

Noise Assessment

Proposed Service Station Development

42–48 Cooma Road

Narrabri, NSW

Prepared For: Brown Commercial Building Pty Ltd

May 2026

MAC262687-01RP1

Document Information

Noise Assessment

Proposed Service Station Development

42–48 Cooma Road

Narrabri, NSW

Prepared for: Brown Commercial Building Pty Ltd

2 Elwell Close

Beresfield NSW 2322

Prepared by: Muller Acoustic Consulting Pty Ltd

PO Box 678, Kotara NSW 2289

ABN: 36 602 225 132

P: +61 2 4920 1833

www.mulleracoustic.com

PROJECT MANAGER	PREPARED BY	REVIEWED BY	DATE	REPORT NO
Robin Heaton	Robin Heaton	Oliver Muller	28 May 2026	MAC262687-01RP1
				

DISCLAIMER

All documents produced by Muller Acoustic Consulting Pty Ltd (MAC) are prepared for a particular client's requirements and are based on a specific scope, circumstances and limitations derived between MAC and the client. Information and/or report(s) prepared by MAC may not be suitable for uses other than the original intended objective. No parties other than the client should use or reproduce any information and/or report(s) without obtaining permission from MAC. Any information and/or documents prepared by MAC is not to be reproduced, presented or reviewed except in full.

CONTENTS

1	INTRODUCTION	5
2	PROJECT DESCRIPTION	7
2.1	BACKGROUND.....	7
2.2	RECEIVER REVIEW.....	8
3	NOISE POLICY AND GUIDELINES.....	11
3.1	NOISE POLICY FOR INDUSTRY	11
3.1.1	PROJECT NOISE TRIGGER LEVELS (PNTL).....	12
3.1.2	RATING BACKGROUND LEVEL (RBL).....	12
3.1.3	PROJECT INTRUSIVENESS NOISE LEVEL (PINL)	12
3.1.4	PROJECT AMENITY NOISE LEVEL (PANL).....	13
3.2	INTERIM CONSTRUCTION NOISE GUIDELINE	15
3.2.1	STANDARD HOURS FOR CONSTRUCTION.....	16
3.2.2	CONSTRUCTION NOISE MANAGEMENT LEVELS.....	16
3.2.3	MINIMISING CONSTRUCTION NOISE.....	17
4	EXISTING ENVIRONMENT	19
4.1	UNATTENDED NOISE MONITORING	19
4.2	ATTENDED NOISE MONITORING	20
5	ASSESSMENT CRITERIA.....	21
5.1	OPERATIONAL PROJECT NOISE TRIGGER LEVELS (CRITERIA).....	21
5.1.1	PROJECT INTRUSIVENESS NOISE LEVELS	21
5.1.2	DETERMINATION OF NPI RESIDENTIAL RECEIVER AMENITY CATEGORY.....	21
5.1.3	PROJECT AMENITY NOISE LEVELS	22
5.1.4	PROJECT NOISE TRIGGER LEVELS.....	22
5.1.5	MAXIMUM NOISE TRIGGER LEVELS.....	23
5.2	CONSTRUCTION NOISE MANAGEMENT LEVELS.....	24
6	MODELLING METHODOLOGY	25
6.1	MITIGATION INCLUDED IN DESIGN AND NOISE CONTROL RECOMMENDATIONS.....	25
6.2	SOUND POWER LEVELS.....	26
7	ASSESSMENT RESULTS	29

7.1	OPERATIONAL NOISE ASSESSMENT	29
7.2	MAXIMUM NOISE LEVEL ASSESSMENT	33
7.3	CONSTRUCTION NOISE ASSESSMENT.....	34
8	DISCUSSION AND CONCLUSION.....	35
APPENDIX A – GLOSSARY OF TERMS		
APPENDIX B – SITE PLANS		
APPENDIX C – NOISE MONITORING CHARTS		
APPENDIX D – DETERMINATION OF NPI RECEIVER CATEGORY		

1 Introduction

Muller Acoustic Consulting Pty Ltd (MAC) has been commissioned by Brown Commercial Building Pty Ltd to prepare a Noise Assessment (NA) to quantify emissions from the proposed Service Station Development to be located at 42-48 Cooma Road, Narrabri, NSW.

The NA has quantified potential operational and sleep disturbance noise emissions from the project and recommends reasonable and feasible noise controls where required.

This assessment has been undertaken in accordance with the following documents:

- NSW Environment Protection Authority (EPA), Noise Policy for Industry (NPI) 2017;
- NSW Department of Environment and Climate Change (DECCW) – NSW Interim Construction Noise Guideline (ICNG), July 2009;
- NSW Department of Environment, Climate Change and Water (DECCW) – NSW Road Noise Policy (RNP), March 2011;
- NSW Environment Protection Authority (EPA), Approved Methods for the measurement and analysis of environmental noise in NSW, 2022;
- Australian Standard AS 1055:2018 - Acoustics - Description and measurement of environmental noise - General Procedures;
- International Organisation for Standardisation (ISO) 9613-2:1996 (ISO9613:2) - Acoustics - Attenuation of Sound during Propagation Outdoors - Part 2: General Method of Calculation; and
- ISO/TR 17534-3 - Acoustics — Software for the calculation of sound outdoors — Part 3: Recommendations for quality assured implementation of ISO 9613-2 in software according to ISO 17534-1.

A glossary of terms, definitions and abbreviations used in this report is provided in **Appendix A**.

This page has been intentionally left blank

2 Project Description

2.1 Background

The project is proposed at 42–48 Cooma Road, Narrabri, NSW. The site is zoned MU1 for Mixed Use and is located within an area comprising a mix of commercial, residential, and infrastructure land uses.

The site is bound to the northwest by Cooma Road, which is also called the Newell High, and bound to the southeast by Peele Street.

The nearest residential receiver to the project site is a single-storey dwelling located immediately to the south of the site. An additional receiver is located on the northern side of the site which is a manager's residence for the project site. Accordingly, this receiver has been assessed as a caretaker's residence in accordance with the guidance outlined in the NPI. A temporary accommodation receiver which is located further to the south of the project site and a commercial receiver on the far side of the highway have also been considered as part of this assessment. The project site and surrounding receivers are shown in **Figure 1**.

The existing ambient acoustic environment is dominated by continual passing road traffic along Cooma Road/Newell Highway.

The proposed project consists of a service station, with convenience store, light and heavy vehicle forecourts both with overhead canopies, a loading bay at the rear of the site and associated light and heavy vehicle parking areas. The project is proposed to operate 24 hours, seven days.

Appendix B provides the site layout plans of the project site.

2.2 Receiver Review

A review of residential receivers in proximity to the project has been completed and are summarised in **Table 1**. **Figure 1** provides a locality plan showing the position of these receivers in relation to the project.

Table 1 Receiver Locations				
Receiver	Receiver Type	Receiver Height (m)	Coordinates (MGA56)	
			Easting	Northing
R01	Residential	1.5	189238	6639159
R02	Residential	1.5	189275	6639119
R03	Residential	1.5	189283	6639092
R04	Residential	1.5	189317	6639072
R05	Residential	1.5	189173	6638981
R06	Residential	1.5	189080	6639048
R07	Residential	1.5	189023	6639066
R08	Residential	1.5	189033	6639079
R09	Residential	1.5	189045	6639094
PR01	Project Related Caretakers Residence	1.5	189119	6639117
TA01	Temporary Accommodation	1.5	189087	6639020
C01	Commercial	1.5	189054	6639140



FIGURE 1
Locality Plan
MAC262687-01
Narrabri Service Station

KEY

- Receiver
- Unattended Noise Monitoring Location
- Attended Noise Monitoring Location
- Site Boundary



This page has been intentionally left blank

3 Noise Policy and Guidelines

3.1 Noise Policy for Industry

The EPA released the Noise Policy for Industry (NPI) in October 2017 which provides a process for establishing noise criteria for consents and licenses enabling the EPA to regulate noise emissions from scheduled premises under the Protection of the Environment Operations Act 1997. The objectives of the NPI are to:

- provide noise criteria that is used to assess the change in both short term and long-term noise levels;
- provide a clear and consistent framework for assessing environmental noise impacts from industrial premises and industrial development proposals;
- promote the use of best-practice noise mitigation measures that are feasible and reasonable where potential impacts have been identified; and
- support a process to guide the determination of achievable noise limits for planning approvals and/or licences, considering the matters that must be considered under the relevant legislation (such as the economic and social benefits and impacts of industrial development).

The policy sets out a process for industrial noise management involving the following key steps:

1. Determine the Project Noise Trigger Levels (PNTLs) (ie criteria) for a development. These are the levels (criteria), above which noise management measures are required to be considered. They are derived by considering two factors: shorter-term intrusiveness due to changes in the noise environment; and maintaining the noise amenity of an area.
2. Predict or measure the noise levels produced by the development with regard to the presence of annoying noise characteristics and meteorological effects such as temperature inversions and wind.
3. Compare the predicted or measured noise level with the PNTL, assessing impacts and the need for noise mitigation and management measures.
4. Consider residual noise impacts - that is, where noise levels exceed the PNTLs after the application of feasible and reasonable noise mitigation measures. This may involve balancing economic, social and environmental costs and benefits from the proposed development against the noise impacts, including consultation with the affected community where impacts are expected to be significant.
5. Set statutory compliance levels that reflect the best achievable and agreed noise limits for the development.
6. Monitor and report environmental noise levels from the development.

3.1.1 Project Noise Trigger Levels (PNTL)

The policy sets out the procedure to determine the PNTLs relevant to an industrial development. The PNTL is the lower (ie, the more stringent) of the **Project Intrusiveness Noise Level (PINL)** and **Project Amenity Noise Level (PANL)** determined in accordance with Section 2.3 and Section 2.4 of the NPI.

3.1.2 Rating Background Level (RBL)

The Rating Background Level (RBL) is a parameter determined from noise monitoring and is used for assessment purposes. As per the NPI, the RBL is an overall single figure background level representing each assessment period (day, evening and night) over the noise monitoring period. The measured RBLs relevant to the project are contained in **Section 4.1**

3.1.3 Project Intrusiveness Noise Level (PINL)

The PINL ($L_{Aeq}(15min)$) is the RBL + 5dB and seeks to limit the degree of change a new noise source introduces to an existing environment. Hence, when assessing intrusiveness, background noise levels need to be measured.

Background noise levels need to be determined before intrusive noise can be assessed. The NPI states that background noise levels to be measured are those that are present at the time of the noise assessment and without the subject development operating. For the assessment of modifications to existing premises, the noise from the existing premises should be excluded from background noise measurements. It is note that the exception is where the premises has been operating for a significant period of time and is considered a normal part of the acoustic environment; it may be included in the background noise assessment under the following circumstances:

- the development must have been operating for a period in excess of 10 years in the assessment period/s being considered and is considered a normal part of the acoustic environment; and,
- the development must be operating in accordance with noise limits and requirements imposed in a consent or licence and/or be applying best practice.

Where a project intrusiveness noise level has been derived in this way, the derived level applies for a period of 10 years to avoid continuous incremental increases in intrusiveness noise levels. This approach is consistent with the purpose of the intrusiveness noise level to limit significant change in the acoustic environment. The purpose of the project amenity noise level is to moderate against background noise creep.

3.1.4 Project Amenity Noise Level (PANL)

The PANL is relevant to a specific land use or locality. To limit continuing increases in intrusiveness levels, the ambient noise level within an area from all combined industrial sources should remain below the recommended amenity noise levels specified in Table 2.2 (of the NPI). The NPI defines two categories of amenity noise levels:

- **Amenity Noise Levels (ANL)** – are determined considering all current and future industrial noise within a receiver area; and
- **Project Amenity Noise Level (PANL)** – is the recommended level for a receiver area, specifically focusing on the project being assessed.

Additionally, Section 2.4 of the NPI states: “to ensure that industrial noise levels (existing plus new) remain within the recommended amenity noise levels for an area, a project amenity noise level applies for each new source of industrial noise as follows”:

PANL for new industrial developments = recommended **ANL** minus 5dBA.

The following exceptions apply when deriving the PANL:

- areas with high traffic noise levels;
- proposed developments in major industrial clusters;
- existing industrial noise and cumulative industrial noise effects; and
- greenfield sites.

The NPI states with respect to high traffic noise areas:

The level of transport noise, road traffic noise in particular, may be high enough to make noise from an industrial source effectively inaudible, even though the L_{Aeq} noise level from that industrial noise source may exceed the project amenity noise level. In such cases the project amenity noise level may be derived from the L_{Aeq} , period(traffic) minus 15 dB(A).

Where relevant this assessment has considered influences of traffic with respect to amenity noise levels (ie areas where existing traffic noise levels are 10dB greater than the recommended amenity noise level).

Furthermore, Section 2.4 of the NPI states “where the project amenity noise level applies and it can be met, no additional consideration of cumulative industrial noise is required.”

The recommended amenity noise levels as per Table 2.2 of the NPI are reproduced in **Table 2**.

Table 2 Amenity Noise Levels

Receiver Type	Noise Amenity Area	Time of day	Recommended amenity noise level dB LAeq(period)
Residential	Rural	Day	50
		Evening	45
		Night	40
	Suburban	Day	55
		Evening	45
		Night	40
	Urban	Day	60
		Evening	50
		Night	45
Hotels, motels, caretakers' quarters, holiday accommodation, permanent resident caravan parks.	See column 4	See column 4	5dB above the recommended amenity noise level for a residence for the relevant noise amenity area and time of day
School Classroom	All	Noisiest 1-hour period when in use	35 (internal) 45 (external)
Hospital ward			
- internal	All	Noisiest 1-hour	35
- external	All	Noisiest 1-hour	50
Place of worship			
- internal	All	When in use	40
Passive Recreation	All	When in use	50
Active Recreation	All	When in use	55
Commercial premises	All	When in use	65
Industrial	All	When in use	70

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Note: The recommended amenity noise levels refer only to noise from industrial noise sources. However, they refer to noise from all such sources at the receiver location, and not only noise due to a specific project under consideration. The levels represent outdoor levels except where otherwise stated.

Types of receivers are defined as rural residential; suburban residential; urban residential; industrial interface; commercial; industrial – see Table 2.3 and Section 2.7 of the NPI.

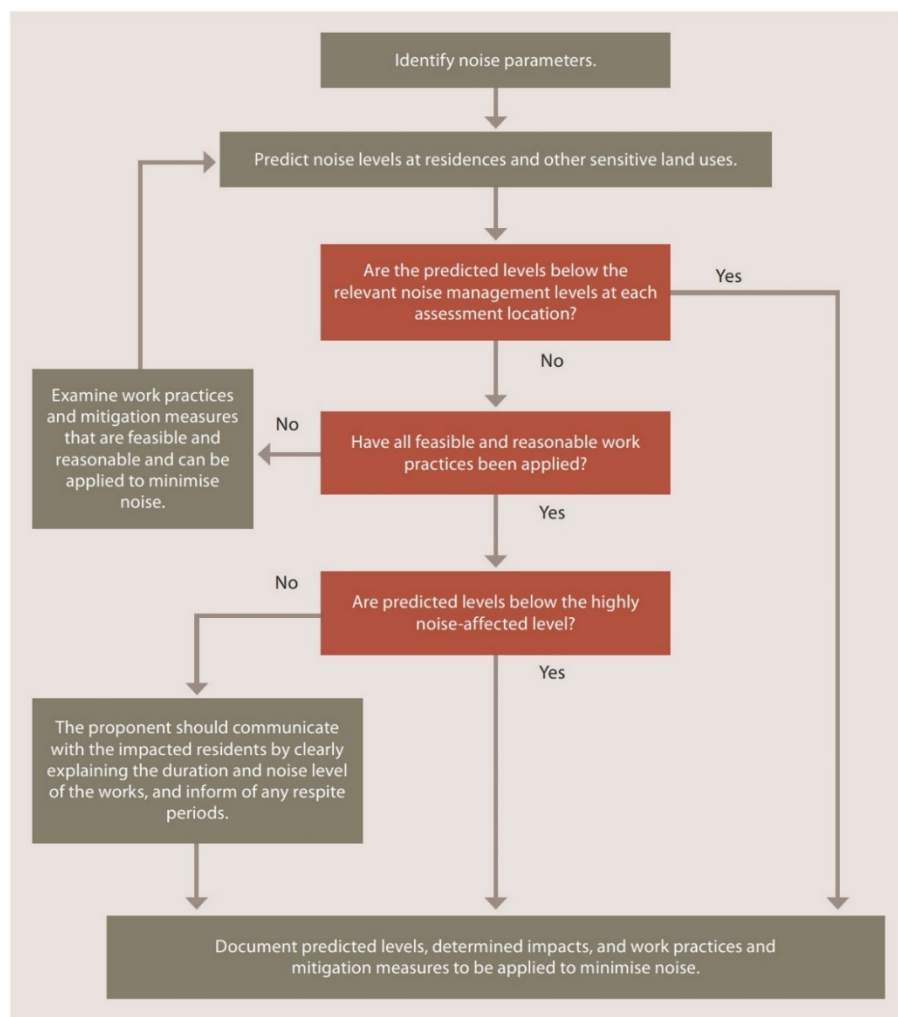
3.2 Interim Construction Noise Guideline

The ICNG sets out procedures to identify and address the impacts of construction noise on residences and other sensitive land uses. This section provides a summary of noise objectives that are applicable to the assessment. The ICNG provides two methodologies for the assessment of construction noise emissions:

- Quantitative, which is suited to major construction projects with typical durations of more than three weeks; and
- Qualitative, which is suited to short term infrastructure maintenance (< three weeks).

The qualitative assessment methodology is a more simplified approach that relies on noise management strategies. This NA has adopted a quantitative assessment approach which is summarised in **Figure 2**. The quantitative approach includes identification of potentially affected receivers, derivation of the construction noise management levels, quantification of potential noise impact at receivers via predictive modelling and, provides management and mitigation recommendations.

Figure 2 Quantitative Assessment Processes for Assessing and Managing Construction Noise



Source: Department of Environment and Climate Change, 2009.

3.2.1 Standard Hours for Construction

Table 3 presents the ICNG recommended standard hours for construction works.

Table 3 Recommended Standard Hours for Construction	
Daytime	Construction Hours
Monday to Friday	7am to 6pm
Saturdays	8am to 1pm
Sundays or Public Holidays	No construction

These recommended hours do not apply in the event of direction from police, or other relevant authorities, for safety reasons or where required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.

Construction activities are anticipated to be undertaken during standard construction hours.

3.2.2 Construction Noise Management Levels

Section 4 of the ICNG details the quantitative assessment method involving predicting noise levels and comparing them with the Noise Management Level (NML) and are important indicators of the potential level of construction noise impact. **Table 4** reproduces the ICNG Noise Management Level (NML) for residential receivers. The NML is determined by adding 10dB (standard hours) or 5dB for Out of Hours (OOH) to the Rating Background Level (RBL) for each specific assessment period.

Table 4 Noise Management Levels

Time of Day	Management Level LAeq(15min) ¹	How to Apply
Recommended standard hours: Monday to Friday 7am to 6pm Saturday 8am to 1pm No work on Sundays or public holidays.	Noise affected RBL + 10dB	The noise affected level represents the point above which there may be some community reaction to noise. Where the predicted or measured LAeq(15min) is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level. The proponent should also inform all potentially impacted residents of the nature of work to be carried out, the expected noise levels and duration, as well as contact details.
	Highly Noise Affected 75dBA (HNA)	The highly noise affected level represents the point above which there may be strong community reaction to noise. Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restricting the hours that the very noisy activities can occur, taking into account times identified by the community when they are less sensitive to noise such as before and after school for work near schools, or mid-morning or mid-afternoon for work near residences; and if the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.
Outside recommended standard hours.	Noise affected RBL + 5dB	A strong justification would typically be required for work outside the recommended standard hours. The proponent should apply all feasible and reasonable work practices to meet the noise affected level. Where all feasible and reasonable practices have been applied and noise is more than 5dBA above the noise affected level, the proponent should negotiate with the community. For guidance on negotiating agreements see Section 7.2.2 of the ICNG.

Note 1: The Rating Background Level (RBL) is an overall single figure background level representing each assessment period over the whole monitoring period. The RBL is used to determine the construction noise management levels for noise assessment purposes and is the median of the ABL's.

3.2.3 Minimising Construction Noise

The ICNG outlines noise management and mitigation measures to minimise the noise impacts from construction activities on nearby sensitive receivers. Adopting the standard mitigation measures may result in an attenuation of up to 10dBA where space requirements place limitations on the attenuation options. Examples of standard mitigation measures are reproduced in **Table 5**, which may be adopted for the operation.

