CO1, CO2, (RO,AO)*
	LOT 2, COX STREET, YERONG CREEK NSW 2642	55	55	55		72	CO1, CO2	CO1, CO2	-
199669 199670	14 COLE ST, YERONG CREEK NSW 2642 10 COLE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	58 59	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
99670	10 COLE ST, YERONG CREEK NSW 2642 10 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO,AO)*
99674	6 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)
99675	2 COLE ST, YERONG CREEK NSW 2642	49	44	44 55	35	61 71	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
99678 99681	LOT 2, COX STREET, YERONG CREEK NSW 2642 29 COLE ST, YERONG CREEK NSW 2642	55 49	55 44	55 44	35	52	CO1, CO2 CO1	CO1, CO2 CO1	- CO1, CO2, (RO,AO)*
99683	25 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
99685	19 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO,AO)*
199686 199690	23 COLE ST, YERONG CREEK NSW 2642 13-15 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	52 62	CO1 CO1, CO2	CO1 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA)*
199691	15 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO,AO)*
99692	13 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO,AO)*
99697	11 PLUNKETT ST, YERONG CREEK NSW 2642 11 COLE ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	61 59	CO1, CO2 CO1	CO1, CO2 CO1	CO1, CO2, RO, (AO, AltA)* CO1, CO2, (RO,AO)*
199700	7 COLE ST, YERONG CREEK NSW 2642 7 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	61	C01. C02	CO1, CO2	CO1, CO2, (RO, AO)
99704	5 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
99705	3 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	65	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
199709 199713	21 PLUNKETT ST, YERONG CREEK NSW 2642 LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642	49 75	44	44	35	58 94	CO1 CO1, CO2	CO1	CO1, CO2, (RO,AO)*
	23 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO,AO)*
199719	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55	55		-	68	CO1	-	-
99726 99728	LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642 27-39 PLUNKETT ST, YERONG CREEK NSW 2642	75 49	75 44	- 44	- 35	90 54	CO1 CO1	- CO1	- CO1, CO2, (RO,AO)*
99728	10 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	CO1, CO2	CO1, CO2, (RO, AO) CO1, CO2, RO, (AO, AltA)*
99732	6 PLUNKETT ST, YERONG CREEK NSW 2642	60	60	60	-	63	CO1	CO1	-
199733	17 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO,AO)*
99734	15 HAY ST, YERONG CREEK NSW 2642 15 HAY ST, YERONG CREEK NSW 2642	49 49	44	44 44	35 35	53 55	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
	15-23 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO,AO)*
99742	5 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO,AO)*
199745	5-9 HAY ST, YERONG CREEK NSW 2642 3 HAY ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	60 61	CO1, CO2 CO1, CO2	CO1, CO2 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA)*
	1 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	63	C01, C02	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
99752	5 WARATAH ST, YERONG CREEK NSW 2642	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
199753	2 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	67	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
99754	15 COX ST, YERONG CREEK NSW 2642 19 COX ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	67 74	CO1, CO2 CO1, CO2	CO1, CO2 CO1, CO2, (RO)*	CO1, CO2, RO, (AO, AltA)* CO1, CO2, RO, (AO, AltA)*
99774	51 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	CO1	CO1
99776	51 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	46	CO1	CO1	C01
99778 99779	53 PLUNKETT ST, YERONG CREEK NSW 2642 67 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	47	CO1 CO1	CO1 CO1	CO1 CO1
	13 COX ST, YERONG CREEK NSW 2642	49	44	44	35	72	CO1, CO2	CO1, CO2, (RO)*	CO1, CO2, RO, (AO, AltA)
99786	5 MACKIE ST, YERONG CREEK NSW 2642	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO,AO)*
99790 99792	11 COX ST, YERONG CREEK NSW 2642 63 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	74 45	CO1, CO2 CO1	CO1, CO2, (RO)* CO1	CO1, CO2, RO, (AO, AltA) CO1
	65 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	45	-	-	C01
	83-85 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	43	-	-	C01
