

PDP FOR EASING SYDNEY CONGESTION PITT TOWN BYPASS PROJECT - DETAIL DESIGN NOISE AND VIBRATION IMPACT ASSESSMENT

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TRANSPORT FOR NSW PDP FOR EASING SYDNEY CONGESTION

Noise and Vibration Impact Assessment

The Pitt Town Bypass Project - Detail Design Development Scope

TfNSW Project Number: P.0060248

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1 INTRODUCTION

1.1 Background

Transport for NSW (TfNSW) engaged Arcadis in 2018 to complete a Review of Environmental Factors (REF) for the approval of the Pitt Town Bypass (the project). Pitt Town Bypass – REF Noise and Vibration Impact Assessment, Revision E (Resonate, 9 October 2018) was completed to support the project REF. The project did not proceed to construction.

Since then, a consistency assessment was prepared to describe further amendments to the design in 2019. Currently, further amendment to the approved project design, accompanied by an Addendum Review of Environmental Factors (AREF), is underway.

1.2 Project description and proposed modifications

Key features of the proposed modification would include:

- Adjustments to the road design including the horizontal alignment of Glebe Road and the southern tie in of the bypass with Pitt Town Road
- Changes to the centre median at the Pitt Town Bypass intersection to allow right turns from Buckingham Street onto Pitt Town Bypass while still restricting the right turn movement from Pitt Town Bypass onto Buckingham Street
- Changes to property and maintenance accesses by adjusting the alignment and turnaround areas to accommodate maintenance and emergency vehicles
- Refinement of the design including the installation of additional road safety barriers and fences along the Pitt Town Bypass and side streets and the removal of two previously proposed retaining walls at the northern roundabout and Buckingham Street
- Minor utility adjustment to accommodate the revised road design with the approved project boundary
- Installation of a new Closed Circuit Television (CCTV) camera in the vicinity of the southern roundabout, located at the intersection of Pitt Town Road/Bathurst Street and Glebe Road
- Minor adjustment of the approved project boundary to include the property adjustment of an existing Transport acquired property and two driveways adjustments.

The primary objectives of the project is to establish a direct link between Pitt Town Road in the west and Cattai Road in the east, thereby diverting heavy freight traffic from the township. This initiative aims to enhance road safety, alleviate traffic congestion, and improve the quality of life for the local community.

1.3 Purpose of this report

As an input to the AREF, SJV have completed this Noise and Vibration Impact Assessment (NVIA) for the proposed Pitt Town Bypass, as part of the Easing Sydney's Congestion Program (ESC). This NVIA includes an assessment of noise and vibration impacts expected as a result of the construction and operation of the project.

1.4 Scope of works

The following tasks have been completed as part of this NVIA:

- Identified surrounding sensitive receivers potentially impacted by construction and operational noise from the proposal

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- Undertaken a noise monitoring survey including four long term noise monitoring locations. Monitoring was conducted to determine background noise levels and road traffic noise levels across the project study area. The noise monitoring locations are consistent with those in the project REF NVIA.
- Reviewed the proposed construction methodology and identify potential construction equipment
- Conducted an assessment of potential construction noise impacts
- Conducted an assessment of potential construction vibration impacts
- Conducted an assessment of potential operational noise impacts
- Provisioned mitigation and management measures where suitable

This NVIA has been prepared to detail the results of the above tasks.

This NVIA has been prepared in accordance with the key guidelines summarised in Table 1.1.

Table 1.1: Key guideline documents

Impact	Guideline / document
Construction noise	<i>Interim Construction Noise Guideline</i> (DECC, 2009) <i>Construction Noise and Vibration Guideline Roads</i> (TfNSW, 2023)
Construction traffic	<i>Road Noise Policy</i> (DECCW, 2011)
Construction vibration	<i>Assessing Vibration: a technical guideline</i> (DEC, 2006) <i>BS 7385 Part 2 – 1993 Evaluation and measurement for vibration in buildings</i> <i>DIN4150-3:2016 Vibrations in buildings – Part 3: Effects on structures</i>
Operational noise	<i>Road Noise Policy</i> (DECCW, 2011) <i>Road Noise Criteria Guideline</i> (TfNSW, 2023) <i>Application Notes for the Road Noise Criteria Guideline</i> (TfNSW, 2022) <i>Road Noise Mitigation Guideline</i> (TfNSW, 2022) <i>At Receiver Treatment Noise Guideline</i> (draft) (TfNSW, 2023)

1.5 Limitations

This report has been prepared by SJV for Transport for NSW and may only be used and relied on by Transport for NSW for the purpose agreed with Transport for NSW.

SJV otherwise disclaims responsibility to any person other than Transport for NSW arising in connection with this report and also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by SJV in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. SJV has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by SJV described in this report. SJV disclaims liability arising from any of the assumptions being incorrect.

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The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Conditions at other parts of the proposed footprint may be different from the site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant site features and conditions may have been identified in this report.

1.6 Glossary of key terms

A glossary of key terms used throughout this report is provided in Table 1.2.

Table 1.2: Glossary of terms

Acronym	Name
ARRNTG	At-Receiver Road Noise Treatment Guideline
CNVG	Construction Noise and Vibration Guideline (roads)
ICNG	Interim Construction Noise Guideline
L_{A90(period)}	The A-Weighted sound pressure level that is exceeded for over 90% of the given measurement period. This is considered to represent the level of background noise
L_{Aeq(15 min)}	Equivalent A-Weighted sound pressure level, the stead sound level that, over a specified period of time would produce the same energy equivalence as the fluctuation sound level actually occurring. The 15 minute period is the assessment period used to assess construction noise levels, in accordance with the ICNG
L_{Aeq(15 hr)}	As above but over a 15 hour period, used to describe daytime road traffic noise levels between 7:00 am and 10:00 pm, in accordance with the Road Noise Policy
L_{Aeq(9 hr)}	As above but for the night time period between 10:00 pm and 7:00 am
L_{AFmax}	the maximum A-weighted measurement level, measured using fast time weighting
NCA	Noise catchment area
NML	Noise management level
NVSR	Noise and Vibration Sensitive Receiver
OOHW	Out-of-hours works
RBL	Rating Background Level
RCNG	Road Noise Criteria Guideline
RNMG	Road Noise Mitigation Guideline
REF	Review of Environmental Factors
RNP	Road Noise Policy
TfNSW	Transport for NSW

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2 EXISTING ENVIRONMENT

2.1 Project location

The project is located in the historic township and suburb of Pitt Town, New South Wales located approximately 45 kilometres north west of Sydney CBD. The broader area is rural residential, with a low density town centre.

Currently, road traffic passes through the township via Bathurst Street, Chatham Street and Eldon Street. The Pitt Town Bypass will establish a direct link between Pitt Town Road in the west and Cattai Road in the east, thereby diverting traffic from the township. The project location including the project roads are shown in Figure 2.1.

2.2 Noise catchment areas

For the purposes of establishing appropriate construction noise management levels, the study area has been divided into areas of similar ambient noise environment referred to in this report as 'Noise Catchment Areas' or 'NCAs'.

Within the study area, the key dominant noise sources contributing to L_{A90} and L_{Aeq} noise levels are the collector roads such as Pitt Town Road, Bathurst Street, Eldon Street and Cattai Road. No industrial premises or industrial areas were identified in the study area. The acoustic environment is also expected to vary depending on the proximity to built-up residential and commercial areas in the study area.

In view of the above, three NCAs have been adopted to categorise the acoustic environment of the residential land uses within the study area via their background noise level and define appropriate assessment criteria for the assessment. The NCA boundaries are shown in Figure 2.1

The NCAs, the description of noise environment (and key contributing noise sources) and the relevant noise monitoring locations to establish the rating background level (RBL) are provided in Table 2.1.

Table 2.1: Noise catchment areas

NCA	Monitoring location	Description of the existing noise environment
NCA01	U4	Receivers fronting or in close proximity to primary collector roads Pitt Town Road, Bathurst Street, Chatham Street and Eldon Street.
NCA02	U1	Rural receivers with local roads and some proximity to collector roads
NCA03	U3	Receivers in built up areas or in proximity to Cattai Road

2.3 Noise and vibration sensitive receivers

Noise and vibration sensitive receivers considered in this NVIA have been identified and categorised into the following noise sensitive land uses as defined in the *Interim Construction Noise Guideline* (ICNG) (DECC, 2009): residential, classrooms (educational institutes), places of worship, active and passive recreation areas, commercial and industrial premises. Other building structures in the study area that are not considered noise sensitive have been included in the noise model, however have not been included in the operational or construction noise assessments. These buildings include backyard sheds, agricultural structures and other storage structures.

One heritage structure was identified as potentially being affected by construction vibration being the Early Victorian Cottage at 22 Bathurst Street (R610, LEP #1277).

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A number of properties have been wholly acquired by Transport and are currently vacant. These properties are:

- 42 Wellesley Street, Pitt Town
- 51 Wellesley Street, Pitt Town
- 54 Wellesley Street, Pitt Town

These receivers have not been included as sensitive receivers in the construction and operational assessments. Other receivers are privately owned but have had partial lot acquisitions or are within the modelled construction footprint. These receivers have been included in both the construction and operational assessments.

The total number of modelled sensitive receivers are summarised in Table 2.2 and shown in Figure 2.1. Appendix H provides a series of figures displaying all RIDs across the project study area.

Table 2.2: Number of modelled noise and vibration sensitive receivers

Receiver type	Number of modelled receivers			
	NCA01	NCA02	NCA03	Total
Residential	347	140	568	1055
Commercial	19	0	0	19
Place of worship	3	0	0	3
Educational institute	0	0	18	18
Industrial	4	0	1	5
Active recreation	4	1	0	5
Total	377	141	587	1105

2.4 Noise monitoring

2.4.1 Methodology

The noise monitoring survey methodology conducted for this NVIA is consistent with the survey undertaken during the project REF, with a total of four unattended noise monitors deployed to quantify road traffic noise levels and background noise levels in the study area. The methodology for the noise monitoring includes the following key tasks:

- Noise monitoring was conducted between Wednesday 19th June 2024 and Tuesday 2nd July 2024.
- Noise monitoring was undertaken using Svan 977 and Rion NL-52 environmental noise loggers which were programmed to accumulate the L_{A90} , L_{A10} , L_{Aeq} and L_{AFmax} noise descriptors continuously over the entire monitoring period. Noise measurements were accumulated using A weighted, fast time response, 15 minutes integration periods.
- Meteorological data was sourced from the Richmond RAAF Weather Station, station number 67105, located 7 km south-west of the proposal site.

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- A calibration check was performed on the noise monitoring equipment using a sound level calibrator with a sound pressure level of 94 dBA at 1 kHz. At completion of the measurements, the meter's calibration was re-checked to ensure the sensitivity of the noise monitoring equipment had not varied. The noise loggers were found to be within the acceptable tolerance of ± 1 dB(A)
- The data collected by the loggers was downloaded and analysed. Data was excluded during periods where average wind speeds were greater than 5 m/s or when rainfall occurred.

Details of the unattended noise monitoring survey are provided below in Table 2.3. Full daily noise monitoring results, noise monitoring charts including weather data and in-situ equipment photos are provided in Appendix A. The locations of the noise monitors are shown in Figure 2.1.

Table 2.3: Unattended noise monitoring details

ID	Address	Description	Nearest road	Equipment details	Cal drift
U1	54 Wellesley Road	Free field with partial lines-of-sight to Pitt Town Road and Cattai Road	200 metres to Bathurst Street	Svan 977 Class 1 Sound Level Meter SN:36872	-0.5 dB
U2	23 Old Pitt Town Road	Free field with line-of-sight to Old Pitt Town Road, partial line of sight to Cattai Road	42 metres to Old Pitt Town Road 160 metres to Cattai Road	Svan 977 Class 1 Sound Level Meter SN:36871	-0.2 dB
U3	8 Cattai Road	Free field with line-of-sight to Cattai Road	50 metres to Cattai Road	Svan 977 Class 1 Sound Level Meter SN:97591	-0.1 dB
U4	61 Bathurst Street	1.5 metres ¹ from façade with direct line-of-sight to Bathurst Street	10 metres to Bathurst Street	Rion NL-52 Class 1 Sound Level Meter SN: 00131631	-0.1 dB

Note 1: Monitoring was conducted at a distance of 1.5 metres to maintain consistency with the 2018 noise monitoring location

2.4.2 Monitoring results

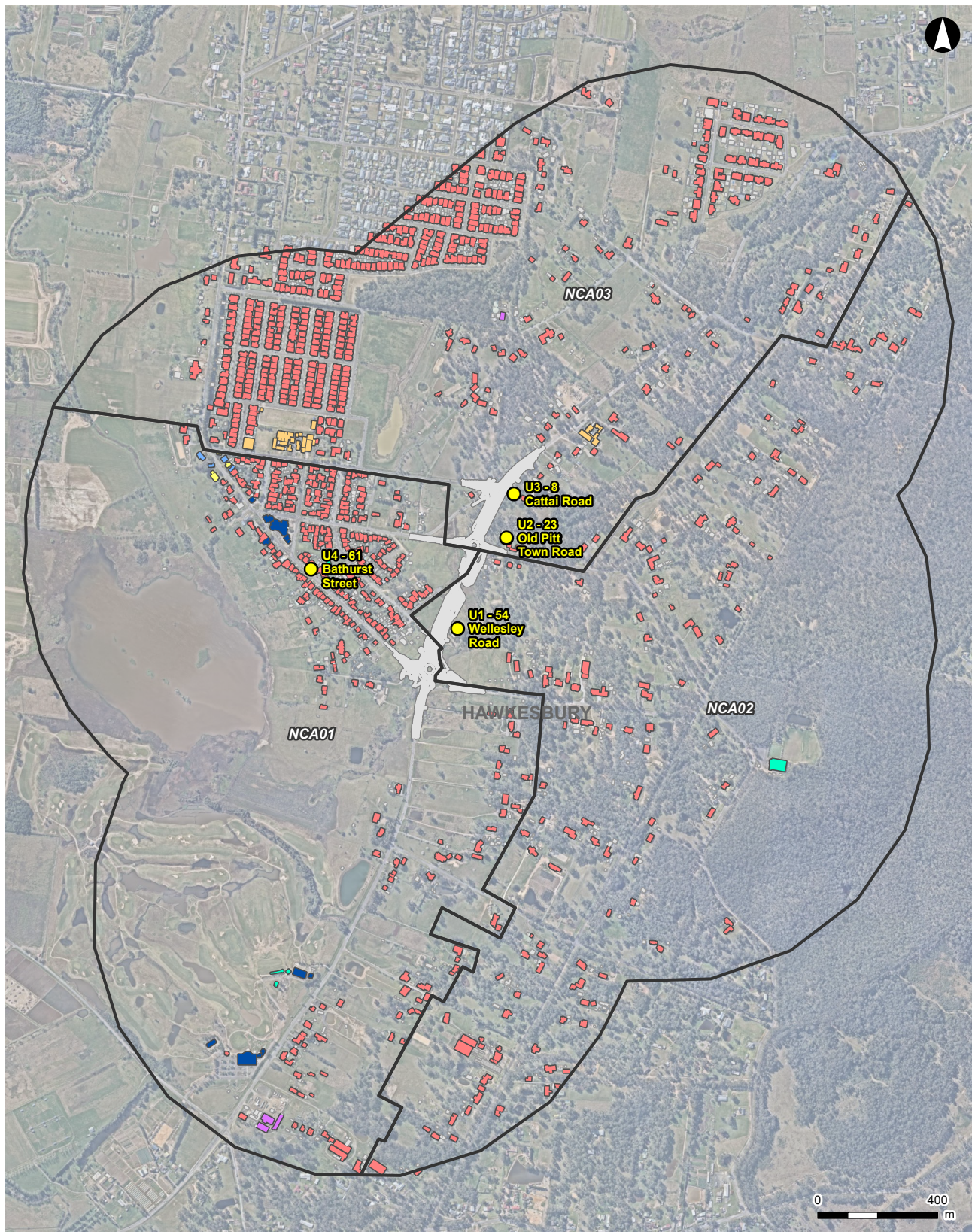
The Rating Background Level (RBL) has been calculated in accordance with the Noise Policy for Industry (EPA, 2017) at each monitoring location and the $L_{Aeq(period)}$ road traffic noise levels have also been calculated in accordance with the Road Noise Policy (DECCW, 2011) 15-hour (day) and 9-hour (night) periods. A summary of the measured RBLs and the road traffic noise levels at each location is provided in Table 2.4. Daily noise measurements and noise level charts are provided in Appendix A.

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Table 2.4: Measured rating background noise levels and road traffic noise levels, dBA

ID	Location	Rating Background Level (RBL)			Road traffic noise levels	
		Day 7 am to 6 pm	Evening 6 pm to 10 pm	Night 10 pm to 7 am	L _{Aeq} (15 hr) Day 7 am to 10 pm	L _{Aeq} (9 hr) Night 10 pm to 7 am
U1	54 Wellesley Road	39	37	30	48	42
U2	23 Old Pitt Town Road	40	36	27	52	44
U3	8 Cattai Road	41	35	27	55	50
U4	61 Bathurst Street	44	37	26	65	60



Legend

Proposal design	Noise sensitive receivers	Educational institute
Noise monitoring locations	Active Recreation	Industrial
	Commercial	Place of worship
	Community Use	Residential



Figure 2-1 - Proposal footprint, sensitive receivers and noise monitoring locations

1:19,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 19, 2024



3 CONSTRUCTION ASSESSMENT

3.1 Study area

A study area of 900 metres from the project has been defined for the construction noise assessment in order to capture the sensitive receivers that may be impacted by noise during the construction phase of the project (i.e., an exceedance of the construction noise management levels).

3.2 Proposed construction hours

Construction works are planned to be undertaken during and outside the recommended standard hours for construction defined in the ICNG. Where reasonable and feasible, construction activities should be limited to the hours provided in Table 3.1.

Table 3.1: Standard construction hours

Construction hours	Monday to Friday	Saturday	Sundays / Public Holidays
Standard construction hours	7:00 am to 6:00 pm	8:00 am to 1:00 pm	No work
Impulsive or tonal noise emissions	8:00 am to 5:00 pm ¹	9:00 am to 1:00 pm ₁	No work
Blasting	9:00 am to 5:00 pm	9:00 am to 1:00 pm	No blasting

Note 1: Works may be carried out in continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block. 'Continuous' includes any periods during which there is less than a one-hour respite between ceasing and recommencing any of the work the subject of this condition.

The CNVG separates out-of-hours works (OOHW) into two additional categories:

- OOHW Period 1 (Day / Evening)
- OOHW Period 2 (Evening / Night).

Recommended standard construction hours and the OOHW periods are shown in Table 3.2.

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Table 3.2: OOHW periods

Hour starting	12 am	1 am	2 am	3 am	4 am	5 am	6 am	7 am	8 am	9 am	10 am	11 am	12 pm	1 pm	2 pm	3 pm	4 pm	5 pm	6 pm	7 pm	8 pm	9 pm	10 pm	11 pm
Monday																								
Tuesday																								
Wednesday																								
Thursday																								
Friday																								
Saturday																								
Sunday																								
Public holidays																								

Standard construction hours
OOHW Period 1 (Day)
OOHW Period 1 (Evening)
OOHW Period 2

3.3 Outside of standard hours work

The ICNG states that 'the five categories of works that might be undertaken outside the recommended standard hours are:

- the delivery of oversized plant or structures that police or other authorities determine require special arrangements to transport along public roads
- emergency work to avoid the loss of life or damage to property, or to prevent environmental harm
- maintenance and repair of public infrastructure where disruption to essential services and/or considerations of worker safety do not allow work within standard hours
- public infrastructure works that shorten the length of the project and are supported by the affected community
- works where a proponent demonstrates and justifies a need to operate outside the recommended standard hours.

Additionally, the ICNG states that 'only works undertaken on public infrastructure need to be undertaken outside the recommended standard hours. This need is typically 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 (that is more than just local residents).

Examples of public infrastructure are:

- transport – railways, roads, ferries, airports
- utilities – water, electricity or gas, sewerage or drainage'.

A strong justification is required for works outside of the recommended standard hours. Where reasonable and feasible, preference would be given to scheduling construction works within standard

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hours. Construction activities resulting in impulsive, tonal or higher noise emissions (special audible characteristics) would be limited to the ICNG standard recommended hours, where possible, except as permitted by an environment protection licence which would be obtained once the project is approved.

It is expected that the majority of works would be undertaken during recommended standard construction hours with various activities (yet to be confirmed) required to be undertaken during the night period.

3.4 Construction noise management levels

The CNVG (Roads) (TfNSW, 2023) states that construction noise management levels should be established based on the *Interim Construction Noise Guideline* (DECC, 2009).

Construction noise management levels (NML) for the proposal have been derived based on the guidance outlined in the ICNG. The NMLs that are applicable are based on the land use for each identified sensitive receiver.

3.4.1 Residential noise management levels

The ICNG method to determine the NMLs for residential receivers is outlined in Table 3.3. These are based on the background noise level during each assessment time period. The residential noise management levels are assessed externally.

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Table 3.3: Noise management levels for residential receivers

Time of day	Noise management level, $L_{Aeq}(15 \text{ min})$	Application notes
Recommended standard hours	Noise affected: RBL + 10 dBA	The noise affected level represents the point above which there may be some community reaction to noise: - where the predicted or measured $L_{Aeq}(15 \text{ min})$ 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 works to be carried out, the expected noise levels and duration, as well as contact details.
Recommended standard hours	Highly noise affected: 75 dBA	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 works near schools, or mid-morning or mid-afternoon for works near residences) - 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 + 5 dBA	A strong justification would typically be required for works 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 measures have been applied and noise is more than 5 dBA above the noise affected level, the proponent should consult with the community.

The ICNG recommends that sleep disturbance and awakenings be considered where construction works are planned to extend over two or more consecutive nights. The ICNG references the NSW road traffic noise guidelines to determine the potential for sleep disturbance impacts. The RNP states that maximum internal noise levels below 50 to 55 dBA are unlikely to awaken people from sleep.

The NMLs for residential receivers adopted for this assessment are provided in Table 3.4.

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Table 3.4: Residential NMLs for each assessment period, dBA

NCA	Standard construction hours	Outside standard construction hours			
		Day	Evening	Night	Sleep disturbance ¹
NCA01	54	49	42	35	65
NCA02	49	44	42	35	65
NCA03	51	46	40	35	65

Note 1: Based on an internal noise level of 55 dBA. A 10 dBA addition has been applied to the internal noise level to account for a typical noise reduction through an open window.

3.4.2 Non-residential noise management levels

Noise management levels for other sensitive land uses identified in the study area are provided in Table 3.5, and only apply when the properties are in use.

Table 3.5: Noise management levels for other sensitive land uses

Sensitive land use	Noise management level, $L_{Aeq}(15 \text{ min})$ dBA
Commercial premises	70 (external)
Industrial	75 (external)
Educational institutes	55 (external) ¹
Places of worship	55 (external) ¹
Active recreation	65 (external)

Note 1: Based on an internal noise level of 55 dBA. A 10 dBA addition has been applied to the internal noise level to account for a typical noise reduction through an open window.

3.5 Construction vibration criteria

3.5.1 Human comfort

The CNVG (Roads) (TfNSW, 2023) states that guidance on the effects of construction vibration on human comfort be provided by *Assessing Vibration: a technical guideline* (DEC, 2006) which is based on the guidelines contained in British Standard BS 6472 – 1992, *Guide to Evaluation of Human Exposure to Vibration in Buildings* (1 Hz to 80 Hz).

Typically, construction activities generate ground vibration of an intermittent nature. Intermittent vibration is assessed using the vibration dose value. Acceptable values of vibration dose are presented in Table 3.6 for sensitive receivers.

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Table 3.6: Human comfort intermittent vibration limits (BS 6472-1992)

Receiver type	Period	Intermittent vibration dose value ($\text{m/s}^{1.75}$)	
		Preferred value	Maximum value
Residential	Day (7 am to 10 pm)	0.2	0.4
	Night (10 pm to 7 am)	0.13	0.26
Offices, schools, educational institutes and places of worship	When in use	0.4	0.8

Whilst the assessment of response to vibration in *BS 6472:1992* is based on vibration dose value and weighted acceleration, for construction related vibration, it is considered more appropriate to provide guidance in terms of a peak value, since this parameter is likely to be more routinely measured based on the more usual concern over potential building damage.

Humans are capable of detecting vibration at levels which are well below those causing risk of damage to a building. The degrees of perception for humans are suggested by the vibration level categories given in British Standard, *BS 5228.2 – 2009, Code of Practice Part 2 Vibration for noise and vibration on construction and open sites – Part 2: Vibration* and are shown below in Table 3.7.

Table 3.7: Guidance on effects of vibration levels for human comfort

Vibration level	Effect
0.14 mm/s	Vibration might be just perceptible in the most sensitive situations for most vibration frequencies associated with construction.
0.3 mm/s	Vibration might be just perceptible in residential environments.
1.0 mm/s	It is likely that vibration at this level in residential environments will cause complaints but can be tolerated if prior warning and explanation has been given to residents.
10 mm/s	Vibration is likely to be intolerable for any more than a very brief exposure.

3.5.2 Guidelines for general structures

The CNVG (Roads) (TfNSW, 2023) states that the effects of construction vibration on structures be based on guidance from the *BS 7385 Part 2 – 1993 Evaluation and measurement for vibration in buildings*. The criteria provided in BS 7385 are presented in Table 3.8.

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Table 3.8: Transient vibration guide values – minimal risk of cosmetic damage

Type of building	Peak component particle velocity in frequency range of predominant pulse	
	4 Hz to 15 Hz	15 Hz and above
Reinforced or framed structures. Industrial and heavy commercial buildings	50 mm/s at 4 Hz and above	50 mm/s at 4 Hz and above
Unreinforced or light framed structures. Residential or light commercial type building	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

The guide values in Table 3.8 relate predominantly to transient vibration which does not give rise to resonant responses in structures and low-rise buildings. Where the dynamic loading caused by continuous vibration may give rise to dynamic magnification due to resonance, especially at lower frequencies, then the guide values may need to be reduced by up to 50 per cent.

The predominant vibration for most construction activities involving intermittent vibration sources such as rock breakers, piling rigs, vibratory rollers and excavators occurs at frequencies greater than 4 Hz (and usually in the 10 Hz to 100 Hz range). On this basis, a conservative vibration damage screening level per receiver type is given below:

- reinforced or framed structures: 25.0 mm/s
- unreinforced or light framed structures: 7.5 mm/s.

3.5.3 Guidelines for vibration sensitive structures

The CNVG (Roads) (TfNSW, 2023) states that the effects of construction vibration on heritage structures be based on guidance from *DIN 4150*.

DIN 4150 provides a conservative cosmetic damage criterion of 3 mm/s peak component particle velocity for a heritage building or structure found to be structurally unsound (following an inspection).

3.6 Construction traffic noise criteria

For Transport projects, the CNVG states that an initial screening test should first be applied by evaluating whether noise levels will increase by more than 2 dBA (2.1 dBA) due to construction traffic or a temporary reroute due to a road closure.

Should noise levels increase by more than 2dBA, further assessment should be undertaken in accordance with the RNCG, which details TfNSW's approach to implementing the EPA NSW Road Noise Policy. Where the increase in road traffic noise is 2 dBA or less, no further assessment is required.

Where the increase in noise levels is greater than 2 dBA and exceedances of the RNP criteria are predicted, mitigation measures should be implemented in accordance with the RNMG. The road traffic noise criteria are provided in Table 3.9.

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Table 3.9: Road traffic noise criteria, dBA

Type of development	Day, $L_{Aeq}(15 \text{ min})$ 7 am to 10 pm	Night, $L_{Aeq}(15 \text{ min})$ 10 pm to 7 am
Existing residence affected by additional traffic on freeway/arterial/sub-arterial roads	60	55
Existing residence affected by additional traffic on local roads	55	50

3.7 Construction noise impact assessment

3.7.1 Construction methodology

Construction program and staging

The *Construction Staging Strategy Report* (SustainJV, 2024) provides the following program milestones which indicate a total construction duration of approximately 17 months:

- Construction works commence: 02 May 2025
- Bypass open to traffic: 09 February 2026
- Completion date (wet weather): 09 October 2026

Construction staging for the project has been sourced from the *Construction Staging Strategy Report* (SustainJV, 2024) and is summarised in Table 3.10.

Table 3.10: Construction staging

Stage	Activities
0	• Traffic on existing • Install sediment & erosion control measures • Construct temporary and permanent shoulder widenings at night to enable Stage 1A • Construct temporary construction accesses • Commence utility relocations • Clearing & grubbing • Establishment of site offices and compounds
1A	• Traffic laterally shifted at Pitt Town Road and Cattai Road • Old Pitt Town Road temporarily closed to enable earthworks & pavement construction • Continue utility relocations to completion • Commence all off-line bypass road and bridge works • Commence remove & replace when associated utility relocations are complete • Commence main culvert works once the remove & replace ground treatment is complete
1B	• Traffic remains laterally shifted at Pitt Town Road and Cattai Road (continued from Stage 1A)

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Stage	Activities
	- Glebe road temporarily closed to enable earthworks & pavement construction of missing link - Continue all off-line bypass road and bridge works to completion - Commence remove & replace when associated utility relocations are complete - Continue main culvert works to completion
2	- The completed Pitt Town bypass is open to traffic - Bathurst Street and Buckingham Street are temporarily closed while tie-ins are constructed - Demolition of the old Pitt Town Road bridge - Construction of the main southern culvert outlet - Finalise landscaping, finishing and final asphalt works.

Construction compounds

Three construction compounds (or 'ancillary facilities') are proposed for this project. Each location has been assessed as part of the construction noise and vibration assessment.

The locations of these compounds/ancillary facilities are shown in Figure 3.1.