Table 5 Standard Mitigation Measures

	Action Required	Details
Management Measures	Implement community consultation or notification measures	Notification detailing work activities, dates, and hours, impacts and mitigation measures, indication of work schedule over the night-time period, any operational noise benefits from the works (where applicable) and contact telephone number. Notification should be a minimum of 7 calendar days prior to the start of works. For projects other than maintenance works more advanced consultation or notification may be required. Please contact Roads and Maritime Communication and Stakeholder Engagement for guidance: - website (If required); - contact telephone number for community; - email distribution list (if required); and/or - community drop-in session (if required by approval conditions).
	Site Inductions	All employees, contractors and subcontractors are to receive an environmental induction. The induction must at least include: - all relevant project specific and standard noise and vibration mitigation measures; - relevant licence and approval conditions; - permissible hours of work; - any limitations on noise generating activities; - location of nearest sensitive receivers; - construction employee parking areas; - designated loading/unloading areas and procedures; - site opening/closing times (including deliveries); and - environmental incident procedures.
Site Controls	Minimise disturbance arising from delivery of goods to construction sites	Loading and unloading of materials/deliveries is to occur as far as possible from sensitive receivers. Select site access points and roads as far as possible away from sensitive receivers. Dedicated loading/unloading areas to be shielded if close to sensitive receivers. Delivery vehicles to be fitted with straps rather than chains for unloading, wherever possible. Avoid or minimise these out of hours movements where possible.
	Shield stationary noise sources	Stationary noise sources should be enclosed or shielded whilst ensuring that the occupational health and safety of workers is maintained. Appendix D of AS2436:2010 lists materials suitable for shielding.
Path Controls	Shield sensitive receivers from noise activities	Use structures to shield residential receivers from noise such as site shed placement; earth bunds; fencing; erection of operational stage noise barriers (where practicable) and consideration of site topography when situating plant.

4 Existing Environment

4.1 Unattended Noise Monitoring

To quantify the existing background noise environment of the area, unattended noise monitoring was conducted at one location representative of the ambient environment surrounding the project site. The selected monitoring location is shown in **Figure 1** and is considered representative of surrounding residential receivers as per Fact Sheet B1.1 of the NPI.

The unattended noise survey was conducted in general accordance with the procedures described in Australian Standard AS 1055:2018, "Acoustics – Description and Measurement of Environmental Noise".

The measurements were carried out using one Svantek 977 noise analyser from Monday 23 March 2026 to Wednesday 1 April 2026 the acoustic instrumentation used carries current NATA calibration and complies with AS/NZS IEC 61672.1-2019-Electroacoustics - Sound level meters - Specifications. Calibration of all instrumentation was checked prior to and following measurements. Drift in calibration did not exceed $\pm 0.5\text{dBA}$. All equipment carries appropriate and current NATA (or manufacturer) calibration certificates with records of all calibrations maintained by MAC as per the EPA's Approved Methods for the measurement and analysis of environmental noise in NSW (EPA, 2022). Data affected by adverse meteorological conditions have been excluded from the results in accordance with methodologies provided in Fact Sheet A4 of the NPI.

The results of long-term unattended noise monitoring are provided in **Table 6**. The measured daily ABLs for the background monitoring are provided in **Table C1** in **Appendix C** along with the daily noise monitoring charts.

Table 6 Background Noise Monitoring Summary

Monitoring Location	Period ¹	Measured Background	Measured dB LAeq
		Noise Level (LA90) dB RBL	
L1	Day	45	68
	Evening	42	67
	Night	34	64

Note 1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Excludes periods of wind or rain affected data. Meteorological data obtained from the Bureau of Meteorology weather station Narrabri Airport AWS, (30.2°S 149.8°E 230m AMSL)

Note: Calibration certificates of the sound level meters used for this project are available on request.

4.2 Attended Noise Monitoring

To supplement the unattended noise assessment and to quantify the changes in ambient noise in the community surrounding the operation, one 15 minute attended measurement was completed.

The attended noise survey was conducted in general accordance with the procedures described in Australian Standard AS 1055:2018, "Acoustics – Description and Measurement of Environmental Noise".

The acoustic instrumentation used carries current NATA calibration and complies with AS/NZS IEC 61672.1-2019-Electroacoustics - Sound level meters - Specifications. Calibration of all instrumentation was checked prior to and following measurements. Drift in calibration did not exceed ± 0.5 dBA. All equipment carries appropriate and current NATA (or manufacturer) calibration certificates with records of all calibrations maintained by MAC as per the EPA's Approved methods for the measurement and analysis of environmental noise in NSW (EPA, 2022).

The attended noise monitoring was conducted using one Svantek 971 noise analyser at the site (see **Figure 1**) on Wednesday 1 April 2026 to quantify ambient background noise levels.

The attended measurement was completed during calm and clear meteorological conditions and confirmed that ambient traffic and wildlife noise dominated the surrounding environment. The results of the short-term noise measurement and observations are summarised in **Table 7**.

Table 7 Operator-Attended Noise Survey Results					
Date/ Time (hrs)	Noise Descriptor (dB re 20 μ Pa)			Meteorology	Description and SPL, dBA
	L _{Amax}	L _{Aeq}	L _{A90}		
01/04/2026				WD: NE	Traffic 48-81
07:55	81	69	54	WS: 0.1m/s 19°C	Birds 45-48

5 Assessment Criteria

5.1 Operational Project Noise Trigger Levels (Criteria)

This section outlines the determination of PNTLs and Maximum Noise Assessment Trigger Levels in accordance with NPI methodology.

5.1.1 Project Intrusiveness Noise Levels

The PINL for the project are presented in **Table 8** and have been determined based on the RBL +5dBA and only apply to residential receivers.

Table 8 Project Intrusiveness Noise Levels					
Location	Receiver Type	Period ¹	Measured RBL dB LA90	Adopted RBL dB LA90	PINL dB LAeq(15min)
L1	Residential	Day	45	45	50
		Evening	42	42	47
		Night	34	34	39

Note 1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

5.1.2 Determination of NPI Residential Receiver Amenity Category

Classification of residential receivers in the surrounding area have been determined by review of the measured RBLs and a tally of the features for each category described in Table 2.3 of the NPI. The overall tally of features and resulting classifications are provided in **Table 9**. The detailed assessment of receiver categories is provided in **Appendix D**. This classification is used in conjunction with the intrusiveness criteria to determine the limiting criteria.

Table 9 Determination of NPI Residential Receiver Category			
Receiver/Location/Catchment	Rural	Suburban	Urban
L1	0	1	8

Observations at locations in the surrounding locality support the assessment of the receivers as an urban residential category.

5.1.3 Project Amenity Noise Levels

The relevant PANL for residential receivers and other receiver types (ie non-residential) potentially affected by the project are presented in **Table 10**.

Table 10 Amenity Noise Levels and Project Amenity Noise Levels					
Receiver Type	Noise Amenity Area	Assessment Period ¹	Recommended ANL dB LAeq(period)	ANL dB LAeq(period) ²	PANL dB LAeq(15min) ³
Residential	Urban	Day	60	55	58
		Evening	50	45	48
		Night	45	40	43
Temporary Accommodation and Managers Residences	Urban	Day	65	60	63
		Evening	55	50	53
		Night	50	45	48
Commercial		When in use	65	60	63

Note 1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Note 2: Project Amenity Noise Level equals the Amenity Noise Level -5dB as there is existing industry in the area.

Note 3: Includes a +3dB adjustment to the amenity period level to convert to a 15-minute assessment period as per Section 2.2 of the NPI.

5.1.4 Project Noise Trigger Levels

The PNTLs are the lower of either the PINLs or the PANLs. **Table 11** presents the derivation of the PNTLs in accordance with the methodologies outlined in the NPI.

Table 11 Project Noise Trigger Levels				
Receiver Type	Assessment Period ¹	PINL dB LAeq(15min)	PANL dB LAeq(15min)	PNTL dB LAeq(15min)
Residential	Day	50	58	50
	Evening	47	48	47
	Night	39	43	39
Temporary Accommodation and Managers Residences	Day	-- ²	63	63
	Evening	-- ²	53	53
	Night	-- ²	48	48
Commercial	When in use	--	63	63

Note 1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Note 2: As per NPI guidance, temporary accommodation and caretaker residence receivers are assessed on Amenity Noise Level only.

5.1.5 Maximum Noise Trigger Levels

The maximum noise trigger levels shown in **Table 12** are based on night time RBLs and the maximum noise trigger levels as per Section 2.5 of the NPI. The maximum noise trigger levels are applied to transient noise events that have the potential to cause sleep disturbance.

Table 12 Maximum Noise Trigger Levels (Night)			
Residential Receivers– Night Period			
LAeq(15min)		LAmax	
40dB LAeq(15min) or RBL + 5dB		52dB LAmax or RBL + 15dB	
Trigger	40	Trigger	52
RBL +5dB	39	RBL +15dB	49
Highest	40	Highest	52
Temporary Accommodation and Caretakers Residence Receivers– Night Period			
LAeq(15min)		LAmax	
N/A		65	

Notes: Monday to Saturday; Night 10pm to 7am. On Sundays and Public Holidays Night 10pm to 8am.

NPI identifies that maximum of the two values is to be adopted which is shown in bold font.

The NPI uses the maximum noise trigger levels as a screening tool to determine the potential for sleep disturbance. Essentially, exceeding the maximum noise trigger levels, does not result in sleep disturbance, but 'triggers' a further detailed assessment of maximum noise level (transient) events, considering additional factors such as the maximum noise level, the extent to which the maximum noise level exceeds the RBL, the number of times the event occurs, the distribution of events over the night time period and the time of night the event occurs.

To undertake a detailed maximum noise level assessment, the NPI provides additional guidance from the EPA NSW Road Noise Policy (RNP). Section 5.4 of the RNP outlines that a maximum internal noise level of 50-55dBA is unlikely to awaken people from sleep. Taking into account a 10dB loss for a partially open window an external level of 65dBA is unlikely to awaken internal occupants.

Hence, an external noise level of 65dB LAmax has been adopted to assess the potential for sleep disturbance for residential receivers and temporary accommodation receivers.

5.2 Construction Noise Management Levels

The relevant Noise Management Levels (NMLs) for standard construction hours are presented in Table 13.

Table 13 Construction Noise Management Levels			
Receiver Type	Assessment Period ¹	Adopted RBL dB LA90	NML dB LAeq(15min)
Residential	Standard Hours	45	55 (RBL+10dBA)
Commercial Premises	When in use	N/A	70 (external) ²

Note 1: See Table 3 for Standard Recommended Hours for Construction.

Note 2: Includes Temporary Accommodation and Caretakers Residences.

6 Modelling Methodology

A computer model was developed to quantify project noise emissions to neighbouring receivers using DGMR (iNoise, Version 2026) noise modelling software. iNoise is an intuitive and quality assured software for industrial noise calculations in the environment. 3D noise modelling is considered industry best practice for assessing noise emissions from projects.

The model incorporated a three-dimensional digital terrain map giving all relevant topographic information used in the modelling process. Additionally, the model uses relevant noise source data, ground type, attenuation from barrier or buildings and atmospheric information to predict noise levels at the nearest potentially affected receivers. Where relevant, modifying factors in accordance with Fact Sheet C of the NPI have been applied to calculations.

The model calculation method used to predict noise levels was in accordance with ISO 9613:1 and ISO 9613:2 including corrections for meteorological conditions using CONCAWE¹. The ISO 9613 standards are the most used noise prediction method worldwide. Many countries refer to ISO 9613 in their noise legislation. However, the ISO 9613 standard does not contain guidelines for quality assured software implementation, which leads to differences between applications in calculated results. In 2015 this changed with the release of ISO/TR 17534-3. This quality standard gives clear recommendations for interpreting the ISO 9613 method. iNoise fully supports these recommendations. The models and results for the 19 test cases are included in the software.

6.1 Mitigation Included in Design and Noise Control Recommendations

The noise model adopted the following assumptions, controls and recommendations:

- the project is constructed as per the site design and plans, which includes the barrier attenuation provided by the project buildings orientation;
- construction of an impervious barrier along the southeastern boundary of the site (see **Figure 3**). The barrier should be constructed to an RL of 2.4m above the relative ground level of the forecourt. The barrier should consist of materials with a minimum density of 10kg/m² and not contain any gaps;
- construction of an impervious barriers along the southwestern and northeastern boundary of the site (see **Figure 3**). The barrier should be constructed to an RL of 2.0m above the relative ground level of the forecourt. The barrier should consist of materials with a minimum density of 10kg/m² and not contain any gaps; and
- there is a 50% reduction in onsite light and heavy vehicles during the night period.

¹ Report no. 4/18, "the propagation of noise from petroleum and petrochemical complexes to neighbouring communities", Prepared by C.J. Manning, M.Sc., M.I.O.A. Acoustic Technology Limited (Ref.AT 931), CONCAWE, Den Haag May 1981

6.2 Sound Power Levels

Table 14 presents the sound power level for each noise source modelled in this assessment. It is noted that sound power levels were sourced from manufacturer's specifications or from in-field measurements at similar project sites.

Table 14 Acoustically Significant Sources - Sound Power Levels dBA (re 10^{-12} Watts)			
Item and number modelled per 15 minutes	Individual Sound Power Level	Modelled Sound Power Level dB LAeq(15min)	Source Height ¹
Operation			
Air-Conditioning Plant (x2)	71	74	0.5m
Extractor Fan (x2)	73	76	0.4m
Cold Room Condenser (x1)	75	75	0.5m
Customer's Light Vehicle idle, start up and drive off (x15) ²	67	77	0.5m
Customer's Light Vehicles travelling through forecourt (15 vehicles per 15min) ³	67	77 ²	0.5m
Customer's Heavy Vehicle start up (x5)	80	87	1.0m
Customer's Heavy Vehicles travelling through site (5 vehicles per 15min) ³	85	92 ²	1.0m
Waste Collection (x1)	85	85	1.0m
Heavy Vehicle Delivery (x1)	92	92	1.0m
Fuel Delivery (x1)	82	82	1.0m
Maximum Noise Level Assessment (LAmax), Nighttime periods (10pm to 7am)			
Vehicle Door Slam		87	0.5m
Fuel Delivery Impact		104	0.2m
Good Delivery Impact		104	0.5m
Waste Collection Impact		102	2.0m
Construction Fleet			
Combined Construction Fleet		108	1.5m

Note 1: Height above the relative ground or building below source.

Note 2: Includes a duration adjustment assuming vehicles operate for three (3) minutes continuously within a period of 15-minutes.

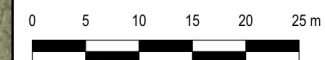
Note 3: Modelled as a moving point source with adjustments for length of travelled path, velocity and number of movements in a 15-minute period.

FIGURE 3
Barrier Plan
MAC262687-01
Narrabri Service Station



KEY

- 2.0m Acoustic Barrier
- 2.4m Acoustic Barrier



This page has been intentionally left blank

7 Assessment Results

This assessment has quantified operational noise levels at the nearest receivers.

7.1 Operational Noise Assessment

Noise predictions from all operational noise sources have been quantified at surrounding receivers. The coincidence of all plant occurring onsite simultaneously for an entire 15-minute period is unlikely. However, it is probable that several plant may operate simultaneously on occasion for a limited duration. To account for this, modelling has adopted the LAeq(15min) contribution of sources which were derived from manufacturer's specifications or from in-field measurements of project sources or activities. Results of the noise modelling predictions are presented in **Table 15** for operations without goods deliveries or waste collection during all periods.

Table 15 Operational Noise Predictions without Deliveries/Waste Collection – All Receivers¹

Residential Receivers							
Receiver	Predicted Noise Level			PNTL			Compliant
	dB LAeq(15min)			dB LAeq(15min)			
	Day	Evening	Night	Day	Evening	Night	
R01	<35	<35	<35	50	47	39	✓
R02	<35	<35	<35	50	47	39	✓
R03	<35	<35	<35	50	47	39	✓
R04	<35	<35	<35	50	47	39	✓
R05	<35	<35	<35	50	47	39	✓
R06	38	38	37	50	47	39	✓
R07	<35	<35	<35	50	47	39	✓
R08	<35	<35	<35	50	47	39	✓
R09	37	37	<35	50	47	39	✓
TA01	36	36	35	63	53	48	✓
PR01	40	40	37	63	53	48	✓
Other Receivers							
Receiver	Period	Predicted Noise Level		PNTL		Compliant	
		dB LAeq(15min)		dB LAeq(15min)			
C01	When in use	37		63		✓	

Note1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Results of the noise modelling predictions are presented in **Table 16** for operations with heavy vehicle deliveries during all periods.

Table 16 Operational Noise Predictions with Heavy Vehicle Deliveries – All Receivers ¹							
Residential Receivers							
Receiver	Predicted Noise Level			PNTL			Compliant
	dB LAeq(15min)			dB LAeq(15min)			
	Day	Evening	Night	Day	Evening	Night	
R01	36	36	36	50	47	39	✓
R02	<35	<35	<35	50	47	39	✓
R03	36	36	36	50	47	39	✓
R04	<35	<35	<35	50	47	39	✓
R05	38	38	38	50	47	39	✓
R06	39	39	38	50	47	39	✓
R07	<35	<35	<35	50	47	39	✓
R08	35	35	<35	50	47	39	✓
R09	38	38	36	50	47	39	✓
TA01	41	41	41	63	53	48	✓
PR01	41	41	39	63	53	48	✓
Other Receivers							
Receiver	Period	Predicted Noise Level		PNTL		Compliant	
		dB LAeq(15min)		dB LAeq(15min)			
C01	When in use	38		63		✓	

Note1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Results of the noise modelling are presented in **Table 17** for operations with waste collection during all periods.

Table 17 Operational Noise Predictions with Waste Collection – All Receivers ¹							
Residential Receivers							
Receiver	Predicted Noise Level			PNTL			Compliant
	dB LAeq(15min)			dB LAeq(15min)			
	Day	Evening	Night	Day	Evening	Night	
R01	<35	<35	<35	50	47	39	✓
R02	<35	<35	<35	50	47	39	✓
R03	<35	<35	<35	50	47	39	✓
R04	<35	<35	<35	50	47	39	✓
R05	35	35	<35	50	47	39	✓
R06	39	39	37	50	47	39	✓
R07	<35	<35	<35	50	47	39	✓
R08	35	35	<35	50	47	39	✓
R09	38	38	35	50	47	39	✓
TA01	38	38	38	63	53	48	✓
PR01	41	41	38	63	53	48	✓
Other Receivers							
Receiver	Period	Predicted Noise Level		PNTL		Compliant	
		dB LAeq(15min)		dB LAeq(15min)			
C01	When in use	37		63		✓	

Note1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Results of the noise modelling are presented in **Table 18** for operations with fuel deliveries during all periods.

Table 18 Operational Noise Predictions with Fuel Deliveries – All Receivers ¹							
Residential Receivers							
Receiver	Predicted Noise Level			PNTL			Compliant
	dB LAeq(15min)			dB LAeq(15min)			
	Day	Evening	Night	Day	Evening	Night	
R01	<35	<35	<35	50	47	39	✓
R02	<35	<35	<35	50	47	39	✓
R03	<35	<35	<35	50	47	39	✓
R04	<35	<35	<35	50	47	39	✓
R05	<35	<35	<35	50	47	39	✓
R06	38	38	37	50	47	39	✓
R07	<35	<35	<35	50	47	39	✓
R08	36	36	<35	50	47	39	✓
R09	38	38	36	50	47	39	✓
TA01	37	37	35	63	53	48	✓
PR01	42	42	39	63	53	48	✓
Other Receivers							
Receiver	Period	Predicted Noise Level		PNTL		Compliant	
		dB LAeq(15min)		dB LAeq(15min)			
C01	When in use	38		63		✓	

Note1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

7.2 Maximum Noise Level Assessment

In assessing maximum noise events, typical L_{Amax} noise levels from transient events at the project site were assessed at the nearest residential receivers. For the sleep disturbance assessment, a Sound Power Level of 87dBA for a door slam, 104dBA for a waste collection, fuel delivery impact or a goods delivery impact were adopted for maximum noise level (L_{Amax}) events during the night period. Predicted noise levels from L_{Amax} events for assessed receivers are presented in **Table 19**.

Table 19 Maximum Noise Level Assessment (Night)¹

Rec	Predicted Noise Level							Trigger Level	
	dB LAmax							NPI dB LAmax	RNP dB LAmax
	Door Slam	Door Slam	Door Slam	Door Slam	Fuel	Waste	Delivery Impact		
	Northern Space	Eastern Space	Southern Space	Western Space	Delivery Impact	Collection Impact			
Residential Receivers									
R01	<35	<35	<35	<35	43	46	47	52	65
R02	<35	<35	<35	<35	43	45	43	52	65
R03	<35	<35	<35	<35	43	47	47	52	65
R04	<35	<35	<35	<35	39	43	44	52	65
R05	<35	<35	<35	<35	41	47	49	52	65
R06	<35	35	<35	41	37	38	40	52	65
R07	<35	<35	<35	<35	47	<35	<35	52	65
R08	<35	<35	<35	38	48	<35	<35	52	65
R09	<35	<35	<35	39	49	<35	<35	52	65
PR01	41	<35	<35	<35	55	40	50	65	65
TA01	<35	36	<35	36	<35	50	52	65	65

Note1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

The predicted maximum levels results demonstrate compliance with the maximum noise trigger levels for door slams, waste collection and delivery impacts.

7.3 Construction Noise Assessment

Table 20 presents the results of modelled construction noise emissions taking into account the additional 10dB attenuation provided by standard mitigation measures. Predictions identify that emissions from construction would remain below the Construction NMLs at all assessed receivers with the inclusion of standard mitigation measures.

Table 20 Construction Noise Levels – All Receivers				
Receiver	Period ¹	Predicted Noise Level dB LAeq(15min)	Management Level dB LAeq(15min)	Compliant
R01	Day	37	55	✓
R02	Day	37	55	✓
R03	Day	39	55	✓
R04	Day	38	55	✓
R05	Day	45	55	✓
R06	Day	46	55	✓
R07	Day	47	55	✓
R08	Day	48	55	✓
R09	Day	50	55	✓
TA01	Day	42	70	✓
PR01	Day	40	70	✓
C01	Day	46	70	✓

Note 1: See Table 3 for Standard Recommended Hours for Construction.