	7 COX ST, YERONG CREEK NSW 2642	49	44	44	35	69	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
	5 COX ST, YERONG CREEK NSW 2642 3 COX ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	73 73	CO1, CO2 CO1, CO2	CO1, CO2, (RO)* CO1, CO2, (RO)*	CO1, CO2, RO, (AO, AltA) CO1, CO2, RO, (AO, AltA)
99804	1 PATTON ST, YERONG CREEK NSW 2642	49	44	44	35	66	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
99811	26 FINLAYSON LANE, YERONG CREEK NSW 2642	75	75		-	89	CO1	-	-
99813	WINDANA 3455 OSBORNE YERONG CREEK RD, YERONG CREEK NSW 2	49	44	44	35	40	-	-	CO1
99819 99835	26 FINLAYSON LANE, YERONG CREEK NSW 2642 3308 OLYMPIC HWY, YERONG CREEK NSW 2642	75 49	75 44	- 44	- 35	79 45	CO1 CO1	- CO1	- CO1
99837	3308 OLYMPIC HWY, YERONG CREEK NSW 2642	49	44	44	35	41	-	-	CO1
	3308 OLYMPIC HWY, YERONG CREEK NSW 2642	49	44	44	35	41			CO1
000504		49 49	44	44	35	60 60	CO1, CO2 CO1, CO2	CO1, CO2 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
000506	28 Cox St, Yerong Creek NSW 2642 2-4 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	63	CO1, CO2	C01, C02 C01, C02	CO1, CO2, (RO, AO) <sup>2</sup> CO1, CO2, RO, (AO, AltA) <sup>3</sup>
100030	25 Plunkett St, Yerong Creek NSW 2642	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
100031	LOT 1,34 MACCONOCHIE STREET, YERONG CREEK NSW 2642	49	44	44	35	46	CO1	CO1	CO1
100032	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26 YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55 55	55 55		-	65 69	CO1 CO1	-	
	TEROING GREEK FUBLIC SCHOOL I COLE ST, TEROING CREEK NSW 26	ບວ	ປວ			03	001	F	F

#### W.006 - Track Tamping

W.007 - I	Drainage Works								
								Additional Mitigation	Additional Mitigation
		NML	NML	NML	NML	Predicted Level	Additional Mitigation	Evening	Night
SLR ID 199596	ADDRESS 12-14 COX ST, YERONG CREEK NSW 2642	Daytime 49	Daytime OOH 44	Evening 44	Night-time 35	LAeq(15min) 62	Daytime OOH CO1, CO2	*(>2 consecutive rest periods)	*(>2 consecutive sleep period
	32 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	52	CO1, CO2		-
199605	28 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	-	•
	20 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	56 57	CO1 CO1	-	-
199616	18 MACCONOCHIE ST, YERONG CREEK NSW 2642 16 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	-	-
199617	12 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	59	CO1	-	-
	8 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	63	CO1, CO2		-
199619	1-3 QUEEN ST, YERONG CREEK NSW 2642 2 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	61 65	CO1, CO2 CO1, CO2		
199628	14 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	65	CO1, CO2	-	-
	20 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	55	CO1	-	
	30 COLE ST, YERONG CREEK NSW 2642 15 QUEEN ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	53 58	CO1 CO1	-	-
199641	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1		-
199649	LOT 2 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	-	-
199651 199653	17 QUEEN ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	57 57	CO1 CO1	-	
199655	26 COLE ST, YERONG CREEK NSW 2642 10 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	67	CO1, CO2		-
199663	21 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	-	-
	23 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	-	-
199668	18 COLE ST, YERONG CREEK NSW 2642 LOT 2, COX STREET, YERONG CREEK NSW 2642	49 55	44 55	44 55	35	60 75	CO1, CO2 CO1, CO2	-	[
199669	14 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	-	-
199670	10 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	-	-
199673	10 COLE ST, YERONG CREEK NSW 2642 6 COLE ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	63 64	CO1, CO2 CO1, CO2	-	-
199675	2 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	-	-
199678	LOT 2, COX STREET, YERONG CREEK NSW 2642	55	55	55	-	74	CO1, CO2	-	-
	29 COLE ST, YERONG CREEK NSW 2642 25 COLE ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	55 57	CO1 CO1	-	-
	1-3 PLUNKETT ST, YERONG CREEK NSW 2642	70	70	- 44		72	C01		-
199685	19 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	59	C01	-	-
	23 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	55	CO1	-	-