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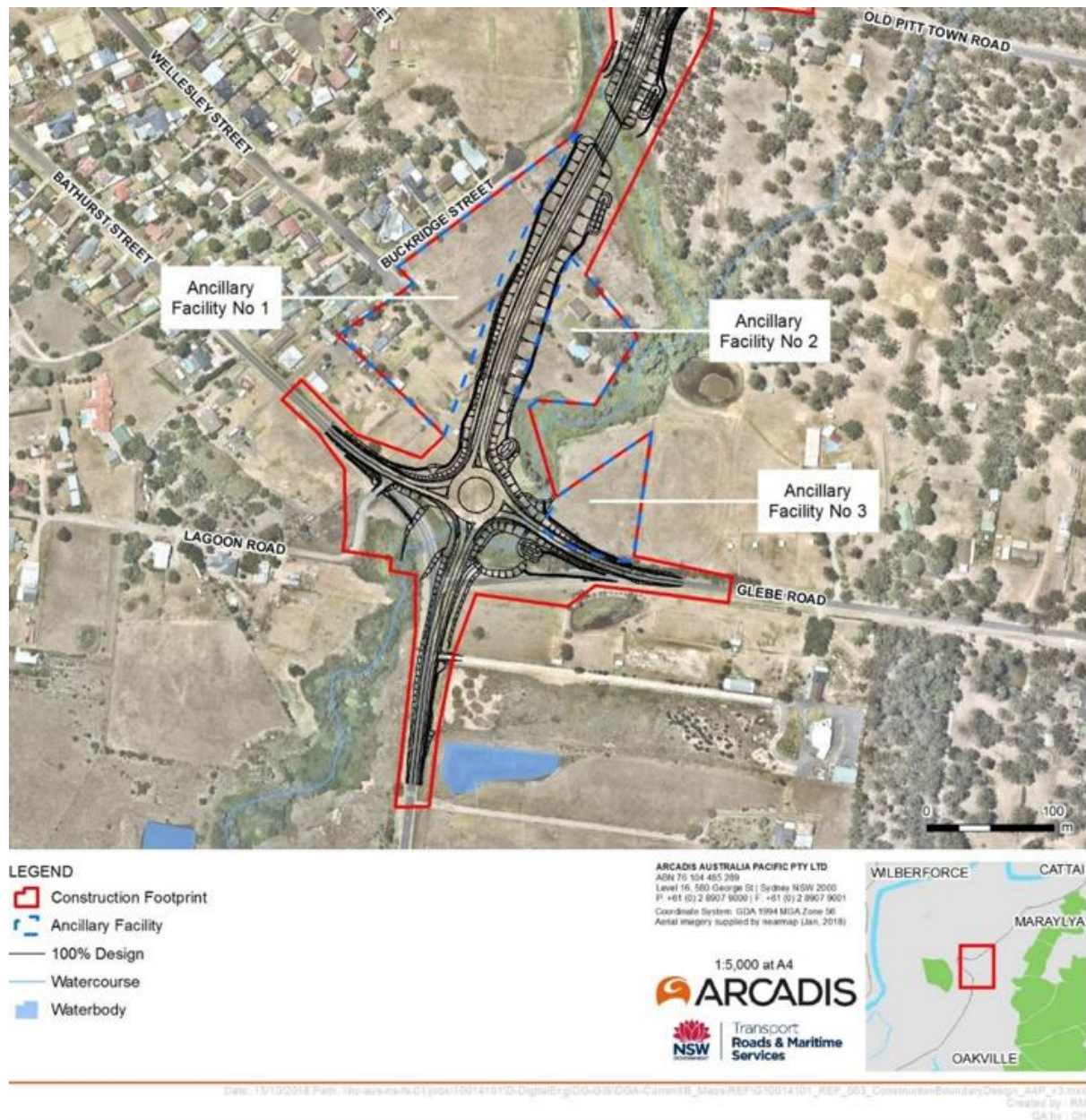


Figure 3.1: Construction compound locations

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Construction equipment

The indicative list of construction equipment anticipated to be required to construction the project is provided in Table 3.11. Appendix B provides the assumed sound power level for each equipment item.

Table 3.11: Indicative construction equipment list

Construction equipment	
Light vehicles	Bulldozers
Trucks	Compressors
Excavators	Bitumen sprayers
Backhoes	Milling machines
Front end loaders	Asphalt plant
Agitator trucks	Asphalt trucks
Generators	Asphalt profilers
Dump trucks	Concrete plant
Jackhammers	Concrete trucks
Concrete saws	Concrete pumps
Chainsaws	Concrete mixers
Mulchers	Concrete pavers
Water carts	Concrete vibrators
Cranes	Curing machines
Mobile cranes	Slip formers
Vibratory rollers	Line marking equipment
Line marking equipment	Piling rigs
Elevated work platforms	Road sweepers
Soil stabiliser	Grader
Water pumps	Vacuum trucks

3.7.2 Construction noise modelling

Construction scenarios

It is expected that the majority of works would be undertaken during recommended standard construction hours with some construction works to be required outside standard hours in order to:

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- provide a safe work environment;
- accommodate utility relocations; and
- minimise traffic disruptions on the local road network.

Exact construction activities that are required outside of standard hours will be determined by the construction contractor, however activities not recommended outside of standard hours by the CNVG have been assessed during standard hours only.

Construction scenarios have been developed based on the loudest construction equipment to be operating at any given time and located in the location creating the maximum received noise level. Although this is unlikely to occur, the modelling assumes the 'worst-case' scenario to identify where noise impacts could be a concern and require mitigation. Table 3.12 summarises the construction scenarios, modelled locations of the scenario, and the relevant assessment periods applicable to each scenario.

Construction noise levels from construction compound operations has been modelled separately (CS07 – CS09) for each proposed compound location. Compound operations are expected to include the use of a rock breaker. This is not proposed for use outside of standard hours and CS10 has been included to model noise levels from compound operations without the use of the rock breaker. CS10 has been modelled at all construction compound footprints.

Table 3.12: Construction Scenarios

Scenario ID	Description of activity	Modelled location	Standard hours	Out of hours works		
				Day	Eve	Night
CS01	Pre-construction works and utilities adjustments	Entire construction footprint	Yes	Yes	Yes	Yes
CS02	Clearing and grubbing works	Entire construction footprint	Yes	No	No	No
CS03	Earthworks and drainage	Entire construction footprint	Yes	No	No	No
CS04	Concrete, asphaltting and paving works	Entire construction footprint	Yes	Yes	Yes	Yes
CS05	Bridge construction	Bridge location	Yes	No	No	No
CS06	Line marking, furniture installations	Entire construction footprint	Yes	Yes	Yes	Yes
CS07	Construction Compound 1	Construction Compound 1	Yes	No	No	No
CS08	Construction Compound 2	Construction Compound 2	Yes	No	No	No
CS09	Construction Compound 3	Construction Compound 3	Yes	No	No	No

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Scenario ID	Description of activity	Modelled location	Standard hours	Out of hours works		
CS10	Nighttime Compound operations (no rock breaking)	All Construction Compounds	Yes	Yes	Yes	Yes

Noise generating equipment and scenario noise levels

The proposed construction equipment that would be used during each construction work phase and the activity sound power levels used for modelling are detailed in Appendix B. Table 3.13 provides a summary of each scenario, the loudest construction equipment piece and activity sound power level. Equipment sound power levels have been sourced from the *Construction Noise and Vibration Guideline (Roads)* (TfNSW, 2023).

Other equipment may be used; however, it is anticipated that they would produce similar net noise emissions when used concurrently with the equipment listed. The scenario sound power levels are considered conservative as they are based on the loudest item of equipment within the scenario.

The scenario sound power levels have been used to determine likely worst-case noise impacts during construction and assumes that equipment would operate at their loudest operational state for the full 15-minute assessment period at the closest point within the construction footprint to each modelled receiver. In reality, construction equipment would move around the construction footprint which would change the level of noise impact as construction progresses. Also provided are the modelled activity maximum noise event levels used in the sleep disturbance assessment.

Table 3.13: Construction equipment and scenario sound power levels

Scenario ID	Loudest equipment	Activity sound power level, $L_{Aeq(15\text{ min})}$, dBA	Activity maximum noise event level, L_{AFmax} , dBA
CS01	Concrete saw	118	124
CS02	Mulcher	116	122
CS03	Bulldozers (CAT D10)	121	127
CS04	Milling machines (pavement profiler)	117	123
CS05	Mobile crane	113	119
CS06	Trucks	108	114
CS07-CS09	Rock crusher	118	124
CS10	Dump truck	110	116

Construction noise modelling inputs

Noise modelling was undertaken using SoundPLAN 8.2. SoundPLAN is a computer program for the calculation, assessment, and prognosis of noise exposure. SoundPLAN calculates environmental noise propagation according to ISO 9613-2 'Acoustics – Attenuation of sound during propagation outdoors'.

The following noise modelling assumptions were made:

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- surrounding land was modelled with a ground absorption coefficient of 0.50 assuming a mix of 50 per cent soft and 50 per cent hard ground
- atmospheric absorption was based on an average temperature of 10°C and an average humidity of 70 per cent
- atmospheric propagation conditions were modelled with noise enhancing wind conditions for noise propagation (downwind conditions) or an equivalently well-developed moderate ground-based temperature inversion
- modelled scenarios take into account the shielding effect from surrounding buildings and structures on and adjacent to the site

3.7.3 Predicted construction noise levels

Predicted noise levels for all modelled construction scenarios at sensitive receivers are presented in Appendix B. Noise contour plots for all scenarios are provided in Appendix C.

The predicted levels are based on construction works occurring at the worst-case location relative to each receiver. The actual exceedance during construction modelled over the entire footprint (excluding the bridge construction and construction compound scenarios) would generally be lower as construction works would progress along the road alignment and maximum noise level impacts would only be experienced for limited periods where equipment is operating at their maximum capacity. At most times, construction equipment would produce lower noise levels than those considered in this assessment.

A summary of the predicted $L_{Aeq(15min)}$ noise level range within each NCA is presented in Table 3.14. The greatest predicted construction noise levels are in NCA01, where there are a number of receivers that are within, or in very close proximity to the project construction footprint (such as 21 Bathurst Street).

Table 3.14: Predicted $L_{Aeq(15 min)}$ construction noise level range, dBA (no mitigation)

ID	Construction activity	Residential			Non-residential
		NCA01	NCA02	NCA03	
CS01	Pre-construction works and utilities adjustments	39 - 108	38 - 86	35 - 109	40 - 68
CS02	Clearing and grubbing works	37 - 105	36 - 84	33 - 106	38 - 66
CS03	Earthworks and drainage	42 - 110	41 - 89	38 - 111	43 - 71
CS04	Concrete, asphaltting and paving works	38 - 106	37 - 85	34 - 107	39 - 67
CS05	Bridge construction	29 - 65	27 - 61	24 - 57	30 - 48
CS06	Line marking, furniture installations	29 - 97	28 - 76	25 - 98	30 - 58
CS07	Construction Compound 1	37 - 101	34 - 63	29 - 60	39 - 58
CS08	Construction Compound 2	37 - 69	32 - 63	29 - 59	39 - 53
CS09	Construction Compound 3	36 - 67	31 - 67	28 - 57	38 - 53
CS10	Nighttime compound operations	29 - 93	27 - 60	22 - 50	31 - 50

3.7.4 Construction noise impacts

The magnitude of noise impacts associated with construction is dependent upon a number of factors, including:

- the intensity and location of construction activities;

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- the duration of construction activities;
- the type of equipment used;
- the level of construction noise above the background noise levels; and
- intervening terrain and structures.

In order to identify reasonable and feasible mitigation measures to be implemented for the project, the predicted construction noise levels have been compared to the NML for the relevant assessment period. The following sub-section identify the construction scenarios with the greatest potential for noise impacts on sensitive receivers based on the exceedance of the NML.

Residential receivers

Table 3.15 provides a summary of predicted exceedances during standard hours and during OOHW Night for each construction scenario grouped by NCA. Also provided is the number of highly noise affected receivers and worst affected receiver in each NCA for each scenario.

The most affected NCA is predicted to be NCA01, which includes the majority of residential receivers within Pitt Town, predominantly including receivers along Bathurst Street, Wellesley Street, Chatham Street and Eldon Street.

The construction scenario with the greatest predicted noise levels is CS03 – earthworks and drainage with 489 exceedances of the NML predicted during standard hours. This scenario is predicted to result in up to 43 highly noise affected receivers. As such, earthworks and drainage works are recommended outside of standard hours.

The scenario with the greatest number of exceedances during OOHW Night is CS01, with as many as 1055 exceedances of the night NML and 72 highly noise affected receivers across all NCAs.

Construction compound 1 is expected to have the greatest level of noise impacts of the three proposed compounds, with as many as 173 daytime NML exceedances. Construction compound 3 is expected to have the fewest exceedances, with as few as 93 exceedances.

Table 3.16 provides the number of exceedances per perception category above the NML, for each construction scenario and period.

Table 3.15: Number of exceedances of the NML (residential)

ID	CS01	CS02	CS03	CS04	CS05	CS06	CS07	CS08	CS09	CS10
Standard hours										
NCA01	196	162	242	177	15	66	122	80	51	43
NCA02	58	45	79	50	12	11	36	36	33	11
NCA03	80	63	168	74	5	21	15	11	7	0
OOHW Evening										
NCA01	326	309 ¹	346 ¹	319	223 ¹	233	316 ¹	294 ¹	281 ¹	204
NCA02	110	90 ¹	138 ¹	98	37 ¹	40	95 ¹	84 ¹	72 ¹	35
NCA03	552	517 ¹	566 ¹	542	88 ¹	96	430 ¹	437 ¹	271 ¹	43
OOHW Night										
NCA01	347	347 ¹	347 ¹	347	295 ¹	299	347 ¹	347 ¹	347 ¹	302
NCA02	140	140 ¹	140 ¹	140	84 ¹	86	138 ¹	138 ¹	136 ¹	82
NCA03	568	566 ¹	568 ¹	566	407 ¹	334	562 ¹	561 ¹	548 ¹	221

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ID	CS01	CS02	CS03	CS04	CS05	CS06	CS07	CS08	CS09	CS10
Highly Noise Affected										
NCA01	13	8	26	11	0	4	14	0	0	3
NCA02	3	2	3	2	0	1	0	0	0	0
NCA03	13	12	14	13	0	7	0	0	0	0
Worst-affected receiver										
NCA01	R0682	R0682	R0682	R0682	R0709	R0682	R0668	R0698	R0810	R0668
NCA02	R0822	R0822	R0822	R0822	R0822	R0822	R0822	R0847	R0847	R0847
NCA03	R0777	R0777	R0777	R0777	R0777	R0777	R0777	R0866	R0866	R0777

Note 1) Outside of standard hours work is not recommended for this activity

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Table 3.16: Residential exceedance categories (All NCAs)

ID	Standard construction hours					OOHW									
	N -5-0 dBA	CA 1-10 dBA	MI 11-20 dBA	HI > 20 dBA	HNA ≥ 75 dBA	Evening N 0-5 dBA	CA 6-15 dBA	MI 16-25 dBA	HI > 25 dBA	HNA ≥ 75 dBA	Night N 0-5 dBA	CA 6-15 dBA	MI 16-25 dBA	HI > 25 dBA	HNA ≥ 75 dBA
CS01	283	234	67	33	29	295	490	134	69	29	25	627	267	136	29
CS02	219	189	56	25	22	381	375	107	53	22	101	605	236	111	22
CS03	402	343	98	48	43	134	619	205	92	43	2	484	379	190	43
CS04	253	213	60	28	26	359	418	122	60	26	51	635	241	126	26
CS05	80	29	3	0	0	225	112	11	0	0	390	330	62	4	0
CS06	81	64	20	14	12	167	133	46	23	12	319	266	86	48	12
CS07	193	142	17	14	14	446	307	67	21	14	156	633	205	53	14
CS08	178	114	13	0	0	454	311	46	4	0	186	667	172	21	0
CS09	136	84	7	0	0	356	230	37	1	0	345	530	138	18	0
CS10	328	210	39	11	3	242	208	40	9	3	289	409	123	26	3

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Non-residential receivers

Non-residential receivers would be considered noise impacted during construction when the predicted noise levels are above the construction NML, and the non-residential receivers are in use. In general, these impacts would be limited to the day-time hours when non-residential receivers would typically be in use. Table 3.17 provides a summary of the expected number of exceedances at non-residential receivers.

There is only one predicted exceedance at a non-residential receiver with a level of 71 dBA at Pitt Town Public School. No exceedances are predicted at other non-residential receivers. No exceedances of the HNA are predicted at non-residential receivers.

Table 3.17: Number of exceedances of the NML (non-residential)

ID	CS01	CS02	CS03	CS04	CS05	CS06	CS07	CS08	CS09	CS10
Active recreation	0	0	0	0	0	0	0	0	0	0
Commercial	0	0	0	0	0	0	0	0	0	0
School	2	2	5	2	0	1	0	0	0	0
Industrial	0	0	0	0	0	0	0	0	0	0
Place of worship	0	0	0	0	0	0	0	0	0	0

Discussion on predicted residential construction noise impacts

The displayed number of exceedances is high during the night period due to low night time background noise levels, and as modelled results assume the worst-case location within the construction footprint for each receiver. In reality it is expected that night works would be limited to a specific area (such as to relocate a utility passing underneath an existing road) and limited to a short duration. It is expected that out of hours works would be scheduled in accordance with TfNSW guidelines, with night time construction noise during out of hours period 2 being limited to two consecutive nights or where there is a Duration Respite. This is discussed in further detail in Section 3.10.3.

Prior to works occurring outside of standard construction hours (that are likely to exceed the relevant NMLs), it is proposed that a Construction Noise and Vibration Impact Statement (CNVIS) be undertaken to confirm the predicted noise levels at relevant receivers in the vicinity of the activities and determine appropriate noise source reduction mitigation measures and additional mitigation measures to be implemented in accordance with the CNVG.

Additionally, prior to the commencement of construction works, a Construction Noise and Vibration Management Plan (CNVMP) will be prepared to detail construction works required outside of hours as well as updated predictions for these activities. The CNVMP will also include the additional construction mitigation measures for residually affected receivers.

These mitigation measures are discussed further in Section 3.10.1 and Section 3.10.3.

3.7.5 Mitigated construction noise levels

Noise mitigation can be categorised into source control, transmission path control or receiver control. Noise control measures at the receiver are not suitable for construction noise as construction noise is temporary in nature. Where possible, source controls would be given priority over transmission path controls as they reduce the noise levels for all receivers in the surrounding environment. A list of typical source and transmission path control measures are provided in Table 3.18.

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Table 3.18: Noise control measures

Control measure	Type of control	Typical noise reduction, dBA	Maximum noise reduction, dBA	Source
Silencers / mufflers / diffusers	At-source	7 to 10 dBA	15 dBA	AS2436
Acoustic enclosures	At-source	15 to 30 dBA	50 dBA	AS2436
Equipment substitution	At-source	5 to 10 dBA	10 dBA	AS2436
Shielding (barriers / mound)	In transmission path	7 to 10 dBA	15 dBA	AS2436

To minimise the predicted construction noise levels, in-principle noise control measures have been recommended as described in Section 3.10.1. Subsequent to the implementation of these noise control measures, an average 10 dB reduction in activity sound noise levels can be achieved.

To demonstrate the benefit of mitigating noise levels at the source, the residual exceedances of the NML with a 10 dB noise reduction applied has been summarised in Table 3.19. Where residual noise levels exceed the relevant NMLs, additional mitigation measures would be implemented in accordance with the CNVG. The additional mitigation measures are discussed in Section 3.10.3.

Table 3.19: Number of exceedances of the NML (residential) – mitigation applied

ID	CS01	CS02	CS03	CS04	CS05	CS06	CS07	CS08	CS09	CS10
Standard hours										
NCA01	65	51	95	58	2	15	26	8	2	15
NCA02	11	8	18	8	1	3	3	5	5	1
NCA03	22	20	31	20	0	14	0	0	0	0
OOHW Evening										
NCA01	233	198 ¹	264 ¹	214	29 ¹	83	161 ¹	107 ¹	86 ¹	53
NCA02	40	25 ¹	57 ¹	30	5 ¹	8	17 ¹	22 ¹	20 ¹	5
NCA03	97	74 ¹	214 ¹	80	6 ¹	23	21 ¹	14 ¹	8 ¹	21
OOHW Night										
NCA01	299	283 ¹	326 ¹	291	121 ¹	177	278 ¹	260 ¹	235 ¹	142
NCA02	87	72 ¹	109 ¹	79	25 ¹	22	62 ¹	60 ¹	61 ¹	21
NCA03	337	214 ¹	517 ¹	262	24 ¹	44	95 ¹	86 ¹	40 ¹	7
Highly Noise Affected										
NCA01	4	3	6	3	0	2	2	0	0	2
NCA02	1	0	2	1	0	0	0	0	0	0
NCA03	7	6	8	6	0	3	0	0	0	0

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ID	CS01	CS02	CS03	CS04	CS05	CS06	CS07	CS08	CS09	CS10
Worst-affected receiver										
NCA01	R0682	R0682	R0682	R0682	R0709	R0682	R0668	R0698	R0810	R0668
NCA02	R0822	R0822	R0822	R0822	R0822	R0822	R0822	R0847	R0847	R0847
NCA03	R0777	R0777	R0777	R0777	R0777	R0777	R0777	R0866	R0866	R0777

Note 1) Outside of standard hours work is not recommended for this activity

3.7.6 Sleep disturbance impacts

Construction works during the night-time period have the potential to cause sleep disturbance impacts at residential receivers located near the construction work areas. Sleep disturbance impacts have been assessed based on the scenario L_{AFmax} noise levels provided in Table 3.20.

Up to 151 residential receivers have the potential to experience construction noise levels above the 65 dBA sleep disturbance criteria identified in Section 3.3. Results have been provided for all construction scenarios, including those not recommended for OOHV for reference only.

Where reasonable and feasible, it is recommended that construction activities that have the potential to generate high levels of noise be scheduled during the evening or early night-time period (prior to 12 am) to minimise the potential for sleep disturbance.

Table 3.20: Number of exceedances of the sleep disturbance criteria

NCA	CS01	CS02	CS03	CS04	CS05	CS06	CS07	CS08	CS09	CS10
NCA01	117	95	160	101	5	32	60	23	15	19
NCA02	11	8	18	8	1	3	3	5	5	1
NCA03	23	18	34	20	0	11	0	0	0	0
Total	151	121	212	129	6	46	63	28	20	20

3.8 Construction traffic

The *Road Noise Policy* recommends that “any increase in the total traffic noise level should be limited to 2 dB above that of the corresponding ‘without construction’ scenario.” Construction would generate heavy vehicle movements associated with the transportation of construction machinery, equipment, and materials to the site. Light vehicle movements would be associated with employees and smaller deliveries.

All construction traffic is expected to access site via the existing surrounding road networks. A screening test has been conducted using the CoRTN algorithm to determine whether construction traffic has the potential to increase road traffic noise levels of these roads by 2 dB.

Existing traffic counts along the local road network are based on traffic counts undertaken as part of the operational noise assessment. The expected construction traffic generation is sourced from Section 7.6.2 of the *REF Traffic and Transport Assessment* (Arcadis, 2018) with approximately 64 construction truck movements expected over the course of a day. This generation figure has been conservatively assumed for both the day and night period. Based on the existing traffic counts, and REF construction heavy vehicle generation figure, the expected increase in road traffic noise levels has been calculated in CoRTN and is presented in Table 3.21.

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Table 3.21: CoRTN construction traffic screening assessment

Road	Existing traffic - Day (15 hour)		Existing - Night (9 hour)		Additional construction traffic - day (15 hour)		Additional construction traffic - night (9 hour)		Difference in noise level, dBA	
	LV	HV	LV	HV	LV	HV	LV	HV	Day	Night
Bathurst St	7699	761	963	157	1	64	1	64	+0.2	+1.0
Chatham St	4131	729	441	139	1	64	1	64	+0.2	+1.3
Eldon St	4131	729	441	139	1	64	1	64	+0.2	+1.3
Pitt Town Rd	7771	769	1006	164	1	64	1	64	+0.2	+1.0
Cattai Road	3419	511	398	112	10	40	1	64	+0.2	+1.6

The results in Table 3.21 indicate that the total road traffic noise levels along the construction haulage route during the construction phase are not predicted to exceed 2.0 dBA when compared to existing traffic noise levels. As such, the acoustic requirements of the Road Noise Policy are anticipated to be met.

3.9 Construction vibration

3.9.1 Assessment methodology

Vibration from surface construction plant and equipment was predicted and assessed with consideration to *Assessing Vibration: A Technical Guideline*, British Standard BS 7385 Part 2 – 1993 *Evaluation and measurement for vibration in buildings* and German Standard DIN4150-3:2016 *Vibrations in buildings – Part 3: Effects on structures*. Where noise and vibration levels were predicted to exceed the construction noise management levels, appropriate construction noise and vibration mitigation measures were provided to minimise impacts from each construction phase.

Energy from construction equipment is transmitted into the ground and transformed into vibrations, which attenuates with distance. The magnitude and attenuation of ground vibration is dependent on the following:

- the efficiency of the energy transfer mechanism of the equipment (impulsive; reciprocating, rolling or rotating equipment)
- the frequency contents
- the impact medium stiffness
- the type of wave (surface or body)
- the ground type and topography.

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Construction and demolition work have the potential to impact human comfort and / or cause structural damage to buildings. Potential vibration inducing activities identified during construction and demolition works include:

- vibratory roller works
- pile boring

Safe working buffer distances to comply with the human comfort, cosmetic damage and heritage structural damage criteria were taken from the CNVG and are provided in Table 3.22.

Table 3.22: Vibration safe working buffer distances, meters

Plant Item	Cosmetic damage to light-framed structures (BS7385)	Human response (EPA's vibration guideline)
Vibratory roller (1-2 tonnes)	5 m	15 m to 20 m
Vibratory roller (2-4 tonnes)	6 m	20 m
Vibratory roller (4-6 tonnes)	12 m	40 m
Vibratory roller (7-13 tonnes)	15 m	100 m
Vibratory roller (13-18 tonnes)	20 m	100 m
Vibratory roller (>18 tonnes)	25 m	100 m
Pile Boring	2m (nominal)	4 m

3.9.2 Construction vibration impacts

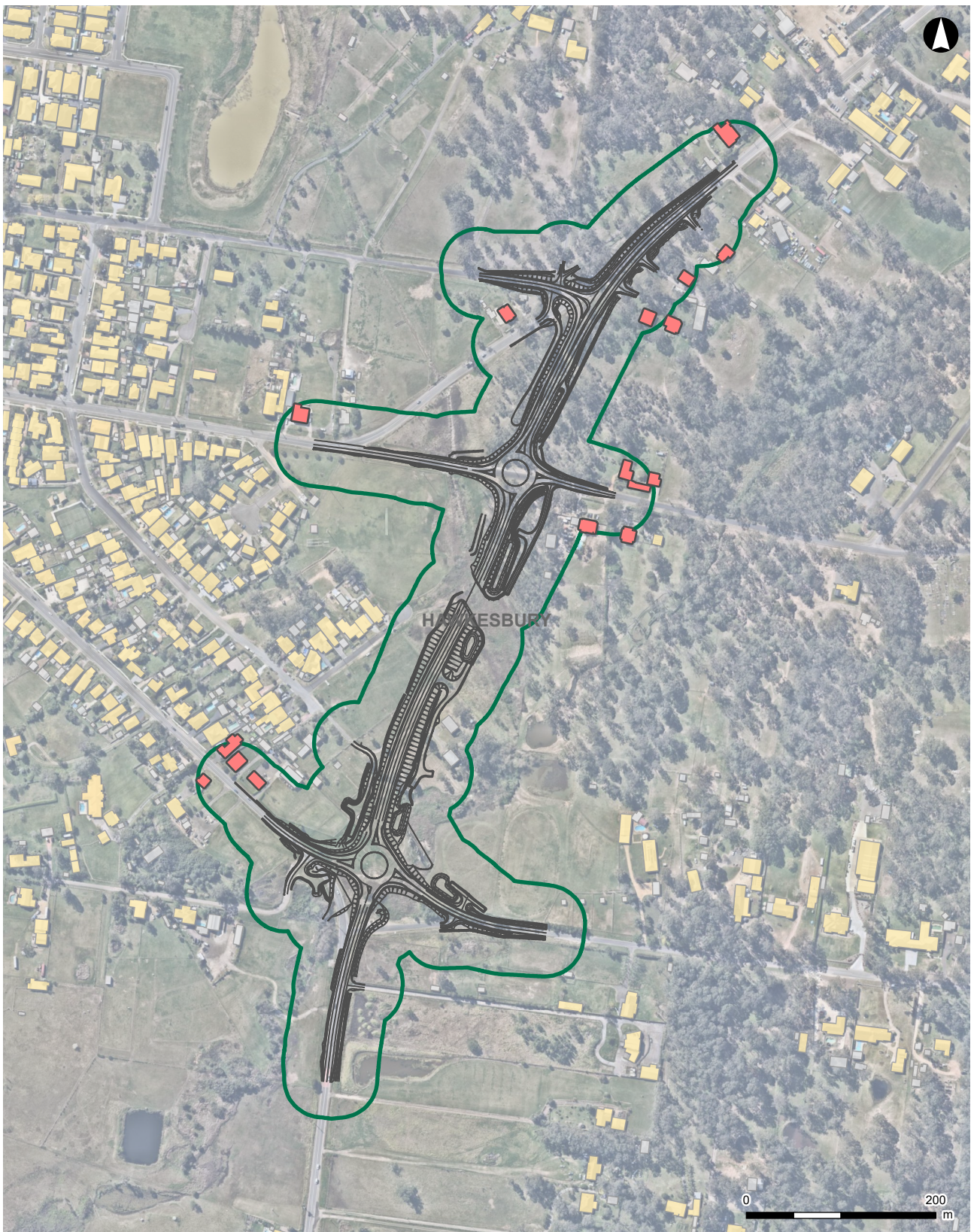
The most vibration intensive equipment expected to be used on site is the use of vibratory rollers. Piling required for bridge works has been assumed as bored piling and therefore no vibration impacts are expected.

The safe working buffer distance for a vibratory roller (>18 tonnes) is 25 metres and has been used to assess potential impacts on standard structures. A total of 39 structures were identified as being potentially within 25 metres of the construction boundary (excluding ancillary compounds). A list of these structures are provided in Appendix G.

3.9.3 Heritage construction vibration impacts

One heritage structure being the Early Victorian Cottage at 22 Bathurst Street (R610). Sensitive receivers within this buffer distance are presented in Appendix G and are shown in Figure 3.2.

When vibratory rolling is required in proximity to these buildings, and the vibration safe working distance cannot be maintained by using a less vibrationally intensive method (such as a low-vibration roller, static roller, or smaller roller), it is recommended attended vibration monitoring be undertaken to confirm that vibration emissions are under the vibration criteria outlined in Section 3.5.2 for standard structures and Section 3.5.3 for vibration sensitive structures.



Legend

- | | |
|---|--|
| — Proposal design | Other structure - not a sensitive receiver |
| 25m vibration safe working distance | Sensitive receiver within safe working distance area |
| Sensitive receiver outside safe working distance area | Residential |



Figure 3-2 - Receivers within vibration safe working buffer distance

1:6,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 19, 2024



3.10 Construction noise mitigation measures

3.10.1 Project specific construction mitigation measures

To reduce construction noise impacts, particularly for out of hours work, project specific construction noise mitigation measures have been recommended. These measures are provided in Table 3.23. The mitigation measures should be implemented where reasonable and feasible.