8 Discussion and Conclusion

Muller Acoustic Consulting Pty Ltd (MAC) has completed a Noise Assessment (NA) to quantify emissions from the to quantify emissions from Service Station Development to be located at 42-48 Cooma Road, Narrabri, NSW.

The assessment has quantified potential operation emissions pertaining to customer generated noise, including customer light and heavy vehicles, mechanical plant and deliveries or waste collection for the project. The results of the NA demonstrate that noise emissions from the operation would satisfy the relevant PNTLs at all assessed receivers for all assessment periods once noise controls for the project are implemented (see **Section 6.1**):

- the project is constructed as per the site design and plans, which includes the barrier attenuation provided by the project buildings orientation;
- construction of an impervious barrier along the southeastern boundary of the site (see **Figure 3**). The barrier should be constructed to an RL of 2.4m above the relative ground level of the forecourt. The barrier should consist of materials with a minimum density of 10kg/m² and not contain any gaps;
- construction of an impervious barriers along the southwestern and northeastern boundary of the site (see **Figure 3**). The barrier should be constructed to an RL of 2.0m above the relative ground level of the forecourt. The barrier should consist of materials with a minimum density of 10kg/m² and not contain any gaps; and
- there is a 50% reduction in onsite light and heavy vehicles during the night period.

Furthermore, sleep disturbance is not anticipated, as emissions from maximum noise events (ie impact noise from door slams, waste collection and deliveries during the night period are predicted to satisfy the NPIs maximum noise trigger levels.

Modelled noise emissions from construction activities identify that predicted noise emissions will satisfy the applicable construction noise management levels at all receivers taking into account standard mitigation measures (see **Section 3.2.3**).

Accordingly, the Noise Assessment supports the Development Application for the project incorporating the recommendations and controls outlined in this report.

This page has been intentionally left blank

Appendix A – Glossary of Terms

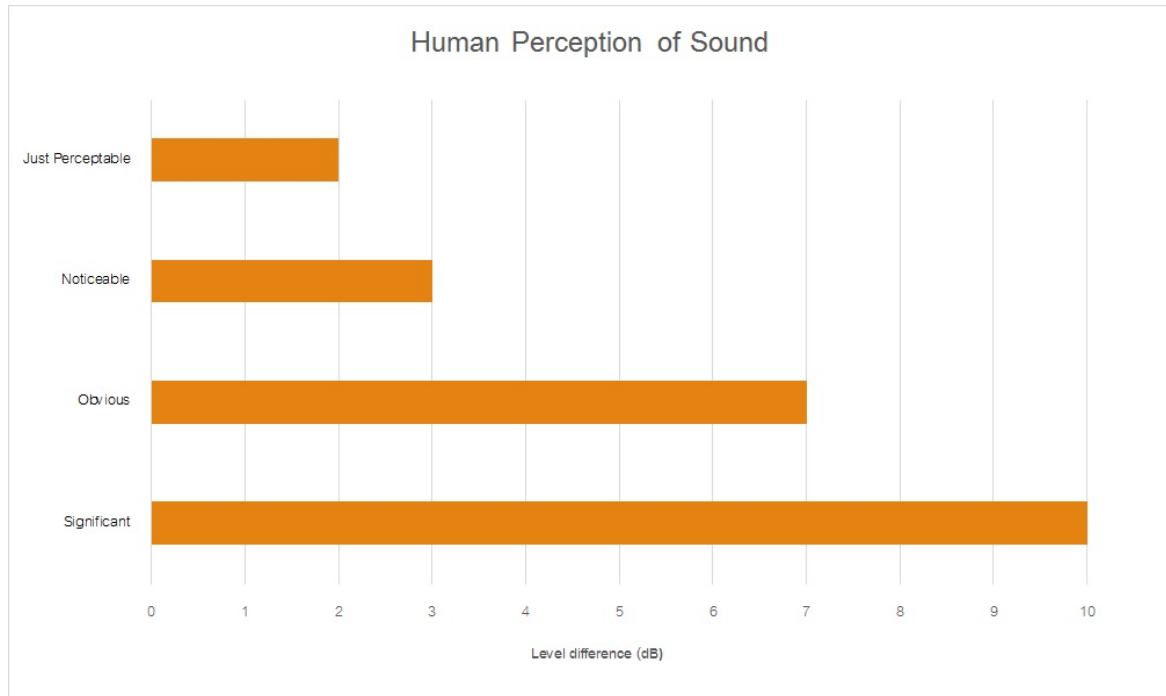
A number of technical terms have been used in this report and are explained in **Table A1**.

Table A1 Glossary of Acoustical Terms	
Term	Description
1/3 Octave	Single octave bands divided into three parts
Octave	A division of the frequency range into bands, the upper frequency limit of each band being twice the lower frequency limit.
ABL	Assessment Background Level (ABL) is defined in the NPI as a single figure background level for each assessment period (day, evening and night). It is the tenth percentile of the measured L90 statistical noise levels.
Ambient Noise	The total noise associated with a given environment. Typically, a composite of sounds from all sources located both near and far where no particular sound is dominant.
A Weighting	A standard weighting of the audible frequencies designed to reflect the response of the human ear to sound.
Background Noise	The underlying level of noise present in the ambient noise, excluding the noise source under investigation, when extraneous noise is removed. This is usually represented by the LA90 descriptor
dBA	Noise is measured in units called decibels (dB). There are several scales for describing noise, the most common being the 'A-weighted' scale. This attempts to closely approximate the frequency response of the human ear.
dB(Z), dB(L)	Decibels Z-weighted or decibels Linear (unweighted).
Extraneous Noise	Sound resulting from activities that are not typical of the area.
Hertz (Hz)	The measure of frequency of sound wave oscillations per second - 1 oscillation per second equals 1 hertz.
LA10	A sound level which is exceeded 10% of the time.
LA90	Commonly referred to as the background noise, this is the level exceeded 90% of the time.
LAeq	Represents the average noise energy or equivalent sound pressure level over a given period.
LAmx	The maximum sound pressure level received at the microphone during a measuring interval.
Masking	The phenomenon of one sound interfering with the perception of another sound. For example, the interference of traffic noise with use of a public telephone on a busy street.
RBL	The Rating Background Level (RBL) as defined in the NPI, is an overall single figure representing the background level for each assessment period over the whole monitoring period. The RBL, as defined is the median of ABL values over the whole monitoring period.
Sound power level (Lw or SWL)	This is a measure of the total power radiated by a source in the form of sound and is given by $10 \cdot \log_{10} (W/W_0)$. Where W is the sound power in watts to the reference level of 10^{-12} watts.
Sound pressure level (Lp or SPL)	the level of sound pressure; as measured at a distance by a standard sound level meter. This differs from Lw in that it is the sound level at a receiver position as opposed to the sound 'intensity' of the source.

Table A2 provides a list of common noise sources and their typical sound level.

Table A2 Common Noise Sources and Their Typical Sound Pressure Levels (SPL), dBA	
Source	Typical Sound Pressure Level
Threshold of pain	140
Jet engine	130
Hydraulic hammer	120
Chainsaw	110
Industrial workshop	100
Lawn-mower (operator position)	90
Heavy traffic (footpath)	80
Elevated speech	70
Typical conversation	60
Ambient suburban environment	40
Ambient rural environment	30
Bedroom (night with windows closed)	20
Threshold of hearing	0

Figure A1 – Human Perception of Sound



This page has been intentionally left blank

Appendix B – Site Plans

GENERAL NOTES:

1. BUILDING SHELL DESIGN INTENT SHOWN. CONTRACTOR TO PROPOSE DETAILED DESIGN FOR CONSTRUCTION, INCLUDING ALL SITE RELATED WORKS, STRUCTURAL, CIVIL WORKS & BUILDING SERVICES.
2. THE CONTRACTOR SHALL VERIFY ALL EXISTING IN-GROUND AND ABOVE-GROUND SERVICES WITHIN THE SCOPE OF WORKS BEFORE COMMENCING CONSTRUCTION/DEMOLITION.
3. ANY 3D DRAWINGS ARE INDICATIVE ONLY, AND ARE TO BE READ IN CONJUNCTION WITH OTHER RELEVANT DRAWINGS.
4. ALL ACCESSIBILITY AND MOBILITY DESIGN (DCA) ITEMS TO COMPLY WITH A.S. 1428.1:2009.
5. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACTS, SPECIFICATIONS, SCHEDULES AND DRAWINGS INCLUDING CIVIL, STRUCTURAL, HYDRAULIC DIMENSIONS.
6. CONTRACTOR AND SUB-CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF THIS DRAWING AND SITE CONDITIONS PRIOR TO ANY WORK COMMENCING.

FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS (UNLESS NOTED OTHERWISE).

- FIGURED DIMENSIONS ARE:
- WALL / PARTITIONS SETOUT TO CENTRE LINE WHERE NOTED
 - ALL OTHER WALL/PARTITION DIMENSIONS ARE TO FINISHED FACE OF PARTITION
 - CEILINGS FINISHED UNDERFACE OF CEILING - CEILING HEIGHT IS MEASURED FROM FINISH FLOOR LEVEL
 - FITTINGS AND FIXTURES - DIMENSIONS TO FIXTURES AND FITTINGS ARE SETOUT FROM "FINISH" WALL FACE / FINISH FLOOR LEVEL.

PLANS TO BE READ IN CONJUNCTION WITH:

- BUILDING CODE OF AUSTRALIA
- RELEVANT AUSTRALIAN STANDARDS
- HYDRAULIC DRAWING SET
- CIVIL DRAWING SET
- STRUCTURAL DRAWING SET
- LANDSCAPE DRAWING SET

IF NO INTERNAL FITOUT FINISHES & PLANS ARE PRESENT, CLIENT SELECTIONS & DETAILS ARE TO TAKE PRECEDENCE.

PLEASE NOTE:

DETAILS SHOWN ON THIS PLAN ARE INTENDED TO BE ACCURATE, HOWEVER INFORMATION WRITTEN INTO INDIVIDUAL CONTRACTS AND DRAWINGS WILL TAKE PRECEDENCE OVER THIS SET.

LIST OF CLAUSES:

- Clause B104 Materials & Forms Construction
- Spec. 5 Fire Resisting Construction
- Spec. 7 Fire Hazard Properties
- Spec. 8 Performance of External Walls in a Fire
- Clause C307 Vertical Separation of Openings in External Walls
- Clause C3013 Separation of Equipment
- Clause C3014 Electricity Supply System
- Clause C405 Acceptable Methods of Protection (of openings)
- Clause C409 Opening in Fire Isolated Exits
- Clause C4015 Openings for Service Installations
- Clause C3015 Discharge from Exits
- Clause D308 Installations in Exits and Paths of Travel

*Clause D3014 - Gables and Roofs

Treads which have:-

- a. A surface with a slip-resistance classification not less than that listed in Table D3015 when tested in accordance with AS 4586
- (b) A nosing strip with a slip-resistance classification not less than that listed in Table D3015 when tested in accordance with AS 4586.

*Clause D3015 - Landings which have:-

- a. A surface with a slip-resistance classification not less than that listed in Table D3015 when tested in accordance with AS 4586
- (b) A strip at the edge of the landing with a slip-resistance classification not less than that listed in Table D3015 when tested in accordance with AS 4586, where the edge leads to a flight below

- Clause D3016 Thresholds
- Clause D3017-43021 Balustrades
- Clause D3022 Handrails
- Clause D3028 Operation of Latch
- Clause D3028 Sign on Doors
- Clause D402 General Building Access Requirements
- Clause D404 Parts of Building to be Accessible
- Clause D407 Signage
- Clause D409 Tactile Indicators
- Clause F202 Wet Areas
- Clause F106 / F107 Damp Proofing
- Clause F408 Construction of Sanitary Compartments
- Part 16 Lighting and Ventilation
- Clause F105 Sound Insulation Rating of Floors
- Clause F106 Sound Insulation Rating of Walls
- Clause F107 Sound Insulation Rating of Internal Services
- Clause F108 Sound Insulation of Pumps

SHEET LIST

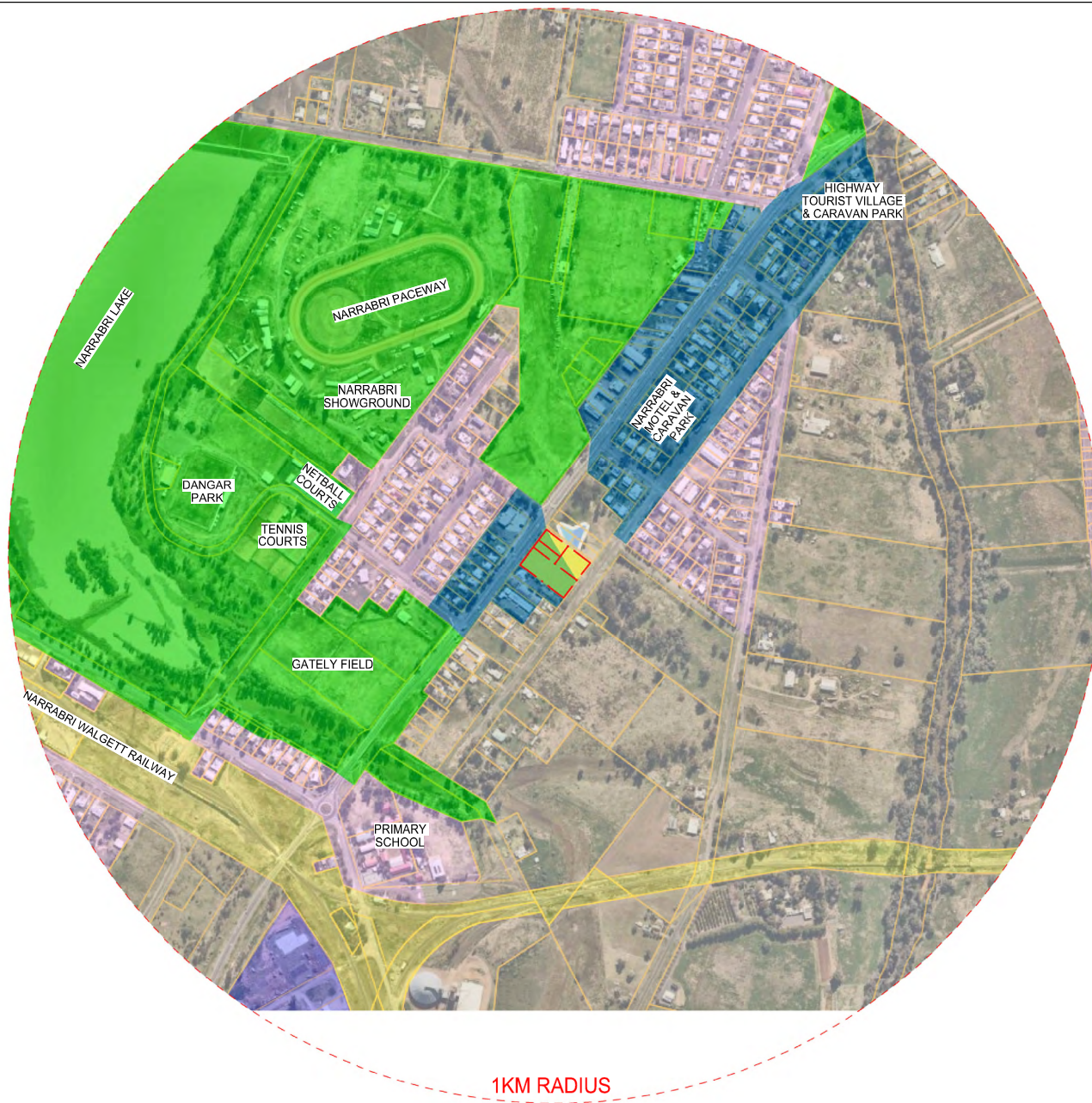
Sheet Number	Sheet Name	Current Rev
00	TITLE	7
01	LOCATION PLAN	6
02	DEMOLITION PLAN	6
03	SITE ANALYSIS	6
04	SITE PLAN	7
05	Service Station Floor Plan	4
06	Service Station Elevation	4
07	Service Station Elevation	4
08	Car Canopy Plan	4
09	Car Canopy Elevations	4
10	Truck Canopy Floor Plans	4
11	Truck Canopy Elevations	6
12	Truck turning - B Double 26m	7
13	Truck turning - Semi Trailer 19m	7
14	Truck turning - Semi Trailer 19m	7
15	Truck turning - SMALL TRUCKS	7



Rev.	Description	Date	Issued by
1	DA SET	12.03.26	M.Marshall
2	Site Rev	17.03.26	H.Skinner
3	Draft Rev	25.03.26	H.Skinner
4	Draft Rev	26.03.26	H.Skinner
5	Survey	07.04.26	H.Skinner
6	Site Rev	16.04.26	H.Skinner
7	Sewer Line	29.04.26	H.Skinner

1. All dimensions, levels, and setouts are to be verified on site prior to fabrication or construction.
2. Written dimensions take precedence over scaled ones.
COPYRIGHT:
Brown Commercial Building PTY LTD is the owner of copyright to drawings supplied and the information shown hereon. All drawings supplied may not be used, reproduced or copied in whole or part of without the written consent of Brown Commercial Building PTY LTD.

PROJECT		TITLE		Project No:
SERVICE STATION		TITLE		BC0668
Lot: 171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-1031-1032-1033-1034-1035-1036-1037-1038-1039-1040-1041-1042-1043-1044-1045-1046-1047-1048-1049-1050-1051-1052-1053-1054-1055-1056-1057-1058-1059-1060-1061-1062-1063-1064-1065-1066-1067-1068-1069-1070-1071-1072-1073-1074-1075-1076-1077-1078-1079-1080-1081-1082-1083-1084-1085-1086-1087-1088-1089-1090-1091-1092-1093-1094-1095-1096-1097-1098-1099-1100-1101-1102-1103-1104-1105-1106-1107-1108-1109-1110-1111-1112-1113-1114-1115-1116-1117-1118-1119-1120-1121-1122-1123-1124-1125-1126-1127-1128-1129-1130-1131-1132-1133-1134-1135-1136-1137-1138-1139-1140-1141-1142-1143-1144-1145-1146-1147-1148-1149-1150-1151-1152-1153-1154-1155-1156-1157-1158-1159-1160-1161-1162-1163-1164-1165-1166-1167-1168-1169-1170-1171-1172-1173-1174-1175-1176-1177-1178-1179-1180-1181-1182-1183-1184-1185-1186-1187-1188-1189-1190-1191-1192-1193-1194-1195-1196-1197-1198-1199-1200-1201-1202-1203-1204-1205-1206-1207-1208-1209-1210-1211-1212-1213-1214-1215-1216-1217-1218-1219-1220-1221-1222-1223-1224-1225-1226-1227-1228-1229-1230-1231-1232-1233-1234-1235-1236-1237-1238-1239-1240-1241-1242-1243-1244-1245-1246-1247-1248-1249-1250-1251-1252-1253-1254-1255-1256-1257-1258-1259-1260-1261-1262-1263-1264-1265-1266-1267-1268-1269-1270-1271-1272-1273-1274-1275-1276-1277-1278-1279-1280-1281-1282-1283-1284-1285-1286-1287-1288-1289-1290-1291-1292-1293-1294-1295-1296-1297-1298-1299-1300-1301-1302-1303-1304-1305-1306-1307-1308-1309-1310-1311-1312-1313-1314-1315-1316-1317-1318-1319-1320-1321-1322-1323-1324-1325-1326-1327-1328-1329-1330-1331-1332-1333-1334-1335-1336-1337-1338-1339-1340-1341-1342-1343-1344-1345-1346-1347-1348-1349-1350-1351-1352-1353-1354-1355-1356-1357-1358-1359-1360-1361-1362-1363-1364-1365-1366-1367-1368-1369-1370-1371-1372-1373-1374-1375-1376-1377-1378-1379-1380-1381-1382-1383-1384-1385-1386-1387-1388-1389-1390-1391-1392-1393-1394-1395-1396-1397-1398-1399-1400-1401-1402-1403-1404-1405-1406-1407-1408-1409-1410-1411-1412-1413-1414-1415-1416-1417-1418-1419-1420-1421-1422-1423-1424-1425-1426-1427-1428-1429-1430-1431-1432-1433-1434-1435-1436-1437-1438-1439-1440-1441-1442-1443-1444-1445-1446-1447-1448-1449-1450-1451-1452-1453-1454-1455-1456-1457-1458-1459-1460-1461-1462-1463-1464-1465-1466-1467-1468-1469-1470-1471-1472-1473-1474-1475-1476-1477-1478-1479-1480-1481-1482-1483-1484-1485-1486-1487-1488-1489-1490-1491-1492-1493-1494-1495-1496-1497-1498-1499-1500-1501-1502-1503-1504-1505-1506-1507-1508-1509-1510-1511-1512-1513-1514-1515-1516-1517-1518-1519-1520-1521-1522-1523-1524-1525-1526-1527-1528-1529-1530-1531-1532-1533-1534-1535-1536-1537-1538-1539-1540-1541-1542-1543-1544-1545-1546-1547-1548-1549-1550-1551-1552-1553-1554-1555-1556-1557-1558-1559-1560-1561-1562-1563-1564-1565-1566-1567-1568-1569-1570-1571-1572-1573-1574-1575-1576-1577-1578-1579-1580-1581-1582-1583-1584-1585-1586-1587-1588-1589-1590-1591-1592-1593-1594-1595-1596-1597-1598-1599-1600-1601-1602-1603-1604-1605-1606-1607-1608-1609-1610-1611-1612-1613-1614-1615-1616-1617-1618-1619-1620-1621-1622-1623-1624-1625-1626-1627-1628-1629-1630-1631-1632-1633-1634-1635-1636-1637-1638-1639-1640-1641-1642-1643-1644-1645-1646-1647-1648-1649-1650-1651-1652-1653-1654-1655-1656-1657-1658-1659-1660-1661-1662-1663-1664-1665-1666-1667-1668-1669-1670-1671-1672-1673-1674-1675-1676-1677-1678-1679-1680-1681-1682-1683-1684-1685-1686-1687-1688-1689-1690-1691-1692-1693-1694-1695-1696-1697-1698-1699-1700-1701-1702-1703-1704-1705-1706-1707-1708-1709-1710-1711-1712-1713-1714-1715-1716-1717-1718-1719-1720-1721-1722-1723-1724-1725-1726-1727-1728-1729-1730-1731-1732-1733-1734-1735-1736-1737-1738-1739-1740-1741-1742-1743-1744-1745-1746-1747-1748-1749-1750-1751-1752-1753-1754-1755-1756-1757-1758-1759-1760-1761-1762-1763-1764-1765-1766-1767-1768-1769-1770-1771-1772-1773-1774-1775-1776-1777-1778-1779-1780-1781-1782-1783-1784-1785-1786-1787-1788-1789-1790-1791-1792-1793-1794-1795-1796-1797-1798-1799-1800-1801-1802-1803-1804-1805-1806-1807-1808-1809-1810-1811-1812-1813-1814-1815-1816-1817-1818-1819-1820-1821-1822-1823-1824-1825-1826-1827-1828-1829-1830-1831-1832-1833-1834-1835-1836-1837-1838-1839-1840-1841-1842-1843-1844-1845-1846-1847-1848-1849-1850-1851-1852-1853-1854-1855-1856-1857-1858-1859-1860-1861-1862-1863-1864-1865-1866-1867-1868-1869-1870-1871-1872-1873-1874-1875-1876-1877-1878-1879-1880-1881-1882-1883-1884-1885-1886-1887-1888-1889-1890-1891-1892-1893-1894-1895-1896-1897-1898-1899-1900-1901-1902-1903-1904-1905-1906-1907-1908-1909-1910-1911-1912-1913-1914-1915-1916-1917-1918-1919-1920-1921-1922-1923-1924-1925-1926-1927-1928-1929-1930-1931-1932-1933-1934-1935-1936-1937-1938-1939-1940-1941-1942-1943-1944-1945-1946-1947-1948-1949-1950-1951-1952-1953-1954-1955-1956-1957-1958-1959-1960-1961-1962-1963-1964-1965-1966-1967-1968-1969-1970-1971-1972-1973-1974-1975-1976-1977-1978-1979-1980-1981-1982-1983-1984-1985-1986-1987-1988-1989-1990-1991-1992-1993-1994-1995-1996-1997-1998-1999-2000-2001-2002-2003-2004-2005-2006-2007-2008-2009-2010-2011-2012-2013-2014-2015-2016-2017-2018-2019-2020-2021-2022-2023-2024-2025-2026-2027-2028-2029-2030-2031-2032-2033-2034-2035-2036-2037-2038-2039-2040-2041-2042-2043-2044-2045-2046-2047-2048-2049-2050-2051-2052-2053-2054-2055-2056-2057-2058-2059-2060-2061-2062-2063-2064-2065-2066-2067-2068-2069-2070-2071-2072-2073-2074-2075-2076-2077-2078-2079-2080-2081-2082-2083-2084-2085-2086-2087-2088-2089-2090-2091-2092-2093-2094-2095-2096-2097-2098-2099-2100-2101-2102-2103-2104-2105-2106-2107-2108-2109-2110-2111-2112-2113-2114-2115-2116-2117-2118-2119-2120-2121-2122-2123-2124-2125-2126-2127-2128-2129-2130-2131-2132-2133-2134-2135-2136-2137-2138-2139-2140-2141-2142-2143-2144-2145-2146-2147-2148-2149-2150-2151-2152-2153-2154-2155-2156-2157-2158-2159-2160-2161-2162-2163-2164-2165-2166-2167-2168-2169-2170-2171-2172-2173-2174-2175-2176-2177				
Lot: 171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-9				