	13-15 PLUNKETT ST, YERONG CREEK NSW 2642 15 COLE ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	64 61	CO1, CO2 CO1, CO2	-	-
199692	13 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	58	CO1	-	-
	11 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	-	-
199700	11 COLE ST, YERONG CREEK NSW 2642 7 COLE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	62 64	CO1, CO2 CO1, CO2	-	-
199704	5 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	65	CO1, CO2		-
	3 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	68	CO1, CO2	-	-
199709 199713	21 PLUNKETT ST, YERONG CREEK NSW 2642 LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642	49 75	44	44	35	61 97	CO1, CO2 CO1, CO2	•	-
	23 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	59	CO1, CO2		
199717	2 PLUNKETT ST, YERONG CREEK NSW 2642	70	70			72	CO1	-	-
199719	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55	55		-	71	CO1, CO2	-	-
	LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642 27-39 PLUNKETT ST, YERONG CREEK NSW 2642	75 49	75 44	- 44	35	93 57	CO1, CO2 CO1	-	-
199729	10 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	65	CO1, CO2	-	-
	6 PLUNKETT ST, YERONG CREEK NSW 2642	60 49	60 44	60 44	-	66	CO1	-	-
199733	17 HAY ST, YERONG CREEK NSW 2642 15 HAY ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	55 56	CO1 CO1		
199737	15 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	58	CO1	-	-
199740	15-23 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	59	CO1	-	-
	5 HAY ST, YERONG CREEK NSW 2642 5-9 HAY ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	61 62	CO1, CO2 CO1, CO2		-
199749	3 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	-	-
199750	1 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	66	CO1, CO2	-	-
199752	5 WARATAH ST, YERONG CREEK NSW 2642 2 FINLAYSON LANE, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	66 70	CO1, CO2 CO1, CO2	-	-
199753	15 COX ST, YERONG CREEK NSW 2642	49	44	44	35	69	CO1, CO2	-	-
	19 COX ST, YERONG CREEK NSW 2642	49	44	44	35	75	CO1, CO2	-	-
	51 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	52 49	CO1	-	-
199778	51 PLUNKETT ST, YERONG CREEK NSW 2642 53 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	49	CO1 CO1	-	-
199779	67 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	-	-
	13 COX ST, YERONG CREEK NSW 2642	49	44	44	35	74	CO1, CO2	-	-
199786 199790	5 MACKIE ST, YERONG CREEK NSW 2642 11 COX ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	62 75	CO1, CO2 CO1, CO2	-	-
199792	63 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	-	-
199795	65 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	47	CO1	-	-
199798	83-85 PLUNKETT ST, YERONG CREEK NSW 2642 7 COX ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	46 71	CO1 CO1, CO2	-	-
199801	5 COX ST, YERONG CREEK NSW 2642	49	44	44	35	72	CO1, CO2	-	-
199802	3 COX ST, YERONG CREEK NSW 2642	49	44	44	35	69	CO1, CO2		-
	1 PATTON ST, YERONG CREEK NSW 2642	49	44	44	35	63	CO1, CO2	-	-
1000506	13 Queen St, Yerong Creek NSW 2642 28 Cox St, Yerong Creek NSW 2642	49 49	44	44	35 35	58 58	CO1 CO1		-
1000891	2-4 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	63	CO1, CO2	-	-
1100030	25 Plunkett St, Yerong Creek NSW 2642	49	44	44	35	57	CO1	-	-
1100031	LOT 1,34 MACCONOCHIE STREET, YERONG CREEK NSW 2642	49 55	44 55	44	35	49 68	CO1 CO1	-	t
1100032									
1100032	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26 YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55	55		-	72	CO1, CO2	-	-

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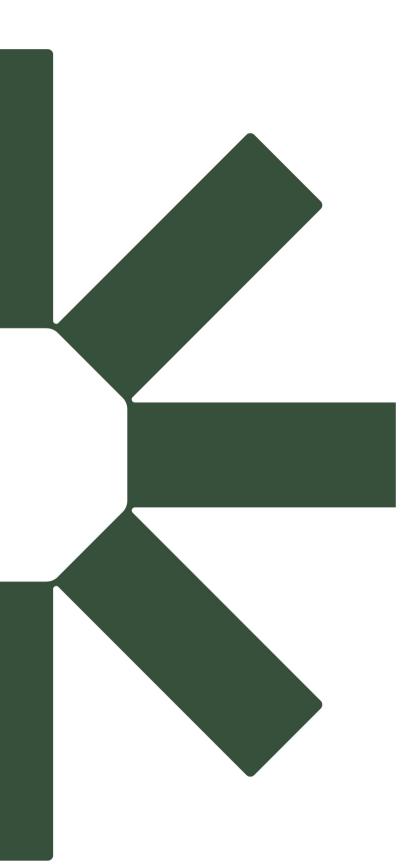
	Signalling Work								
								Additional Mitigation	Additional Mitigation
IR ID	ADDRESS	NML Daytime	NML Daytime OOH	NML Evening	NML Night-time	Predicted Level LAeq(15min)	Additional Mitigation Daytime OOH	Evening *(>2 consecutive rest periods)	Night *(>2 consecutive sleep peri
	12-14 COX ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
	32 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	43	-	-	CO1
99605	28 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	46	CO1	C01	CO1
	20 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44 44	44	35	49	CO1	CO1	CO1