Table 3.23: Project specific construction noise mitigation measures

Mitigation measure	Details
Further assessment	
Construction Noise and Vibration Management Plan	Prior to works commencing, and once the exact required out of hours works are known, a Construction Noise and Vibration Management Plan (CNVMP) should be prepared which would include: - Details of construction works to be conducted outside of hours - Prediction of construction noise levels to nearby sensitive receivers from out of hours works - Provision of additional construction mitigation measures to affected receivers (discussed further in Section 3.10.3) - Requirements for noise and vibration monitoring - Details on how community consultation will be completed - Complaints handling procedures - Details on how respite would be applied where any ongoing high impacts are predicted at receivers
Construction Noise and Vibration Impact Statement	Location and activity specific construction noise and vibration impact assessment will be undertaken: - Prior to works with the potential to generate noise levels above 75 dBA at residences - Prior to works that need to occur outside standard construction hours and are likely to result in noise levels above the relevant NMLs - Prior to works where an alternative construction methodology is proposed that would result in higher activity sound power levels than those assumed in the AREF - Prior to works where an alternative construction methodology is proposed that would result in higher vibration levels than those assumed in the AREF The assessments will confirm predicted impacts at relevant receivers in the vicinity of the activities to assist with the selection of appropriate management measures in accordance with the CNVMP.
Noise control measures	
Scheduling of activities	Where reasonable and feasible, noise intensive activities should be scheduled during standard construction hours. If it is not possible to restrict the works to day time, then noise intensive works should be completed as early as possible in each work shift. Appropriate respite should be provided to affected receivers in accordance with the CNVG and/or the proposal conditions of approval Deliveries including loading and unloading activities should be scheduled during standard hours where reasonable and feasible The following hierarchy of OOHW work periods is provided in order of most preferred to least preferred period to schedule noise intensive works required outside of standard hours: - Saturday afternoon periods between 1pm and 6pm (Period 1 Day)

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Mitigation measure	Details
	- Sunday and public holidays between 8am and 6pm (Period 1 Day) - Weekday evening periods between 6pm and 10pm (Period 1 Evening) - Weekend evening periods between 6pm and 10pm (Saturdays Period 1 Evening / Sundays Period 2) - Weekend night periods between 10pm and 8am (Period 2) - Work during the weekday evening and night, scheduling the noisiest work first (between 6pm and 10pm) to minimise sleep disturbance impacts - All other times outside of recommended standard hours
Construction compounds with long term works	Hoarding or other shielding structures should be utilised, where possible, to provide shielding from compounds and particularly fixed work areas (such as rock breaking equipment). To provide effective noise mitigation, the barriers should break line of sight to receivers and be of solid construction with minimal gaps The distance between noise producing equipment and activities and should be maximised where reasonable and feasible.

3.10.2 Standard construction mitigation measures

The reasonable and feasible construction noise and vibration mitigation measures in Table 3.24 have been sourced from the CNVG and are to be implemented by the construction contractor on all Transport road construction projects.

Table 3.24: Construction noise mitigation measures

Action required	Details
Management measures	
Implement community consultation measures (refer to CNVG Appendix C for future details of each measure)	- Notification detailing work activities, dates and hours, impacts and mitigation measures, indication of work schedule over the night-time period, any operational 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 proposals other than maintenance works more advanced consultation or notification may be required - Website - Email distribution list.
Site inductions	All employees, contractors and subcontractors are to receive an environmental induction. The induction must at least include: - All proposal specific and relevant standard noise and vibration mitigation measures - Relevant licence and approval conditions - Permissible hours of work - Any limitations on high noise generating activities - Location of nearest sensitive receivers - Construction employee parking areas - Designated loading/unloading areas and procedures - Site opening/closing times (including deliveries) - Environmental incident procedures.
Behavioural practices	- No swearing or unnecessary shouting or loud stereos/radios on site - No dropping of materials from height, throwing of metal items and slamming of doors.

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Action required	Details
Verification	- A noise verification program is to be carried out in accordance with the Construction Noise and Vibration Management Plan and any approval and licence conditions.
Attended vibration measurements	- Where required, attended vibration measurements should be undertaken at the commencement of vibration generating activities to confirm that vibration levels are within the acceptable range to prevent cosmetic building damage.
Update Construction Environmental Management Plans	- The CEMP must be regularly updated to account for changes in noise and vibration management issues and strategies.
Building condition surveys	- Undertake building dilapidation surveys on all buildings located within the minimum work distances for vibration prior to commencement of activities with the potential to cause property damage.
Source controls	
Construction hours and scheduling	- Where feasible and reasonable, construction should be carried out during the standard daytime working hours. Work generating high noise and/or vibration levels should be scheduled during less sensitive time period.
Equipment selection	- Use quieter and less vibration emitting construction methods where feasible and reasonable - Ensure plant including the silencer is well maintained.
Use and siting of plant	- The offset distance between noisy plant and adjacent sensitive receivers is to be maximised - Plant used intermittently to be throttled down or shut down - Noise-emitting plant to be directed away from sensitive receivers - Only have necessary equipment on site.
Plan worksites and activities to minimise noise and vibration	- Locate compounds away from sensitive receivers and discourage access from local roads - Plan traffic flow, parking and loading/unloading areas to minimise reversing movements within the site - Where additional activities or plant may only result in a marginal noise increase and speed up works, consider limiting duration of impact by concentrating noisy activities at one location and move to another as quickly as possible - Very noisy activities (such as concrete sawing and jackhammering) should be scheduled for normal working hours. If the work cannot be undertaken during the day, it should be completed before 12:00 am - Where practicable, work should be scheduled to avoid major student examination periods when students are studying for examinations such as before or during Higher School Certificate and at the end of higher education semesters - If programmed night work is postponed the work should be re-programmed and the approaches in the CNVG apply again.
Non-tonal and ambient sensitive reversing alarms	- Non-tonal reversing beepers (or an equivalent mechanism) must be fitted and used on all construction vehicles and mobile plant regularly used on site and for any out-of-hours works - Consider the use of ambient sensitive alarms that adjust output relative to the ambient noise level.

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Action required	Details
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 out-of-hours movements where possible.
Engine compression brakes	- Limit the use of engine compression brakes at night and in residential areas - Ensure vehicles are fitted with a maintained Original Equipment Manufacturer exhaust silencer or a silencer that complies with the National Transport Commission's 'In-service test procedures' and standard.
Path controls	
Shield stationary noise sources such as pumps, compressors, fans, etc.	- Stationary noise sources should be enclosed or shielded where feasible and reasonable whilst ensuring that the occupational health and safety of workers is maintained.
Shield sensitive receivers from noisy activities	- Use structures to shield residential receivers from noise such as site shed placement and noise curtains - Temporary noise barriers should be setup around work locations requiring use of a concrete saw and jackhammering.
Receptor controls	
Structural surveys and vibration monitoring	- Pre-construction surveys of the structural integrity of vibration sensitive buildings may be warranted. - At locations where there are high-risk receivers, vibration monitoring should be conducted during the activities causing vibration.

3.10.3 Additional construction mitigation measures

After the implementation of all reasonable and feasible mitigation measures, and where there are residual predicted noise impacts, the CNVG provides the following information regarding further mitigation measures for receivers. These additional measures are presented below in Table 3.25. The Additional Mitigation Measures Matrices would be used to determine the additional measures after the application of standard mitigation measures where reasonable and feasible.

Table 3.25: Additional management measures

Measure	Description	Abbreviation
Notification	Advanced warning of works and potential disruptions can assist in reducing the impact on the community. The notification may consist of a letterbox drop (or equivalent) detailing work activities, time periods over which these will occur, impacts and mitigation measures. Notification should be a minimum of 5 working days prior to the start of works. The approval conditions for proposals may also specify requirements for notification to the community about works that may impact on them.	N
Specific notifications	Specific notifications are letterbox dropped (or equivalent) to identified stakeholders no later than seven calendar days ahead of construction activities that are likely to exceed the noise objectives. The specific	SN

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Measure	Description	Abbreviation
	notification provides additional information when relevant and informative to more highly affected receivers than covered in general letterbox drops. The exact conditions under which specific notifications would proceed are defined in the relevant Additional Mitigation Measures (CNVG Tables C1 to C3). This form of communication is used to support periodic notifications, or to advertise unscheduled works.	
Individual briefings	Individual briefings are used to inform stakeholders about the impacts of high noise activities and mitigation measures that will be implemented. Proposal representatives would visit identified stakeholders at least 48 hours ahead of potentially disturbing construction activities. Individual briefings provide affected stakeholders with personalised contact and tailored advice, with the opportunity to comment on the proposal. Where the resident cannot be met with individually then an alternative form of engagement should be used.	IB
Respite offers	Respite Offers should be considered made where there are high noise and vibration generating activities near receivers. As a guide work should be carried out in continuous blocks that do not exceed 3 hours each, with a minimum respite period of one hour between each block. The actual duration of each block of work and respite should be flexible to accommodate the usage of and amenity at nearby receivers. The purpose of such an offer is to provide residents with respite from an ongoing impact. This measure is evaluated on a proposal-by-proposal basis, and may not be applicable to all proposals.	RO
Respite period 1	Out of hours construction noise in out of hours period 1 shall be limited to no more than three consecutive evenings per week except where there is a Duration Respite. Work during these periods of work should be separated by not less than one week and no more than 6 evenings per month.	R1
Respite period 2	Night time construction noise in out of hours period 2 shall be limited to two consecutive nights except for where there is a Duration Respite. For night work these periods of work should be separated by not less than one week and 6 nights per month. Where possible, high noise generating works shall be completed before 11 pm.	R2
Duration respite	Respite offers and respite periods 1 and 2 may be counterproductive in reducing the impact on the community for longer duration proposals. In this instance and where it can be strongly justified it may be beneficial to increase the work duration, number of evenings or nights worked through Duration Respite so that the proposal can be completed more quickly. The proposal team should engage with the community where noise levels are expected to exceed the NML to demonstrate support for Duration Respite. Where there are few receivers above the NML each of these receivers should be visited to discuss the proposal to gain support for Duration Respite.	DR
Alternative accommodation	Alternative accommodation options may be offered to residents living in close proximity to construction works that are likely to experience highly intrusive noise levels (CNVG Tables C1-C3). The specifics of the offer will be identified on a proposal-by-proposal basis. Additional aspects for	AA

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Measure	Description	Abbreviation
	consideration shall include whether the highly intrusive activities occur throughout the night or before midnight.	
Verification	Please see CNVG Appendix F for more details about verification of Noise and Vibration levels as part of routine checks of noise levels or following reasonable complaints. This verification should include measurement of the background noise level and construction noise. Note this is not required for proposals less than three weeks unless to assist in managing complaints.	V

The CNVG outlines the various trigger levels to warrant these mitigation measures, and such is presented below in Table 3.26. The predicted noise levels for each receiver and additional noise mitigation measures are presented Appendix B.

Table 3.26: Triggers for additional mitigation measures – airborne noise

Perception	dBA above RBL	dBA above NML	AMM
All hours			
75 dBA or greater	-	-	N, V, RO
Standard hours: Mon to Fri (7am-6pm), Sat (8am-1pm), Sun / pub hol (no work)			
Noticeable	5 to 10	0	-
Clearly audible	11 to 20	1 to 10	-
Moderately intrusive	21 to 30	11 to 20	N, V
Highly intrusive	> 30	> 20	N, V
OOHW Period 1: Mon to Fri (6pm-10pm), Sat (7am-8am & 1pm-10pm), Sun / pub hol (8am-6pm)			
Noticeable	5 to 10	5 or lower	-
Clearly audible	11 to 20	6 to 15	N, R1, DR
Moderately intrusive	21 to 30	16 to 25	V, N, R1, DR
Highly intrusive	> 30	> 25	V, IB, N, R1, DR, SN
OOHW Period 1: Mon to Fri (10pm-7am), Sat (10pm-8am), Sun / pub hol (6pm-7am)			
Noticeable	5 to 10	5 or lower	N

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Perception	dBA above RBL	dBA above NML	AMM
Clearly audible	11 to 20	6 to 15	V, N, R2, DR
Moderately intrusive	21 to 30	16 to 25	V, IB, N, SN, R2, DR
Highly intrusive	> 30	> 25	AA, V, IB, N, SN, R2, DR

3.10.4 Construction vibration

Building condition inspection reports should be undertaken for the structures within the vibration safe working distances outlined in Appendix G to determine whether the adopted vibration criteria is appropriate. The condition report should classify building structure and susceptibility to damage in accordance with the BS 7385 classifications. The resulting building classifications are to be used for determination of the applicable BS 7385 vibration criteria curves. Condition inspections are to identify high-risk buildings where additional vibration restrictions and more stringent criteria may apply.

Receivers with the potential to be impacted by vibration have identified based on the operation of a vibratory roller (>18 tonnes). Where construction activities generating vibration are to be undertaken at a distance less than those provided above in Table 3.22, alternative equipment of a smaller size (or alternative method such as static rolling or low-vibration setting) should be employed to ensure properties are outside of the safe work buffer distances outlined. If residual impacts are still present, then initial vibration monitoring trials should be undertaken at the commencement of vibratory rolling activities. The initial vibration trials should include:

- determine the frequency dependent BS 7385 vibration criteria from the vibration generating equipment dominant frequencies
- confirming safe working buffer distances for that equipment in that work area based on the frequency dependent BS 7385 vibration criteria.

When vibration generating equipment is operating within the above confirmed buffer distances, additional vibration monitoring equipment should be deployed at the building foundation with a trigger level based on the frequency dependent BS 7385 vibration criteria. If the vibration level on the equipment is reached a visual alarm should be triggered to alert the operators that the vibration criteria have been exceeded.

The condition report should classify building structure and susceptibility to damage in accordance with the BS 7385 classifications. The resulting building classifications are to be used for determination of the applicable BS 7385 vibration criteria curves. Condition inspections are to identify high-risk buildings where additional vibration restrictions and more stringent criteria may apply.

4 OPERATIONAL IMPACT ASSESSMENT

4.1 Operational noise criteria

The *Road Noise Criteria Guideline* (RNCG) (TfNSW, 2022) outlines the methodology for the assessment of road traffic noise for TfNSW projects. The operational noise criteria applied depends on the type of road project as defined in the RNCG. These road project types are new roads, redeveloped roads and minor works. Criteria for road projects comprising new and redeveloped roads are assigned with reference to the *NSW Road Noise Policy* (RNP) (DECCW, 2011).

The process for applying the RNP criteria first involves defining a study area. The study area for the project is outlined in Section 4.2.1 and includes at least all receivers within a distance of 600 metres from the new road corridor.

Secondly, the assessment should identify where the project results in an increase in total (existing and projected) traffic noise levels. This is achieved through assessment against the relative increase criterion (RIC), which is discussed below in Section 4.1.1.

4.1.1 Relative increase criteria

In addition to the assessment criteria outlined in Section 4.1.2 below, the increase in total traffic noise levels at a sensitive receiver due to the proposal should also be considered. The RNP outlines the RIC as the control for this increase in total traffic noise levels and is provided below in Table 4.1.

The existing traffic noise level refers to the noise level from all project roads for the relevant 'no build' scenarios. Additionally, for the purposes of defining the RIC, the minimum assumed existing traffic level is deemed to be 30 dBA.

The relative increase of 12 dB represents slightly more than a doubling of perceived loudness and is the level that is likely to trigger a community reaction, particularly in environments of low existing traffic noise levels. Residences predicted to exceed the RIC criteria should then also be considered for mitigation.

Table 4.1: Relative increase criteria for residential land uses

Road category	Type of project/development	Total traffic noise level, dBA	
		Day	Night
Freeway/arterial/sub-arterial roads and transit ways	New road corridor / redevelopment of existing road / land use development with the potential to generate additional traffic on existing road	Existing traffic $L_{Aeq(15hr)} + 12$ dB (external)	Existing traffic $L_{Aeq(9hr)} + 12$ dB (external)

4.1.2 Maximum noise level criteria

A review of research into the impacts of sleep disturbance is provided in section 5.4 of the RNP. The RNP states that current literature concerning sleep disturbance due to noise indicates that the main noise characteristics that influence sleep disturbance are the number of noisy events heard distinctly above the background level, the emergence of these events and the highest noise level.

An assessment of maximum noise level events has been conducted to prioritise and rank mitigation strategies, but exceedances of the criteria are not intended to qualify a receiver for consideration of treatment.

The RNP notes that the triggers for and effects of sleep disturbance have not yet been conclusively determined however provides the following conclusions based on current research:

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- Maximum internal noise levels below 50-55 dBA are unlikely to awaken people.
- One or two noise events per night, with maximum internal noise levels of 65-70 dB, are not likely to affect health and wellbeing significantly.

A maximum external noise level of 65 dBA has been adopted based on a 10 dBA addition to an internal noise level of 55 dBA. This is based on a typical reduction of 10 dBA with windows open.

In addition to the 65 dBA noise level, the RNCG defines a maximum noise level event as one where the emergence of the L_{Amax} over the ambient L_{Aeq} is equal to or greater than 15 dBA, that is defined as the $L_{Amax} - L_{Aeq(1hr)} > 15$ dBA.

4.1.3 Assessment criteria

Noise criteria are assigned to sensitive receivers in accordance with the RNCG. The following factors contribute to the road traffic noise assessment criteria that is assigned to a residential land use:

- Type of road development (new road or redeveloped road) that the residence is most affected by
- Functional class / road category of the road.

Following consideration of these factors, the assessment criteria can be adjusted depending on whether the residence is located within a transition zone or located in an area where the relative increase criteria apply. Table 4.2 provides a summary of the relevant assessment criteria for residential receivers. Road traffic noise assessment criteria for non-residential land uses are provided in Table 4.3.

Table 4.2: Assessment criteria for residential receivers

Road category	Existing residences affected by	Assessment criteria, dBA	
		Day 7 am to 10 pm	Night 10 pm to 7 am
Freeway / arterial / sub-arterial roads	New freeway/arterial/sub-arterial road corridors	$L_{Aeq(15 \text{ hour})}$ 55 (external)	$L_{Aeq(9 \text{ hour})}$ 50 (external)
	Redevelopment of existing freeway/arterial/sub-arterial roads	$L_{Aeq(15 \text{ hour})}$ 60 (external)	$L_{Aeq(9 \text{ hour})}$ 55 (external)
	New roads and redevelopment of existing freeway/arterial/sub-arterial roads in a Transition Zone	Between $L_{Aeq(15 \text{ hour})}$ 55-60 (external)	Between $L_{Aeq(9 \text{ hour})}$ 50-55 (external)
	Increases in traffic noise of 12 dBA or more from new freeway/arterial/sub-arterial roads	No Build $L_{Aeq(15 \text{ hour})} + 12$ dB (external)	No Build $L_{Aeq(9 \text{ hour})} + 12$ dB (external)
	Increases in traffic noise of 12 dBA or more from existing freeway/arterial/sub-arterial roads	No Build $L_{Aeq(15 \text{ hour})} + 12$ dB (external)	No Build $L_{Aeq(9 \text{ hour})} + 12$ dB (external)
	Maximum noise level events	NA	L_{AFmax} 65 dBA $L_{AFmax} - L_{Aeq(1hr)} \geq 15$ dB

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Table 4.3: Non-residential road traffic noise assessment criteria

Existing sensitive land use	Assessment criteria, dBA	
	Day (7 am to 10 pm)	Night (7 am to 10 pm)
Open space (active use)	L _{Aeq} (15 hour) 60 (external)	-
Child care facilities and Aged care facilities	Indoor areas: L _{Aeq} (1 hour) 40 (internal) L _{Aeq} (1 hour) 50 (external) ¹ Outdoor areas: L _{Aeq} (1 hour) 55 (external)	Indoor areas: L _{Aeq} (1 hour) 35 (internal) L _{Aeq} (1 hour) 45 (external) ¹

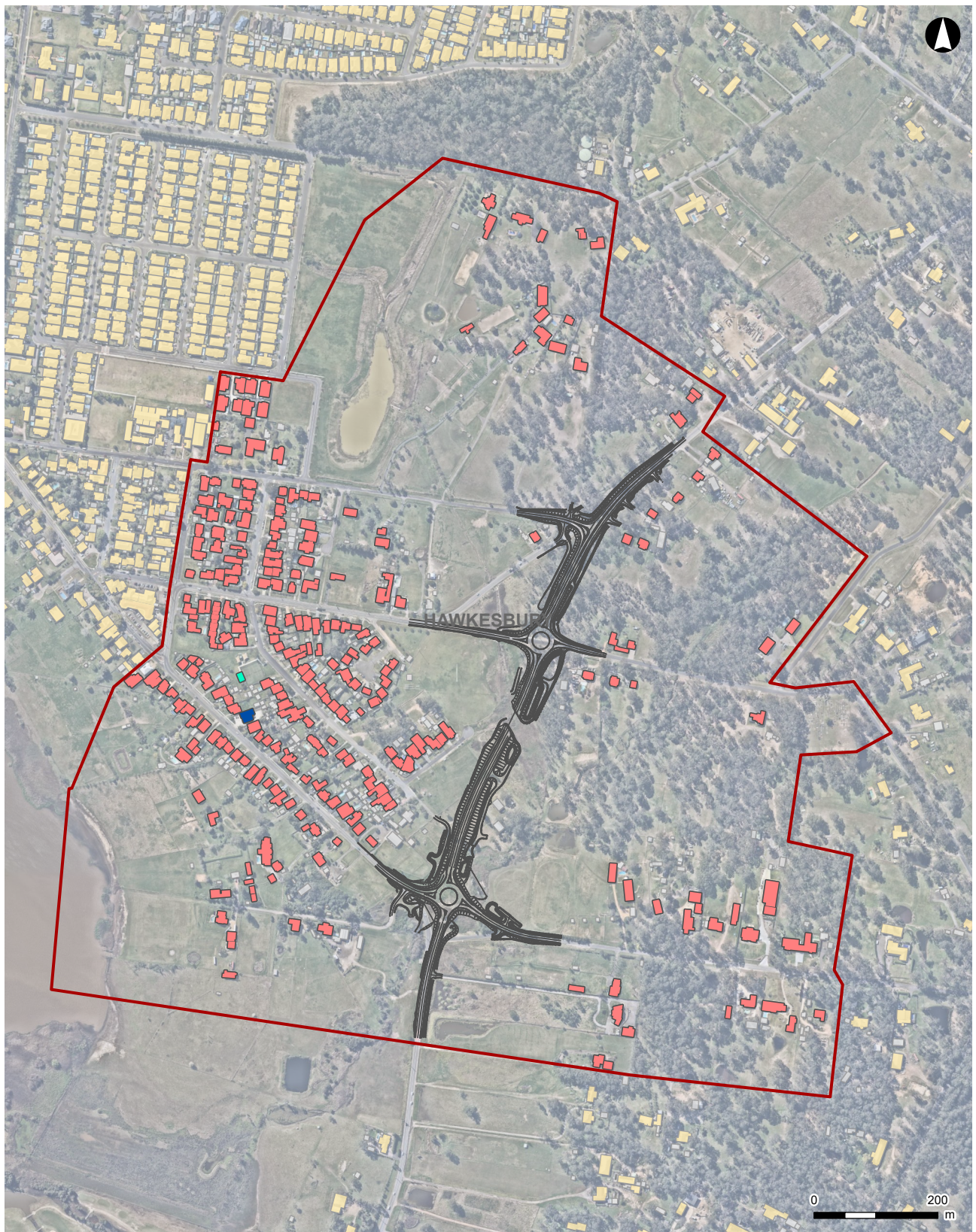
Note 1: The external noise criteria has been determined based on a 10 dBA addition to the internal noise criteria. This is based on a typical reduction of 10 dBA with windows open.

4.2 Operational noise methodology

4.2.1 Study area

The assessment study area has been selected in accordance with the guidance provided in the *Road Noise Criteria Guideline* (RCNG) (TfNSW, 2022).

All buildings located within 600 m from the centreline of the outermost lane of traffic from the Pitt Town Bypass have been included in the operational noise assessment. The study area is shown in Figure 4.1.



Legend

- Proposal design
- Operational noise study area
- Sensitive receivers outside operational noise study area
- Other structure - not a sensitive receiver

Sensitive receivers

- Active Recreation
- Commercial
- Residential



Figure 4-1 - Operational noise assessment study area

1:9,198 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: October 9, 2024



Path: C:\Users\lapmiller\ARCADISEasing Sydney Congestion - PTBP\H-GIS\A_Current\B_Maps\NVIA_Noise\VisualImpactAssessment\PTBP_NVIA_B.aprx

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4.2.2 Assessment scenarios

Road traffic noise levels for new and redeveloped roads are typically assessed at the opening year of the project (2027) and ten years after the project road opening (2037) also known as the design year. The road traffic noise impact assessment scenarios are provided in Table 4.4. For each assessment year, noise levels are determined for the following scenarios:

- **‘No build’ option:** predicted road traffic noise levels that would occur if the proposal does not proceed existing road traffic network)
- **‘Build’ option:** predicted road traffic noise levels that would occur if the proposal proceeds.

Build and no build noise levels are compared during each assessment year against the Relative Increase Criteria discussed in Section 4.1.1 below. Noise mitigation is considered based on the noise impacts predicted during the design year.

Table 4.4: Assessment timeframes

Scenario	Description	Year
Opening year – no build	Opening year forecast traffic volumes along the existing road network	2027
Opening year – build	Opening year forecast traffic volumes along proposed road network (inclusive of Pitt Town Bypass)	2027
Design year – no build	Design year forecast traffic volumes along existing road network	2037
Design year - build	Design year forecast traffic volumes along proposed road network (inclusive of Pitt Town Bypass)	2037

4.2.3 Project road classifications

In establishing appropriate road traffic noise criteria in accordance with the *Road Noise Criteria Guideline* (RCNG) (TfNSW, 2022) the project roads in the study area have been classified as per the classifications presented in Table 4.5.

Table 4.5: Project road classifications

Scenario	Description
New sub-arterial roads:	– Pitt Town Bypass
Redeveloped sub-arterial roads or sub-arterial roads not subject to redevelopment but influenced by the proposal	– Pitt Town Road – Bathurst Street – Chatham Street – Eldon Street – Old Pitt Town Road – Cattai Road

No significant non-project roads were identified as influencing existing road traffic noise levels at the within the operational study area.

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4.2.4 Traffic volumes

As part of the 2024 AREF, four of the automatic traffic counters were deployed to measure road traffic volumes along relevant project roads. Existing traffic volumes were measured concurrently with the noise monitoring survey program conducted and have been used as part of the noise model validation process.

A summary of the traffic count locations and the years they were conducted is provided in Table 4.6.

The hourly data collected as part of the traffic counts included:

- Traffic volumes in each direction
- Vehicle speeds in each direction
- Classification of vehicle types (light vehicle and heavy vehicles).

Table 4.6: Traffic count locations

Location ID	Location
2024 and 2018	
AS01	Pitt Town Road between Glebe Road and Schofield Road
AS02	Cattai Road north of Buckingham Street
AS03	Eldon Street between Chatham Street and Wellesley Street
AS04	Buckingham Street east of Iris Street

Traffic volumes for the opening year and design year (including build and no build values) scenarios have been calculated by the GHD traffic team with reference to the measured 2024 road traffic volumes, the Addendum REF Traffic Impact Assessment (SustainJV, 2024), and with the project REF Traffic Impact Assessment (Arcadis, 2018). The full scenario traffic volumes used in the operational noise modelling are provided in Appendix D.

4.3 Noise modelling inputs

The noise model inputs and assumptions are presented in Table 4.7.

Table 4.7: Operational noise model inputs and assumptions

Input	Description
Software	SoundPLAN Version 8.2
Prediction algorithm	United Kingdom Department of Transport Calculation of Road Traffic Noise (CoRTN) three split method
Model inputs	
Topography	Based on NSW Government – Spatial Services Digital Elevation Models 1 Metre LiDAR data
Road elevations	No build scenario / existing roads: Based on LiDAR data New and redeveloped roads: Based on LiDAR data and 3D road design drawings

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Input	Description
Buildings	Building footprints and addresses sourced from Geoscape. Building heights calculated using number of floors and from Geoscape source data
Receiver location	1 m from the building façade
Receiver height	Ground floor 1.5 m above ground First floor 4.5 m above ground
Validation receiver height	1.5 m above ground
Ground absorption	0.50
Input parameters	
Modelled traffic volumes	Traffic volumes used in the operational noise assessment are based on traffic modelling conducted by the GHD traffic team, based on previous counts (2018 and 2024) Road traffic volumes used during validation modelling and in operational modelling is provided in Appendix E
Validation model traffic speeds	Based on measured traffic count data. Speeds are provided in Appendix D Signposted speed assumed for Pitt Town Bypass (70 km/h)
Road surface adjustments	Dense Graded Asphalt (DGA) +0 dBA
Corrections	
Façade correction	+2.5 dBA
CoRTN conversion factor	- 3 dBA for conversion between $L_{A10}(1 \text{ hour})$ levels and $L_{Aeq}(1 \text{ hour})$ levels
ARRB corrections	-0.7 dBA free field -1.7 dBA near facade
Source height corrections	Cars 0.5 m, +0 dBA correction Truck tyres 0.5 m, -5.4 dBA correction Truck engines 1.5 m, -2.4 dBA correction Truck exhausts 3.6 m, -8.6 dBA correction

4.4 Noise model validation

Noise model validation is undertaken for road traffic projects to demonstrate that the noise model produced for the existing situation is an accurate representation of the real world within the limitations of the algorithm. The noise model validation process determines the variation between the predicted road traffic noise levels (using measured traffic volumes) with the measured traffic noise levels at each noise monitoring location.

A comparison of the measured and modelled road traffic noise levels during the day-time and night-time periods is provided in Table 4.8.

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Noise monitoring at U4 was conducted at approximately 1 metre from the façade (for consistency with the 2018 NVIA noise monitoring program) and a façade correction of 2.5 dB and ARRB correction of -1.7 dB have been applied to the modelled result. All other validation points are free field and have had an ARRB correction of -0.7 dB applied to the modelled result.

Table 4.8: Noise model validation summary

Location	L _{Aeq} (15 hour) Day (7 am to 10 pm), dBA			L _{Aeq} (9 hour) Night (10 pm to 7 am), dBA		
	Measured	Modelled	Change	Measured	Modelled	Change
U1	47.9	46.9	-1.0	42.1	40.9	-1.2
U2	51.8	50.2	-1.6	43.8	43.6	-0.2
U3	55.4	55.1	-0.3	49.8	49.4	-0.4
U4	65	65.7	0.7	60.2	58.9	-1.3
Median			-0.7			-0.8
Standard deviation			0.9			0.5

Predicted road traffic noise levels using the validation noise model are within ± 2.0 dBA of the measured noise levels during the day and night-time period at all locations. Therefore, no calibration factors have been applied to the modelled results.

4.5 Operational noise impacts

The predicted noise levels for are provided in Appendix E for all facades of all buildings within the operational study area. The predicted noise levels have been assessed against the RNCG noise criteria and receivers which qualify for consideration additional noise mitigation have been identified in accordance with the *Road Noise Mitigation Guideline* (RNMG) (TfNSW, 2022).

In addition to exceeding the relevant RNCG noise criteria, for a receiver to qualify for additional mitigation consideration under the RNMG, one of the following triggers would need to be applicable:

1. The total noise level for the build year has increased by more than 2.0 dBA relative to the no-build year; or
2. The total noise level from project roads (new or redeveloped roads) is at or above the cumulative limit; or
3. The contribution from the road project (new or redeveloped roads) is at or above the acute level.

Noise levels were processed to identify receivers that qualify for consideration of additional mitigation and a summary of these buildings is provided in Table 4.9. A total of five receivers were identified as qualifying for Type 1 mitigation, as defined by the *At-Receiver Road Noise Treatment Guideline* (TfNSW, 2022) (ARRNTG).