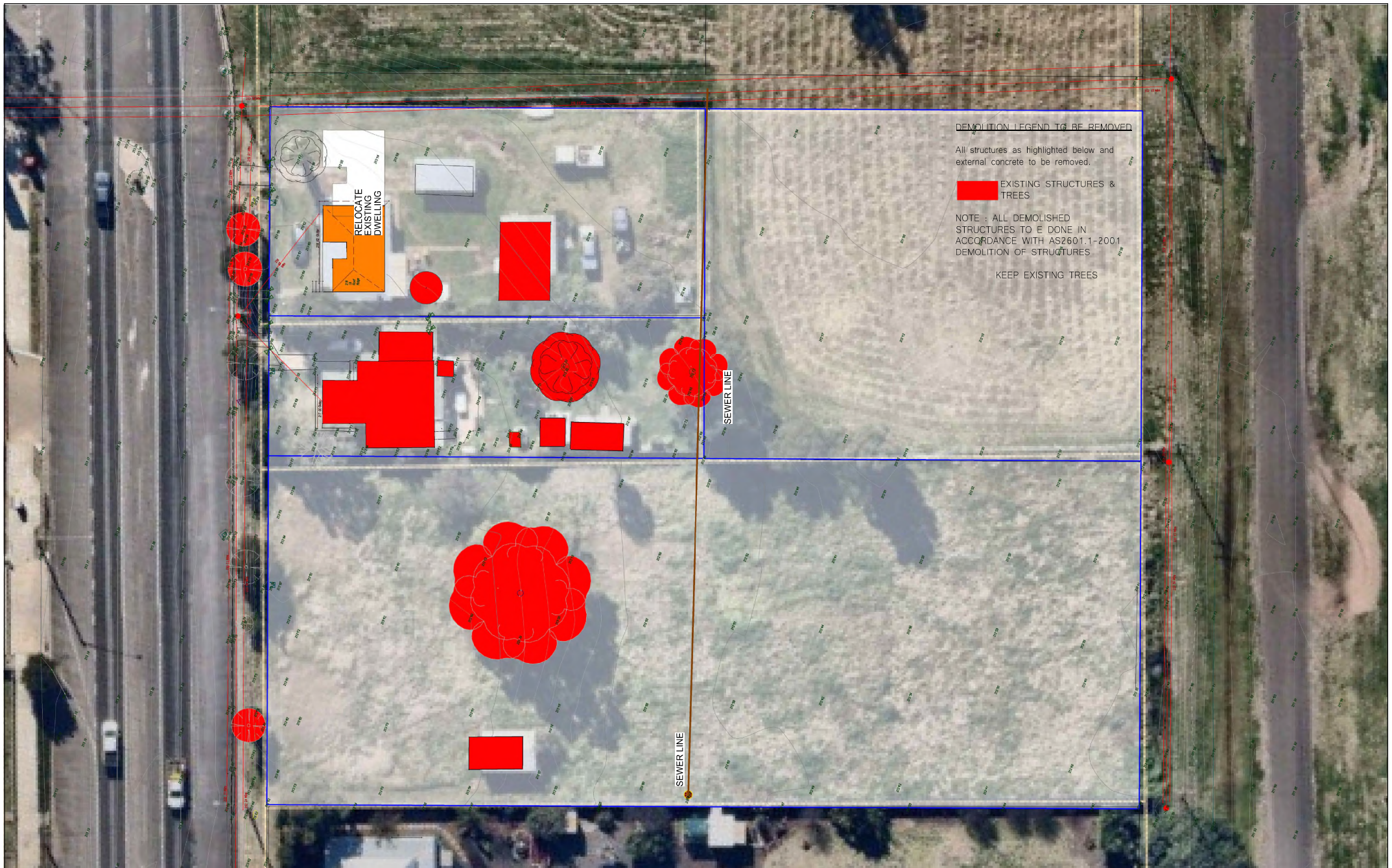
1KM RADIUS



Rev.	Description	Date	Issued by
1	DA SET	12.03.26	M.Marshall
2	Site Rev	17.03.26	H.Skinner
3	Draft Rev	25.03.26	H.Skinner
4	Draft Rev	26.03.26	H.Skinner
6	Site Rev	16.04.26	H.Skinner

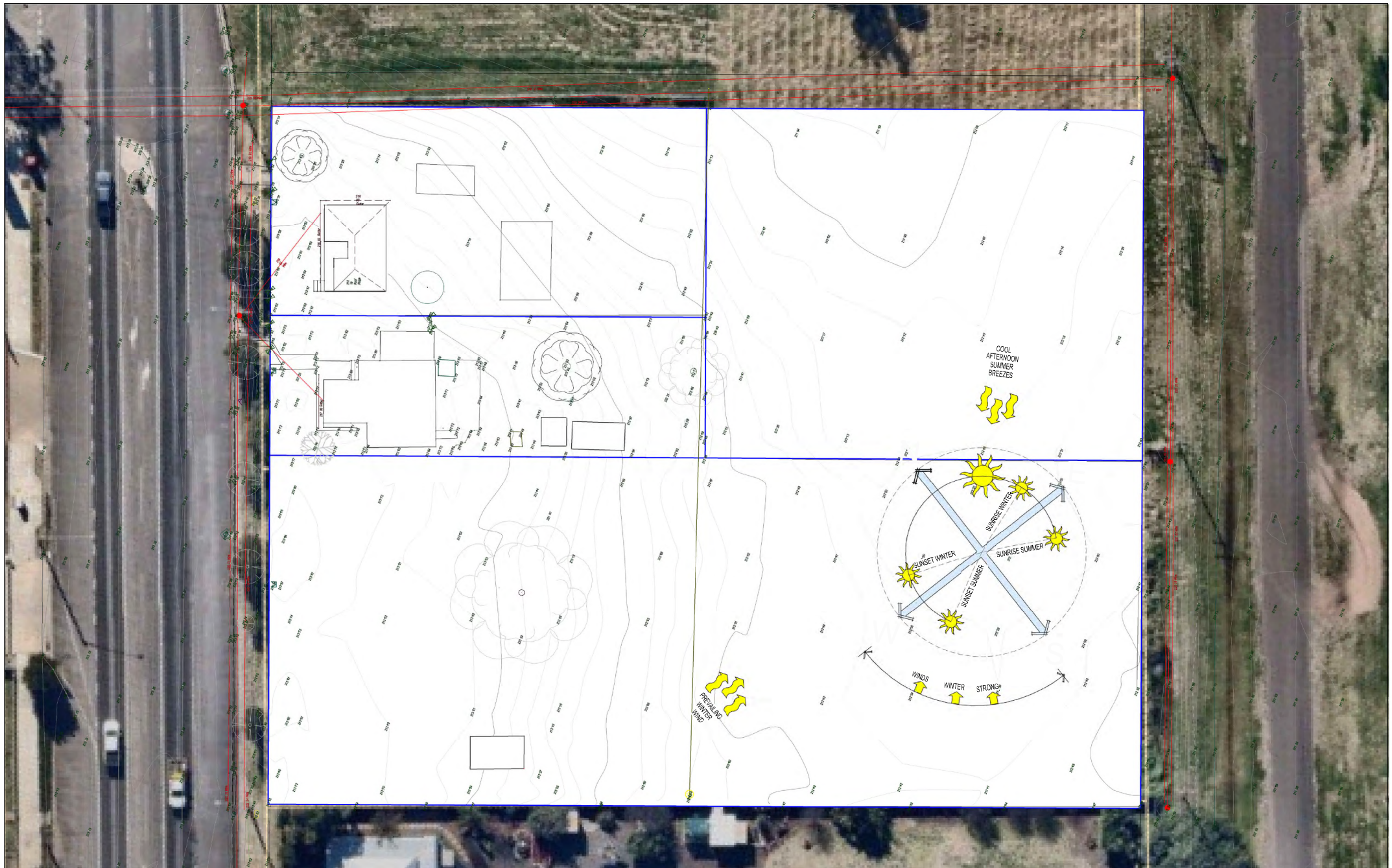
1. All dimensions, levels, and setbacks are to be verified on site prior to fabrication or construction.
 2. Written dimensions take precedence over scaled ones.
COPYRIGHT:
 Pearl Energy PTY LTD is the owner of copyright in drawings supplied and the information shown hereon. All drawings supplied may not be used, reproduced or copied in whole or part without the written consent of Pearl Energy PTY LTD.

PROJECT		TITLE		Project No:
SERVICE STATION		LOCATION PLAN		BC0668
Lot: 171-172-173- DP : 540858-2854No: 48-42		Street: COOMA ROAD	Suburb: NARRABRI	
CLIENT	PROJECT STATUS	SCALE	REV	
PEARL	DEVELOPMENT APPLICATION	1: 4200 on A1	6	01



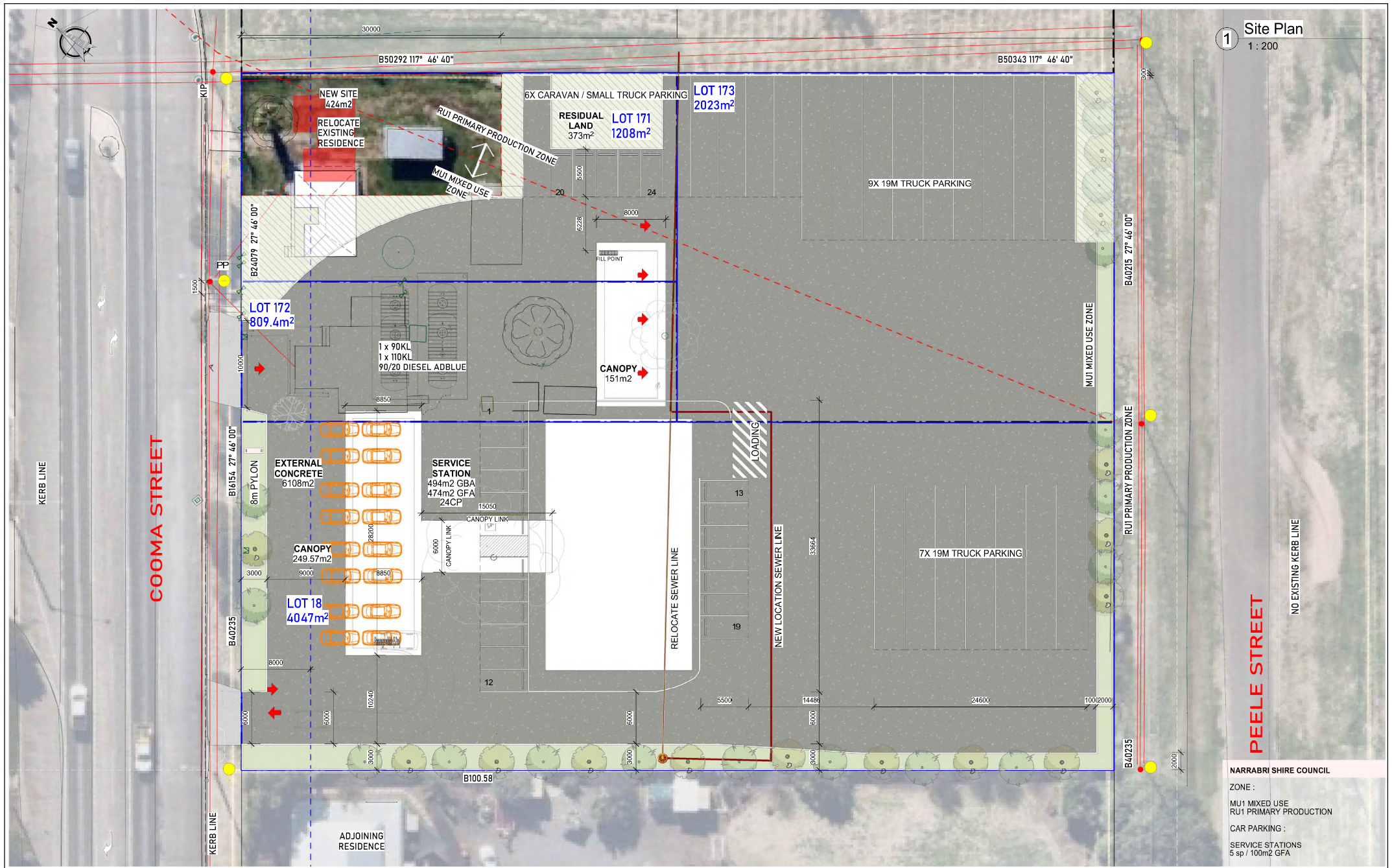
Rev.	Description	Date	Issued by
1	DA SET	12.03.26	M.Marshall
2	Site Rev	17.03.26	H.Skinner
3	Draft Rev	25.03.26	H.Skinner
4	Draft Rev	26.03.26	H.Skinner
6	Site Rev	16.04.26	H.Skinner

1. All dimensions, levels, and setbacks are to be verified on site prior to fabrication or construction.
2. Written dimensions take precedence over scaled ones.
COPYRIGHT:
Pearl Energy PTY LTD is the owner of copyright to drawings supplied and the information shown hereon. All drawings supplied may not be used, reproduced or copied in whole or part without the written consent of Pearl Energy PTY LTD.



Rev.	Description	Date	Issued by
1	DA SET	12.03.26	M.Marshall
2	Site Rev	17.03.26	H.Skinner
3	Draft Rev	25.03.26	H.Skinner
4	Draft Rev	26.03.26	H.Skinner
6	Site Rev	16.04.26	H.Skinner

1. All dimensions, levels, and setbacks are to be verified on site prior to fabrication or construction.
 2. Written dimensions take precedence over scaled ones.
COPYRIGHT:
 Pearl Energy PTY LTD is the owner of copyright to drawings supplied and the information shown hereon. All drawings supplied may not be used, reproduced or copied in whole or part of without the written consent of Pearl Energy PTY LTD.



1 Site Plan
1:200

NARRABRI SHIRE COUNCIL
ZONE:
MU1 MIXED USE
RU1 PRIMARY PRODUCTION
CAR PARKING:
SERVICE STATIONS
5 sp / 100m² GFA



NOTES:

1. All dimensions, levels, and setbacks are to be verified on site prior to fabrication or construction.
2. Written dimensions take precedence over scaled ones.

COPYRIGHT:

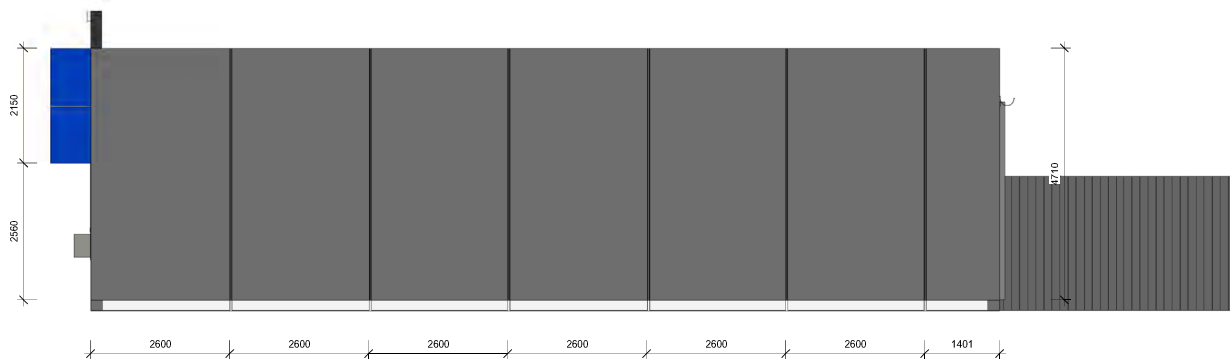
Pearl Investments Pty Ltd is the owner of copyright to drawings supplied and the information shown herein. All drawings supplied may not be used, reproduced or copied in whole or part without the written consent of Pearl Investments Pty Ltd

DWG No:
05

3



2 Service Station East
1 : 50 (A1)



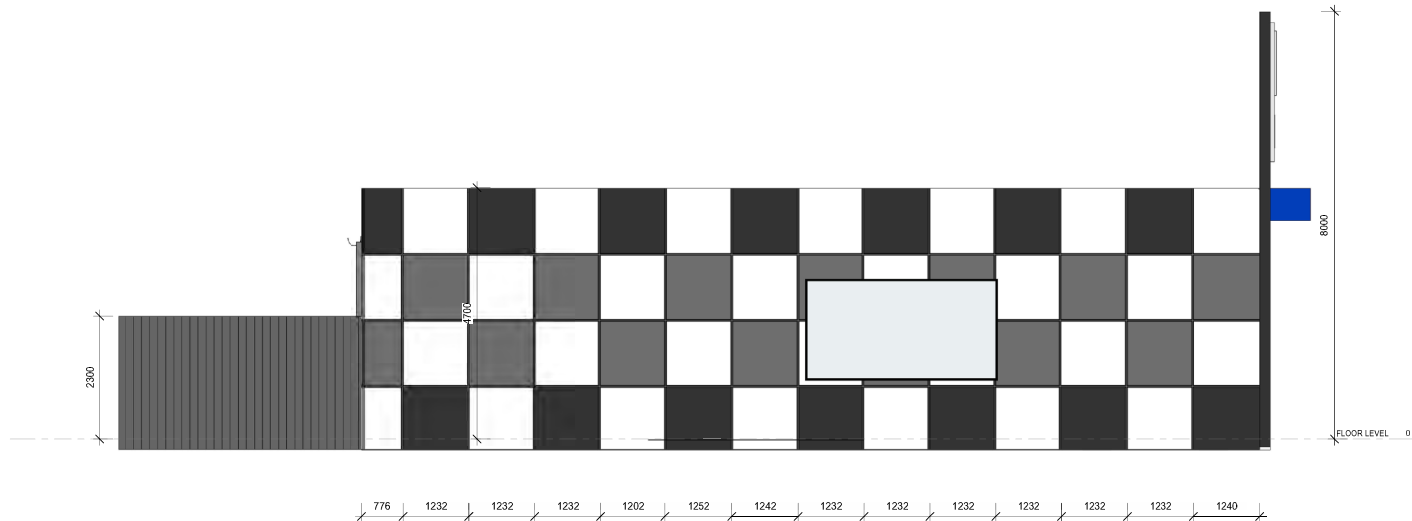
1 Service Station South
1 : 50 (A1)

COLOUR SCHEDULE

	COLORBOND TRIMDECK: WOODLAND GREY ORB CLADDING
	DULUX: MONUMENT PAINT FINISHED
	DULUX: WOODLAND GREY PAINT FINISHED
	DULUX: BASALT PAINT FINISHED
	DULUX: WHITE ON WHITE PAINT FINISHED
	APOLIC COLOUR: FLEMISH BLUE CLADDING



1 Service Station West
1 : 50 (A1)



COLOUR SCHEDULE

	COLORBOND TRIMDECK: WOODLAND GREY ORS CLADDING
	DULUX: MONUMENT PAINT FINISHED
	DULUX: WOODLAND GREY PAINT FINISHED
	DULUX: BASALT PAINT FINISHED
	DULUX: WHITE ON WHITE PAINT FINISHED
	APOLIC COLOUR: FLEMISH BLUE CLADDING

2 Service Station North
1 : 50 (A1)

Rev.	Description	Date	Issued by
1	DA Set	12.03.26	BSIVA
2	Store Rev	17.03.26	H.Skinner
3	Draft Review	25.03.26	H.Skinner

NOTES:

1. All dimensions, levels, and sections are to be verified on site prior to fabrication or construction.
2. Unless dimensions take precedence over scaled ones.