99611 99616	18 MACCONOCHIE ST, YERONG CREEK NSW 2642 16 FINLAYSON LANE, YERONG CREEK NSW 2642	49 49	44	44	35 35	50 54	CO1 CO1	C01 C01	CO1 CO1, CO2, (RO,AO)*
99617	12 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO,AO)*
99618	8 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
99619	1-3 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	C01	CO1
	2 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO,AO)*
	14 FINLAYSON LANE, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	56 45	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1
99635 99638	20 COLE ST, YERONG CREEK NSW 2642 30 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	45		-	C01
	15 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	CO1	CO1
99641	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	47	CO1	CO1	CO1
99649	LOT 2 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO,AO)*
	17 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	43		-	CO1
99653 99655	26 COLE ST, YERONG CREEK NSW 2642 10 FINLAYSON LANE, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	48	CO1 CO1	CO1 CO1	CO1 CO1, CO2, (RO,AO)*
99663	21 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	42	-	-	CO1, CO2, (KO,AO)
	23 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	43	-	-	CO1
99666	18 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO,AO)*
99668	LOT 2, COX STREET, YERONG CREEK NSW 2642	55	55	55	-	64	CO1	CO1	-
99669	14 COLE ST, YERONG CREEK NSW 2642	49	44 44	44	35	52	CO1	CO1	CO1, CO2, (RO,AO)*
	10 COLE ST, YERONG CREEK NSW 2642 10 COLE ST, YERONG CREEK NSW 2642	49 49	44	44	35	53 54	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)*
99674	6 COLE ST, YERONG CREEK NSW 2642	49	44	44	35 35	54	C01	C01	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
99675	2 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	57	C01	C01	CO1, CO2, (RO,AO)*
99678	LOT 2, COX STREET, YERONG CREEK NSW 2642	55	55	55	-	66	CO1	CO1	-
	29 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	46	CO1	CO1	CO1
	25 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	CO1	CO1
99685	19 COLE ST, YERONG CREEK NSW 2642 23 COLE ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	50 46	CO1 CO1	CO1 CO1	CO1 CO1
	13-15 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	46 56	C01	C01	CO1, CO2, (RO,AO)*
	15 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO,AO)*
99692	13 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	45	CO1	CO1	CO1
	11 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	49	CO1	CO1	CO1
99700	11 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO,AO)*
99702 99704	7 COLE ST, YERONG CREEK NSW 2642 5 COLE ST, YERONG CREEK NSW 2642	49 49	44	44 44	35	56 58	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)*
	3 COLE ST, TERONG CREEK NSW 2642 3 COLE ST, YERONG CREEK NSW 2642	49	44	44	35 35	59	C01	C01	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
	21 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
99713	LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642	75	75	-	-	79	CO1	-	
99715	23 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO,AO)*
99719	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55	55	-		62	CO1		-
99728 99729	27-39 PLUNKETT ST, YERONG CREEK NSW 2642 10 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44	35	50 54	CO1 CO1	CO1 CO1	CO1 CO1, CO2, (RO,AO)*
99729	17 HAY ST, YERONG CREEK NSW 2642	49	44	44	35 35	43	-	-	CO1, CO2, (KO,AO)
99734	15 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	44	-	-	CO1
	15 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	44	-	-	CO1
99740	15-23 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	47	CO1	CO1	CO1
	5 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	48	C01	C01	CO1
	5-9 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	CO1	CO1
99749 99750	3 HAY ST, YERONG CREEK NSW 2642 1 HAY ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	54 54	CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
	5 WARATAH ST, YERONG CREEK NSW 2642	49	44	44	35	56	C01	C01	CO1, CO2, (RO,AO)*
99753	2 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO,AO)*
99754	15 COX ST, YERONG CREEK NSW 2642	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO,AO)*