Two receivers (51 and 54 Wellesley Street) were identified as qualifying for additional mitigation; however, these houses are vacant, TfNSW owned and have not been considered further. The location of all qualifying receivers is shown in Figure 4.2.

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Table 4.9: Receivers exceeding the RNMG relative increase trigger and relevant RNCG criteria

Receiver ID	Address	Predicted design year noise level				'Build' to 'No build' Increase in noise level, dBA		Treatment category
		Day L _{Aeq} (15hr) Level	Criteria	Night L _{Aeq} (9hr) Level	Criteria	Day L _{Aeq} (15hr)	Night L _{Aeq} (9hr)	
R0709	3 BUCKRIDGE ST, PITT TOWN NSW 2756	57	55	51	50	7.4	7.5	Type 1
R0711	1 BUCKRIDGE ST, PITT TOWN NSW 2756	57	55	52	50	9.0	9.2	Type 1
R0690	7 BUCKRIDGE ST, PITT TOWN NSW 2756	56	55	50	50	6.1	6.0	Type 1
R0698	5 BUCKRIDGE ST, PITT TOWN NSW 2756	58	55	52	50	5.6	5.6	Type 1
R0822	22 OLD PITT TOWN RD, PITT TOWN NSW 2756	56	55	50	50	4.3	4.4	Type 1

4.6 Relative increase assessment

The change in road traffic noise levels have also been assessed to determine receivers predicted to experience an increase in noise levels greater than 12 dB above the relative no build $L_{Aeq(15hr)}$ level. One receiver was identified as exceeding the RIC and is presented in Table 4.10.

Table 4.10: Receivers exceeding the RIC

RID	Address	Predicted no build opening year noise level		Predicted build opening year noise level		Increase in noise levels, dB		Treatment category
		Day $L_{Aeq(15hr)}$	Night $L_{Aeq(9hr)}$	Day $L_{Aeq(15hr)}$	Night $L_{Aeq(9hr)}$	Day $L_{Aeq(15hr)}$	Night $L_{Aeq(9hr)}$	
R0684	40 WELLESLEY ST, PITT TOWN NSW	40	33	53	47	13	14	Type 1

4.7 Cumulative limit assessment

One receiver was identified as exceeding the cumulative limit and is presented in Table 4.11. Many receivers along Bathurst Street, as well as the receiver at 29 Cattai Road are predicted as exceeding the cumulative or acute noise limits, however the presented contributions are from the existing road corridor and therefore these receivers have not been considered for further noise mitigation. One receiver was identified at 8 Cattai Road as exceeding the cumulative limit from project road noise contributions. No receivers were identified as exceeding the acute limit from project road noise contributions.

Table 4.11: Receivers exceeding the cumulative limit

RID	Address	Predicted design year noise level				Treatment category
		Day $L_{Aeq(15hr)}$, dBA		Night $L_{Aeq(9hr)}$		
		Level	Criteria	Level	Criteria	
R0861	8 CATTAI RD, PITT TOWN NSW	62	56	56	51	Type 2



Legend

- Proposal design
- Sensitive receiver
- Other structure - not a sensitive receiver
- Sensitive receiver qualifying for consideration of mitigation measures - Residential



Figure 4-2 - Receivers identified as qualifying for consideration of mitigation measures

1:3,500 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: October 18, 2024



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4.7.1 Maximum noise level assessment

Potential maximum noise level events would occur during heavy vehicle passbys and compression braking. The locations where these events would occur would be on sections of the road where there are high road gradients or where cars are accelerating or de-accelerating rapidly. The road project area is relatively flat but with some accelerating/decelerating is expected in proximity to the bypass roundabouts. Away from these sections, noise events would be less frequent as heavy vehicles would generally be travelling at constant speeds.

Changes to maximum noise levels have been based on the following methodology:

- Model the existing maximum noise levels based on noise emission from the current road alignment
- Model the future maximum noise levels based on noise emission from the future road alignment
- Identify the number of buildings with predicted maximum noise levels above 65 dBA
- Identify the frequency of maximum noise level events based on measured road traffic noise levels.

4.7.2 Maximum noise levels

An assessment of maximum noise level events has been conducted to prioritise and rank mitigation strategies, but exceedances of the criteria are not intended to qualify a receiver for consideration of treatment.

The noise model inputs and assumptions for the maximum noise level assessment are presented in Table 4.12. The likely source of potential maximum noise levels is due to exhaust noise generated during heavy vehicle acceleration or braking (i.e. heavy vehicle passbys and compression braking, respectively).

Table 4.12: Maximum noise level model inputs

Input / assumption	Description
Software	SoundPLAN Version 8.2
Prediction algorithm	ISO 9613:1996
Input parameters	
Sound power level	124 dBA (Compression braking)

The number of receivers where maximum noise levels exceed 65 dBA are presented in Table 4.13 for both the existing heavy vehicle route through Pitt Town (Pitt Town Road, Bathurst Street, Chatham Street, Eldon Street and Cattai Road) and the future Pitt Town bypass. For receivers along the existing heavy vehicle route, the maximum noise level is not anticipated to change, however the frequency of maximum noise events would reduce as a result of the bypass.

For receivers adjacent to the Pitt Town bypass, currently not exposed to maximum noise events, maximum noise levels are predicted to increase by up to 18 dBA. Up to 34 additional residential receivers are predicted to experience maximum noise levels of 65 dBA as a result of the proposal.

Table 4.13: Maximum noise level assessment summary

Package	Number of receivers where maximum noise levels exceed 65 dBA			Range of maximum noise level increase
	Existing	Future	Change	
Compression braking	728	772	+34	0 to 19 dB

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The most affected receivers include 22 Old Pitt Town Road (+19 dB) and receivers along Buckridge Street (up to 16 dB).

4.7.3 Frequency of maximum noise events

Noise monitoring data collected at 8 Cattai Road (U3) has been analysed to determine the existing frequency and level of maximum noise level events from traffic coming through Cattai Road. Monitoring was conducted at an approximate distance of 50 metres from the road edge. Events were identified that were measured as above the 65 dBA noise level, and with a L_{Amax} level more than 15 dB above the ambient $L_{Aeq(1hr)}$ level during the event.

Table 4.14 provides a summary of the median L_{AFmax} , the median $L_{Aeq(1hour)}$, average number of events (per hour / per day) and the average duration of events (per hour / per day) for each hour during the night period,

During the monitoring period there were a total of 212 events over 14 days at an average of 27 events per day.

Table 4.14: Summary of maximum noise events summary – 8 Cattai Road

Period	Median L_{AFmax}	Median $L_{Aeq(1 hr)}$	Average number of events / hour / day	Average duration of events (seconds)
22:00 – 23:00	67.2	49	2.8	10.9
23:00 – 00:00	67.4	48	3.2	12.8
00:00 – 01:00	67.7	48	3	12.8
01:00 – 02:00	67	46	3	10.2
02:00 – 03:00	67.1	44	2.1	9.2
03:00 – 04:00	66.5	48	2.5	8.3
04:00 – 05:00	66.8	50	3.4	9.4
05:00 – 06:00	70.5	55	1.7	4.5
06:00 – 07:00	72.6	56	2.4	5.2

In the design year, heavy vehicle traffic volumes through Pitt Town along Bathurst Street are expected to decrease by 33%, while along Chatham Street and Eldon Street heavy vehicle movements are expected to decrease by 73%. Therefore, the frequency of maximum noise level events for receivers within Pitt Town are expected to decrease by a similar percentage.

For receivers located near to the Bypass alignment, they would be expected to experience an increase in maximum noise level events. Receivers located along Cattai Road north of Buckingham and Pitt Town Road would be expected to experience a similar frequency of maximum noise level events.

The likely source of potential maximum noise levels is due to exhaust noise generated during heavy vehicle acceleration or braking (i.e. heavy vehicle passbys and compression braking, respectively). Given this, it is not expected that pavement treatments would provide any mitigation to the frequency or levels of maximum noise events. Other measures such as at-property treatments and noise barriers would aid in mitigating potential increases in maximum noise levels at qualifying receivers.

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4.8 Operational noise mitigation measures

For receivers that qualify for consideration for additional noise mitigation measures, the RNMG provides the following noise mitigation measures provided in order of preference:

1. Quieter pavement surfaces
2. Noise mounds
3. Noise walls
4. At-property treatments

The most preferred noise mitigation measures that are reasonable and feasible should be implemented. Additionally, community views and community benefits should be considered when selecting noise mitigation.

A total of 7 unique residential dwellings have been identified as qualifying for mitigation. These receivers are identified in Section 4.5, Section 4.6 and Section 4.7.

The RNMG recommends that mitigation measures be implemented where they are considered reasonable and feasible. Noise barriers, noise mounds and quieter pavement surfaces would only be considered reasonable in locations where there are four or more closely spaced receivers that exceed the road traffic noise criteria. Receivers are considered closely spaced where:

- façades are separated by less than 20 metres
- they are part of an isolated group of closely spaced residences where the façades are separated by between 20 and 100 metres.

Five closely spaced receivers have been identified as qualifying for noise mitigation along 1 - 7 Buckridge Street, and 40 Wellesley Street.

As closely spaced receivers have been identified, noise barriers, mounds and quieter pavement surfaces have been considered further. At-property treatments would be considered where other noise mitigation measures are not reasonable or feasible.

Potential noise mitigation treatments have been assessed in accordance with the RNP (DECCW, 2011).

4.8.1 Quieter pavement surfaces

Quieter pavement surfaces, such as stone mastic asphalt (SMA) surfacing, or open graded asphaltic concrete surfacing, are the preferred form of noise mitigation as it reduces source noise levels and has a low visual impact. This provides noise benefits to outdoor recreational areas and all receivers, in addition to reducing internal road traffic noise levels.

In general, quieter pavements may provide noise benefits to receivers at greater distances than noise barriers. This may occur where receivers at greater distances already have shielding from rows of houses near roads or topography. Road tyre noise generally becomes dominate at speeds of 70 km/h, the signposted speed of the Pitt Town Bypass.

Given that there are five closely spaced qualifying receivers, quieter pavement surfaces may be reasonable and feasible to implement. The degree of exceedance above the RNCG criteria for the four Buckridge Street receivers is between 1 and 3 dB. The receiver at 40 Wellesley Street does not exceed the RNCG criteria, but exceeds the RIC criteria by 2 dB.

Although not within the closely spaced group of qualifying receivers, the qualifying receiver along 22 Old Pitt Town Road is predicted to experience mitigation in noise levels from the implementation of a quieter pavement surface.

Open graded asphaltic concrete road surfaces are typically capable of achieving between a reduction of between 2.5 dB and 4.5 dB. A mitigated scenario has been modelled, assuming a 2 dB reduction due to pavement treatments along the undeveloped road corridor extent. Table 4.15 provides the mitigated noise levels at the qualifying receivers. The results indicate that noise levels are mitigated to compliant levels at four of the six qualifying receivers. 1 Buckridge Street, 5 Buckridge Street and 8

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Cattai Road are still predicted to exceed the RNCG criteria and would be considered for at property treatments, discussed further in Section 4.9.3.

Table 4.15: Pavement road treatment mitigated noise levels

Receiver ID	Address	Predicted design year noise level, dBA				Still exceeding and to be considered for At-receiver treatment?
		Day LAeq(15hr) Level	Criteria	Night LAeq(9hr) Level	Criteria	
R0684	40 WELLESLEY ST, PITT TOWN NSW 2756	52	53 ¹	46	46 ¹	No
R0709	3 BUCKRIDGE ST, PITT TOWN NSW 2756	55	55	49	50	No
R0711	1 BUCKRIDGE ST, PITT TOWN NSW 2756	56	55	50	50	Yes
R0690	7 BUCKRIDGE ST, PITT TOWN NSW 2756	55	55	49	50	No
R0698	5 BUCKRIDGE ST, PITT TOWN NSW 2756	57	55	51	50	Yes
R0822	22 OLD PITT TOWN RD, PITT TOWN NSW 2756	55	55	49	50	No
R0861	8 CATTAI RD, PITT TOWN NSW 2756	61	56 ²	56	51 ²	Yes

Note 1: Relative increase criteria

Note 2: Cumulative noise level

4.8.2 Noise mounds and barriers

Noise mounds and noise barriers reduce noise levels by changing the transmission path of noise from the road. These have similar benefits to quieter pavement surfaces as they have the potential to reduce both external and internal noise levels.

In general, the noise mound/barrier would be considered a reasonable option if it is capable of providing a level of noise mitigation (insertion loss) of:

- 5 dBA at receivers for heights up to five metres high
- 10 dBA at receivers for barrier heights above five metres and up to eight metres.

In addition, a noise mound/barrier can be designed to achieve an insertion loss of less than 5 dBA if the barrier is able to reduce the number of receivers that qualify for at-property treatments by at least two-thirds.

To assess whether a noise barrier would be a reasonable mitigation option, a 5-metre-high noise wall has been modelled with an extent of 180 metres and at a distance of approximately 3.5 metres from the western outer lane of Pitt Town Bypass. The results are provided in Table 4.16 and indicate that a 5-metre noise wall would reduce noise levels to below the criteria at four of the five closely spaced receivers (i.e., 1 to 7 Buckridge Street).

As more than two thirds of the receivers would no longer require at property treatment, noise mounds and/or noise barriers would be considered reasonable. However, given that quieter pavements are

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also considered to be reasonable and are predicted to reduce exceedances by the same amount, quieter pavements should be preferred over noise barriers and/or noise mounds.

Table 4.16: 5 metre noise wall mitigated noise levels

Receiver ID	Address	Predicted design year noise level, dBA				Still exceeding and to be considered for At-receiver treatment?
		Day L _{Aeq} (15hr) Level	Criteria	Night L _{Aeq} (9hr) Level	Criteria	
R0684	40 WELLESLEY ST, PITT TOWN NSW 2756	53	53 ¹	47	46 ¹	Yes
R0709	3 BUCKRIDGE ST, PITT TOWN NSW 2756	53	55	47	50	No
R0711	1 BUCKRIDGE ST, PITT TOWN NSW 2756	54	55	48	50	No
R0690	7 BUCKRIDGE ST, PITT TOWN NSW 2756	53	55	47	50	No
R0698	5 BUCKRIDGE ST, PITT TOWN NSW 2756	55	55	49	50	No
R0822	22 OLD PITT TOWN RD, PITT TOWN NSW 2756	56	55	50	50	Yes
R0861	8 CATTAL RD, PITT TOWN NSW 2756	62	56 ²	56	51 ²	Yes

Note 1: Relative increase criteria

Note 2: Cumulative noise level

4.8.3 At property treatments

At property treatments should be considered for receivers that are predicted to exceed the RNCG after the implementation of all other reasonable and feasible mitigation. The ARRNTG specifies the type of treatment that may be offered based on the level of exceedance above the RNCG criteria.

The treatment packages specified in the ARRNTG are outlined in Table 4.17. The packages are based on the level of exceedance above the criteria following any noise reduction from quieter pavements and noise barriers. Details of the treatment packages are provided in the ARRNTG and are dependent on the building construction material.

Table 4.17: Architectural treatment packages

Treatment package	Exceedance of criteria, dBA
Type 1	1-5
Type 2	6-8
Type 3	9-11
Type 4	12-14
Type 5	>14

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Acoustic treatments provided by Transport typically include:

- sealing of eaves
- sealing of wall vents
- upgrading window and door seals and appropriately treatment sub-floor ventilation
- fresh air ventilation systems that meeting Building Code of Australia requirements with the windows and doors shut
- sealing of the underfloor below the bearers
- upgrading windows, glazing and providing doors on the exposed façades of substantial structures
- installing courtyard screen walls.

In most instances, the aim of architectural treatments is to provide internal noise levels that are approximately 20 dBA less than the external noise criteria with windows closed. This would provide similar acoustic amenity and internal noise levels to those experienced at a receiver where the external noise criteria have been met.

4.8.4 Operational noise mitigation measures

The selection of the operational noise mitigation measures to be implemented for the project would be confirmed as part of the detailed design and would include:

1. Consideration of quieter pavements;
2. Consideration of noise mounds and noise barriers (if quieter pavements are not considered reasonable or feasible); and
3. Consideration of at-property treatments for sensitive receivers that still qualify for mitigation

Post-construction noise monitoring would also be undertaken within 12 months of opening of the proposal to confirm road traffic noise levels and the appropriateness of the selected mitigation measures.

The operational noise mitigation measures to be implemented are summarised in Table 4.18.

Table 4.18: Operational noise mitigation measures

Measure	Description	Timing
Detailed design operational traffic noise assessment report	A detailed design operational traffic noise assessment report (OTNAR) should be undertaken as part of the detailed design to review the potential for operational noise impacts and confirm feasible and reasonable mitigation measures to be incorporated into the design. The identification and implementation of noise mitigation measures will be undertaken in accordance with the <i>Road Noise Mitigation Guideline</i> and the <i>At-Receiver Noise Treatment Guideline</i> .	Pre-construction
Post-construction operational compliance	Post-construction operational compliance noise monitoring using a validated post-construction operational noise model will be undertaken following road opening. This program will be undertaken within 12 months of opening of the proposal and will be completed once traffic flows have stabilised.	Post-construction and within 12 months of opening

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5 CONCLUSION

This noise and vibration impact assessment has been prepared to assess potential impacts from the proposed construction and operation of the Pitt Town Bypass. Potential noise and vibration have been assessed in accordance with the relevant guidelines.

Key differences between the project REF NVIA and this NVIA include:

- Night-time background noise levels decreased considerably at all monitoring locations between 2018 and 2024
- Some construction works are now proposed to be completed outside of standard construction hours to ensure worker safety and to minimise disruptions to the local traffic network
- Given the need for outside of hours construction works, additional project specific construction noise mitigation measures have been recommended to manage and mitigate construction noise impacts. This includes the preparation of a CNVMP to detail construction mitigation measures, and the recommendation to prepare a CNVIS prior to any works being undertaken outside of construction hours.
- An additional 6 receivers (7 receivers in total) have been identified as qualifying for operational noise mitigation in this NVIA.
- Pavement treatments, with at property treatments have been recommended as the most reasonable and most preferred noise mitigation options, in accordance with the RNCG.

Existing background and road traffic noise levels were measured at four locations. These measurements were used to determine the construction noise management levels, and to determine existing road traffic noise levels in the study area.

5.1 Construction noise

The majority of construction works are proposed to be undertaken during standard construction hours with some out of hours works to be required in order to provide a safe work environment and to minimise traffic disruptions on the local road network.

Construction is proposed to be completed in three stages. These stages have been divided into a total of 9 construction scenarios to determine potential noise construction impacts during and outside standard construction hours.

Construction noise impacts are predicted during all stages of construction with the highest impacts occurring during CS03 – earthworks (only proposed within standard construction hours). The highest construction noise impacts outside of hours are predicted during CS01. Residential receivers located near the construction work area are predicted to be highly noise affected at some points during construction. Only on non-residential receiver is predicted to exceed the relevant NMLs, being Pitt Town Public School. The predicted construction noise impacts are based on the construction works occurring at the worst-case location relative to each receiver across the entire Bypass footprint.

Structures located within 25 m of the construction work footprint have been identified as these have the potential to experience construction vibration impacts. One heritage structure was identified in the vicinity of construction works and could experience construction vibration impacts.

Based on the existing level of heavy vehicle traffic along project roads, no road noise impacts are predicted from construction traffic generated by the project.

Construction noise and vibration management measures have been recommended in Section 3.10.

5.2 Operational noise

Operational noise impacts have been assessed in accordance with the RNCG. A study area of 600 metres was defined, and the project roads defined as existing, new or redeveloped road for the purposes of determining appropriate criteria.

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The operational noise model was validated by comparing measured and predicted traffic noise levels at each of the monitoring locations conducted. Road traffic volumes for each assessment scenario were determined by the GHD traffic team using the 2018 and 2024 ATCs.

Road traffic noise levels were assessed during the opening year and design years, with the 'build' and 'no build' scenarios assessed for each year. Seven receivers were identified as qualifying for additional mitigation consideration in accordance with the RNMG.

An assessment of potential road traffic noise mitigation measures was conducted and it was found that:

- Quieter pavements are considered a reasonable mitigation measure;
- Noise barriers and/or noise mounds are considered a reasonable mitigation measure, however are not preferred compared to quieter pavements; and

At receiver property treatments are considered reasonable for receivers that would still qualify for mitigation consideration after the implementation of quieter pavements or noise barriers.

It is recommended that a detailed design operational traffic noise assessment report be undertaken to confirm feasible and reasonable mitigation measures to be incorporated into the design and that post-construction compliance monitoring be undertaken within 12 months of the proposal opening.

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6 REFERENCES

Australian Standards (2010), *AS2436-2010 Guide to noise and vibration control on construction, demolition and maintenance sites*

DEC (2006), *Assessing Vibration: a technical guideline*

DECC (2009), *Interim Construction Noise Guideline*

DECCW (2011), *Road Noise Policy*

Transport for NSW (2022), *Application Notes for the Road Noise Criteria Guideline*

Transport for NSW (2022), *Construction Noise and Vibration Guideline (for road and maritime works)*

Transport for NSW (2022), *Road Noise Criteria Guideline*

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APPENDIX A – MEASURED NOISE LEVELS

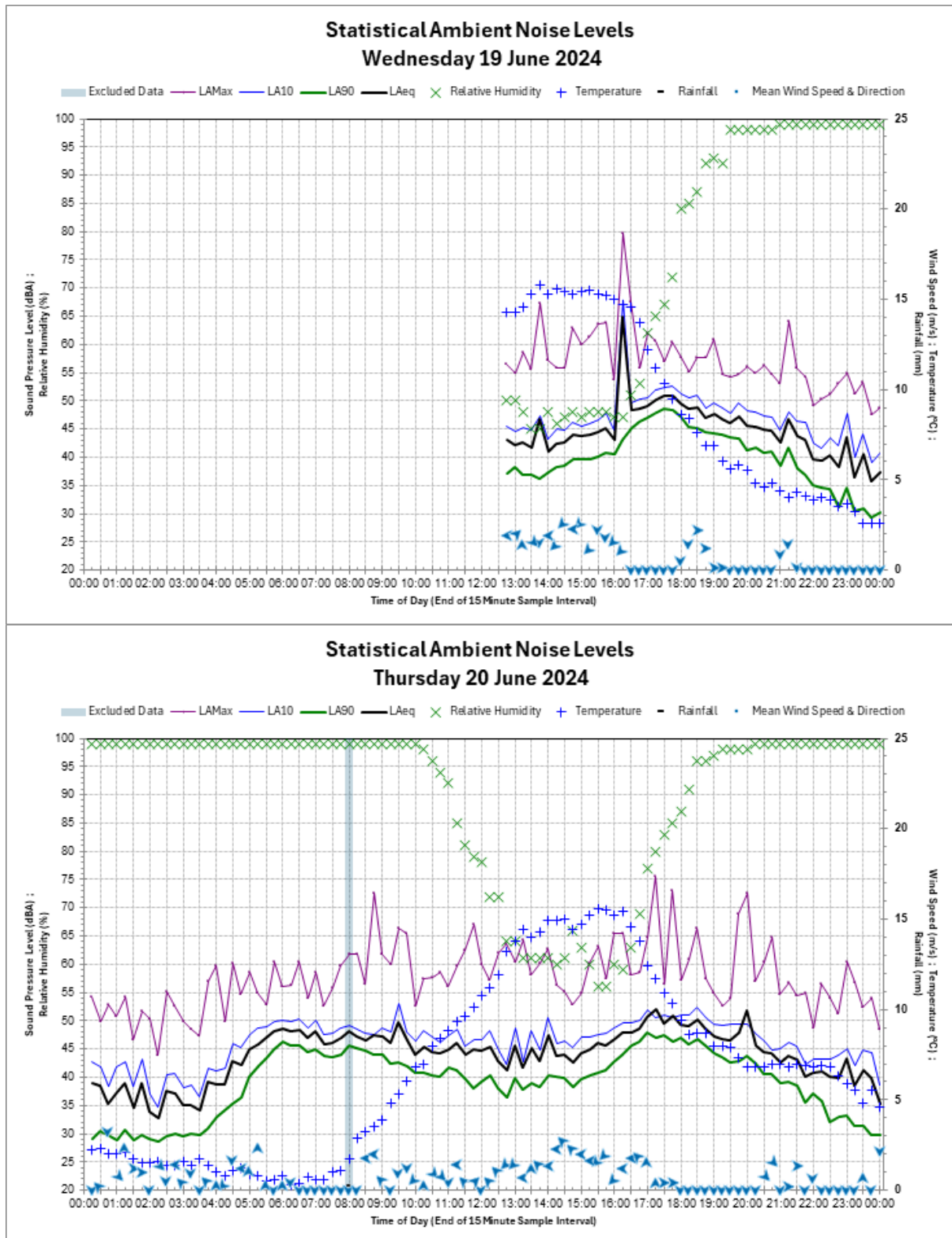
U1 – 54 Wellesley Street

54 Wellesley Street	Rating Background Level, L_{A90} , dBA			Road traffic noise Level, dBA	
	Day	Evening	Night	Day $L_{Aeq}(15 \text{ hr})$	Night $L_{Aeq}(9 \text{ hr})$
Wednesday-19-Jun-24	37	37	29	51	43
Thursday-20-Jun-24	38	37	28	47	42
Friday-21-Jun-24	39	39	29	46	40
Saturday-22-Jun-24	40	39	33	46	40
Sunday-23-Jun-24	39	35	31	47	39
Monday-24-Jun-24	37	35	31	45	41
Tuesday-25-Jun-24	39	37	30	48	41
Wednesday-26-Jun-24	41	37	31	52	44
Thursday-27-Jun-24	37	38	30	48	44
Friday-28-Jun-24	37	39	28	47	41
Saturday-29-Jun-24	40	37	28	47	41
Sunday-30-Jun-24	39	36	34	44	44
Monday-1-Jul-24	41	35	32	47	41
Tuesday-2-Jul-24	39	-	-	47	-
RBL and Leq Overall	39	37	30	48	42