COPYRIGHT:

Pearl Investments Pty Ltd is the owner of copyright to drawings supplied and the information shown herein. All drawings supplied may not be used, reproduced or copied in whole or part without the written consent of Pearl Investments Pty Ltd.

Project:

SERVICE STATION

Lot: 171-172 -DP-1540858-283 No: 48-42

Client:

PEARL ENERGY

Sheet Title:

Service Station Elevation

Street: COOMA ROAD

Suburb: NARRABRI

Project Status:

DEVELOPMENT APPLICATION

Scale:

As indicated on A1

Project No:

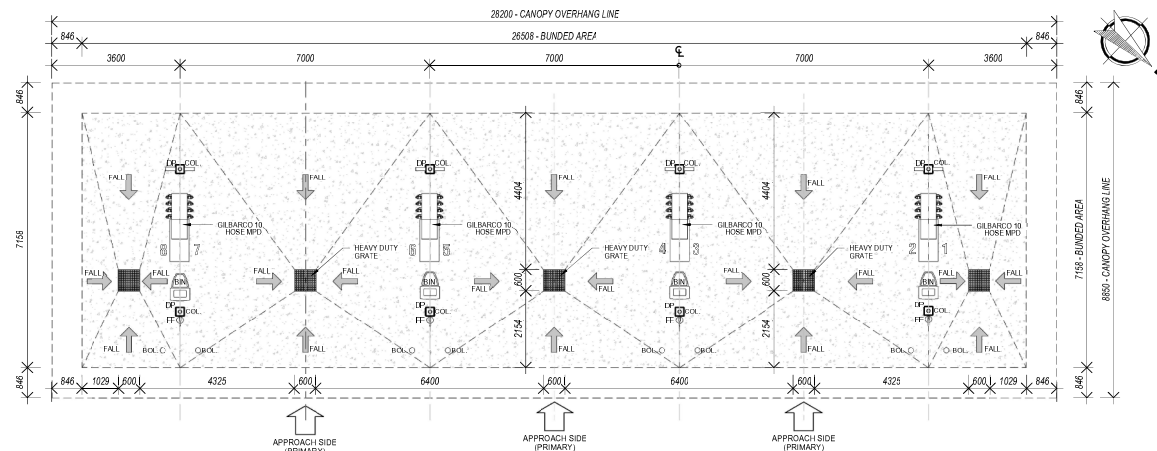
BC0668

Revision:

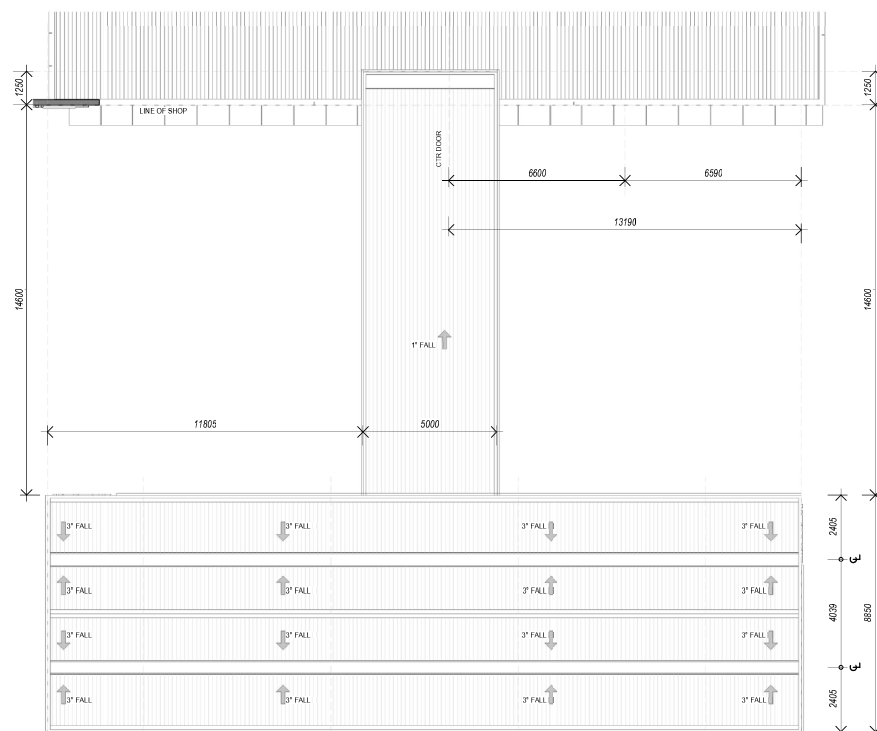
3

DWG No:

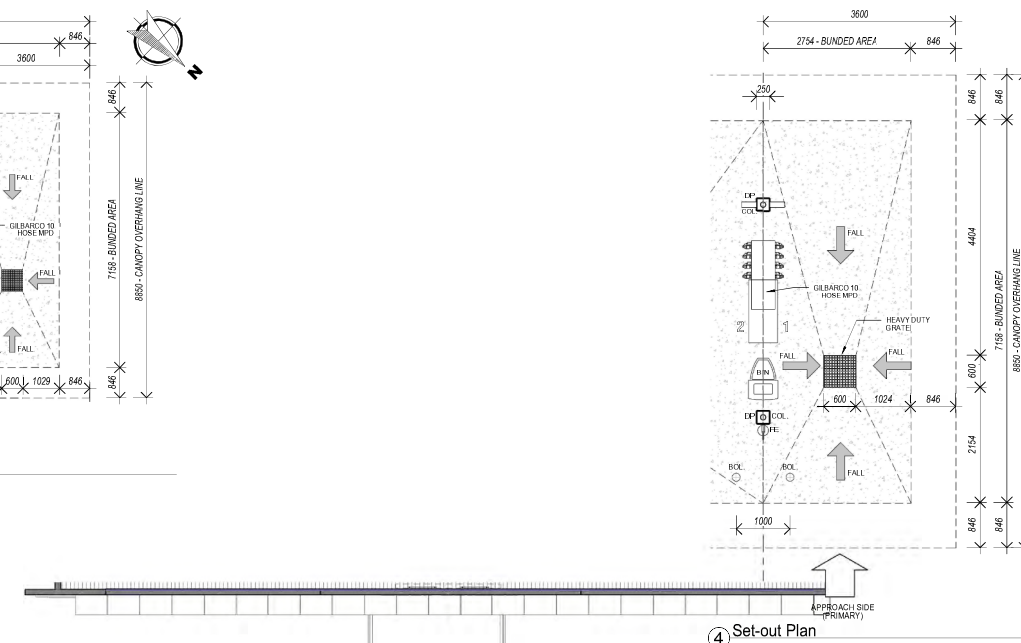
07



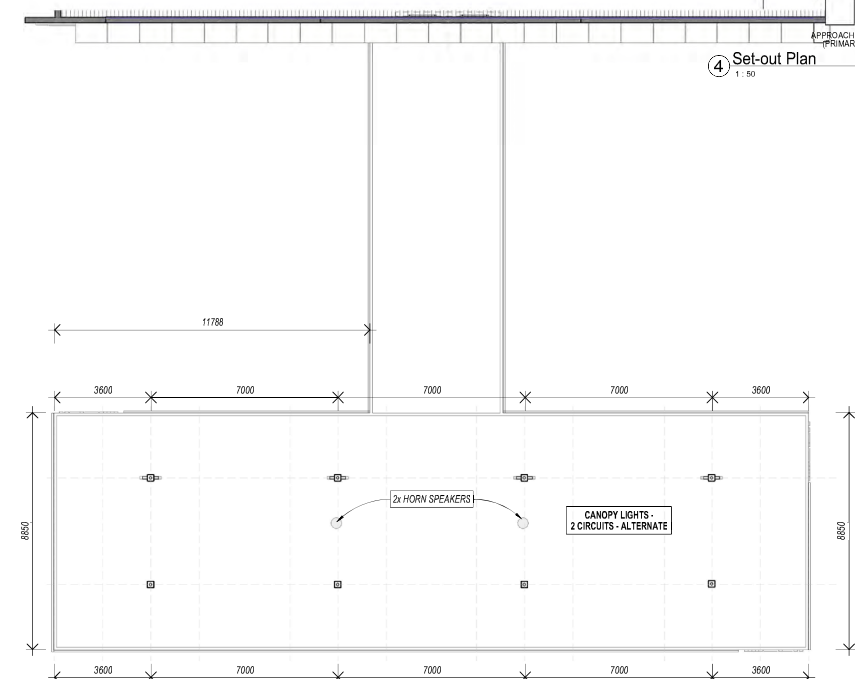
1 Canopy Floor Plan
1:75



2 Canopy Roof Plan
1:100



3 Reflected Ceiling Plan
1:100



4 Set-out Plan
1:50

Rev.	Description	Date	Issued by
1	DA SET	12.03.26	B.SIVA
2	Canopy Rev	17.03.26	H.Skinner

NOTES:
1. All dimensions, levels, and setbacks are to be verified on site prior to fabrication or construction.
2. Vertical dimensions take precedence over scaled ones.
COPYRIGHT:
Pearl Investments Pty Ltd is the owner of copyright in drawings supplied and the information shown herein. All drawings supplied may not be used, reproduced or copied in whole or part without the written consent of Pearl Investments Pty Ltd.

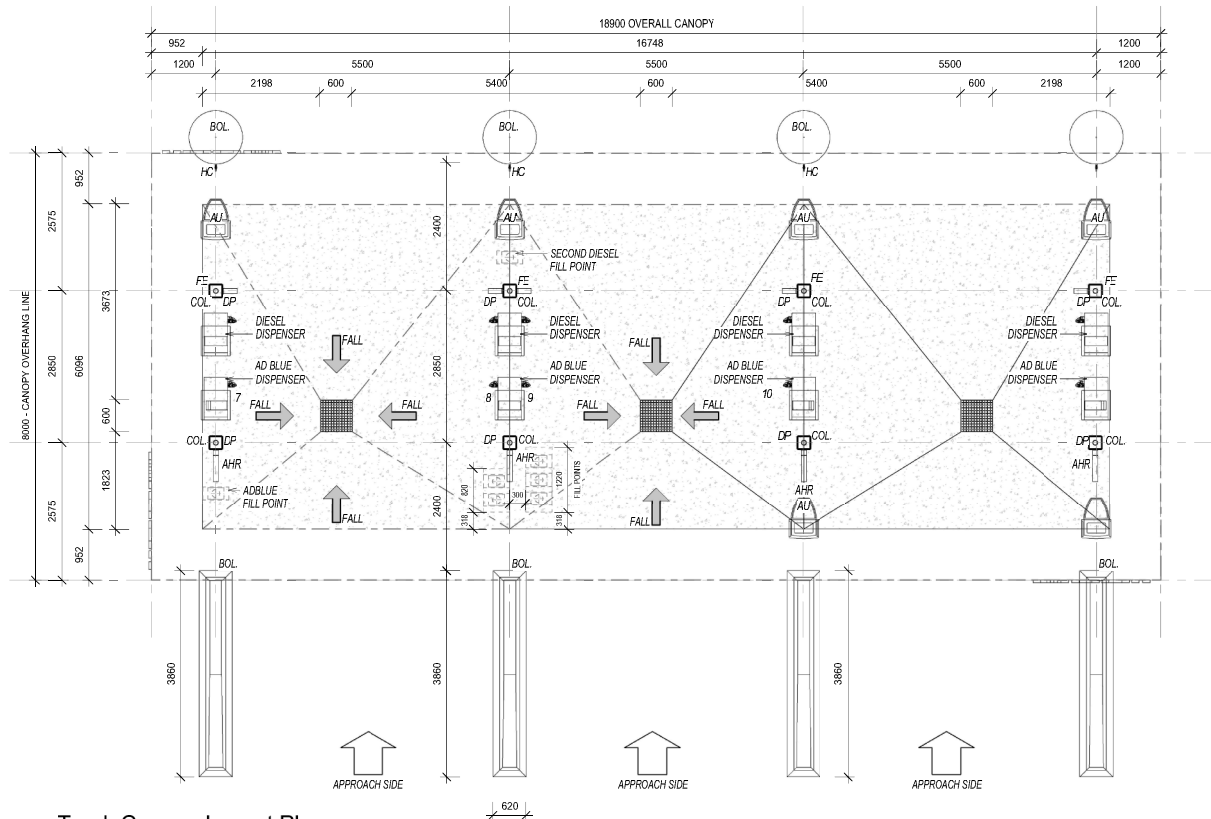
Project:	Sheet Title:	Project No:
SERVICE STATION	CAR CANOPY PLANS	BC0668
Lot: 171-172-173-18 DP: 540858-2854 No: 48-42	Suburb: NARRABRI	DWG No:
Client:	Project Status:	Revision:
PEARL	DEVELOPMENT APPLICATION	08
	As indicated on A1	2





1 NORTH EAST Elevation
1:75

09



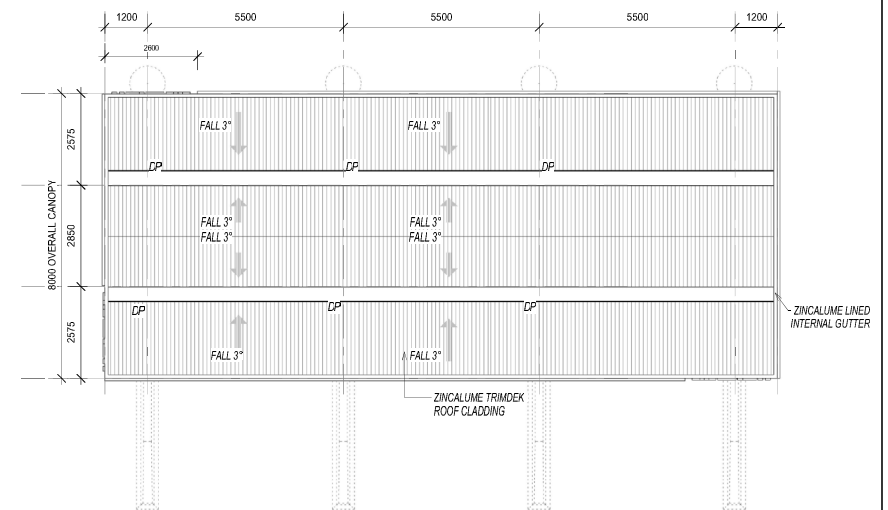
1 Truck Canopy Layout Plan
1 : 50 (A1)

NOTES:

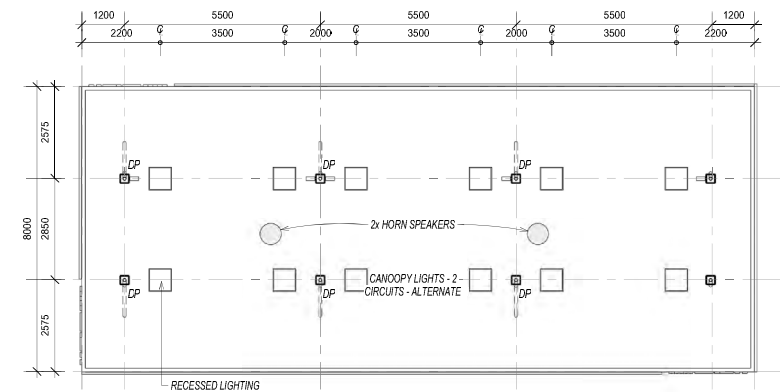
1. TRUCK CANOPY ROOF SHALL BE GABLED WITH BOX GUTTERS LOCATED ON PERIMETER & CENTRE.
2. TRUCK CANOPY ROOF DOWNPipes SHALL RUN INSIDE THE CANOPY COLUMNS UTILIZING PVC PIPING OR SIMILAR. NO DRAINAGE PIPEWORK SHALL BE VISIBLE.
3. FOOTINGS UNDER CANOPY COLUMNS TO BE 1000mm MIN. BELOW FINISHED SURFACE LEVEL.
4. COLUMN SIZES TO BE DETERMINED BY STRUCTURAL ENGINEER.
5. WHERE BOTH A CAR AND A TRUCK CANOPY ARE PROVIDED FOR A SITE, REFUELLING POSITION NUMBERING SHALL CONTINUE IN AN UNBROKEN SEQUENCE, BEGINNING WITH THE CAR CANOPY (I.E. IF THE CAR CANOPY REFUELLING POSITIONS ARE NUMBERED 1-6, THE TRUCK CANOPY NUMBERING SHALL START AT 7).
6. BRANDING DETAIL IS INDICATIVE ONLY.

LEGEND:

- AHR - AIR HOSE REEL
- AU - AMENITIES UNIT
- BOL - PENCIL BOLLARD - REFER BP STANDARD
- COL - STEEL HOLLOW SECTION COLUMN
- DP - DOWNPipe
- FE - FIRE EXTINGUISHER
- MPD6 - 6 HOSE MULTI PRODUCT DISPENSER



2 Truck Canopy Roof Plan
1 : 75 (A1)



3 Reflected Ceiling Plan
1 : 75 (A1)

NOTES:

1. TRUCK CANOPY ROOF SHALL BE GABLED WITH BOX GUTTERS LOCATED ON PERIMETER & CENTRE.
2. TRUCK CANOPY ROOF DOWNPipes SHALL RUN INSIDE THE CANOPY COLUMNS UTILIZING PVC PIPING OR SIMILAR. NO DRAINAGE PIPEWORK SHALL BE VISIBLE.
3. FOOTINGS UNDER CANOPY COLUMNS TO BE 1000mm MIN. BELOW FINISHED SURFACE LEVEL.
4. COLUMN SIZES TO BE DETERMINED BY STRUCTURAL ENGINEER.
5. WHERE BOTH A CAR AND A TRUCK CANOPY ARE PROVIDED FOR A SITE, REFUELLING POSITION NUMBERING SHALL CONTINUE IN AN UNBROKEN SEQUENCE, BEGINNING WITH THE CAR CANOPY (I.E. IF THE CAR CANOPY REFUELLING POSITIONS ARE NUMBERED 1-6, THE TRUCK CANOPY NUMBERING SHALL START AT 7).
6. BRANDING DETAIL IS INDICATIVE ONLY.



Rev.	Description	Date	Issued by
1	DA SET	12.03.26	BSIVA
2	T Canopy Rev	17.03.26	H.Skinner

NOTES:

1. All dimensions, levels, and setbacks are to be verified on site prior to fabrication or construction.
2. Hidden dimensions take precedence over scaled ones.

COPYRIGHT:

Pearl Investments Pty Ltd is the owner of copyright to drawings supplied and the information shown herein. All drawings supplied may not be used, reproduced or copied in whole or part without the written consent of Pearl Investments Pty Ltd.