	19 COX ST, YERONG CREEK NSW 2642	49	44	44	35	57	CO1	CO1	CO1, CO2, (RO,AO)*
99774	51 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	42	-	-	CO1
9776	51 PLUNKETT ST, YERONG CREEK NSW 2642 53 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	41 43	-	-	CO1 CO1
	67 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	43			C01
99785	13 COX ST, YERONG CREEK NSW 2642	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO,AO)*
99786	5 MACKIE ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1	C01	CO1, CO2, (RO,AO)*
99790	11 COX ST, YERONG CREEK NSW 2642	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO,AO)*
99792	63 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	39	-	-	CO1
	65 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	39	-	-	CO1
99798	83-85 PLUNKETT ST, YERONG CREEK NSW 2642 7 COX ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	38 60	- CO1, CO2	- CO1, CO2	CO1 CO1, CO2, (RO,AO)*
99799	5 COX ST, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	C01, C02	CO1, CO2, (RO, AO) CO1, CO2, RO, (AO, Alt
	3 COX ST, YERONG CREEK NSW 2642	49	44	44	35	66	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, Alt
	1 PATTON ST, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, Alt
99804	WINDANA 3455 OSBORNE YERONG CREEK RD, YERONG CREEK NSW 2	49	44	44	35	36	-	-	CO1
99813	13 Queen St, Yerong Creek NSW 2642	49	44	44	35	51	CO1	C01	CO1, CO2, (RO,AO)*
99813 00504			44	44	35	50	CO1	CO1	CO1
00504 00506	28 Cox St, Yerong Creek NSW 2642	49	4.4	44					
99813 00504 00506 00891	28 Cox St, Yerong Creek NSW 2642 2-4 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
99813 00504 00506 00891 00030	28 Cox St, Verong Creek NSW 2642 24 QUEEN ST, YERONG CREEK NSW 2642 25 Plunkett St, Verong Creek NSW 2642	49 49 49 49 49	44 44 44	44 44 44	35	54 50 40	CO1 CO1 -	CO1 CO1 -	CO1
99813 00504 00506 00891 00030 00031	28 Cox St, Yerong Creek NSW 2642 2-4 QUEEN ST, YERONG CREEK NSW 2642	49 49	44	44		50			

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 perior
99582	HILLTOP 96 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	40	-	-	CO1
99592 99596	PLUNKETT ST, YERONG CREEK NSW 2642 12-14 COX ST, YERONG CREEK NSW 2642	49	44	44	35	36 61	- CO1. CO2	- CO1, CO2	CO1 CO1, CO2, RO, (AO, AltA)*
	32 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO,AO)*
99605	28 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44	44	35	54	C01	C01	CO1, CO2, (RO,AO)*
99609 99611	20 MACCONOCHIE ST, YERONG CREEK NSW 2642 18 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35 35	56 57	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
99616	16 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)
99617	12 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO,AO)*
99618 99619	8 MACCONOCHIE ST, YERONG CREEK NSW 2642 1-3 QUEEN ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	62 56	CO1, CO2 CO1	CO1, CO2 CO1	CO1, CO2, RO, (AO, AltA) CO1, CO2, (RO,AO)*
99621	2 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)
99628	14 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)
99635 99638	20 COLE ST, YERONG CREEK NSW 2642 30 COLE ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	54 50	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1
	15 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	58	CO1	CO1	CO1, CO2, (RO,AO)*
99641	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
99649 99651	LOT 2 MACCONOCHIE ST, YERONG CREEK NSW 2642 17 QUEEN ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	63 56	CO1, CO2 CO1	CO1, CO2 CO1	CO1, CO2, RO, (AO, AltA) CO1, CO2, (RO,AO)*
	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	55	C01	C01	CO1, CO2, (RO,AO)*
99655	10 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	65	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)
	21 QUEEN ST, YERONG CREEK NSW 2642 23 QUEEN ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	53 50	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1
	18 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	58	C01	C01	CO1, CO2, (RO,AO)*
99668	LOT 2, COX STREET, YERONG CREEK NSW 2642	55	55	55	-	73	CO1, CO2	CO1, CO2	-
99669	14 COLE ST, YERONG CREEK NSW 2642	49	44 44	44	35 35	59 60	CO1 CO1, CO2	CO1	CO1, CO2, (RO,AO)*