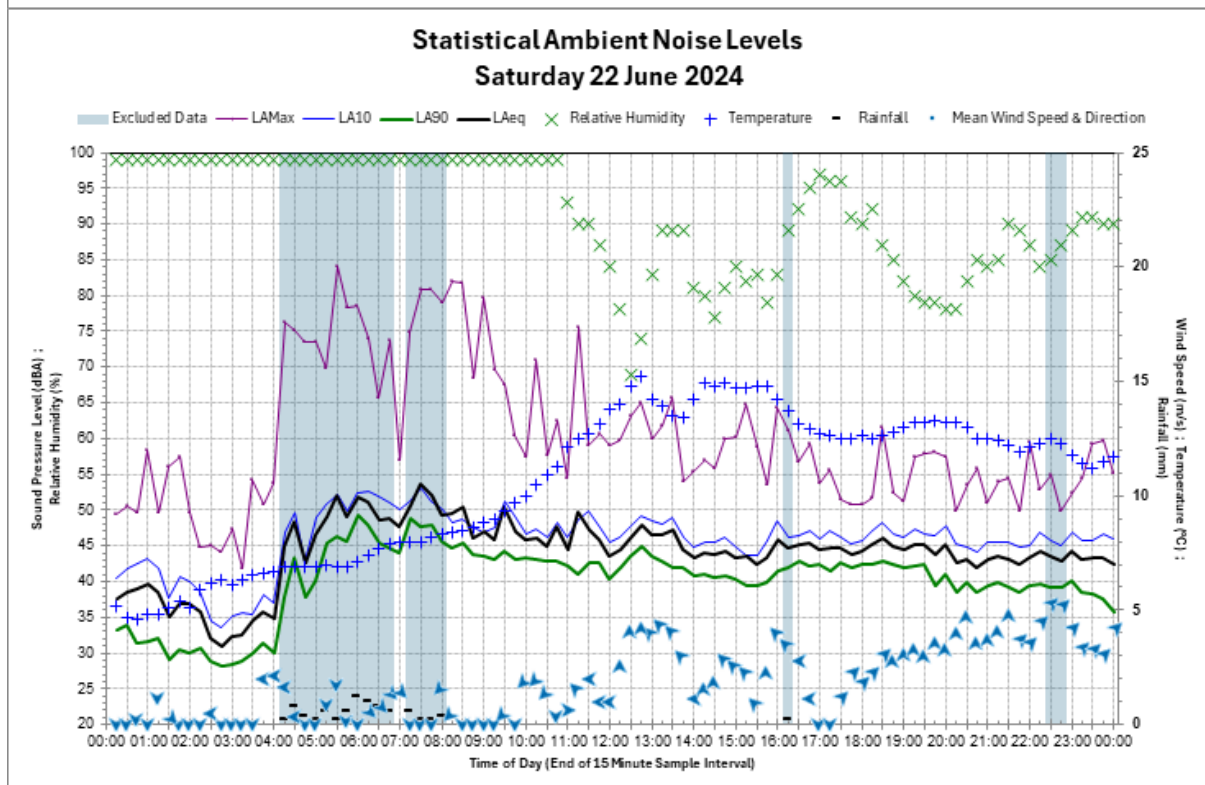
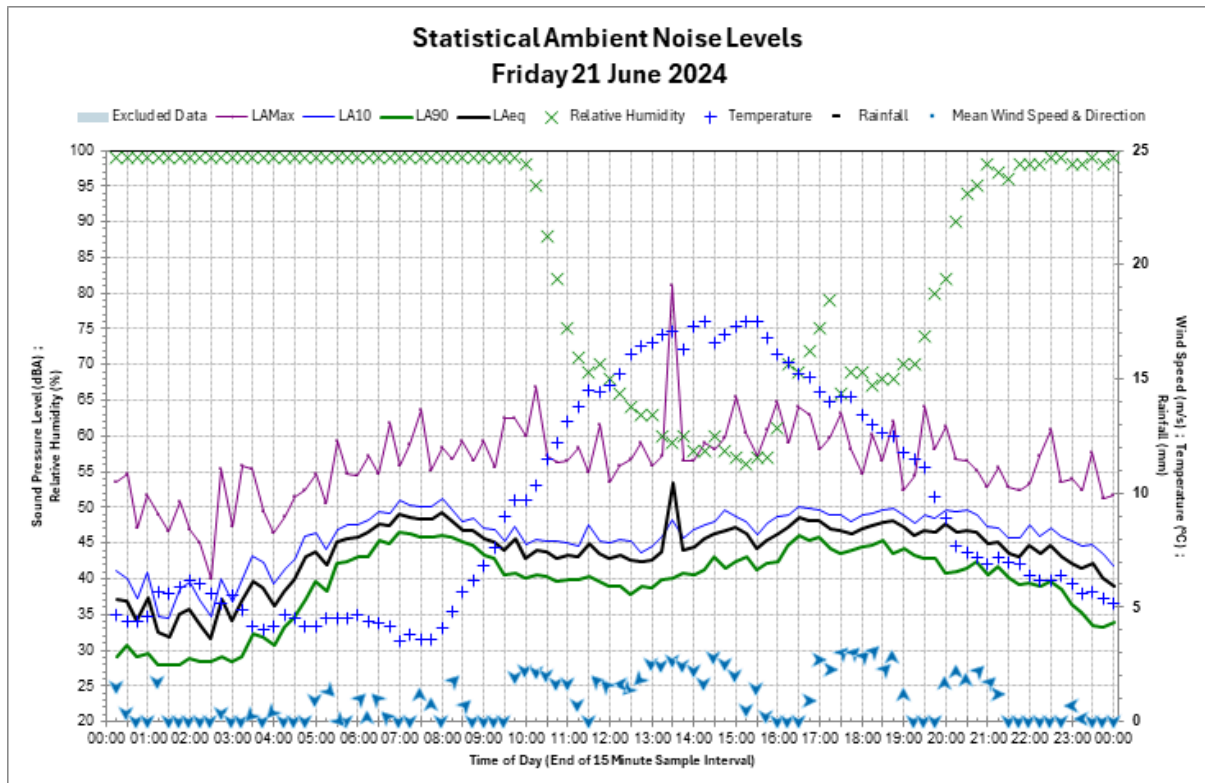
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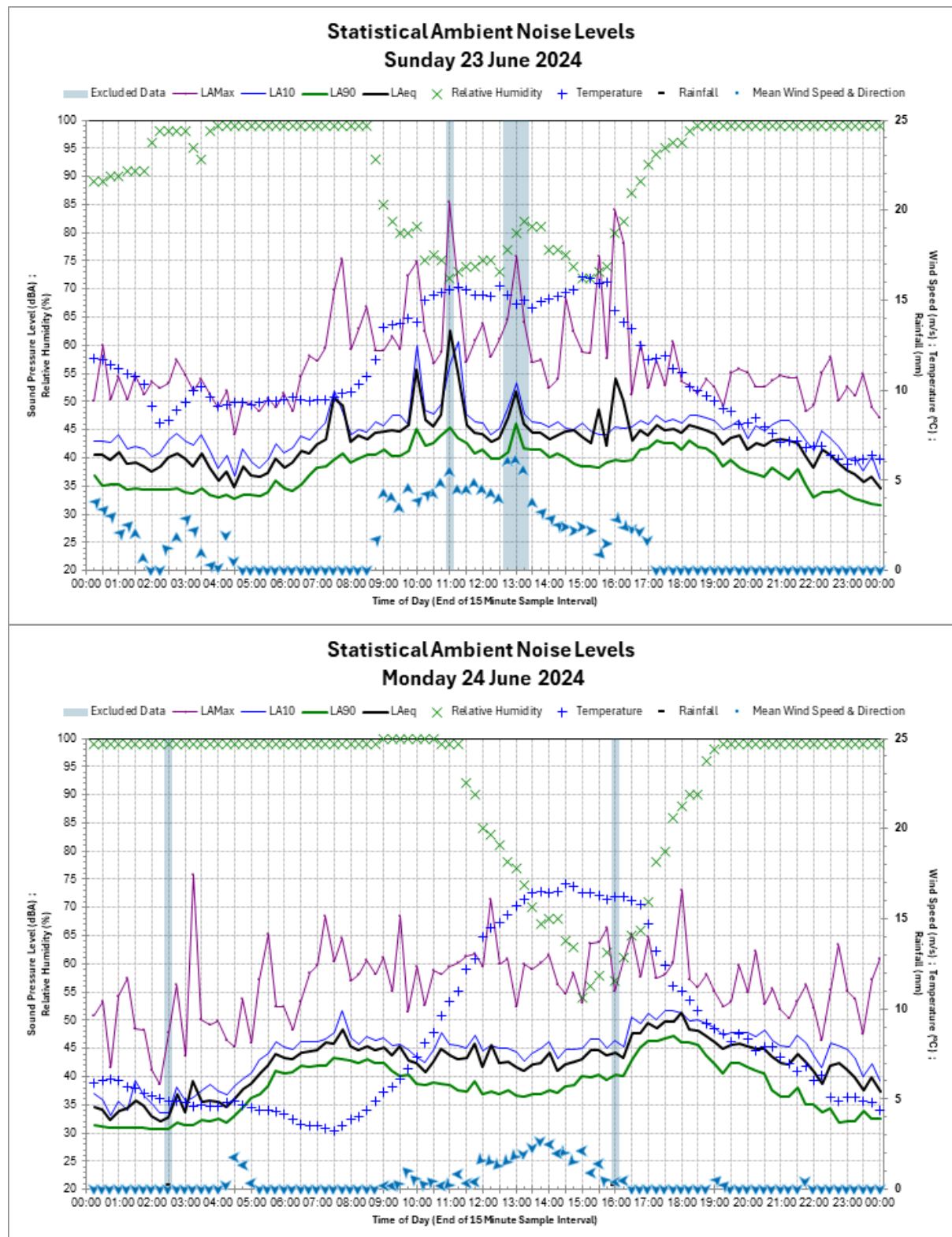
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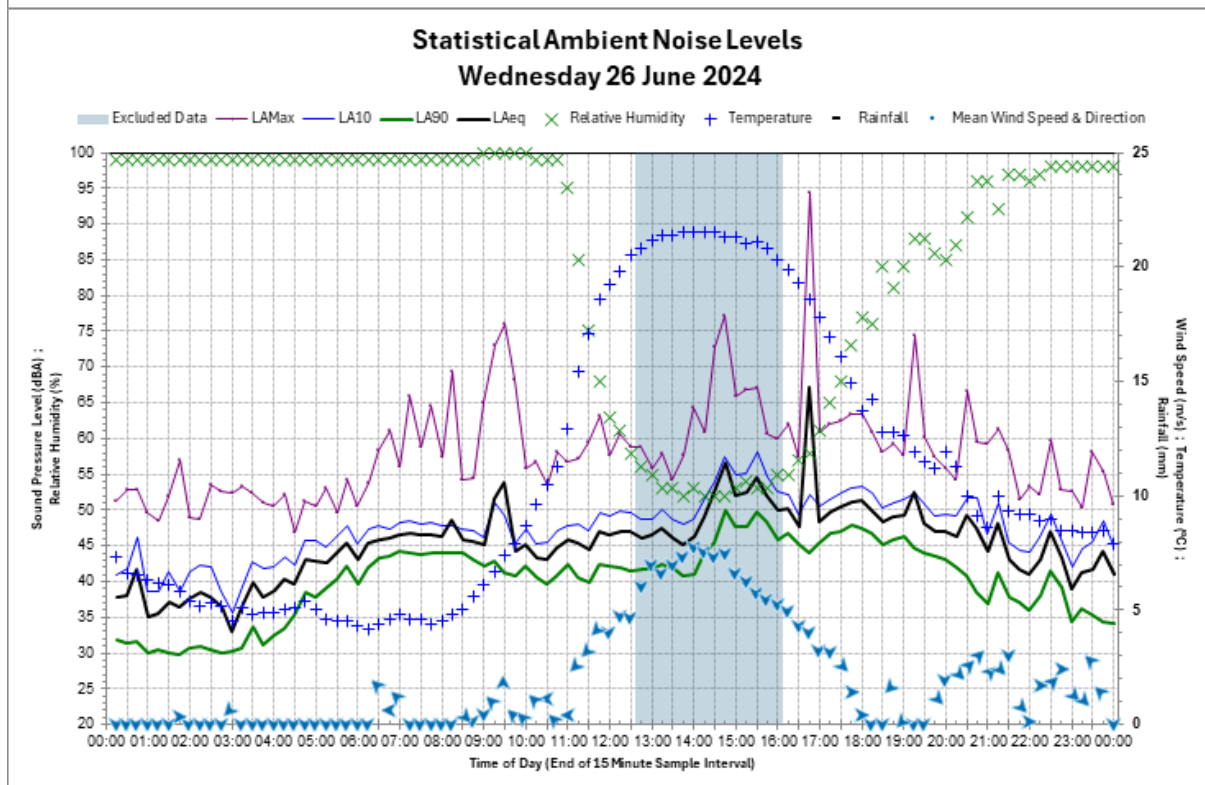
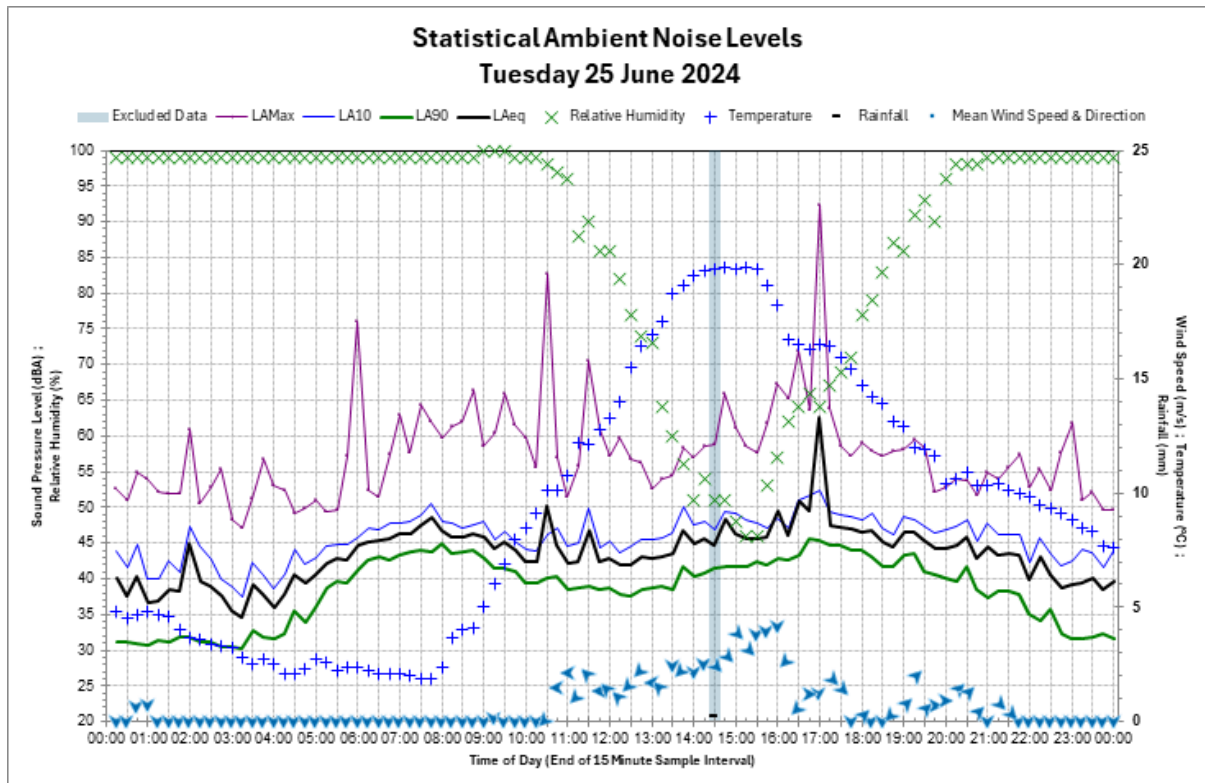
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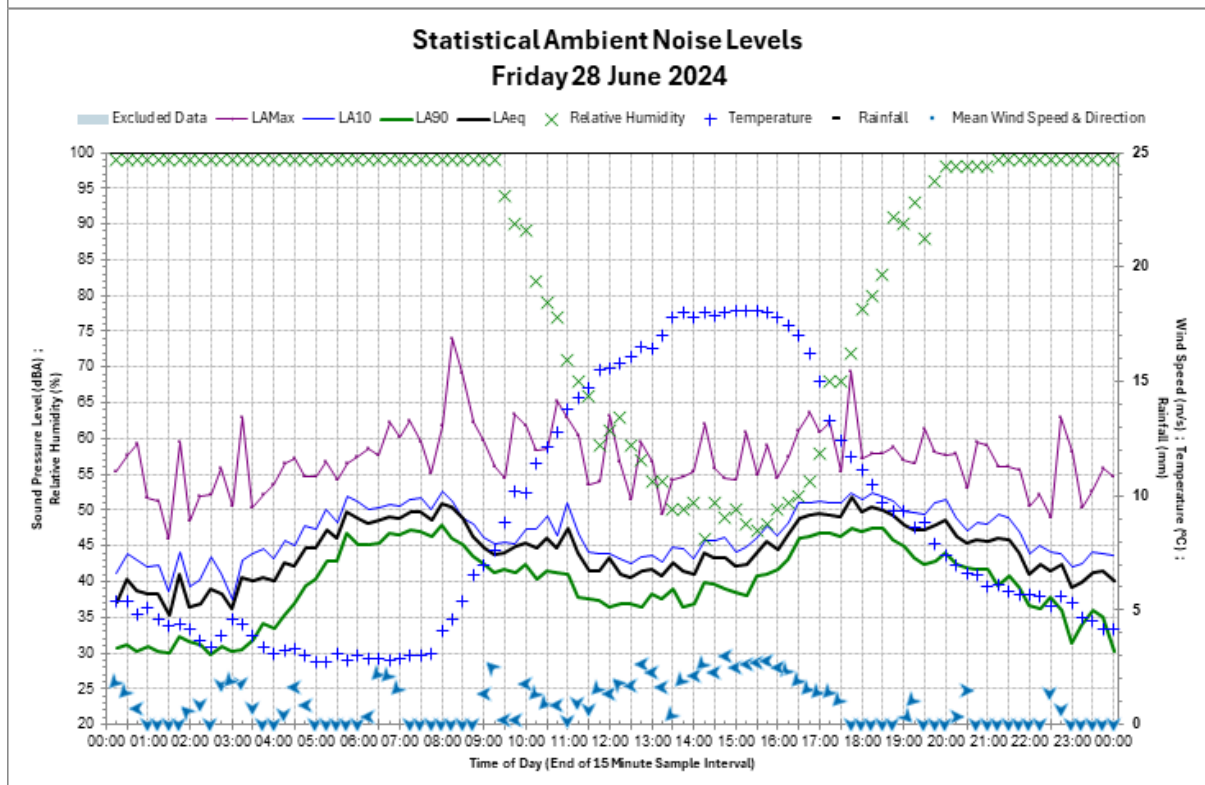
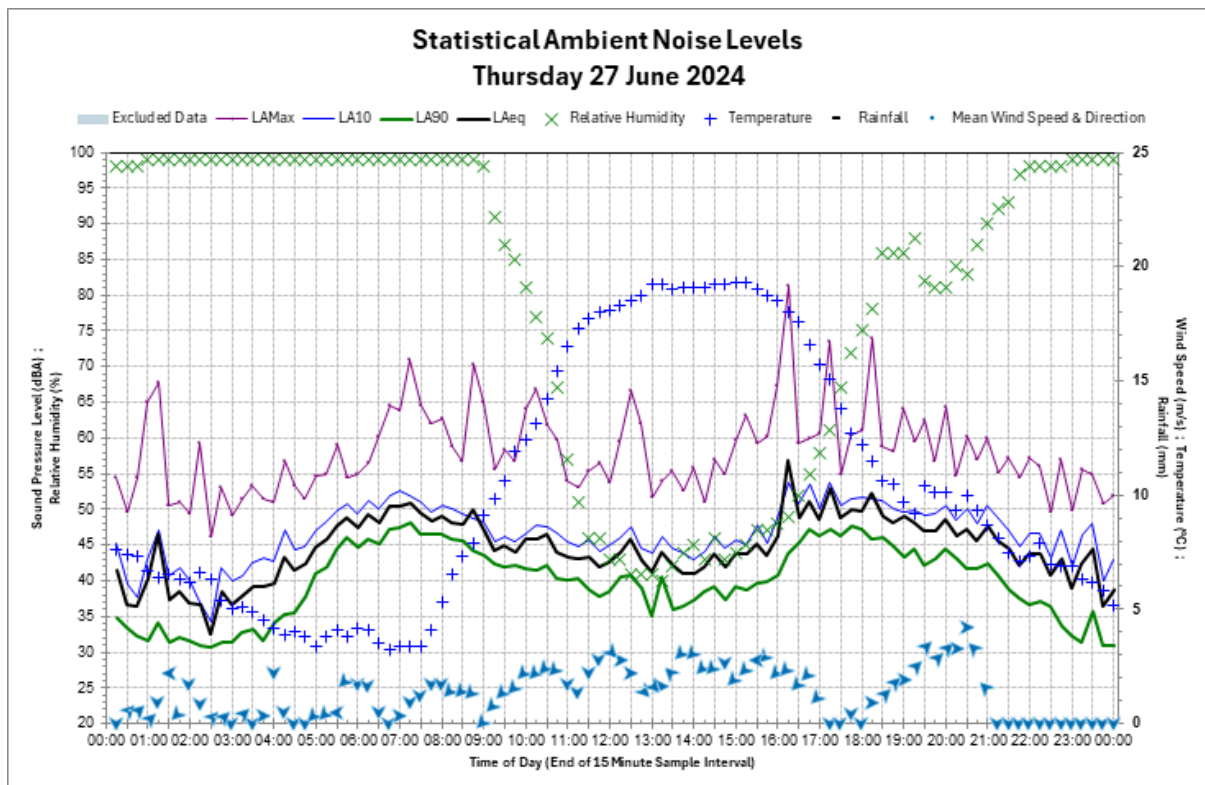
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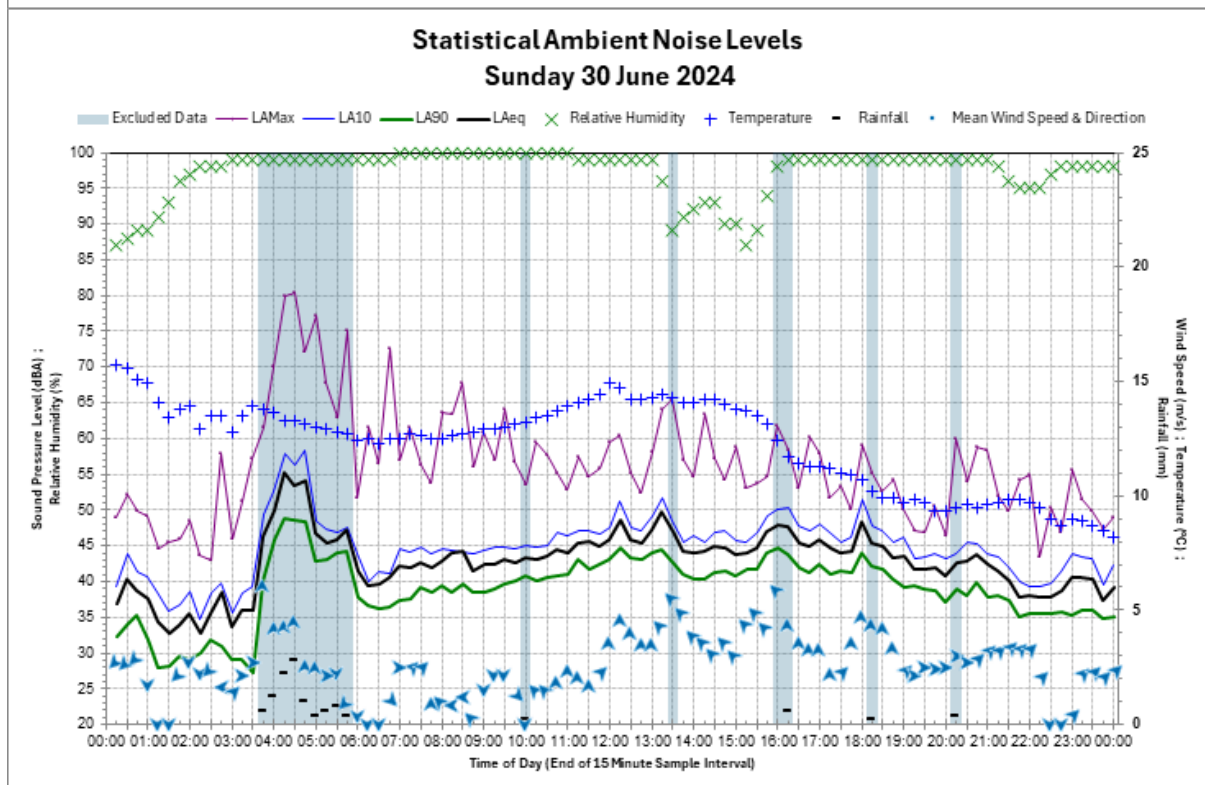
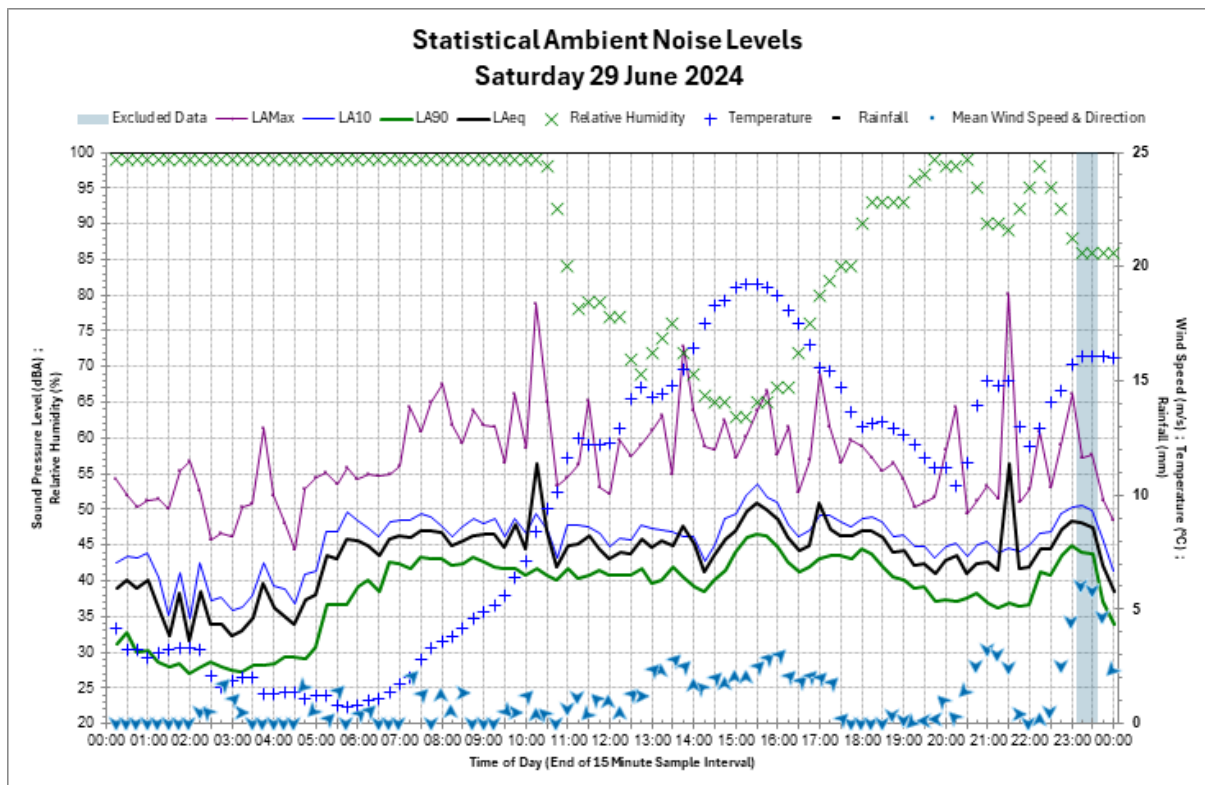
Noise and Vibration Impact Assessment

Status: Approved for use



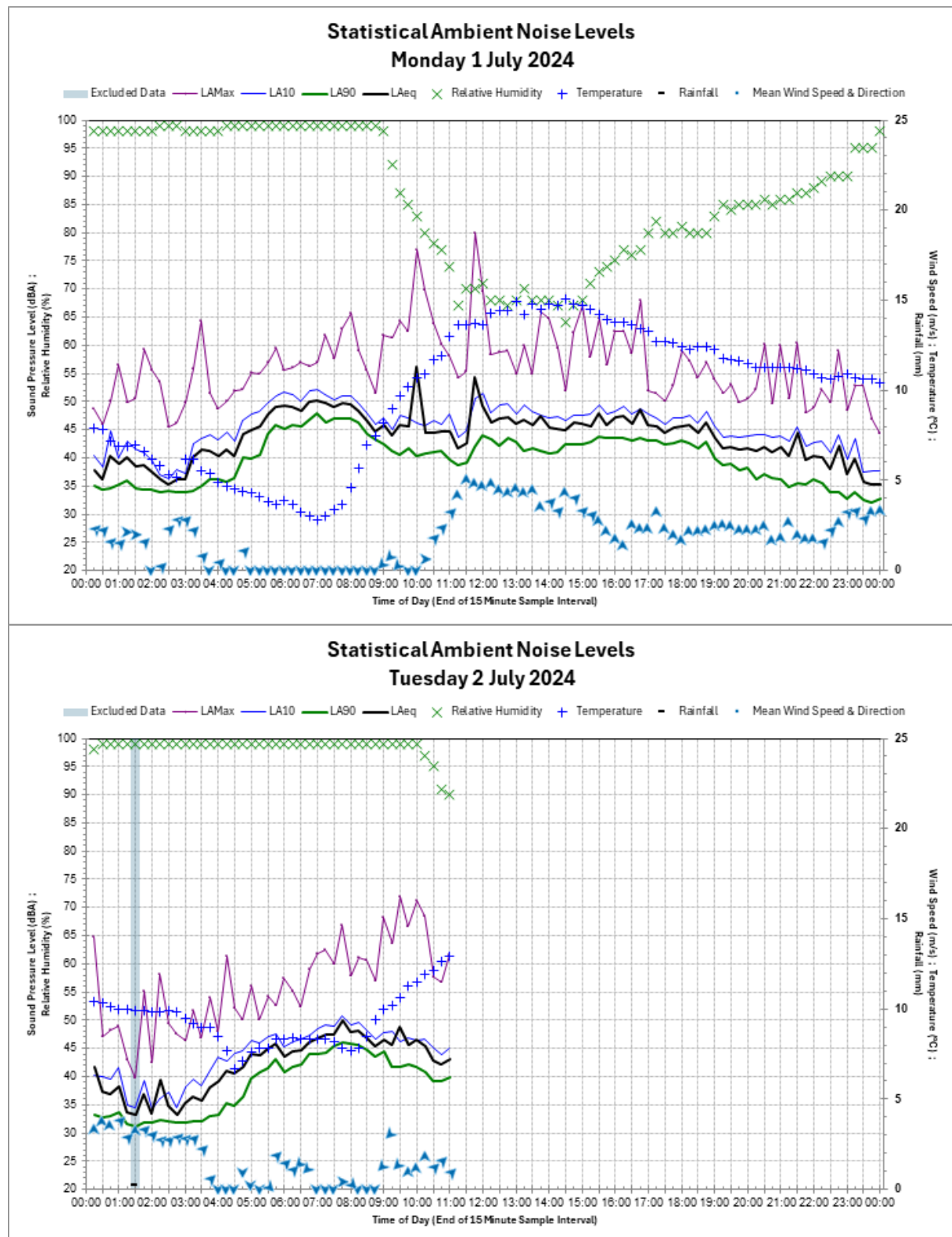
Noise and Vibration Impact Assessment

Status: Approved for use



Noise and Vibration Impact Assessment

Status: Approved for use



Noise and Vibration Impact Assessment

Status: Approved for use

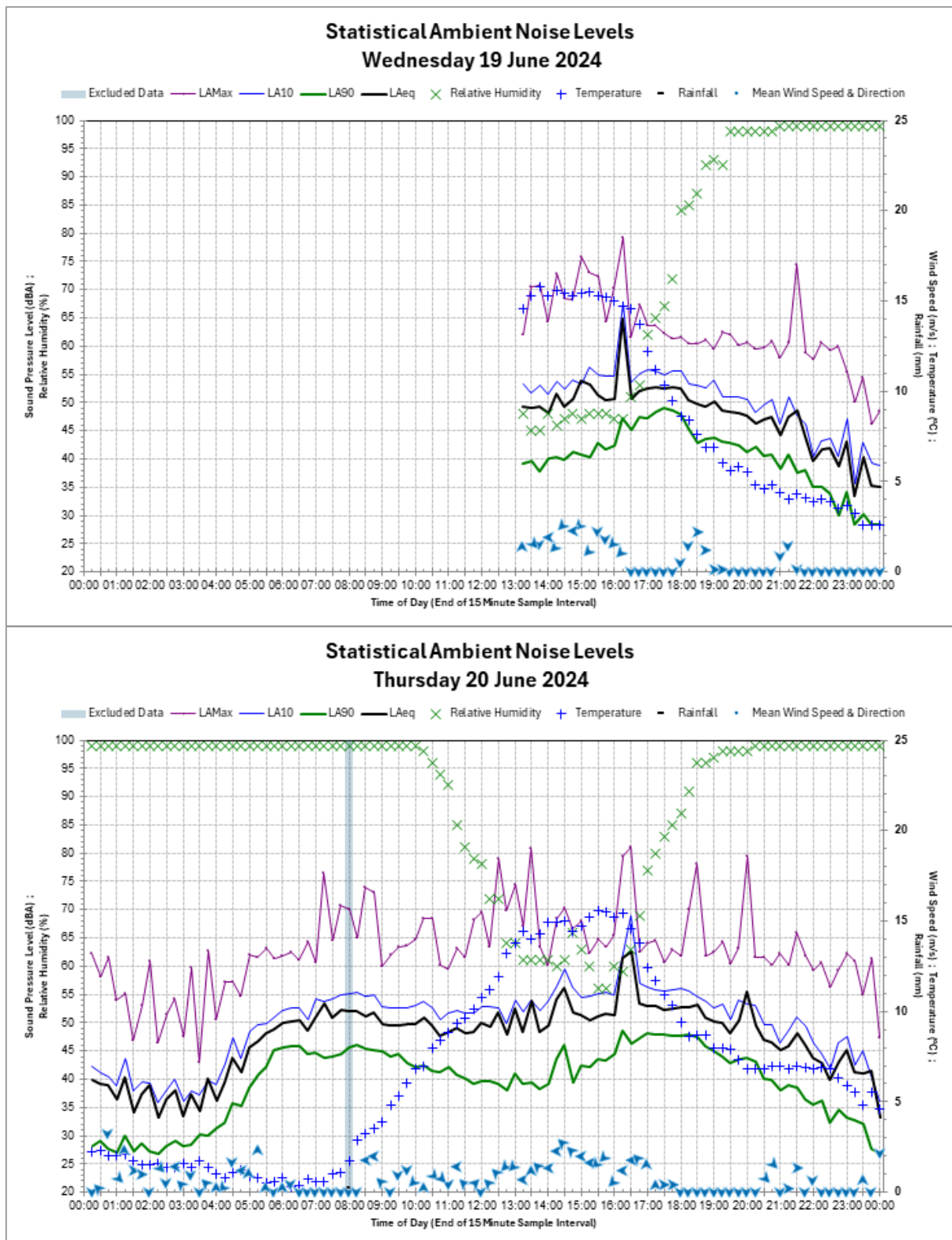
U2 – 23 Old Pitt Town Road

23 Old Pitt Town Road	Rating Background Level, L_{A90} , dBA			Road traffic noise Level, dBA	
	Day	Evening	Night	Day L_{Aeq} (15 hr)	Night L_{Aeq} (9 hr)
Wednesday-19-Jun-24	39	38	27	53	44
Thursday-20-Jun-24	39	36	25	53	44
Friday-21-Jun-24	40	40	26	51	42
Saturday-22-Jun-24	40	39	29	50	42
Sunday-23-Jun-24	40	33	26	51	42
Monday-24-Jun-24	39	36	28	51	44
Tuesday-25-Jun-24	39	36	27	51	44
Wednesday-26-Jun-24	41	36	29	54	46
Thursday-27-Jun-24	40	38	29	51	45
Friday-28-Jun-24	39	38	25	51	43
Saturday-29-Jun-24	43	36	25	55	41
Sunday-30-Jun-24	39	34	30	49	46
Monday-1-Jul-24	42	34	27	51	44
Tuesday-2-Jul-24	41	-	-	52	-
RBL and Leq Overall	40	36	27	52	44