Project:

SERVICE STATION

Lot: 171-172-173-18 DP: 540858-2854 No: 48-42

Client:

PEARL

Street: COOMA STREET

Project Status:

DEVELOPMENT APPLICATION

Sheet Title:

TRUCK CANOPY FLOOR PLANS

Suburb: NARRABRI

Scale:

As indicated on A1

Project No:

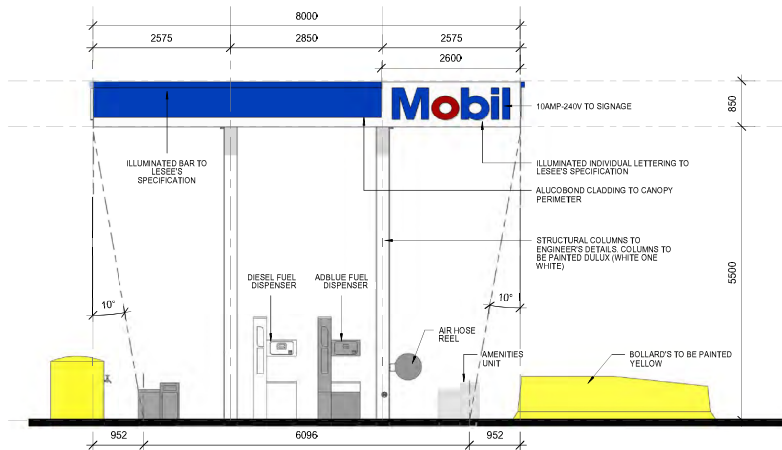
BC0668

Revision:

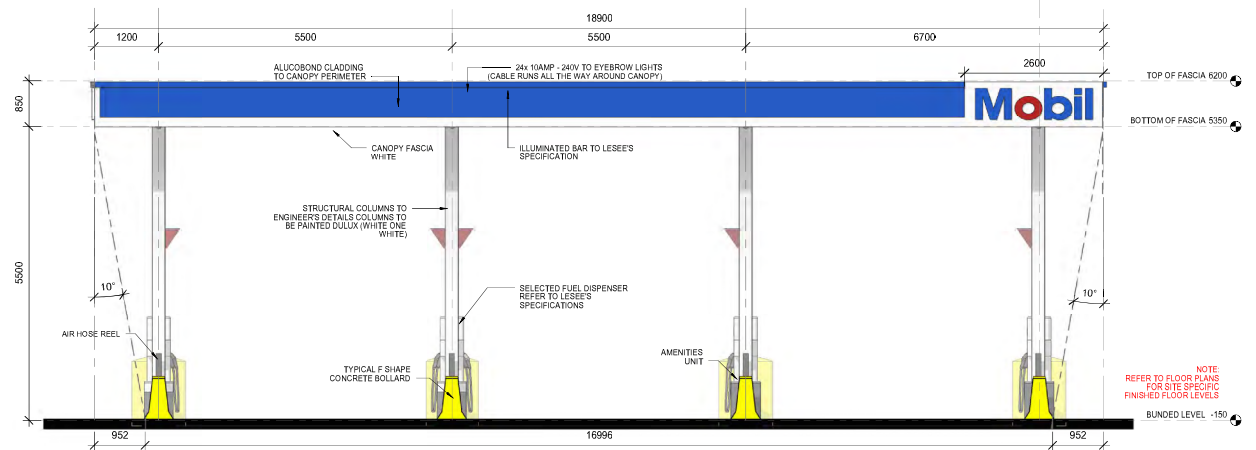
2

DWG No:

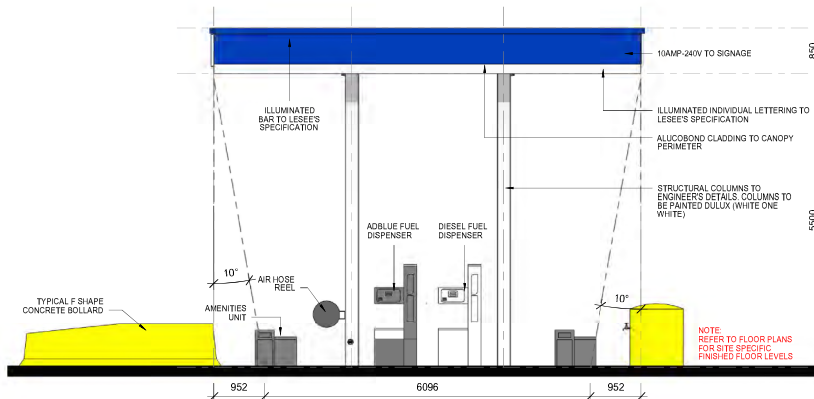
10



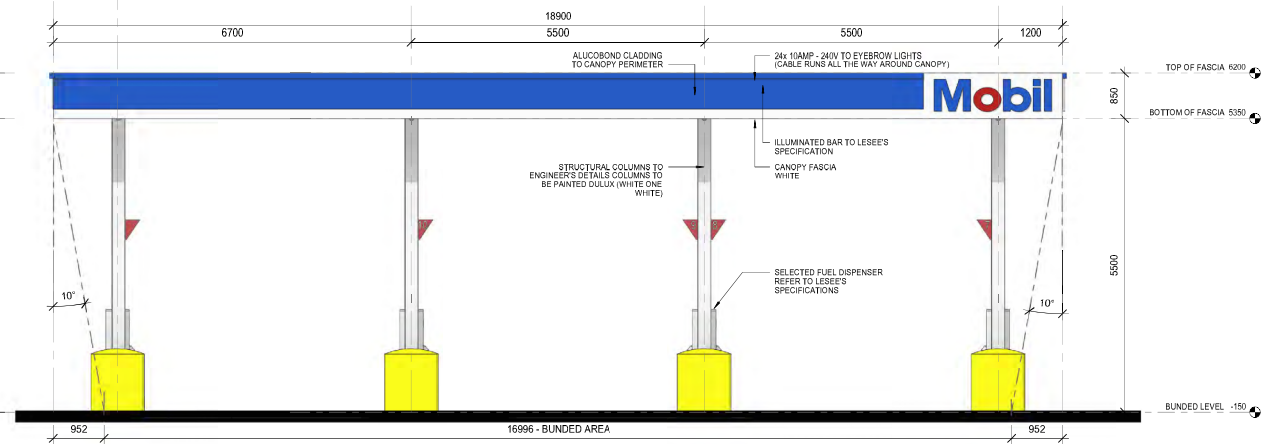
1 North Elevation
1 : 50 (A1)



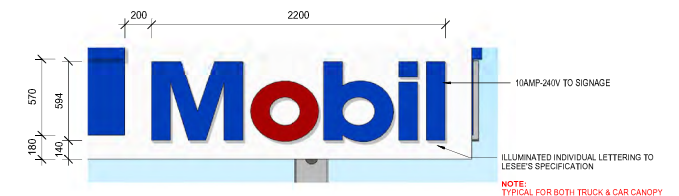
2 West Elevation
1 : 50 (A1)



3 South Elevation
1 : 50 (A1)



4 East Elevation
1 : 50 (A1)

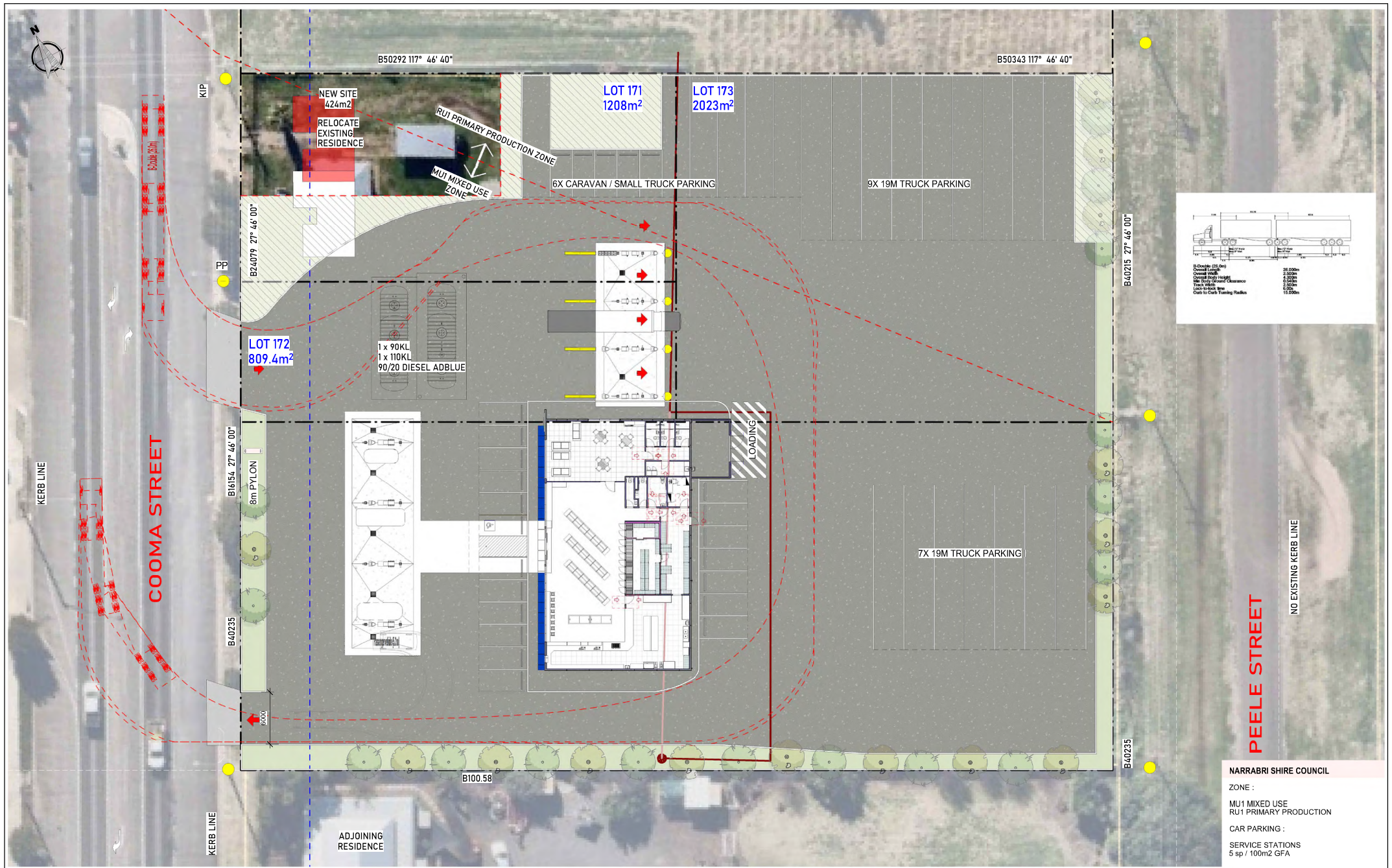


5 Typical BP Canopy Fascia
1 : 20 (A1)

Rev.	Description	Date	Issued by
1	DA SET	12.03.26	BSIVA
2	T Canopy Rev	17.03.26	H.Skinner

NOTES:
1. All dimensions, levels, and setbacks are to be verified on site prior to fabrication or construction.
2. Where dimensions take precedence over scaled ones.
COPYRIGHT:
Pearl Investments Pty Ltd is the owner of copyright to drawings supplied and the information shown herein. All drawings supplied may not be used, reproduced or copied in whole or part without the written consent of Pearl Investments Pty Ltd.

Project:	Sheet Title:	Project No:
SERVICE STATION	TRUCK CANOPY ELEVATIONS	BC0668
Lot: 171-172-173-18 DP: 540858-2854 No: 48-42	Suburb: NARRABRI	DWG No:
Client:	Project Status:	Revision:
PEARL	DEVELOPMENT APPLICATION	2
	As indicated on A1	11



NARRABRI SHIRE COUNCIL

ZONE :

MU1 MIXED USE
RU1 PRIMARY PRODUCTION

CAR PARKING :

SERVICE STATIONS
5 sp / 100m2 GFA

Rev.	Description	Date	Issued by
1	DA SET	12.03.26	M.Marshall
2	Site Rev	17.03.26	H.Skinner
3	Draft Rev	25.03.26	H.Skinner
4	Draft Rev	26.03.26	H.Skinner
6	Site Rev	16.04.26	H.Skinner
7	Sewer Line	29.04.26	H.Skinner

1. All dimensions, levels, and setbacks are to be verified on site prior to fabrication or construction.
2. Written dimensions take precedence over scaled ones.
COPYRIGHT:
Pearl Energy PTY LTD is the owner of copyright to drawings supplied and the information shown hereon. All drawings supplied may not be used, reproduced or copied in whole or part of without the written consent of Pearl Energy PTY LTD.

PROJECT

SERVICE STATION

Lot: 171-172-173-DP: 540858-2854No: 48-42

CLIENT

PEARL

Street: COOMA ROAD

PROJECT STATUS

DEVELOPMENT APPLICATION

TITLE

Truck turning - B Double 26m

Suburb: NARRABRI

SCALE

1: 200 on A1

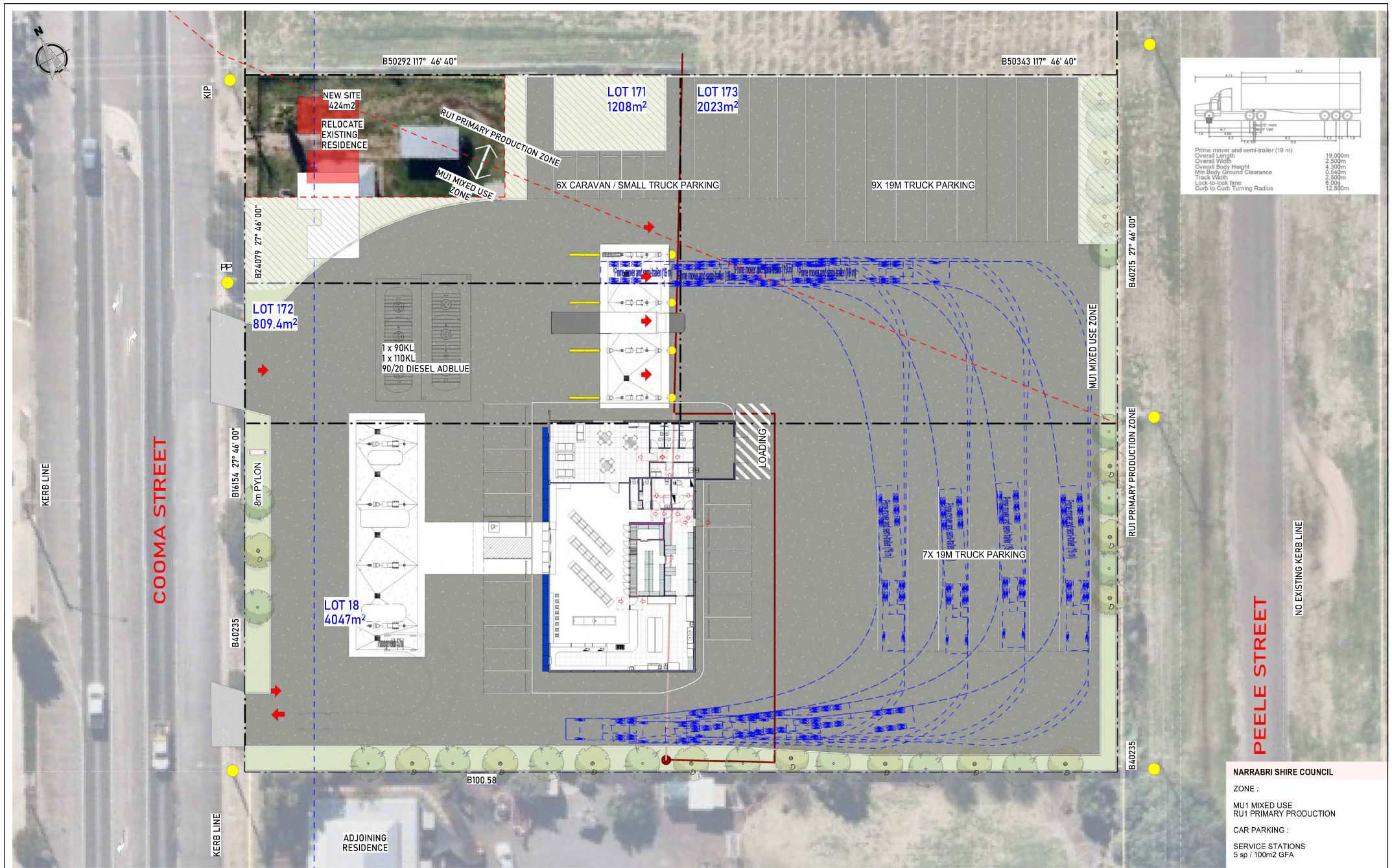
REV

7

Project No:

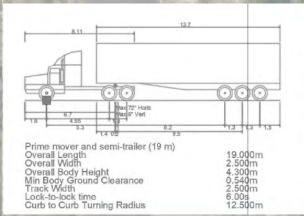
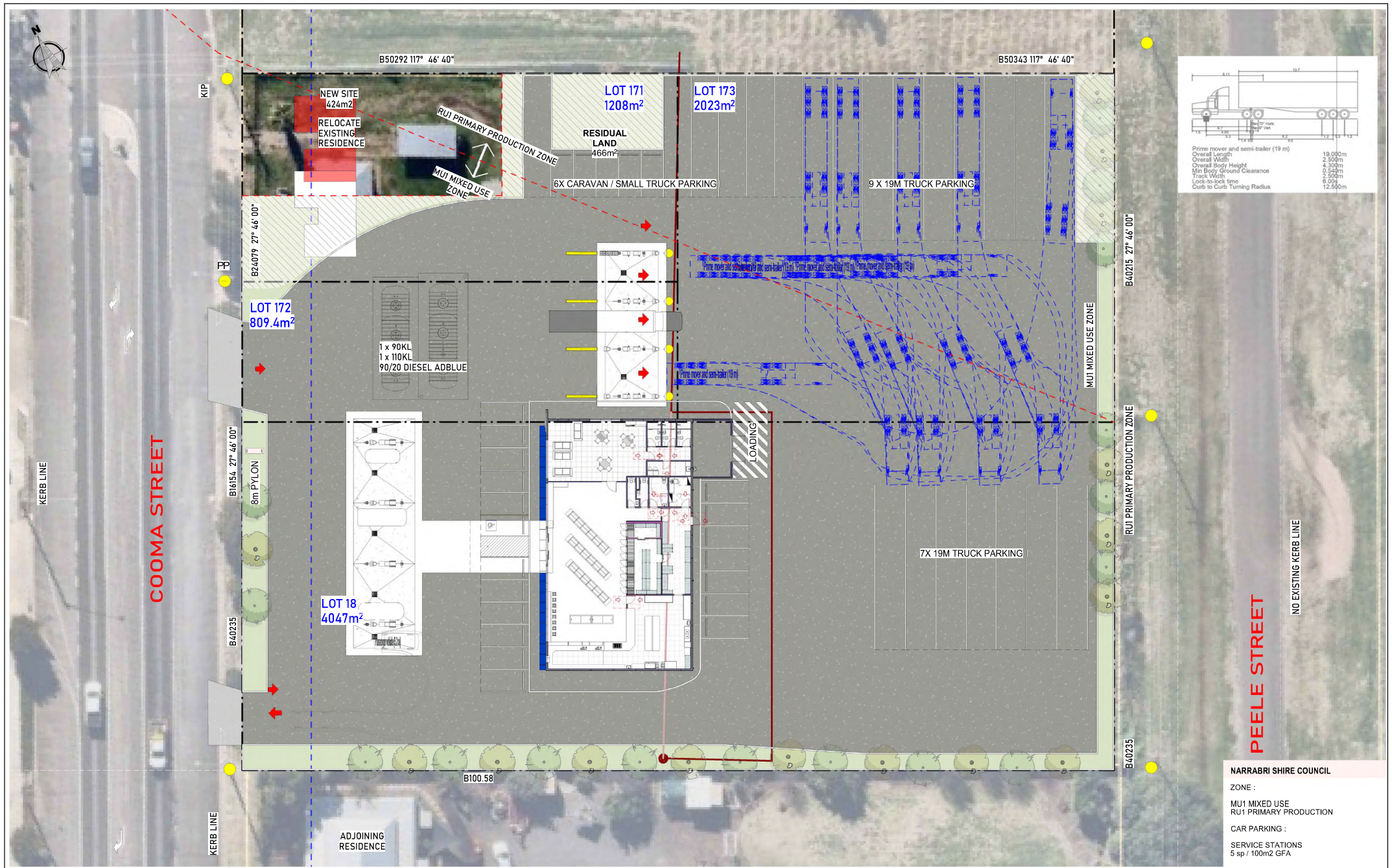
BC0668

12



Rev.	Description	Date	Issued by
1	DA SET	12.03.26	M.Marshall
2	Site Rev	17.03.26	H.Skinner
3	Draft Rev	25.03.26	H.Skinner
4	Draft Rev	26.03.26	H.Skinner
6	Site Rev	16.04.26	H.Skinner
7	Sewer Line	29.04.26	H.Skinner

1. All dimensions, levels, and setbacks are to be verified on site prior to fabrication or construction.
2. Written dimensions take precedence over scaled ones.
COPYRIGHT:
Pearl Energy PTY LTD is the owner of copyright to drawings supplied and the information shown hereon. All drawings supplied may not be used, reproduced or copied in whole or part of without the written consent of Pearl Energy PTY LTD.



NARRABRI SHIRE COUNCIL

ZONE :

MU1 MIXED USE
RUI PRIMARY PRODUCTION

CAR PARKING :

SERVICE STATIONS
5 sp / 100m2 GFA



Rev.	Description	Date	Issued by
1	DA SET	12.03.26	M.Marshall
2	Site Rev	17.03.26	H.Skinner
3	Draft Rev	25.03.26	H.Skinner
4	Draft Rev	26.03.26	H.Skinner
5	Site Rev	16.04.26	H.Skinner
7	Sewer Line	29.04.26	H.Skinner

1. All dimensions, levels, and setbacks are to be verified on site prior to fabrication or construction.
2. Written dimensions take precedence over scaled ones.
COPYRIGHT:
Pearl Energy PTY LTD is the owner of copyright to drawings supplied and the information shown hereon. All drawings supplied may not be used, reproduced or copied in whole or part of without the written consent of Pearl Energy PTY LTD.