	10 COLE ST, YERONG CREEK NSW 2642 10 COLE ST, YERONG CREEK NSW 2642	49 49	44	44	35	60	CO1, CO2 CO1, CO2	CO1, CO2 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA)
99674	6 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	62	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)
99675	2 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)
99678 99681	LOT 2, COX STREET, YERONG CREEK NSW 2642 29 COLE ST, YERONG CREEK NSW 2642	55 49	55 44	55 44	- 35	74 53	CO1, CO2 CO1	CO1, CO2 CO1	- CO1, CO2, (RO,AO)*
99683	25 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	57	CO1	C01	CO1, CO2, (RO,AO)*
	1-3 PLUNKETT ST, YERONG CREEK NSW 2642	70	70		-	72	CO1	-	-
99685 99686	19 COLE ST, YERONG CREEK NSW 2642 23 COLE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	57 53	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
99690	13-15 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA
99691	15 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	60	CO1, CO2	CO1, CO2	CO1, CO2, (RO,AO)*
99692	13 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	54	C01	C01	CO1, CO2, (RO,AO)*
99697 99700	11 PLUNKETT ST, YERONG CREEK NSW 2642 11 COLE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	58 61	CO1 CO1, CO2	CO1 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA)
99702	7 COLE ST, YERONG CREEK NSW 2642 5 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA
99704	5 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	65	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)
99705 99709	3 COLE ST, YERONG CREEK NSW 2642 21 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	66 61	CO1, CO2 CO1, CO2	CO1, CO2 CO1, CO2	CO1, CO2, RO, (AO, AltA) CO1, CO2, RO, (AO, AltA)
99713	LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642	75	75	-	-	86	CO1	-	-
99715	23 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	59	CO1	CO1	CO1, CO2, (RO,AO)*
99717 99719	2 PLUNKETT ST, YERONG CREEK NSW 2642 YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	70 55	70		-	71	CO1 CO1, CO2	-	-
	27-39 PLUNKETT ST, YERONG CREEK NSW 2642	49	55 44	44	35	57	CO1	CO1	CO1, CO2, (RO,AO)*
99729	10 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	65	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA
99732 99733	6 PLUNKETT ST, YERONG CREEK NSW 2642	60 49	60 44	60 44	- 35	63 51	CO1 CO1	CO1 CO1	- CO1, CO2, (RO,AO)*
	17 HAY ST, YERONG CREEK NSW 2642 15 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	52	C01	C01	CO1, CO2, (RO,AO)*
99737	15 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO,AO)*
	15-23 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
99742 99745	5 HAY ST, YERONG CREEK NSW 2642 5-9 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	56 58	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
99749	3 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA
99750	1 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	63	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA
99752 99753	5 WARATAH ST, YERONG CREEK NSW 2642 2 FINLAYSON LANE, YERONG CREEK NSW 2642	49 49	44	44	35 35	63 65	CO1, CO2 CO1, CO2	CO1, CO2 CO1, CO2	CO1, CO2, RO, (AO, AltA CO1, CO2, RO, (AO, AltA
99753 99754	15 COX ST, YERONG CREEK NSW 2642	49	44	44	35	65	CO1, CO2	C01, C02	CO1, CO2, RO, (AO, AltA
99773	19 COX ST, YERONG CREEK NSW 2642	49	44	44	35	64	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA
99774 99776	51 PLUNKETT ST, YERONG CREEK NSW 2642 51 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	51 49	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1
99776 99778	53 PLUNKETT ST, YERONG CREEK NSW 2642 53 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	49 49	CO1 CO1	C01 C01	CO1
99779	67 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	CO1	CO1
99785	13 COX ST, YERONG CREEK NSW 2642	49	44	44	35	52	CO1	C01	CO1, CO2, (RO,AO)*
99786 99790	5 MACKIE ST, YERONG CREEK NSW 2642 11 COX ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	57 60	CO1 CO1. CO2	CO1 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
99792	63 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	47	CO1	CO1	CO1
99795	65 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	47	CO1	CO1	CO1
99798	83-85 PLUNKETT ST, YERONG CREEK NSW 2642	49	44 44	44	35	45	CO1	C01	CO1 CO2 (RO AO)*