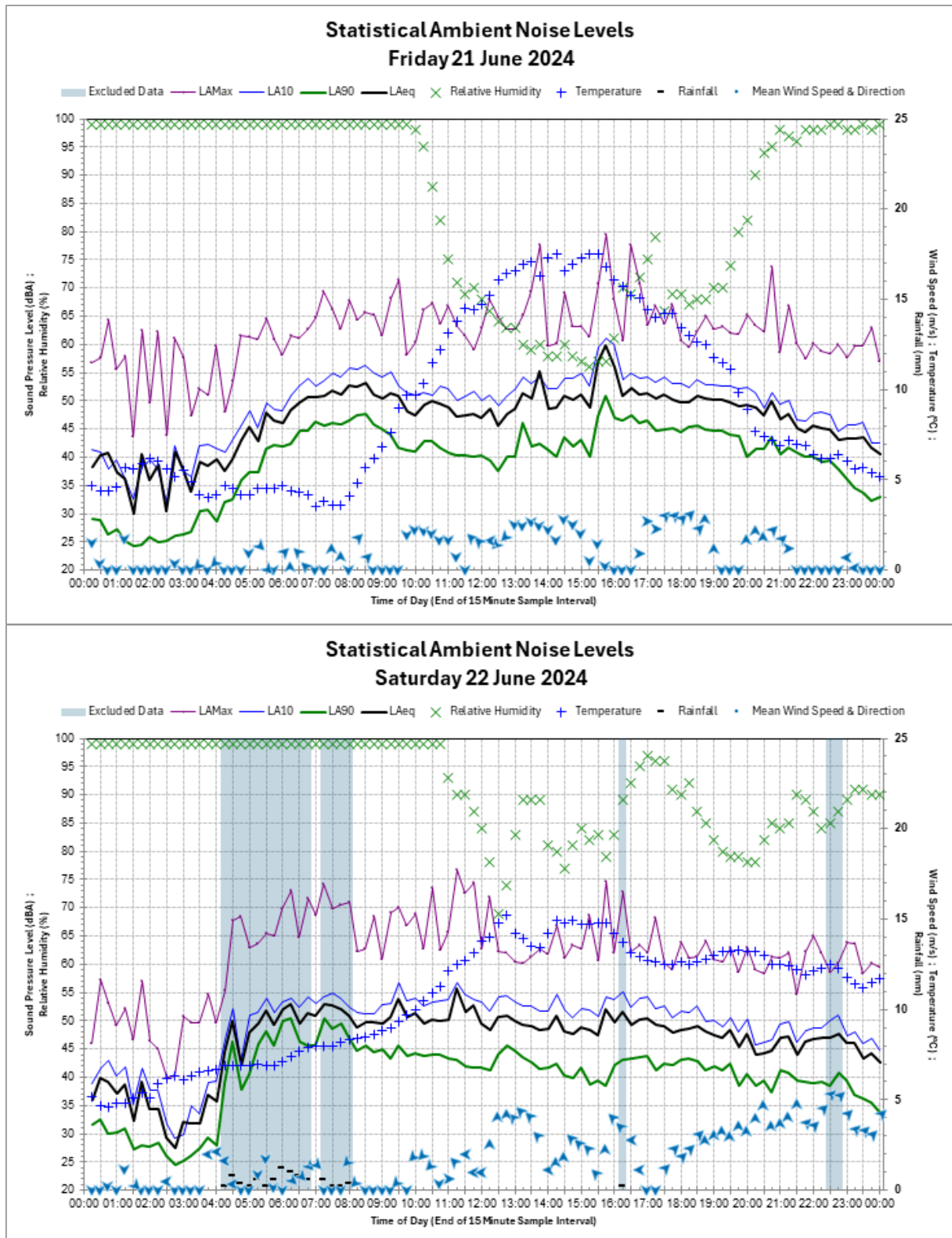
Noise and Vibration Impact Assessment

Status: Approved for use



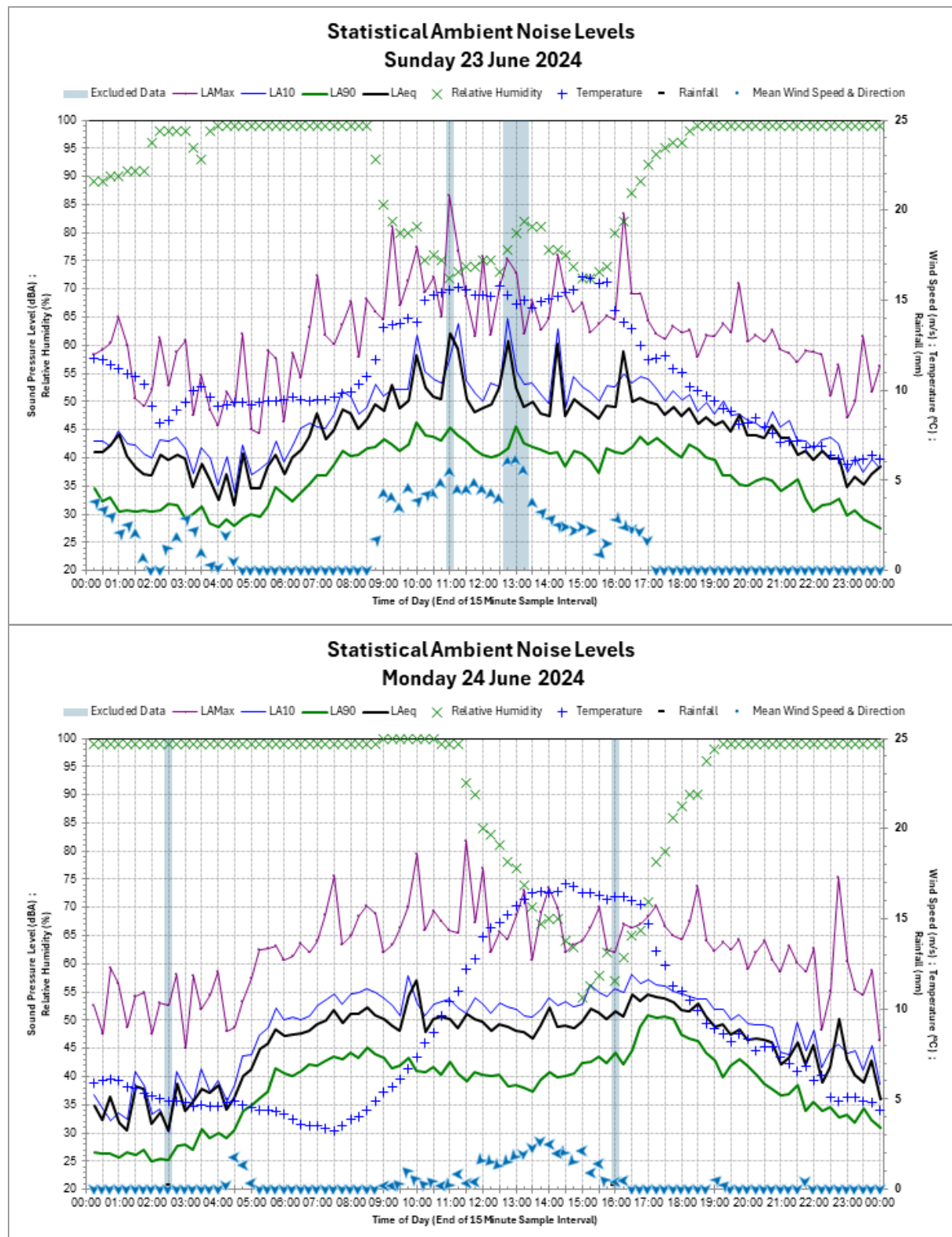
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Status: Approved for use



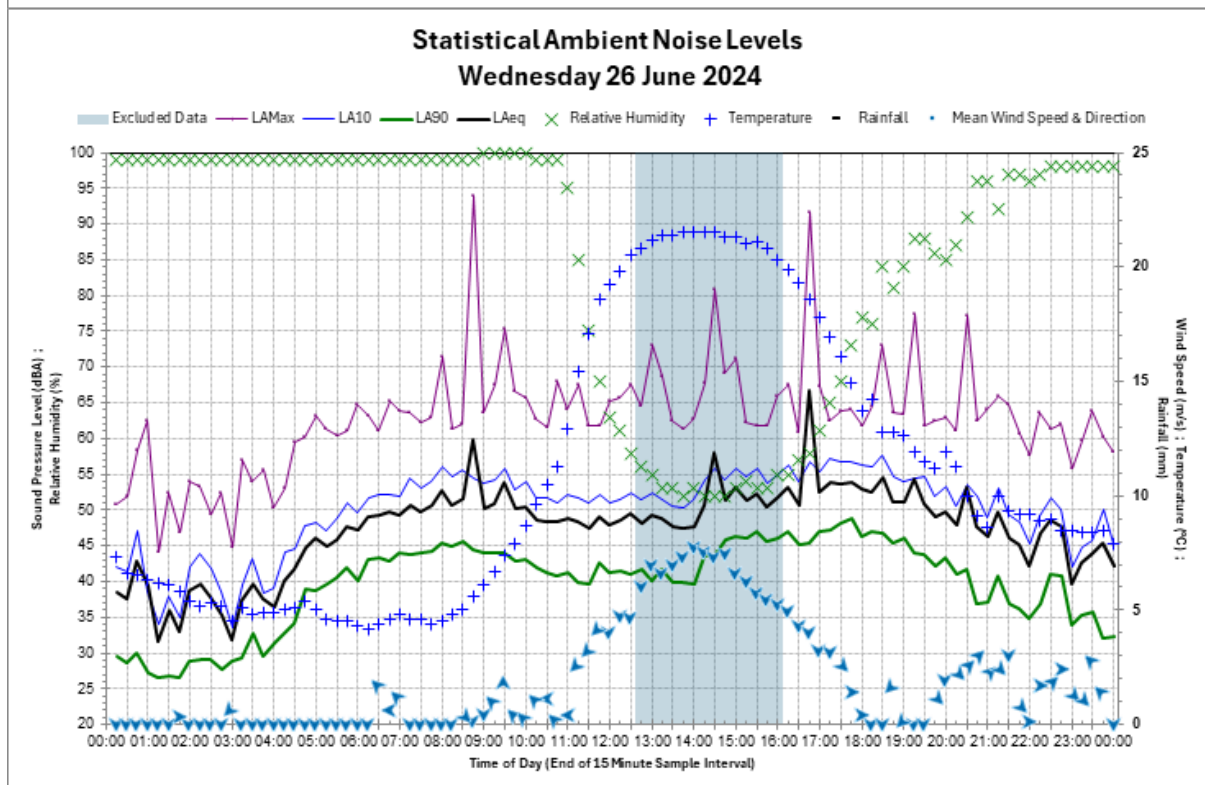
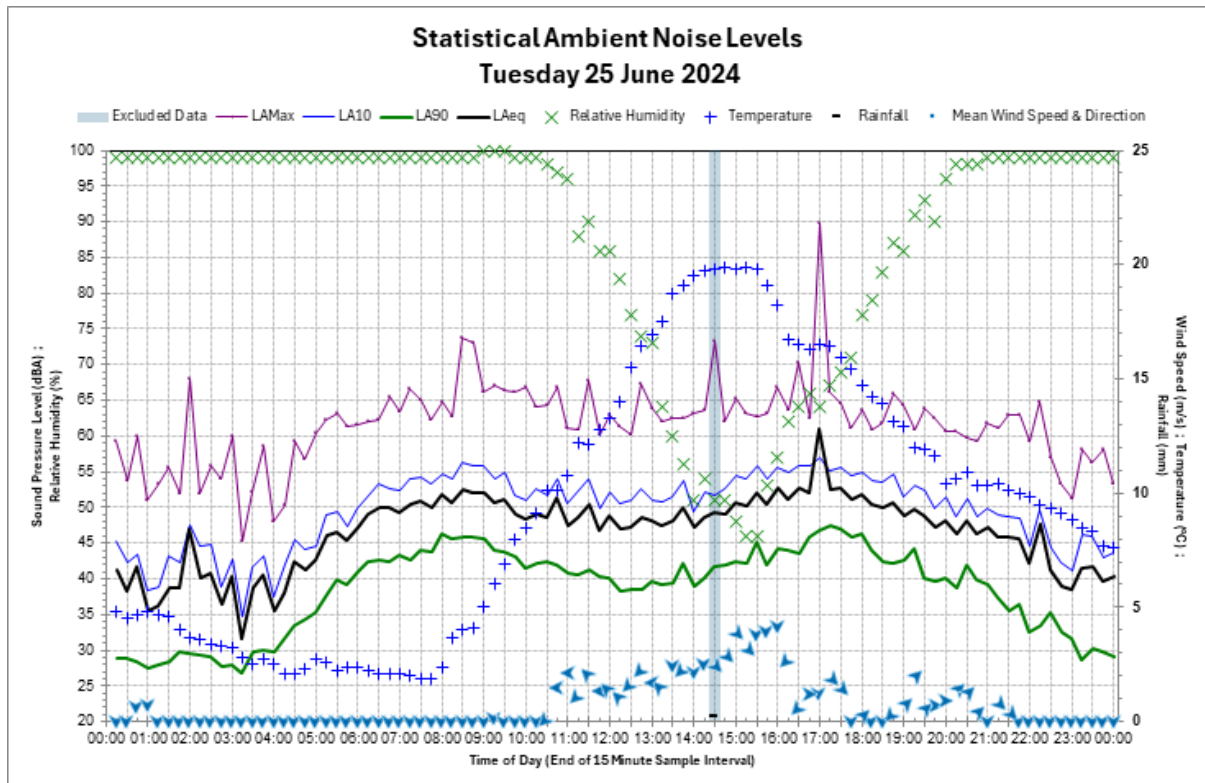
Noise and Vibration Impact Assessment

Status: Approved for use



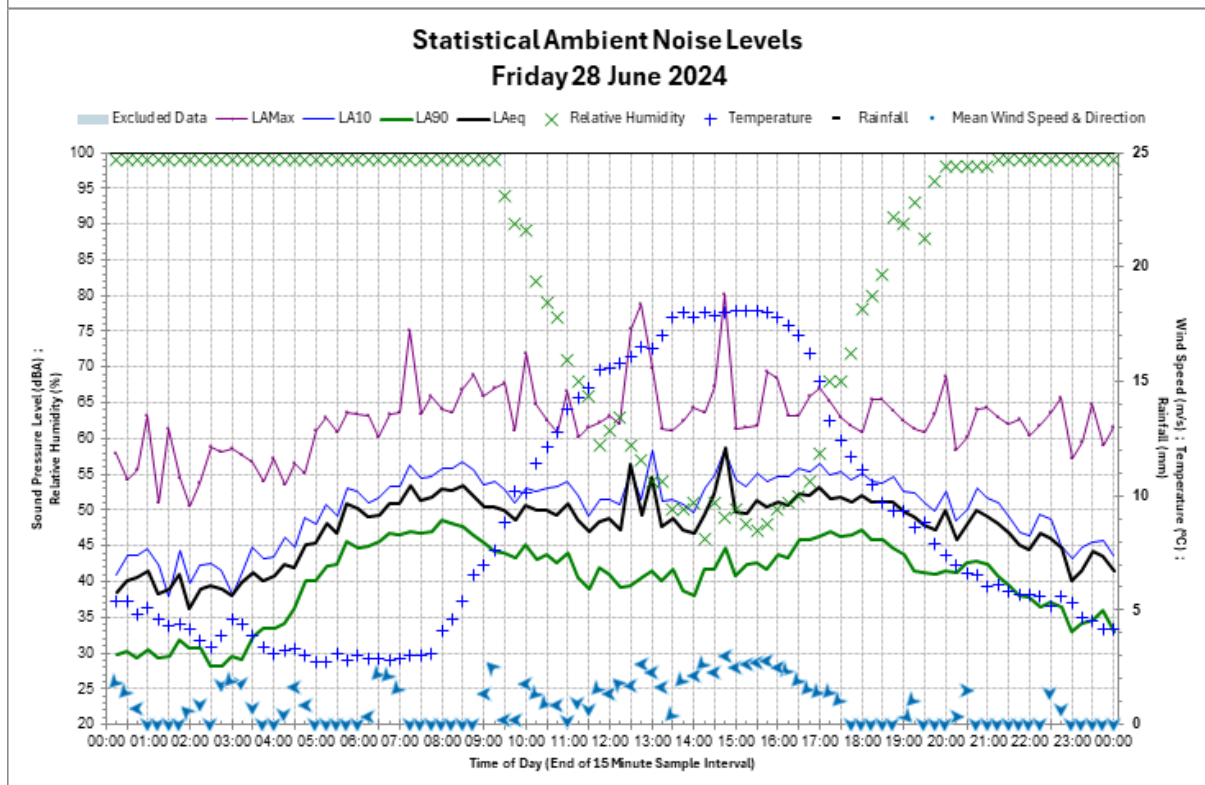
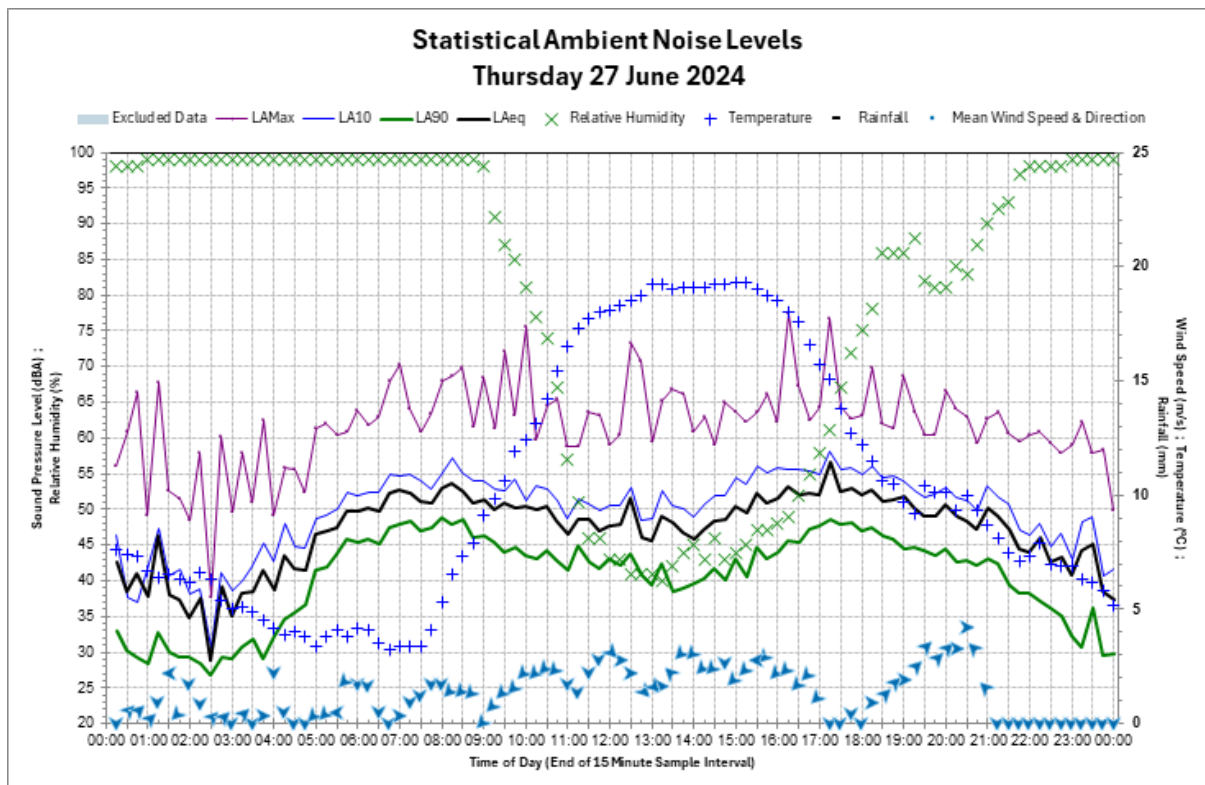
Noise and Vibration Impact Assessment

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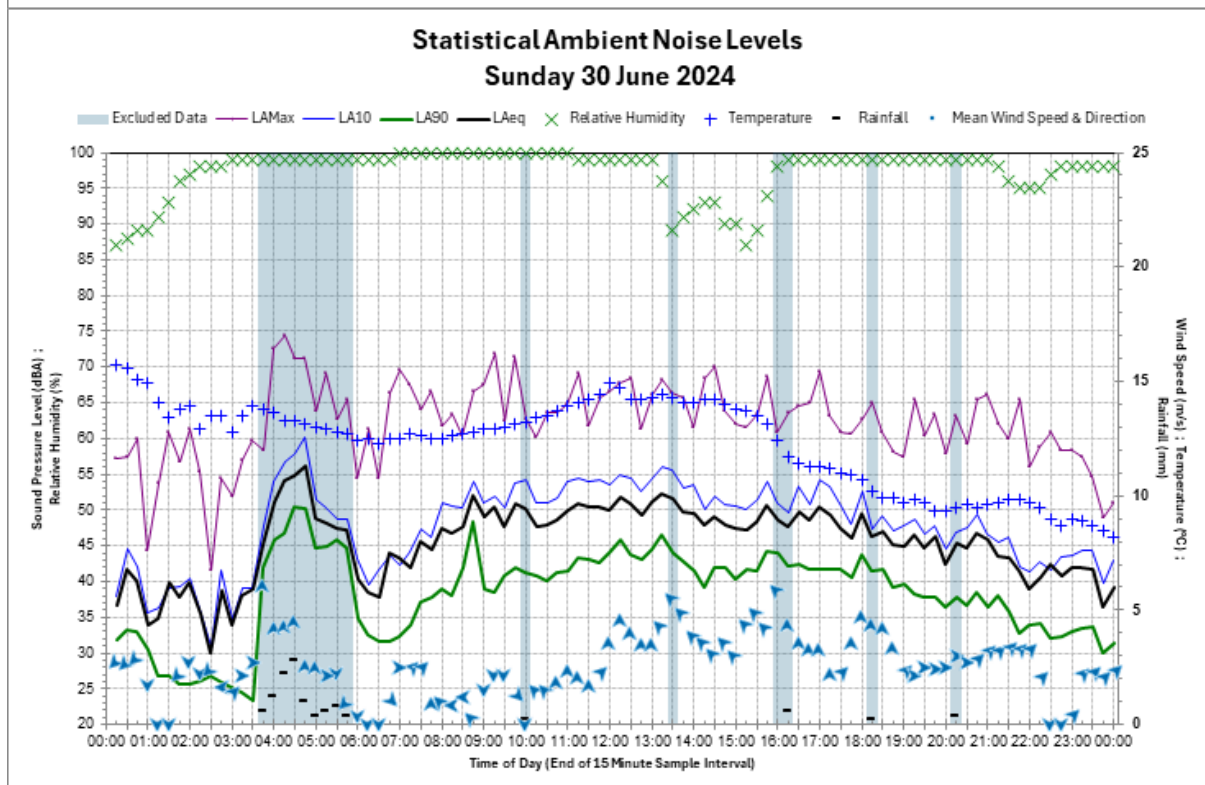
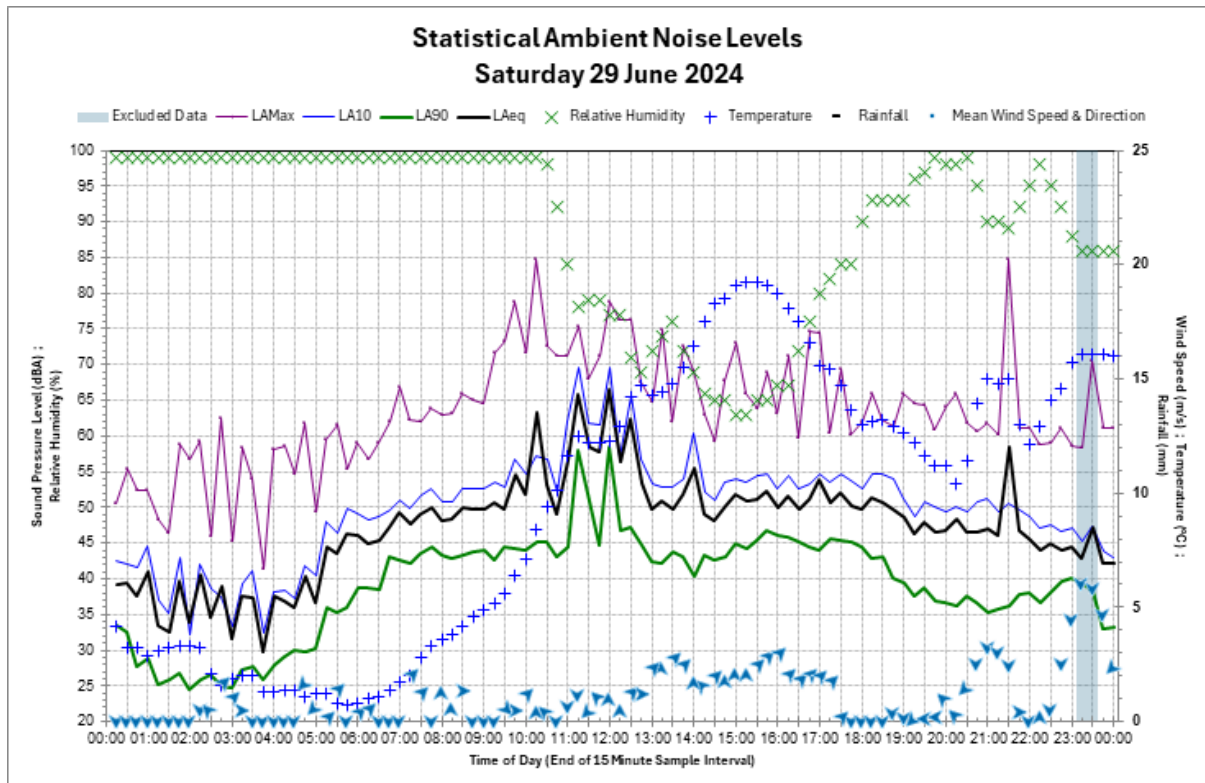
Noise and Vibration Impact Assessment

Status: Approved for use



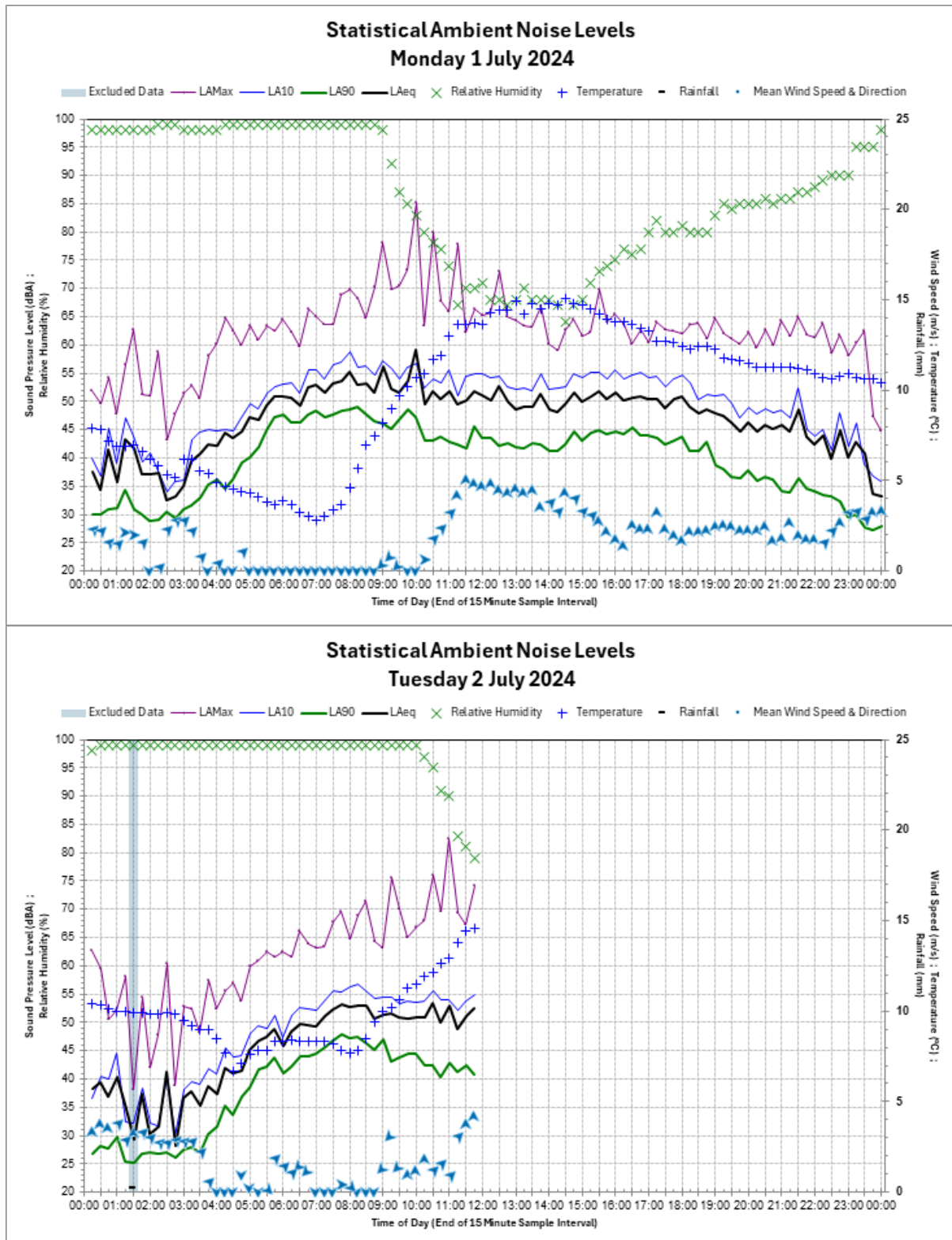
Noise and Vibration Impact Assessment

Status: Approved for use



Noise and Vibration Impact Assessment

Status: Approved for use



Noise and Vibration Impact Assessment

Status: Approved for use

U3 – 8 Cattai Road

8 Cattai Road	Rating Background Level, L_{A90} , dBA			Road traffic noise Level, dBA	
	Day	Evening	Night	Day $L_{Aeq}(15 \text{ hr})$	Night $L_{Aeq}(9 \text{ hr})$
Wednesday-19-Jun-24	40	36	28	55	51
Thursday-20-Jun-24	41	36	26	60	50
Friday-21-Jun-24	41	38	26	55	46
Saturday-22-Jun-24	42	38	28	54	45
Sunday-23-Jun-24	40	33	26	55	49
Monday-24-Jun-24	41	33	27	55	51
Tuesday-25-Jun-24	40	35	27	55	51
Wednesday-26-Jun-24	42	35	28	56	51
Thursday-27-Jun-24	40	37	28	54	51
Friday-28-Jun-24	39	38	26	54	48
Saturday-29-Jun-24	43	35	25	54	45
Sunday-30-Jun-24	40	33	29	53	51
Monday-1-Jul-24	42	33	26	54	50
Tuesday-2-Jul-24	42			56	-
RBL and Leq Overall	41	35	27	55	50