PROJECT

SERVICE STATION

Lot: 171-172-173-DP: 540858-2854No: 48-42

TITLE

Truck turning - Semi Trailer 19m

Street: COOMA ROAD

CLIENT

PEARL

PROJECT STATUS

DEVELOPMENT APPLICATION

Suburb: NARRABRI

SCALE

1: 200 on A1

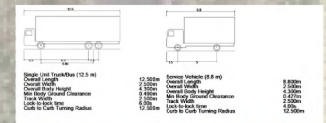
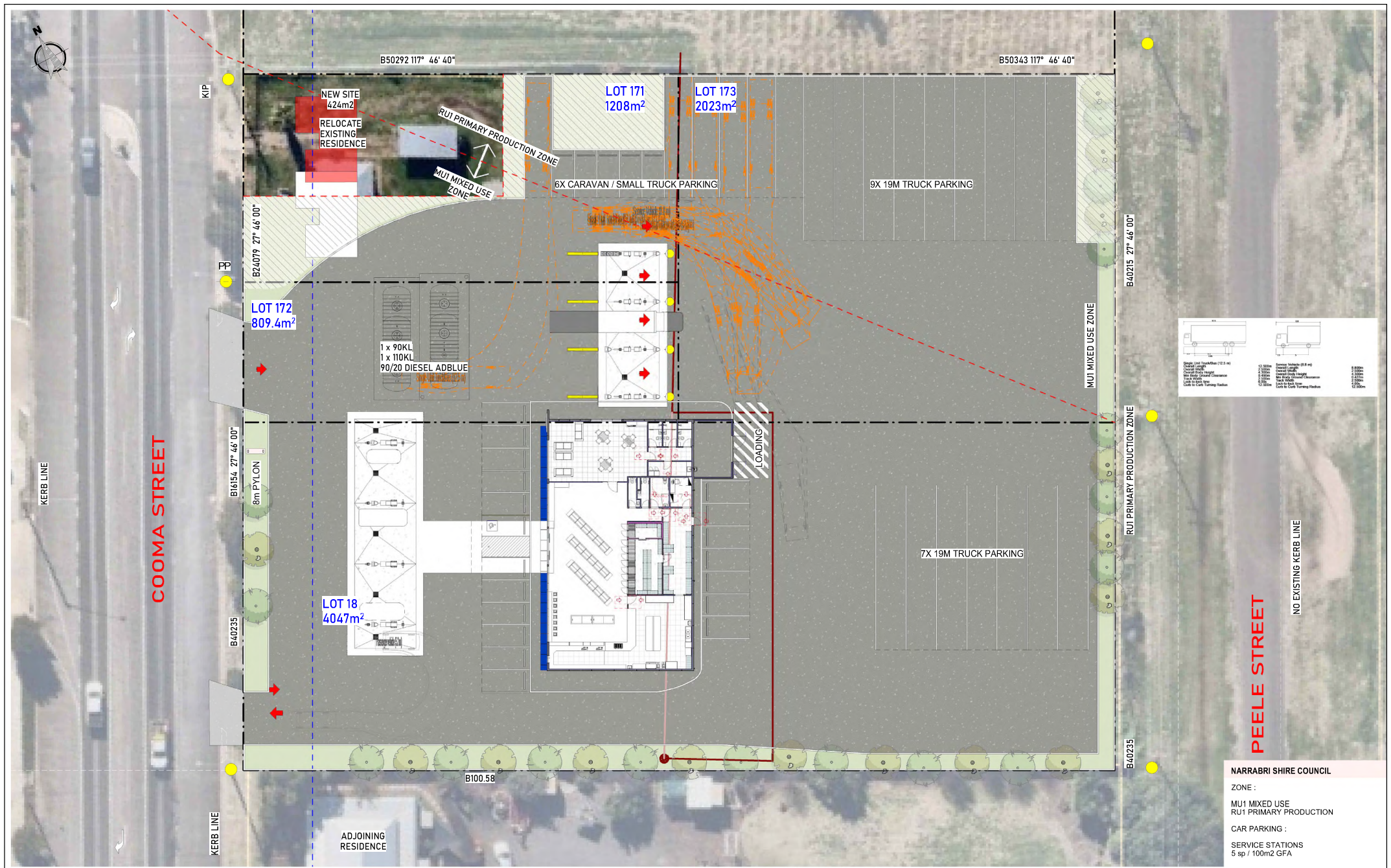
REV

7

Project No:

BC0668

14



NARRABRI SHIRE COUNCIL
ZONE :
MU1 MIXED USE
RU1 PRIMARY PRODUCTION
CAR PARKING :
SERVICE STATIONS
5 sp / 100m2 GFA

This page has been intentionally left blank

Appendix C – Noise Monitoring Charts

Table C1 Background Noise Monitoring Summary – Location L1

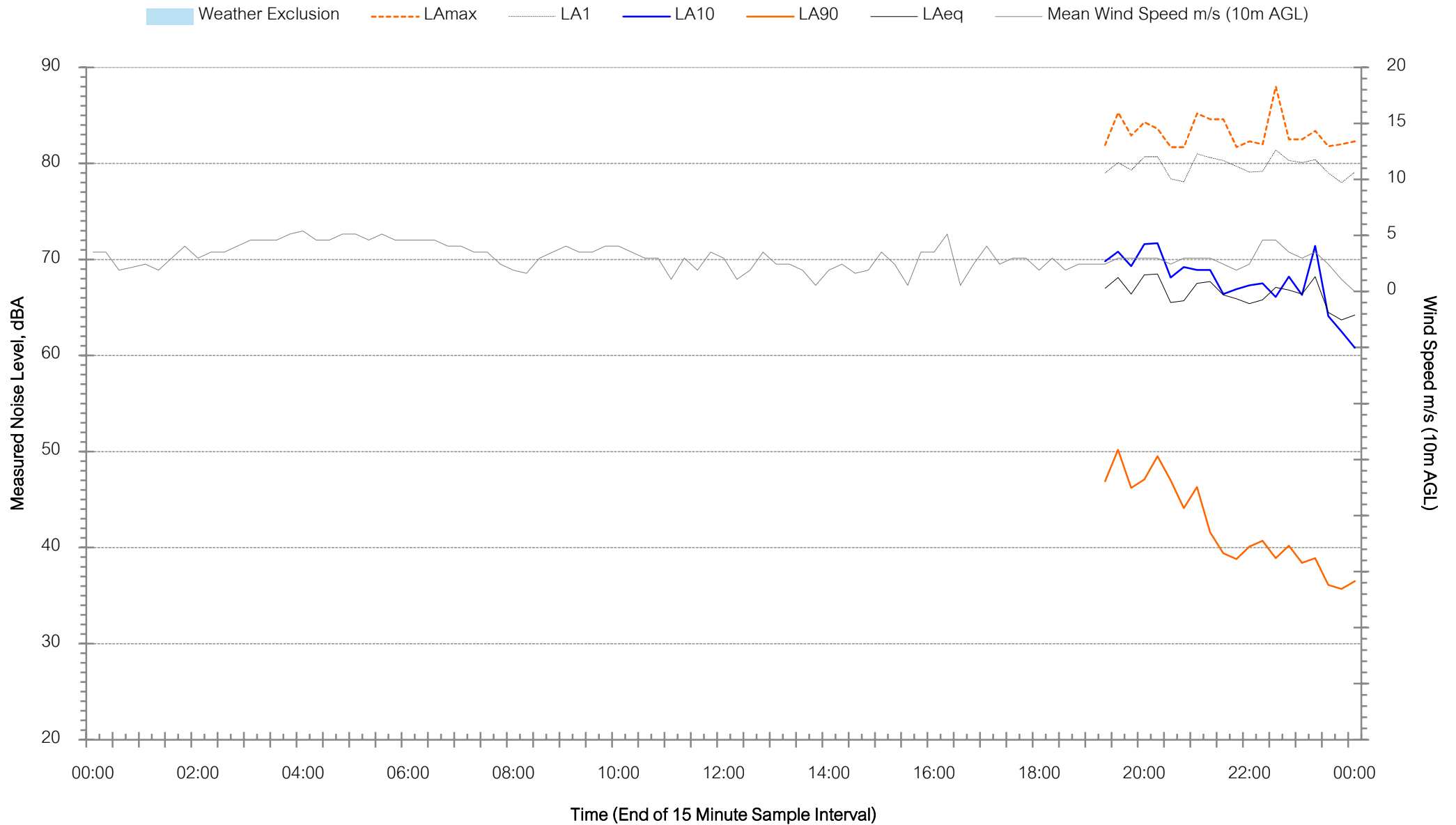
Date	Measured Background Noise Level (LA90) dB ABL ¹			Measured dB LAeq(period)		
	Day	Evening	Night	Day	Evening	Night
Monday 23 March 2026	--	--	34	--	--	64
Tuesday 24 March 2026	45	39	34	68	67	64
Wednesday 25 March 2026	45	41	34	68	68	64
Thursday 26 March 2026	48	44	35	68	67	64
Friday 27 March 2026	50	39	34	68	66	63
Saturday 28 March 2026	44	44	34	67	66	62
Sunday 29 March 2026	44	42	32	67	65	61
Monday 30 March 2026	47	42	34	68	68	64
Tuesday 31 March 2026	45	41	33	69	68	64
Wednesday 1 April 2026	--	--	34	--	--	64
L01 – RBL / Leq Overall	45	42	34	68	67	64

Note 1: Assessment Background Level (ABL) – the single-figure background level representing each assessment period day, evening, and night as per NPI Fact Sheet A.