99801	7 COX ST, YERONG CREEK NSW 2642 5 COX ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	53 57	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
99802	3 COX ST, YERONG CREEK NSW 2642	49	44	44	35	52	CO1	CO1	CO1, CO2, (RO,AO)*
99804	1 PATTON ST, YERONG CREEK NSW 2642	49	44	44	35	51	CO1	CO1	CO1, CO2, (RO,AO)*
99813 99835	WINDANA 3455 OSBORNE YERONG CREEK RD, YERONG CREEK NSW 3 3308 OLYMPIC HWY, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	39 39	-	-	CO1 CO1
99837	3308 OLYMPIC HWY, YERONG CREEK NSW 2642	49	44	44	35	38	-	-	CO1
99848	3308 OLYMPIC HWY, YERONG CREEK NSW 2642	49	44	44	35	36			CO1
000504	13 Queen St, Yerong Creek NSW 2642	49 49	44	44	35	58 57	CO1	CO1 CO1	CO1, CO2, (RO,AO)*
000506	28 Cox St, Yerong Creek NSW 2642 2-4 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	57 62	CO1 CO1, CO2	CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA
100030	25 Plunkett St, Yerong Creek NSW 2642	49	44	44	35	57	CO1	CO1	CO1, CO2, (RO,AO)*
100031	LOT 1,34 MACCONOCHIE STREET, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	CO1	CO1
100032	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26 YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	55 55	55 55	-	-	67 70	CO1 CO1	-	
		JD	50		-	70	501	[	

#### W.009 - Level Crossing Work - Peak

W.010 -	Level Crossing Work - Typical								
								Additional Mitigation	Additional Mitigation
		NML	NML	NML	NML	Predicted Level	Additional Mitigation	n Evening	Night
SLR ID		Daytime	Daytime OOH	Evening	Night-time	LAeq(15min)	Daytime OOH	*(>2 consecutive rest periods)	*(>2 consecutive sleep periods
	HILLTOP 96 FINLAYSON LANE, YERONG CREEK NSW 2642 12-14 COX ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	36 57	- CO1	- CO1	CO1 CO1, CO2, (RO,AO)*
	32 MACCONOCHIE ST, YERONG CREEK NSW 2042	49	44	44	35	48	C01	C01	CO1, CO2, (KO,AO)
199605	28 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	CO1	CO1
199609 199611	20 MACCONOCHIE ST, YERONG CREEK NSW 2642 18 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	52 53	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)*
199616	16 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	53	C01	C01	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
199617	12 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
199618	8 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	58	CO1	C01	CO1, CO2, (RO,AO)*
199619 199621	1-3 QUEEN ST, YERONG CREEK NSW 2642 2 MACCONOCHIE ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	52 60	CO1 CO1, CO2	CO1 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
199628	14 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	59	CO1	CO1	CO1, CO2, (RO,AO)*
	20 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	CO1	CO1
199638	30 COLE ST, YERONG CREEK NSW 2642 15 QUEEN ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	46 54	CO1 CO1	CO1 CO1	CO1 CO1, CO2, (RO,AO)*
199641	26 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	50	CO1	CO1	CO1
	LOT 2 MACCONOCHIE ST, YERONG CREEK NSW 2642	49	44	44	35	59	CO1	CO1	CO1, CO2, (RO,AO)*
199651 199653		49	44 44	44 44	35	52	CO1	C01	CO1, CO2, (RO,AO)*
	26 COLE ST, YERONG CREEK NSW 2642 10 FINLAYSON LANE, YERONG CREEK NSW 2642	49 49	44	44	35 35	51 61	CO1 CO1, CO2	CO1 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, RO, (AO, AltA)*
199663	21 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	49	CO1	CO1	CO1
199664	23 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	46	CO1	CO1	CO1
199666 199668	18 COLE ST, YERONG CREEK NSW 2642 LOT 2, COX STREET, YERONG CREEK NSW 2642	49 55	44	44	35	54 69	CO1	CO1	CO1, CO2, (RO,AO)*
199669	14 COLE ST, YERONG CREEK NSW 2642	49	55 44	55 44	35	55	CO1 CO1	CO1 CO1	- CO1, CO2, (RO,AO)*
199670	10 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO,AO)*
199673	10 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	57	CO1	CO1	CO1, CO2, (RO,AO)*
199674 199675	6 COLE ST, YERONG CREEK NSW 2642 2 COLE ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	58 60	CO1 CO1, CO2	CO1 CO1, CO2	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
	LOT 2, COX STREET, YERONG CREEK NSW 2042	55	55	55	-	70	CO1, CO2	CO1	-
199681	29 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	49	CO1	CO1	CO1