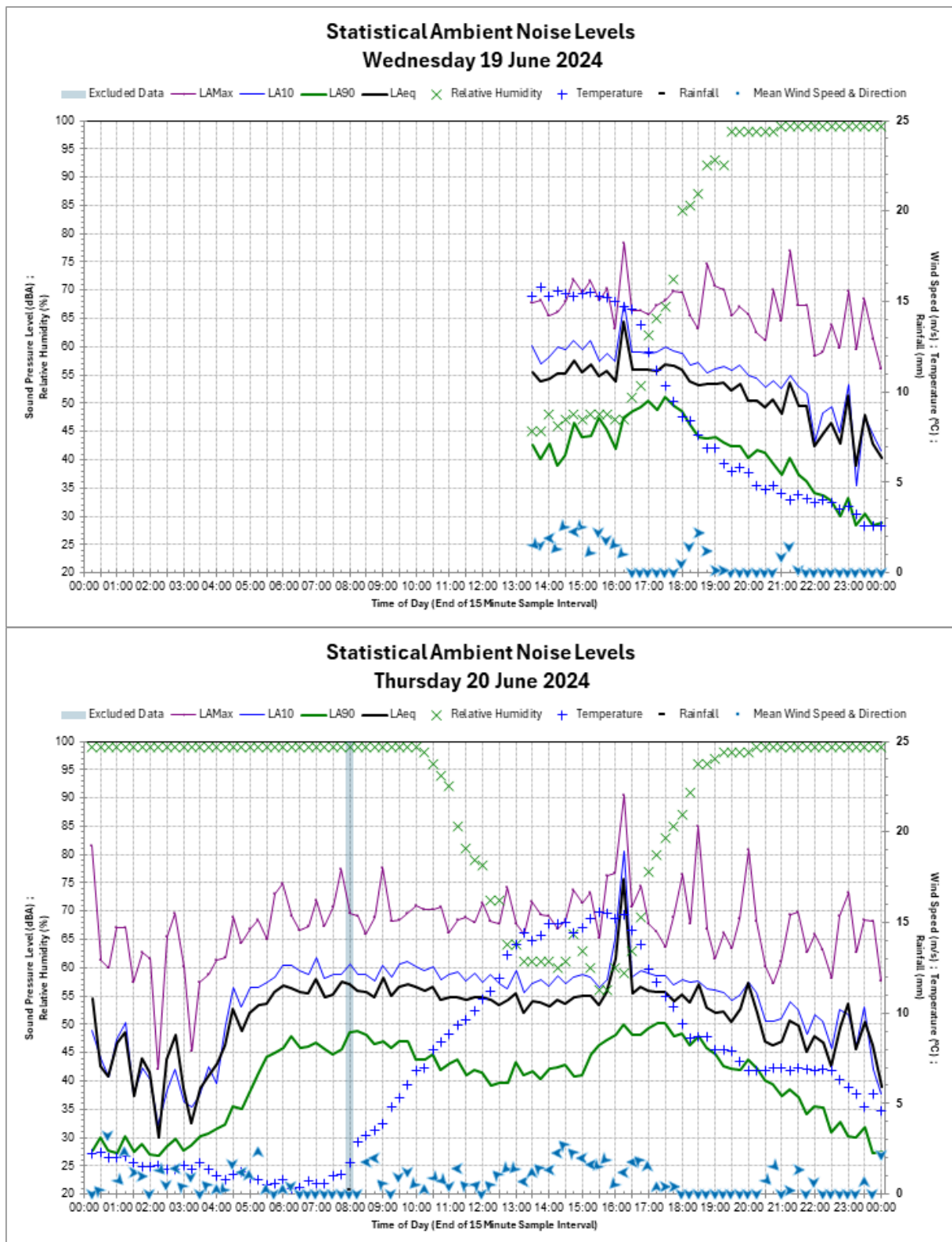
Noise and Vibration Impact Assessment

Status: Approved for use



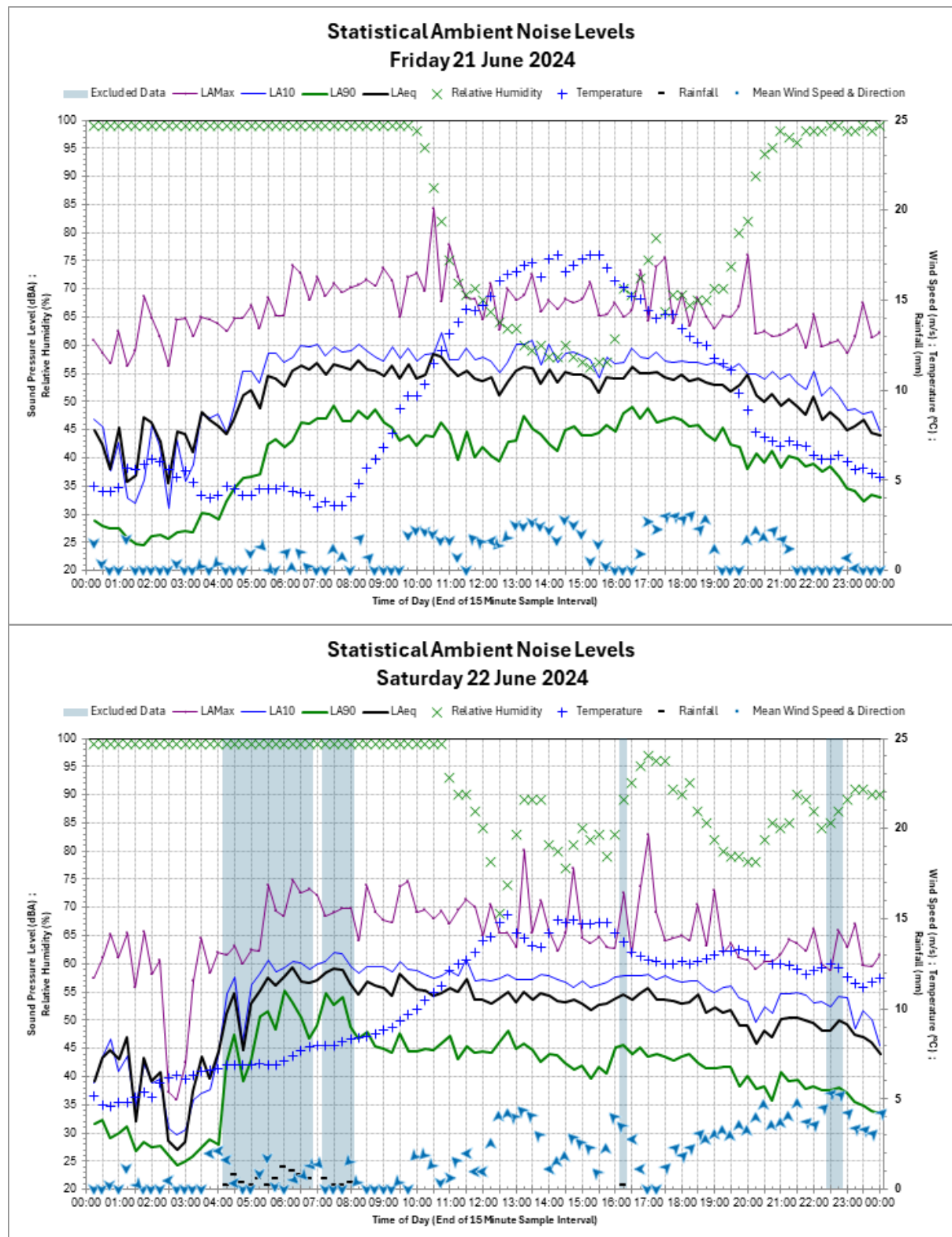
Noise and Vibration Impact Assessment

Status: Approved for use



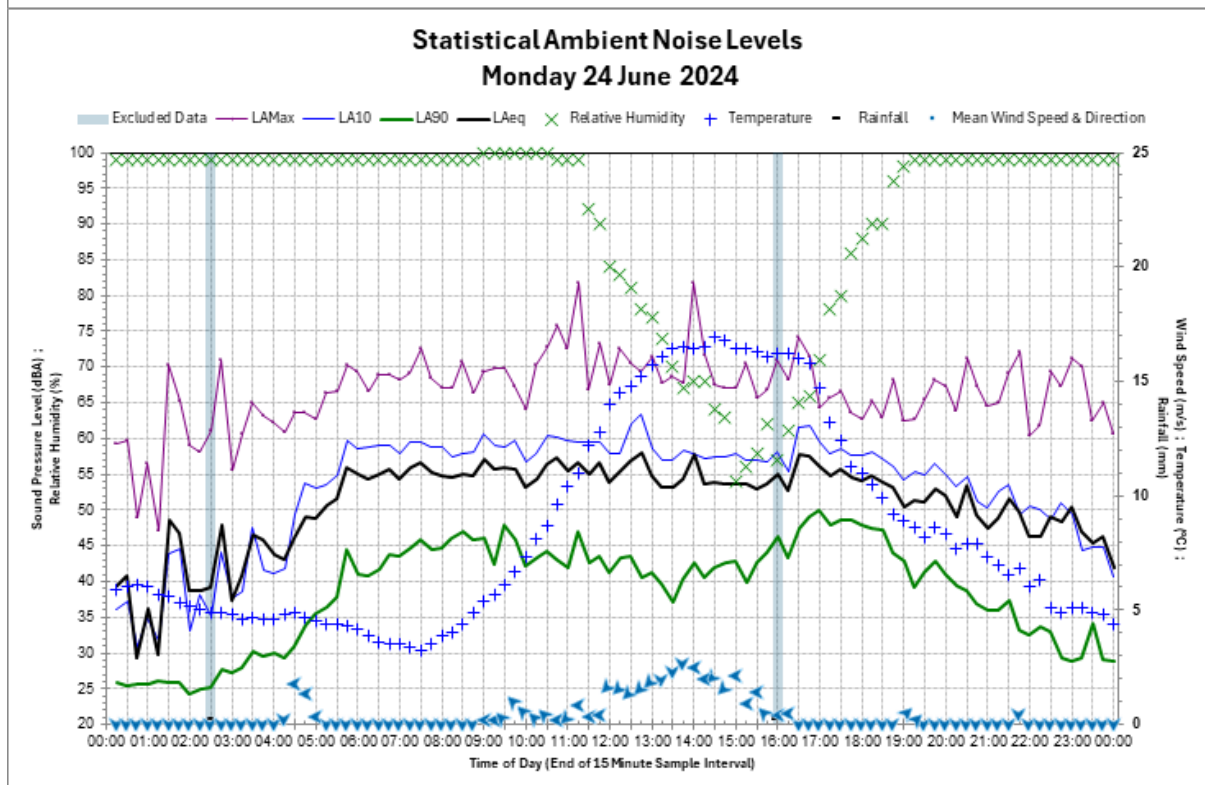
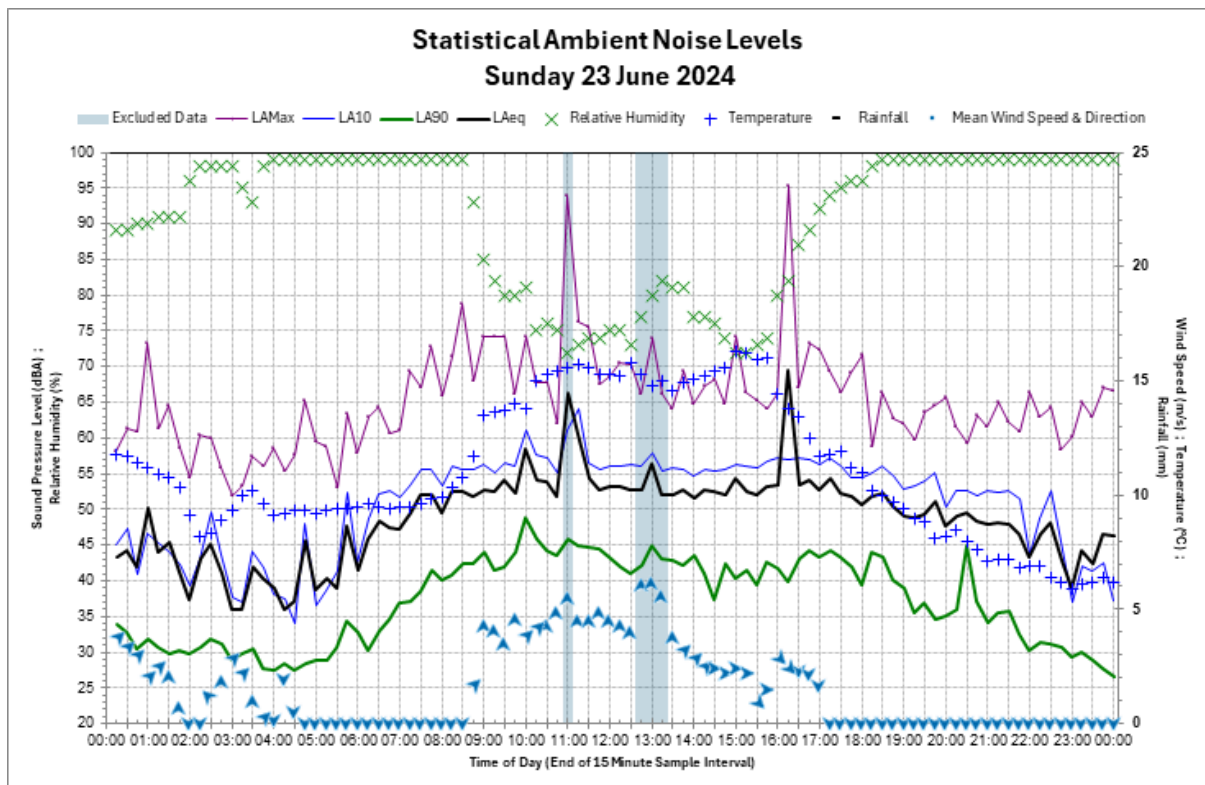
Noise and Vibration Impact Assessment

Status: Approved for use



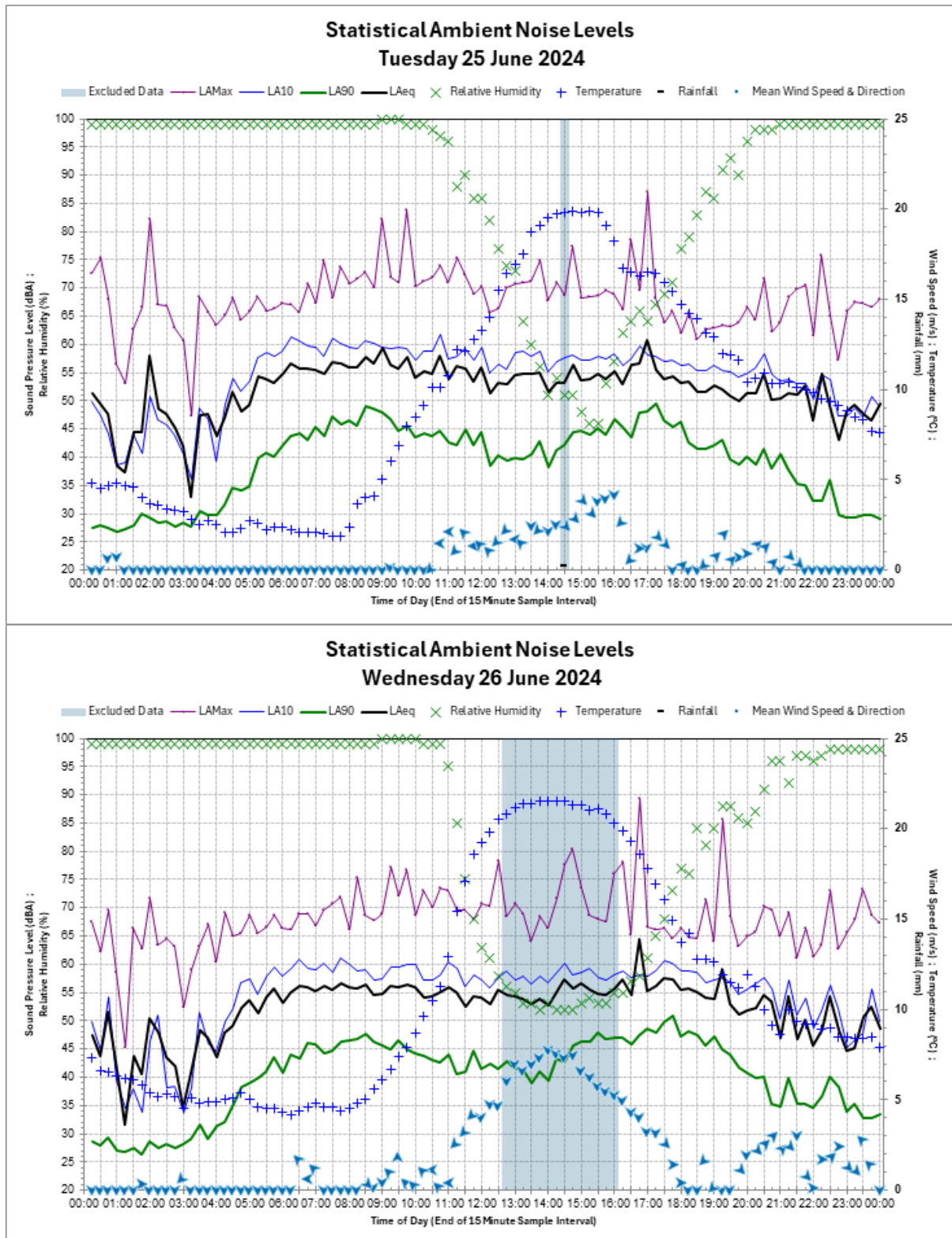
Noise and Vibration Impact Assessment

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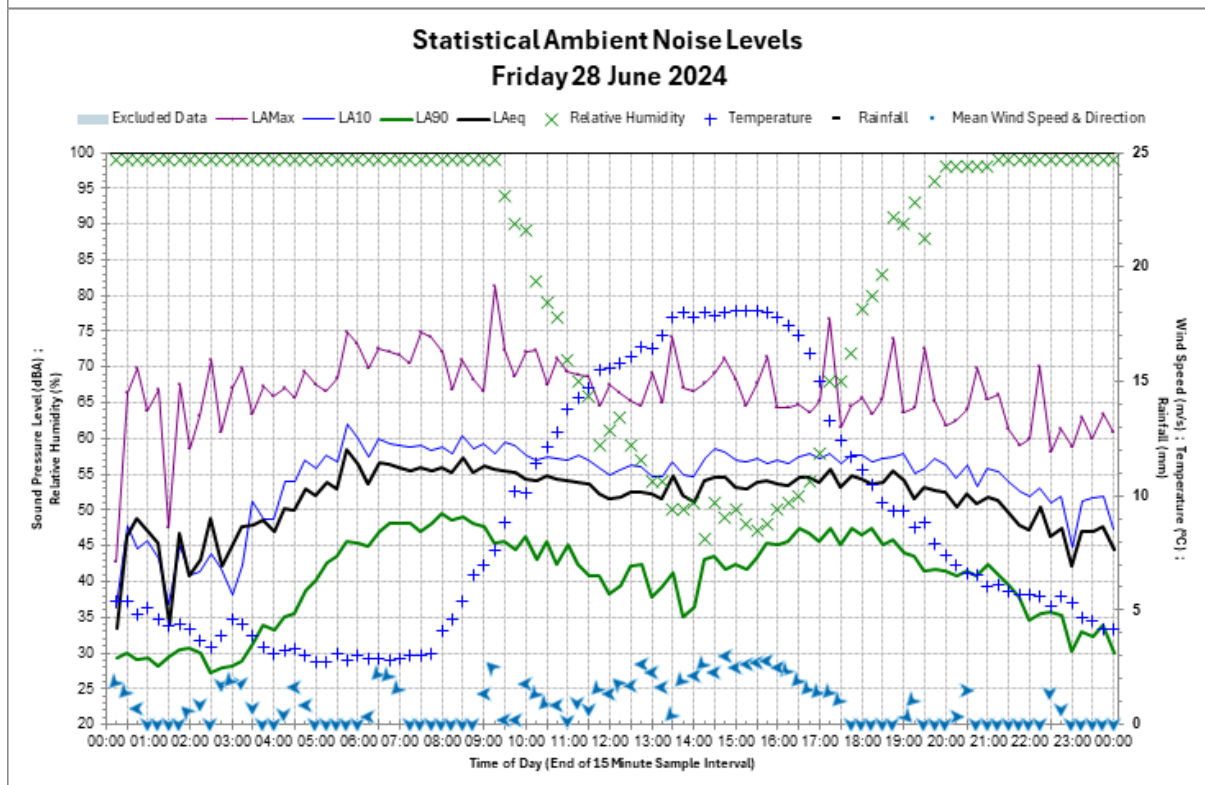
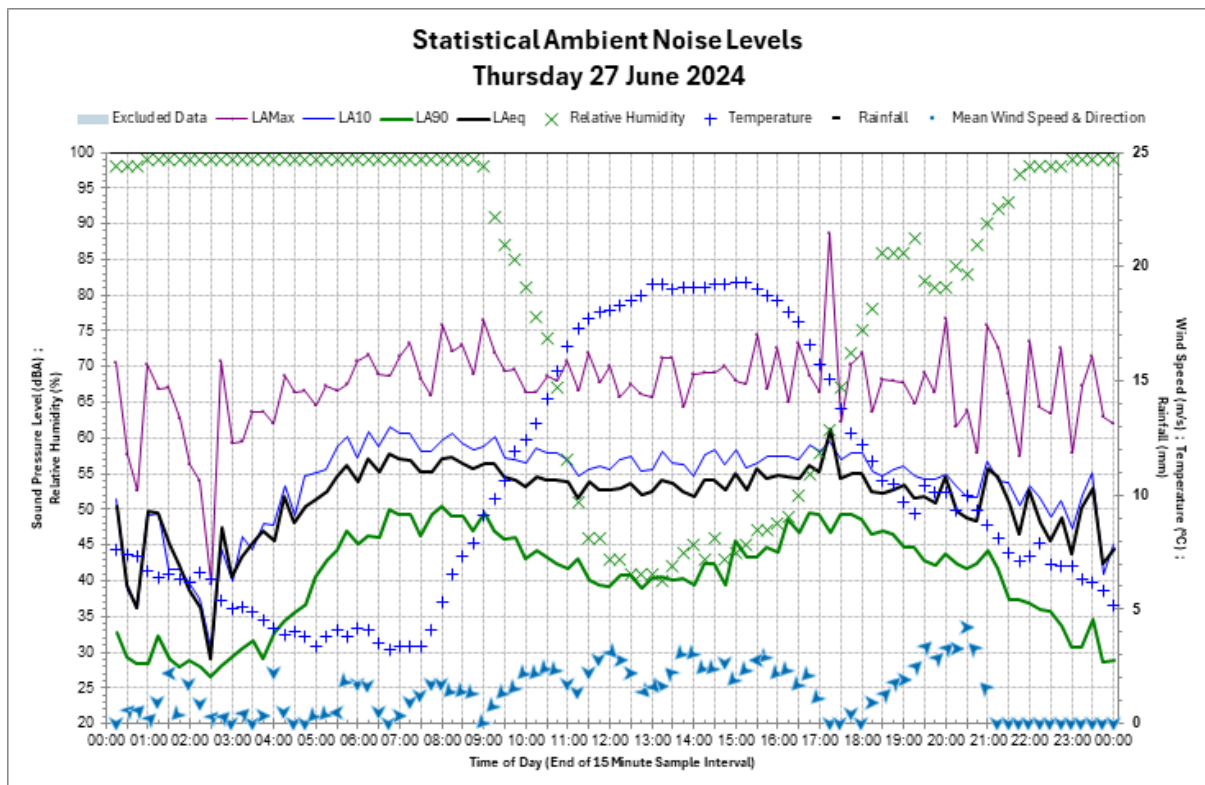
Noise and Vibration Impact Assessment

Status: Approved for use



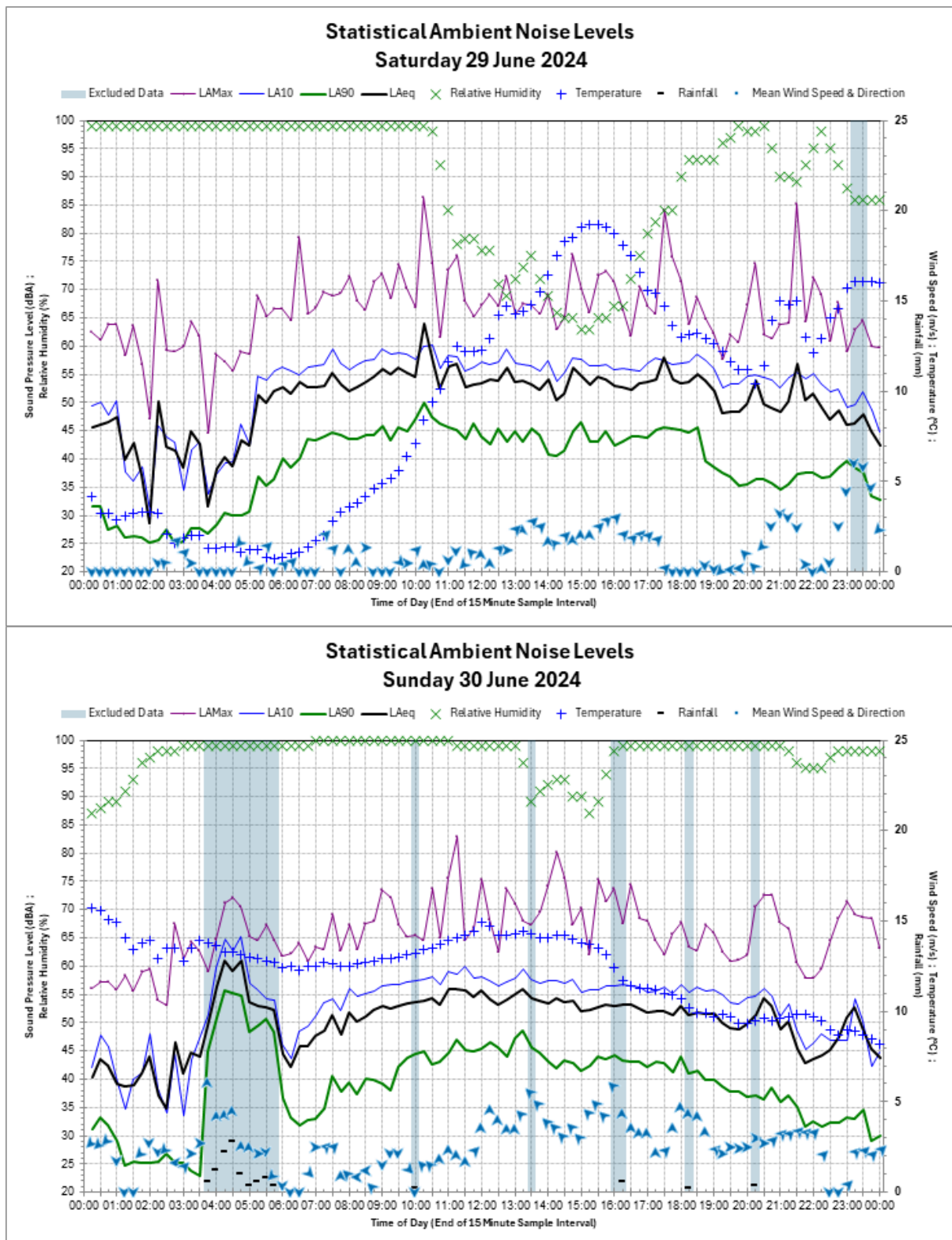
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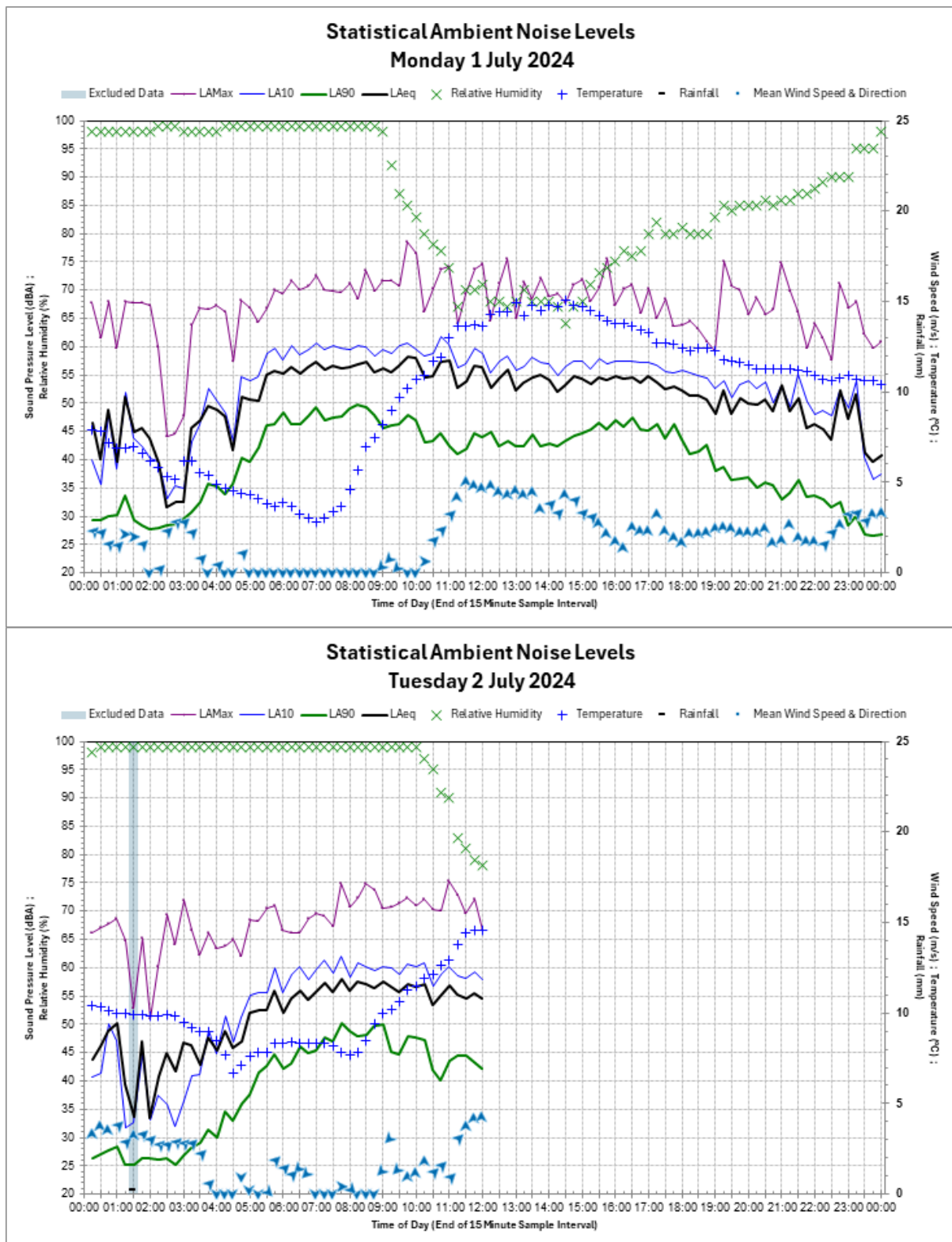
Noise and Vibration Impact Assessment