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

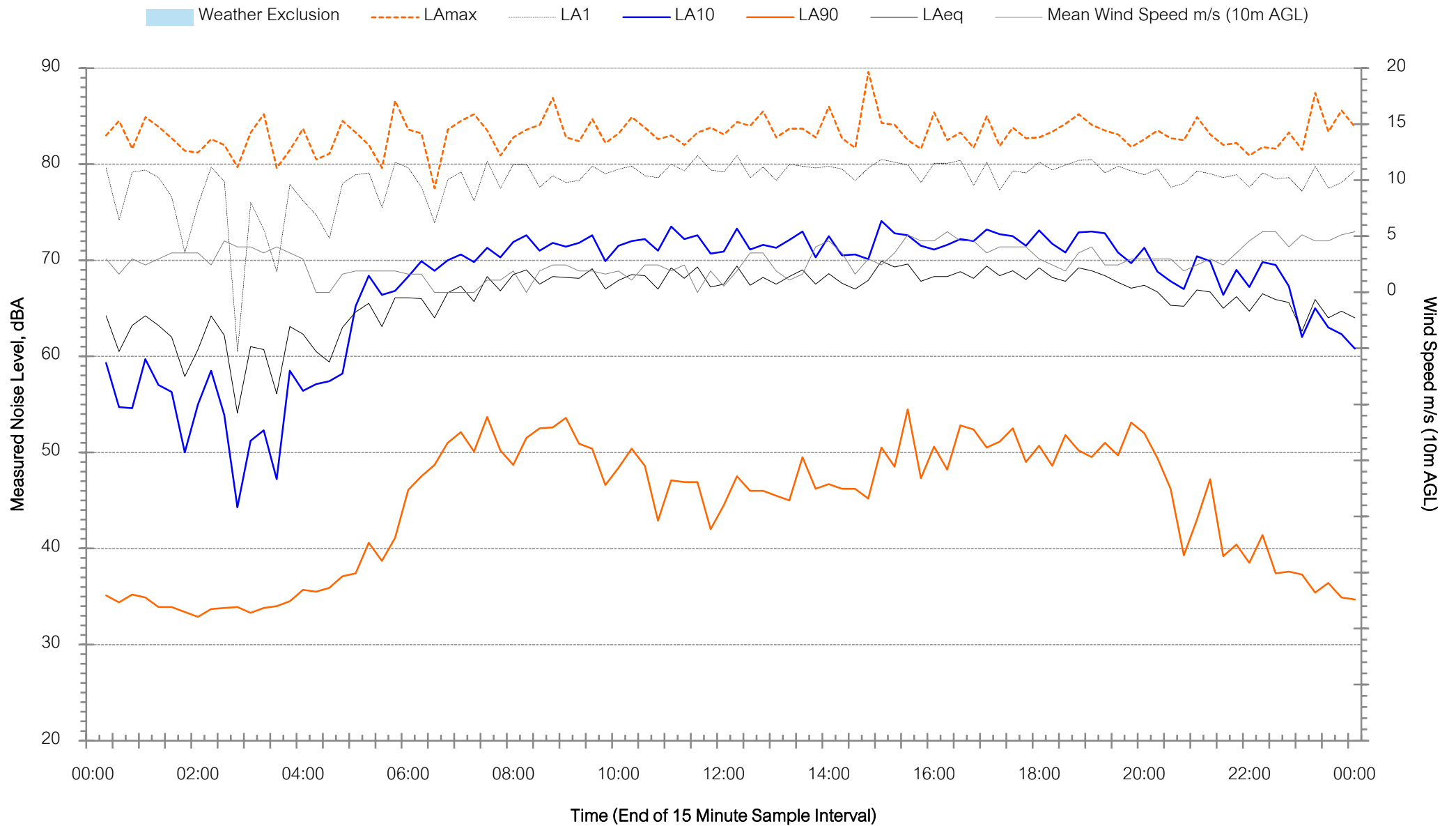
Background Noise Levels

Newell Highway, Narrabri - Monday 23 March 2026



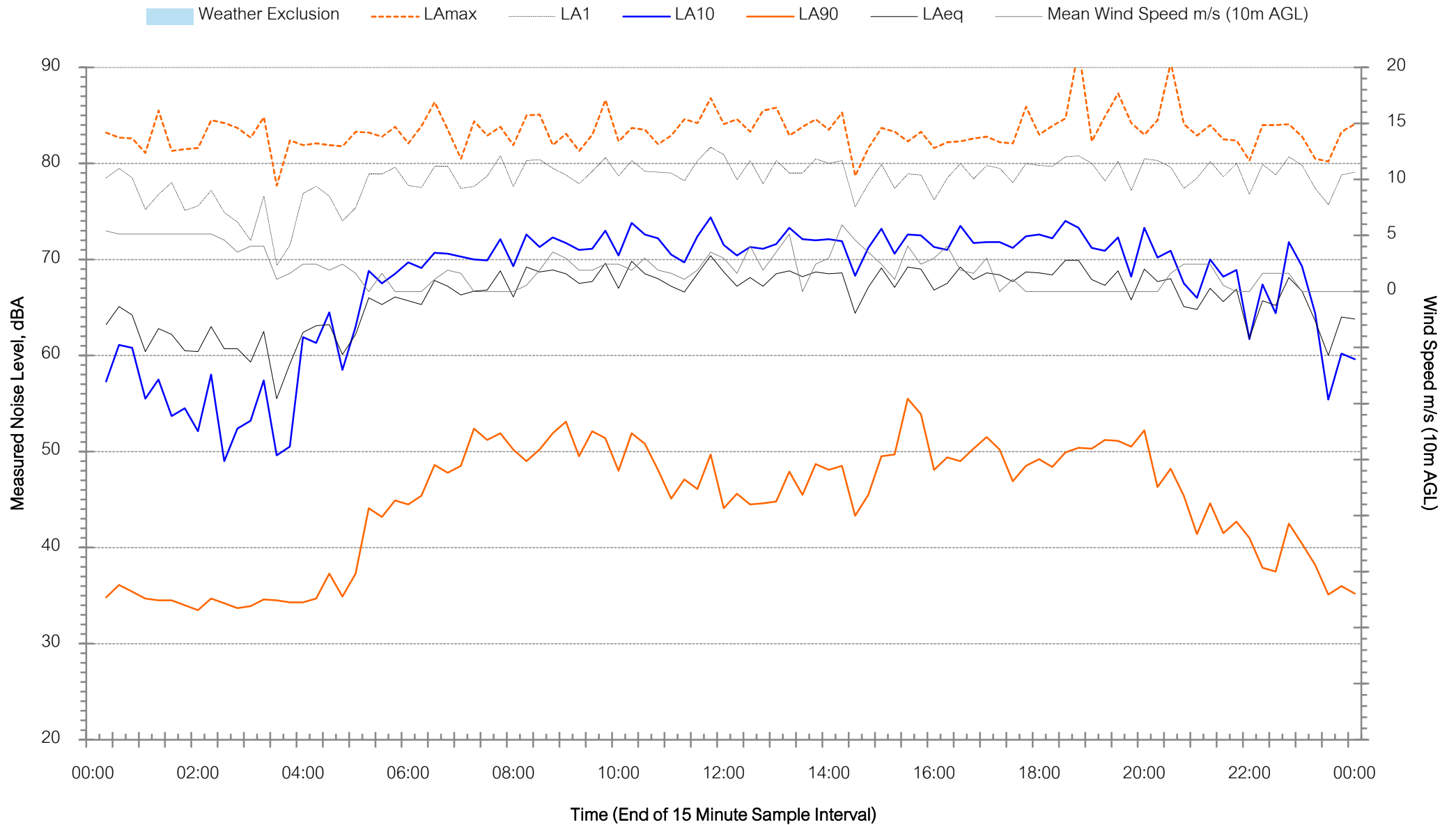
Background Noise Levels

Newell Highway, Narrabri - Tuesday 24 March 2026



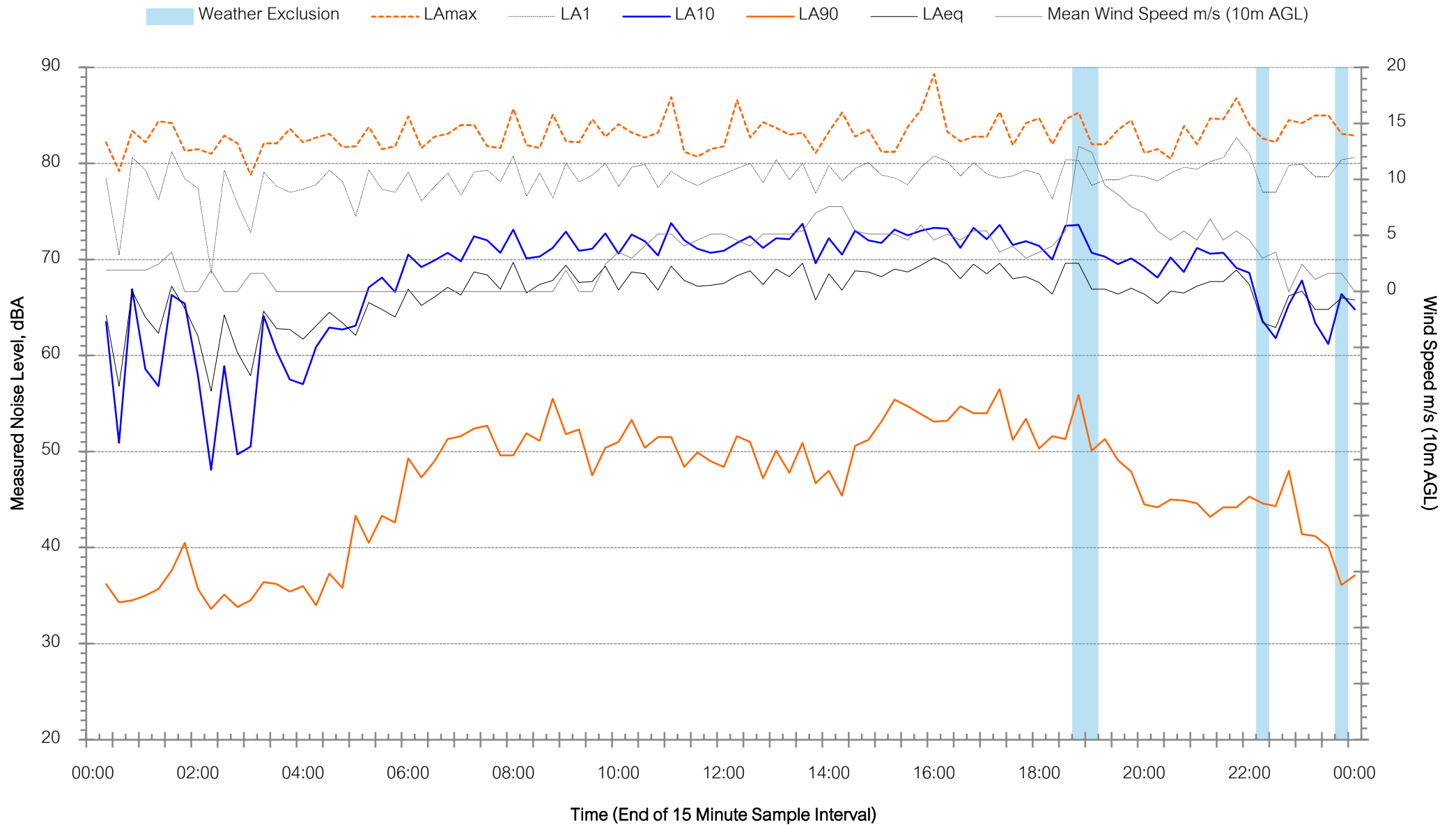
Background Noise Levels

Newell Highway, Narrabri - Wednesday 25 March 2026



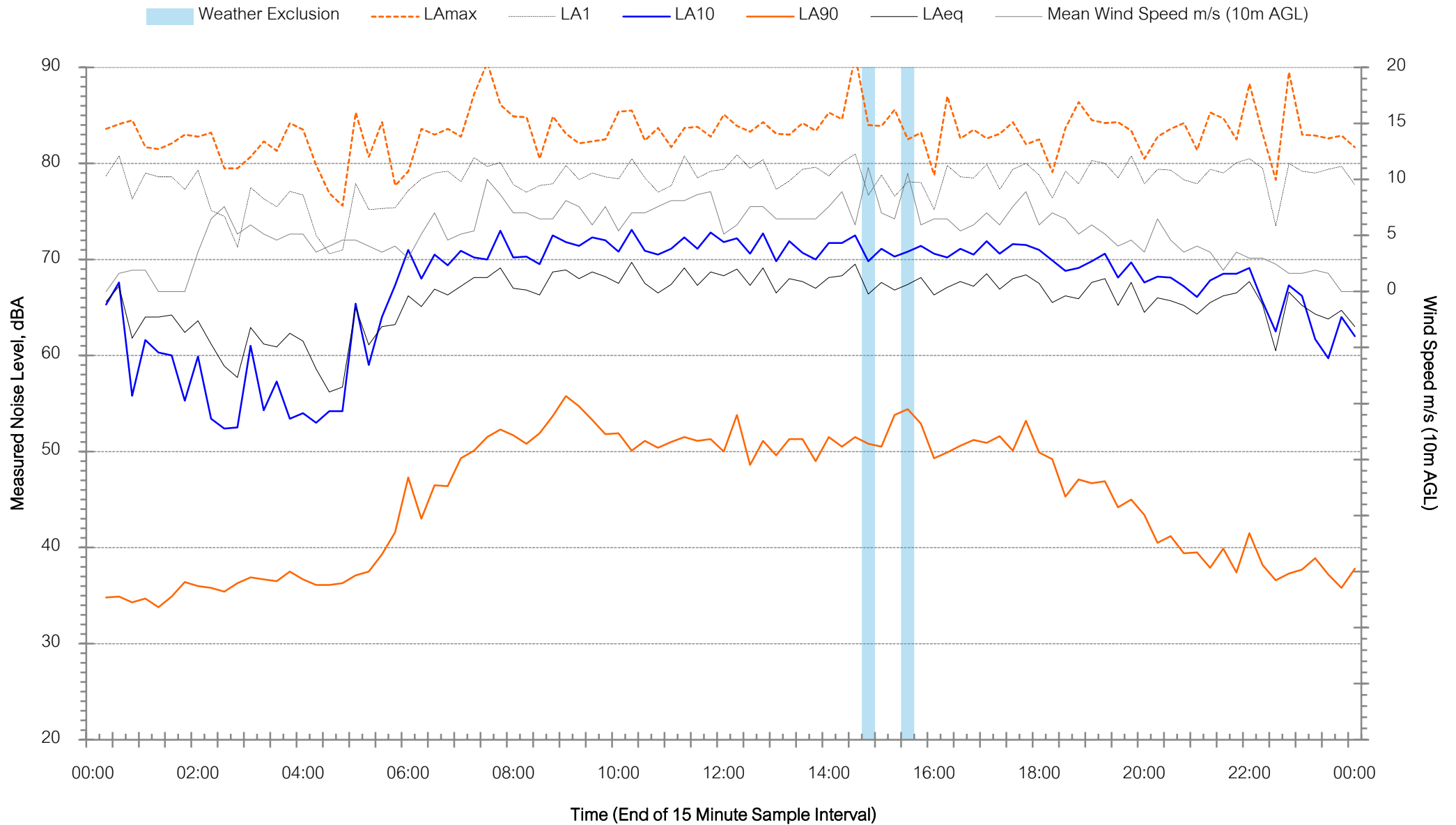
Background Noise Levels

Newell Highway, Narrabri - Thursday 26 March 2026



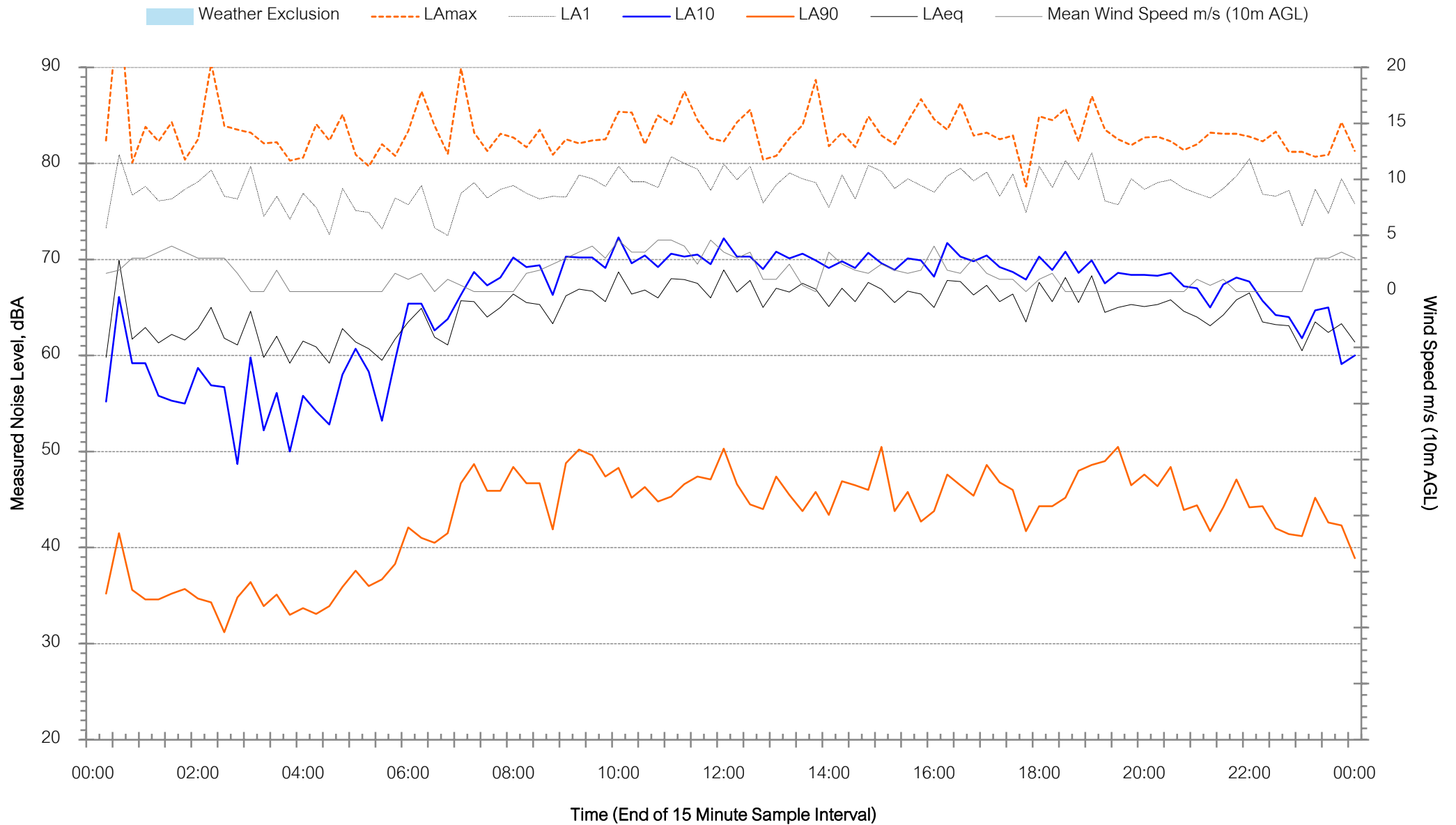
Background Noise Levels

Newell Highway, Narrabri - Friday 27 March 2026



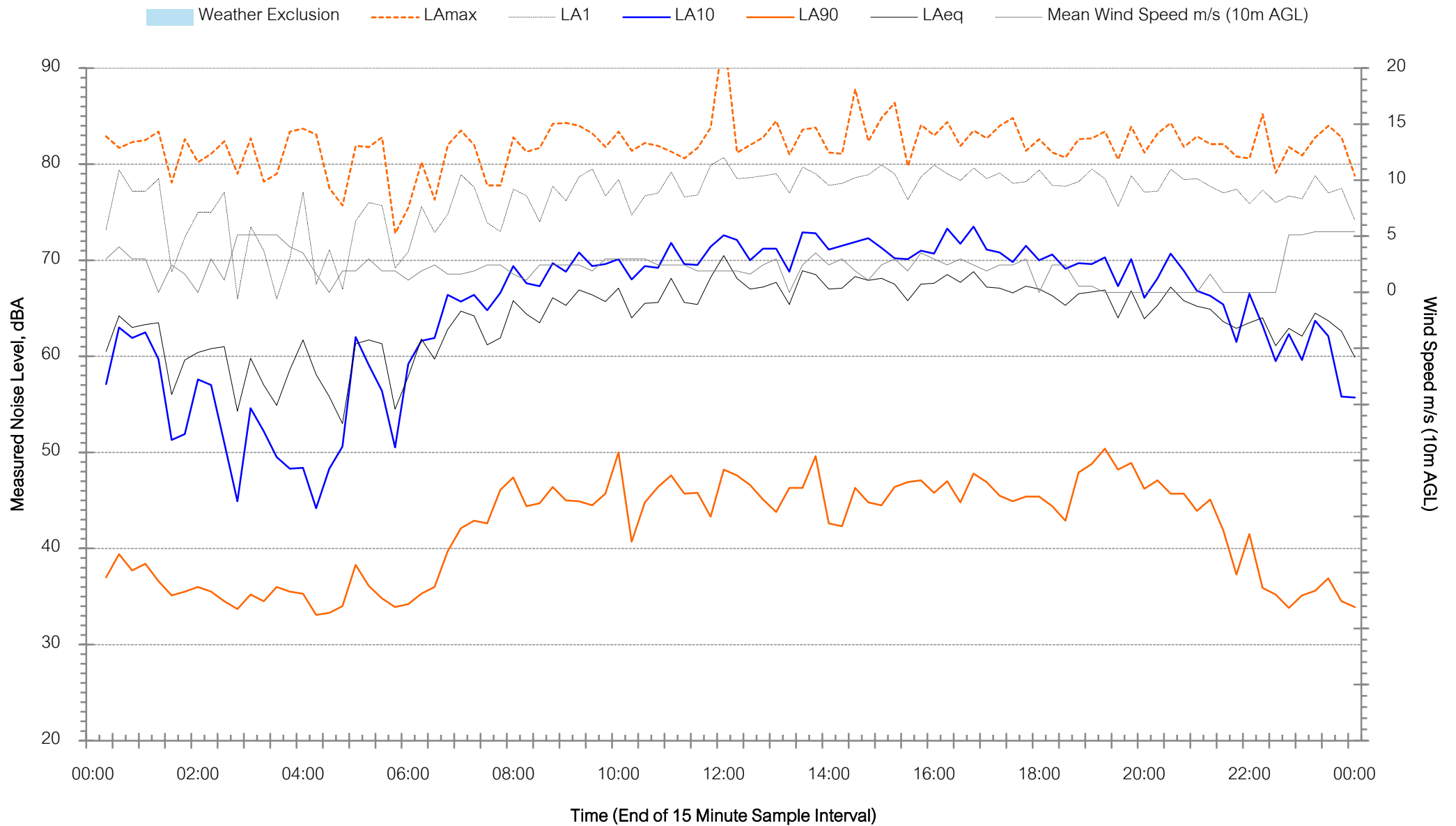
Background Noise Levels

Newell Highway, Narrabri - Saturday 28 March 2026



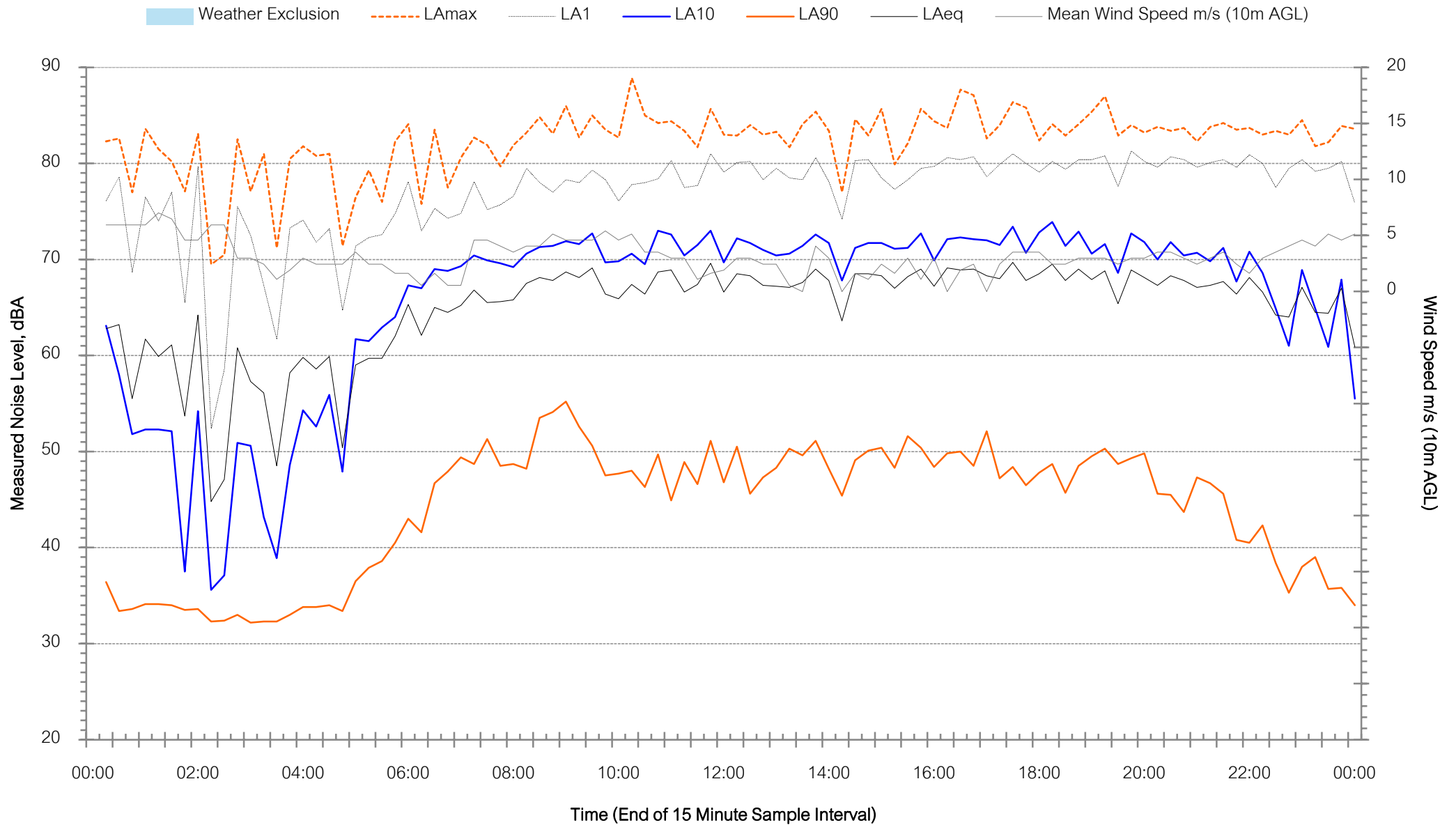
Background Noise Levels

Newell Highway, Narrabri - Sunday 29 March 2026



Background Noise Levels

Newell Highway, Narrabri - Monday 30 March 2026



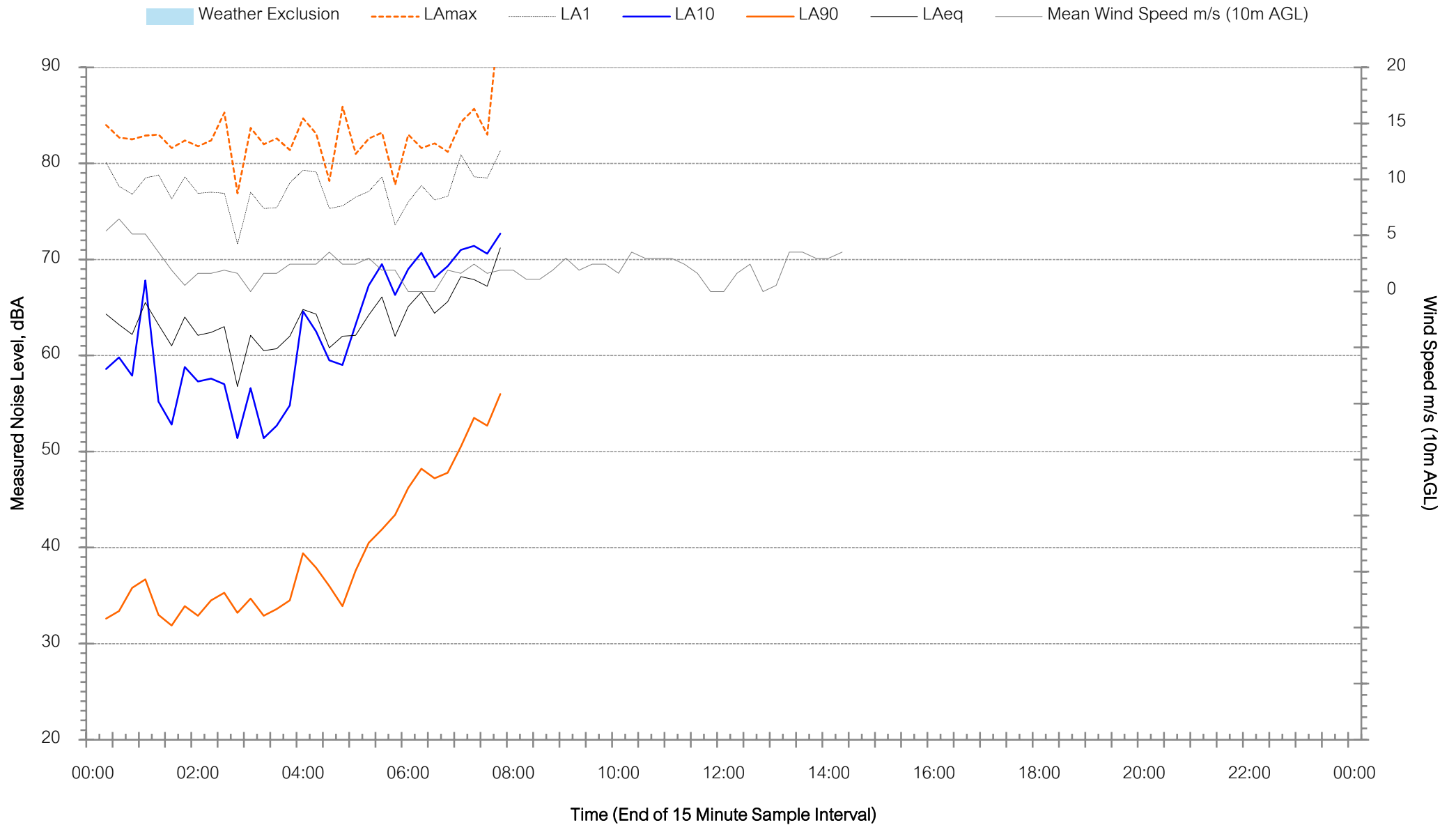
Background Noise Levels

Newell Highway, Narrabri - Tuesday 31 March 2026



Background Noise Levels

Newell Highway, Narrabri - Wednesday 1 April 2026



Appendix D – Determination of NPI

Receiver Category

Table D1 - Determination of NPI Residential Receiver Category																							
Location/ Catchment			Measured RBL dB LA90(period)			Land Use Zone				Typical Existing Background Noise Levels Table 2.3 NPI			Rural Residential - an area with an acoustical environment that:			Suburban Residential - an area that has:		Urban Residential- an area with an acoustical environment that:					
						RU5, RU6, RU1, RU2, R2, R3, R4, R1, R4, B1, RU4, R5, E4 E2, E3 B2, B4 Others																	
						Rural	Suburban	Urban	Commercial, Industrial	RURAL Daytime <40 Eve <35 Night <30	SUBURBAN Daytime <45 Eve <40 Night <35	URBAN Daytime >45 Eve >40 Night >35	Is dominated by natural sounds. having little or no road traffic noise generally characterised by low background noise levels. Settlement patterns would be typically sparse	local traffic with characteristically intermittent traffic flows or with some limited commerce or industry. evening ambient noise levels defined by the natural environment and human activity.	is dominated by 'urban hum' or industrial source noise has through-traffic with characteristically heavy and continuous traffic flows during peak is near commercial districts or industrial districts has any combination of the above								
Location 1	Day	45			✓					✓								✓	✓				
	Evening	42			✓					✓								✓	✓				
	Night	34			✓					✓								✓	✓				

where urban hum means the aggregate sound of many unidentifiable, mostly traffic and/or industrial related sound sources

Assessment																					
Location	Rural	Suburban	Urban		Rural - RBL	Suburban - RBL	Urban - RBL		Rural - Description				Suburban - Description			Urban - Description					
Location 1	0	1	8		0	1	2		0	0	0	0		0	0	0		0	3	3	0

This page has been intentionally left blank



Muller Acoustic Consulting Pty Ltd
PO Box 678, Kotara NSW 2289
ABN: 36 602 225 132
Ph: +61 2 4920 1833

mulleracoustic.com