199683	25 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO,AO)*
	19 COLE ST, YERONG CREEK NSW 2642 23 COLE ST, YERONG CREEK NSW 2642	49 49	44	44 44	35 35	53 49	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1
199690	13-15 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	59	CO1	C01	CO1, CO2, (RO,AO)*
199691	15 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	56	CO1	CO1	CO1, CO2, (RO,AO)*
199692 199697	13 COLE ST, YERONG CREEK NSW 2642 11 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	50 54	CO1 CO1	CO1 CO1	CO1 CO1, CO2, (RO,AO)*
	11 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	57	C01	C01	CO1, CO2, (RO,AO)*
199702	7 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	59	CO1	CO1	CO1, CO2, (RO,AO)*
199704	5 COLE ST, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
199705 199709	3 COLE ST, YERONG CREEK NSW 2642 21 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	62 57	CO1, CO2 CO1	CO1, CO2 CO1	CO1, CO2, RO, (AO, AltA)* CO1, CO2, (RO,AO)*
199713	LOT 5557 ORANGE FLAT LANE, YERONG CREEK NSW 2642	75	75	-	-	82	CO1	-	-
	23 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	55	CO1	CO1	CO1, CO2, (RO,AO)*
199719 199728	YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26 27-39 PLUNKETT ST, YERONG CREEK NSW 2642	55 49	55 44	- 44	35	67 53	CO1 CO1	- CO1	- CO1, CO2, (RO,AO)*
	10 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	61	C01, C02	C01, C02	CO1, CO2, (RO, AO) CO1, CO2, RO, (AO, AltA)*
199733	17 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	47	CO1	CO1	CO1
	15 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	CO1	CO1
199737	15 HAY ST, YERONG CREEK NSW 2642 15-23 HAY ST, YERONG CREEK NSW 2642	49 49	44	44 44	35 35	48	CO1 CO1	CO1 CO1	CO1 CO1
199740	5 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	52	C01	C01	CO1, CO2, (RO,AO)*
199745	5-9 HAY ST, YERONG CREEK NSW 2642	49	44	44	35	54	CO1	CO1	CO1, CO2, (RO,AO)*
		49	44	44	35	57	CO1	C01	CO1, CO2, (RO,AO)*
199750 199752	1 HAY ST, YERONG CREEK NSW 2642 5 WARATAH ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	59 59	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
199753	2 FINLAYSON LANE, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
199754	15 COX ST, YERONG CREEK NSW 2642	49	44	44	35	61	CO1, CO2	CO1, CO2	CO1, CO2, RO, (AO, AltA)*
199773	19 COX ST, YERONG CREEK NSW 2642 51 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44 44	35 35	60 47	CO1, CO2 CO1	CO1, CO2 CO1	CO1, CO2, (RO,AO)* CO1
199774	51 PLUNKETT ST, YERONG CREEK NSW 2642 51 PLUNKETT ST, YERONG CREEK NSW 2642	49 49	44 44	44	35	47	C01	C01	C01
199778	53 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	45	C01	C01	CO1
199779	67 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	44	-	-	CO1
199785 199786	13 COX ST, YERONG CREEK NSW 2642 5 MACKIE ST, YERONG CREEK NSW 2642	49 49	44 44	44	35 35	48 53	CO1 CO1	CO1 CO1	CO1 CO1, CO2, (RO,AO)*
199790	11 COX ST, YERONG CREEK NSW 2642	49	44	44	35	56	C01	C01	CO1, CO2, (RO,AO)*
199792	63 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	43	-	-	CO1
	65 PLUNKETT ST, YERONG CREEK NSW 2642	49	44	44	35	43	-	-	CO1
	83-85 PLUNKETT ST, YERONG CREEK NSW 2642 7 COX ST, YERONG CREEK NSW 2642	49 49	44	44	35 35	41 49	- CO1	- CO1	CO1 CO1
199801	5 COX ST, YERONG CREEK NSW 2642	49	44	44	35	53	CO1	CO1	CO1, CO2, (RO,AO)*
199802	3 COX ST, YERONG CREEK NSW 2642	49	44	44	35	48	CO1	CO1	CO1
199804	1 PATTON ST, YERONG CREEK NSW 2642	49	44	44	35	47	CO1	CO1	CO1
1000504	13 Queen St, Yerong Creek NSW 2642 28 Cox St, Yerong Creek NSW 2642	49 49	44	44	35 35	54 53	CO1 CO1	CO1 CO1	CO1, CO2, (RO,AO)* CO1, CO2, (RO,AO)*
1000891	2-4 QUEEN ST, YERONG CREEK NSW 2642	49	44	44	35	58	CO1	C01	CO1, CO2, (RO,AO)*
		49	44	44	35	53	CO1	CO1	CO1, CO2, (RO,AO)*
1100030	25 Plunkett St, Yerong Creek NSW 2642								CO1
1100031	LOT 1,34 MACCONOCHIE STREET, YERONG CREEK NSW 2642	49	44	44	35	63	-	-	-
	22 Plunket St, Yerong Creek NSW 2642 LOT 1,34 MACCONOCHIE STREET, YERONG CREEK NSW 2642 YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26 YERONG CREEK PUBLIC SCHOOL 1 COLE ST, YERONG CREEK NSW 26	49 55 55	44 55 55			44 63 66	- CO1 CO1	-	-

#### W.010 - Level Crossing Work - Typical



Making Sustainability Happen