Status: Approved for use



Noise and Vibration Impact Assessment

Status: Approved for use



Noise and Vibration Impact Assessment

Status: Approved for use

U4 – 61 Bathurst Street

61 Bathurst Street	Rating Background Level, L_{A90} , dBA			Road traffic noise Level, L_{Aeq} , dBA	
	Day	Evening	Night	Day $L_{Aeq}(15\text{ hr})$	Night $L_{Aeq}(9\text{ hr})$
Wednesday-19-Jun-24	43	37	27	65	61
Thursday-20-Jun-24	44	35	25	66	61
Friday-21-Jun-24	45	41	27	65	61
Saturday-22-Jun-24	47	39	29	65	55
Sunday-23-Jun-24	43	33	24	63	60
Monday-24-Jun-24	44	34	25	65	61
Tuesday-25-Jun-24	43	38	25	65	61
Wednesday-26-Jun-24	46	37	29	65	61
Thursday-27-Jun-24	44	38	29	65	61
Friday-28-Jun-24	46	40	24	65	58
Saturday-29-Jun-24	46	39	23	65	56
Sunday-30-Jun-24	44	33	29	63	61
Monday-1-Jul-24	46	33	26	64	61
Tuesday-2-Jul-24	48	-	-	66	-
RBL and Leq Overall	44	37	26	65	60

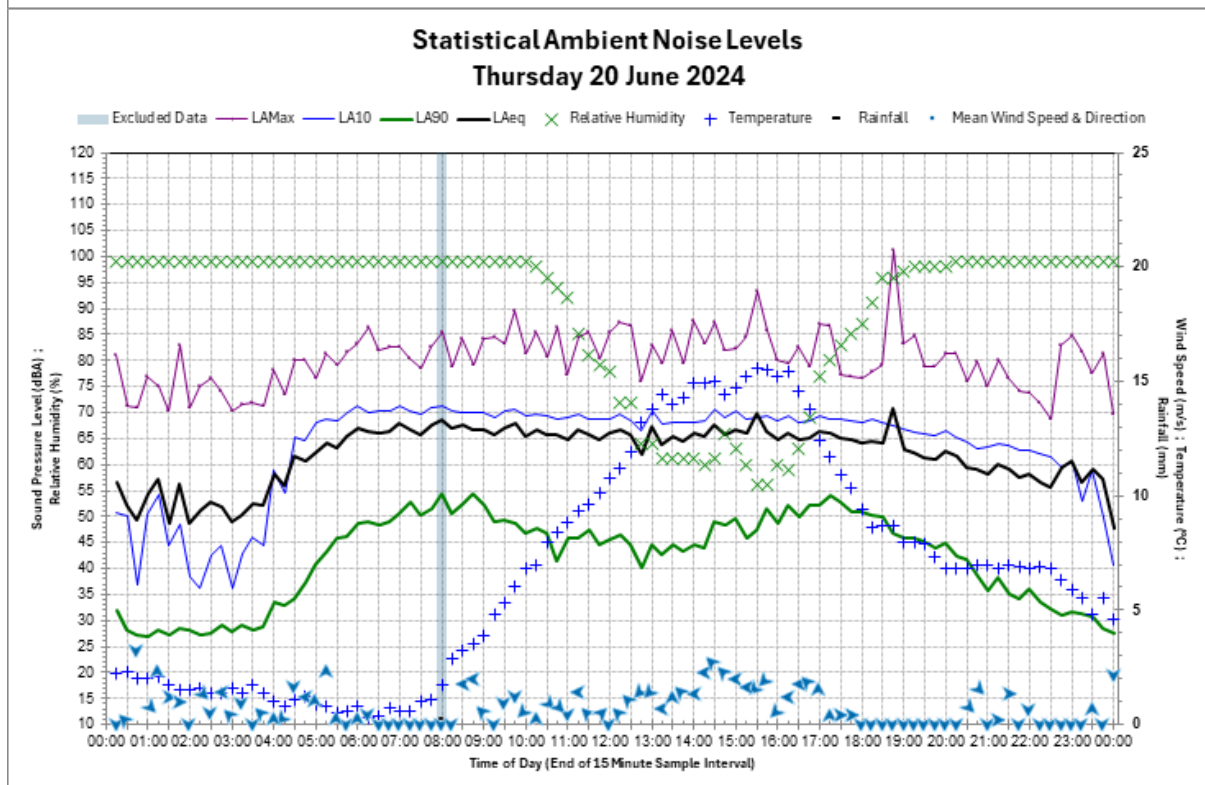
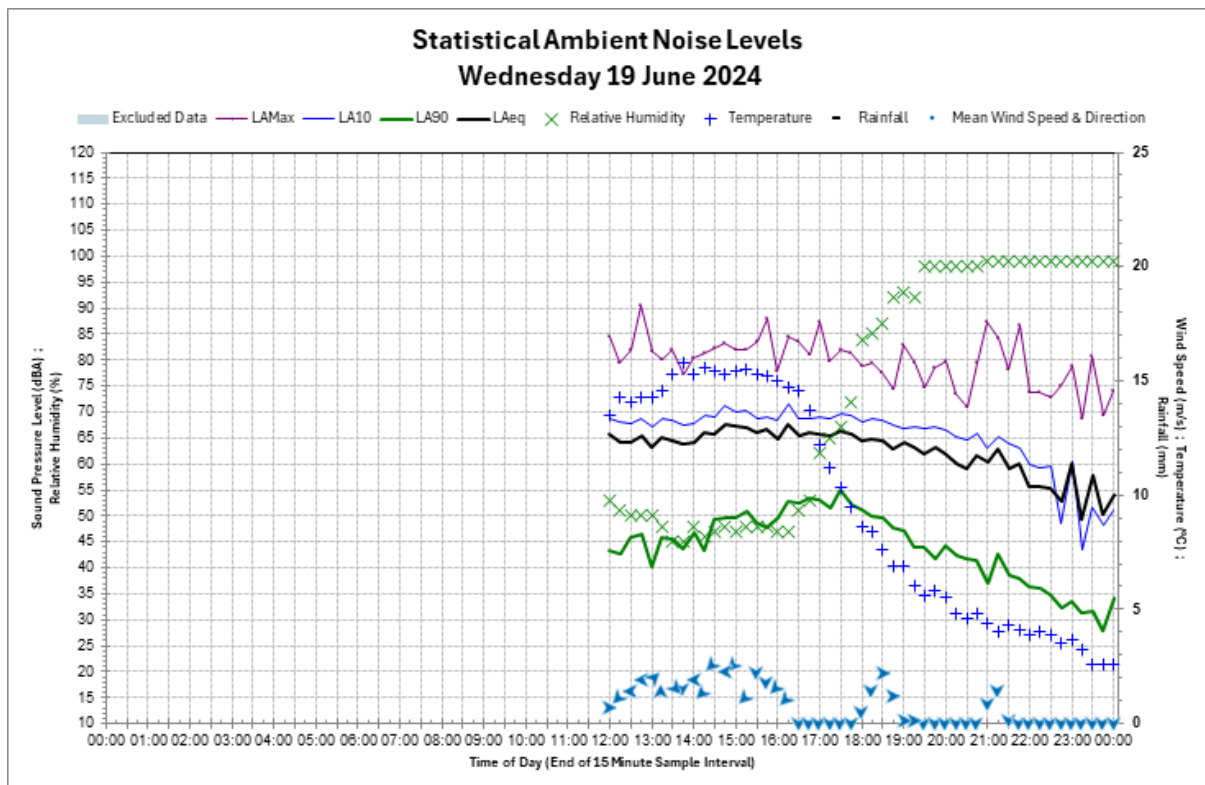
Noise and Vibration Impact Assessment

Status: Approved for use



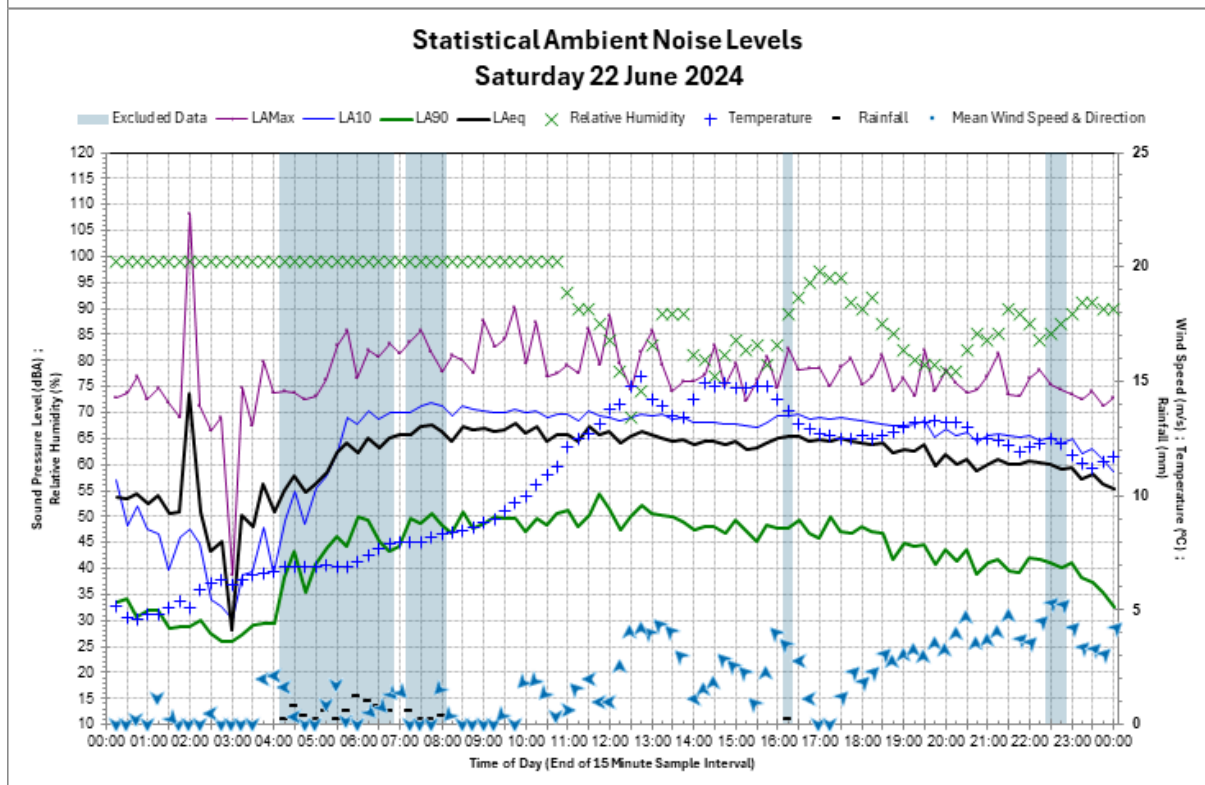
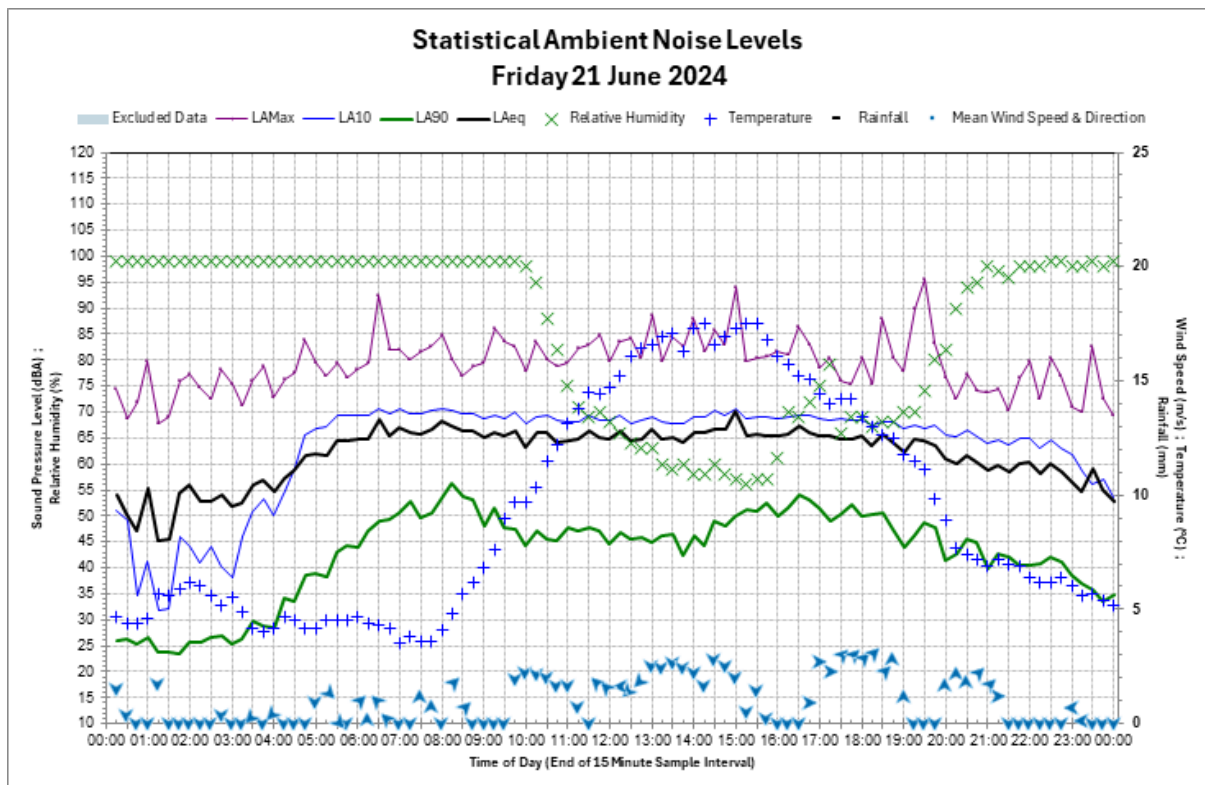
Noise and Vibration Impact Assessment

Status: Approved for use



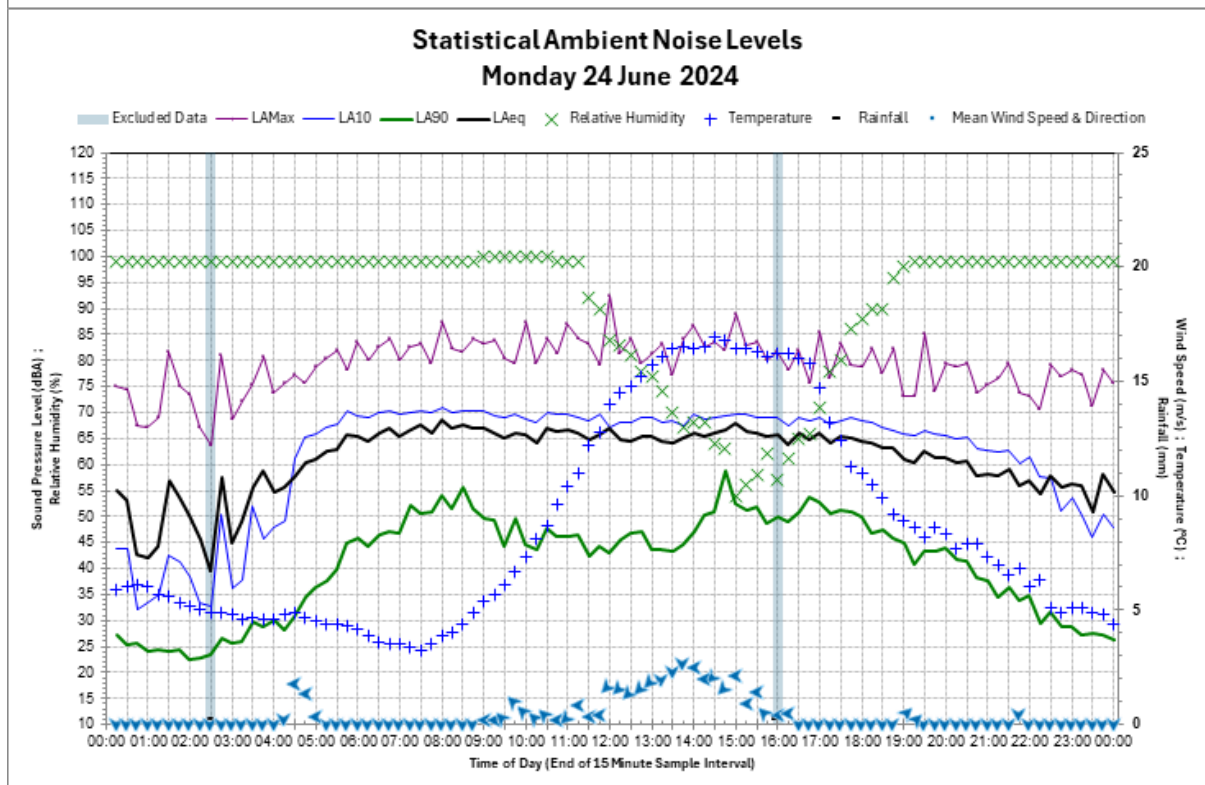
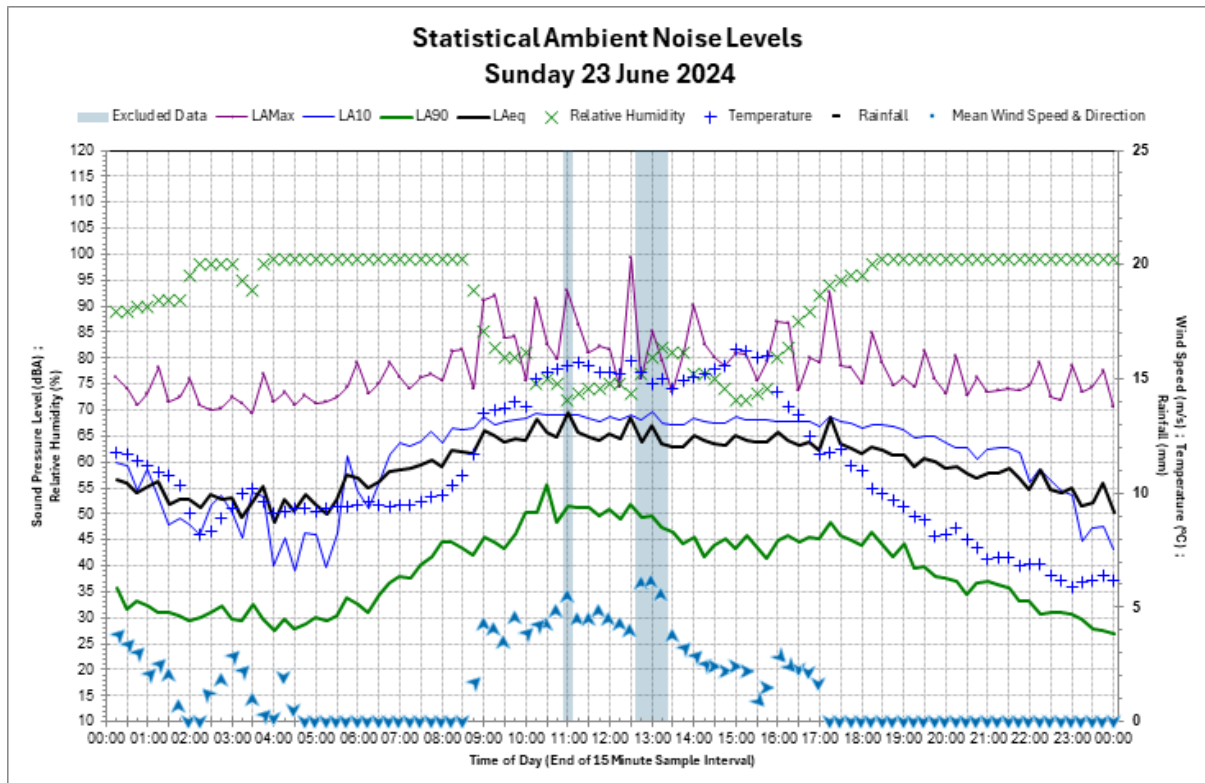
Noise and Vibration Impact Assessment

Status: Approved for use



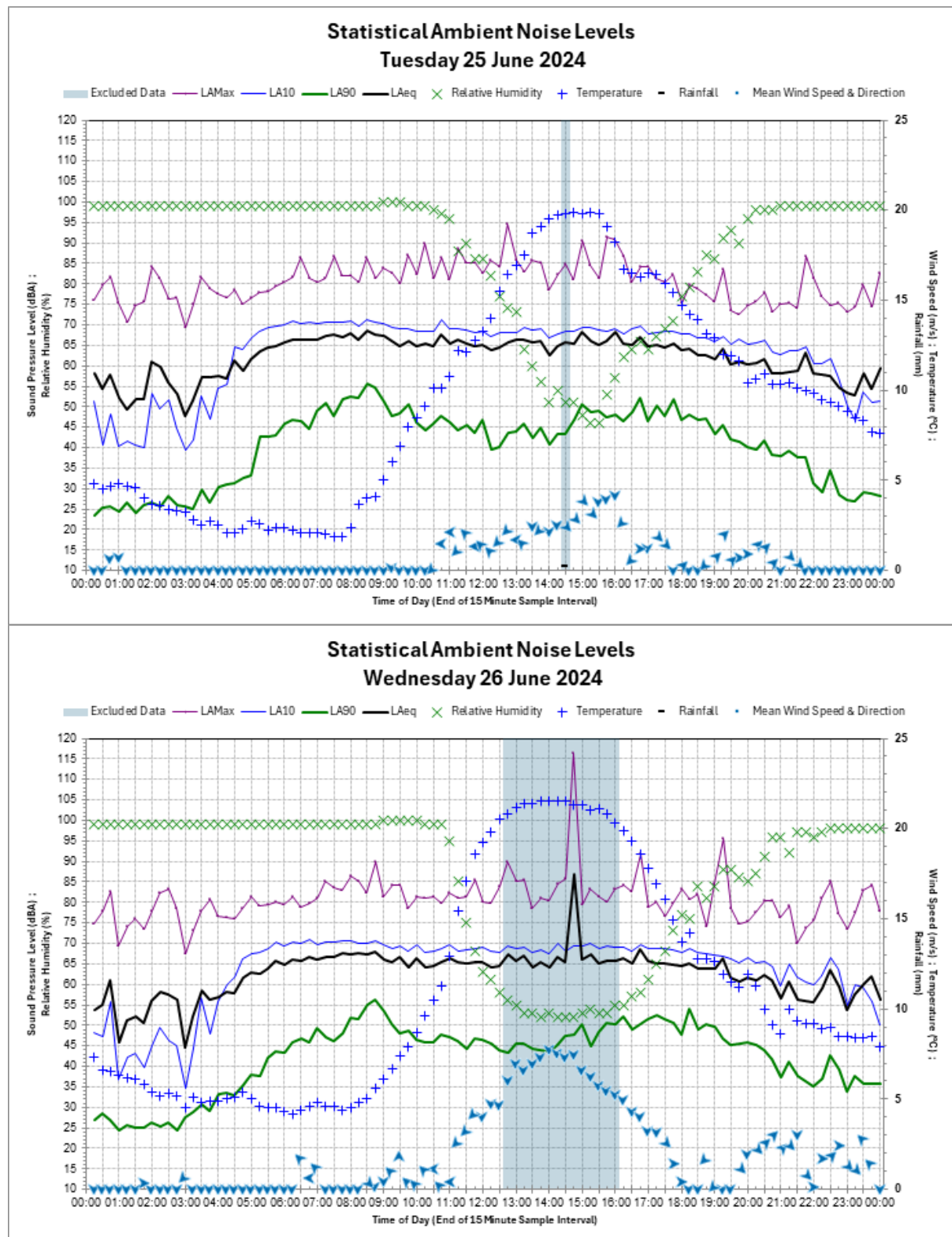
Noise and Vibration Impact Assessment

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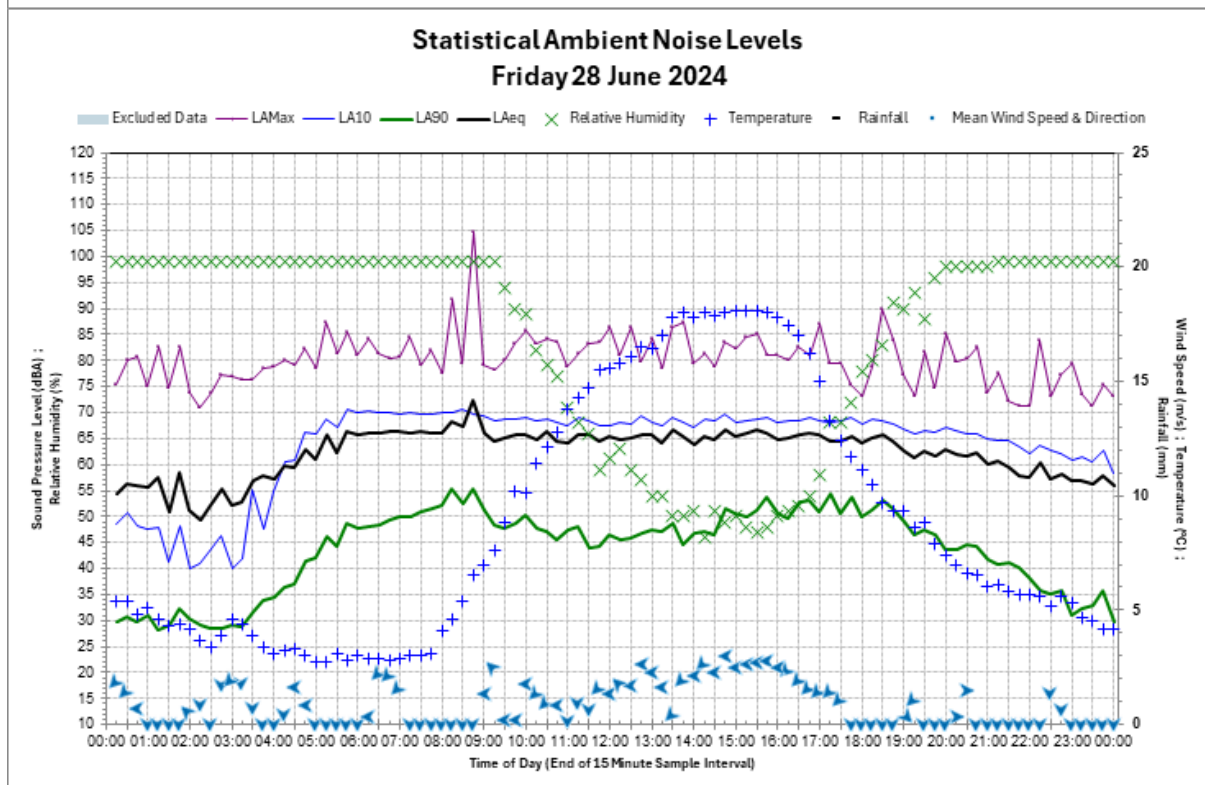
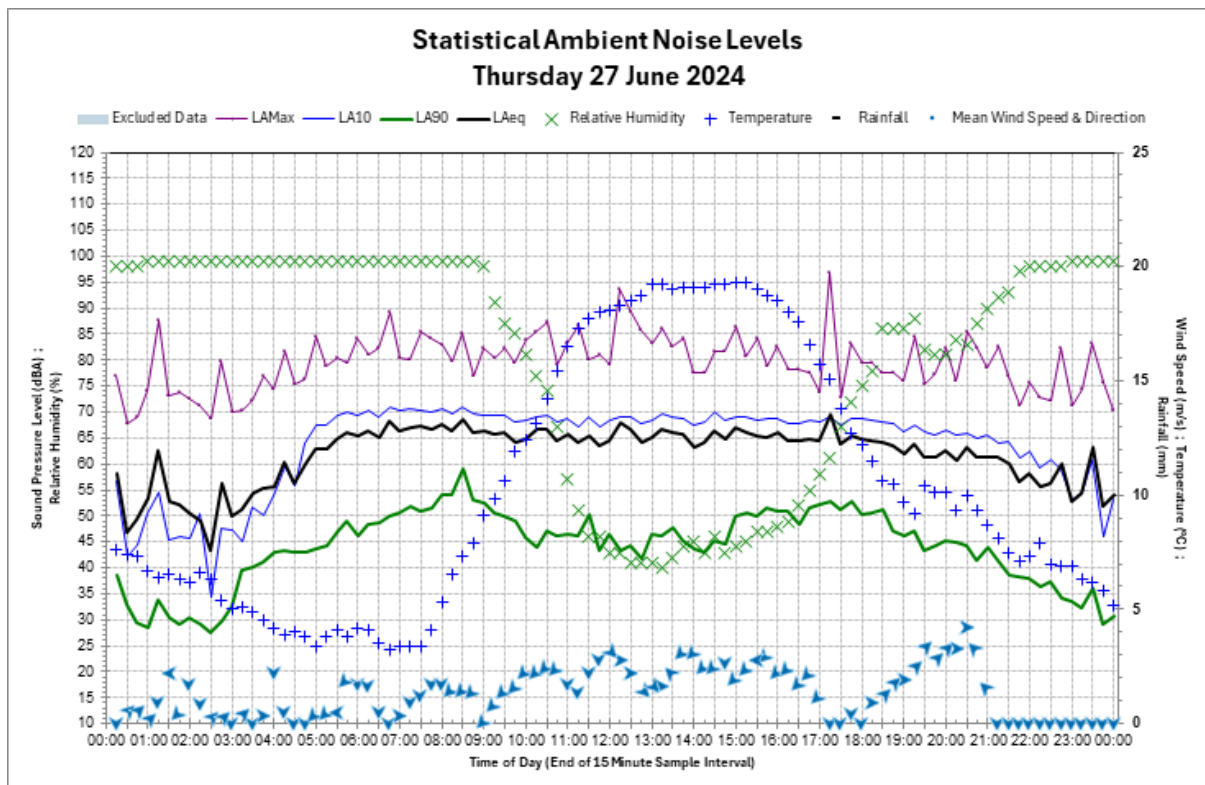
Noise and Vibration Impact Assessment

Status: Approved for use



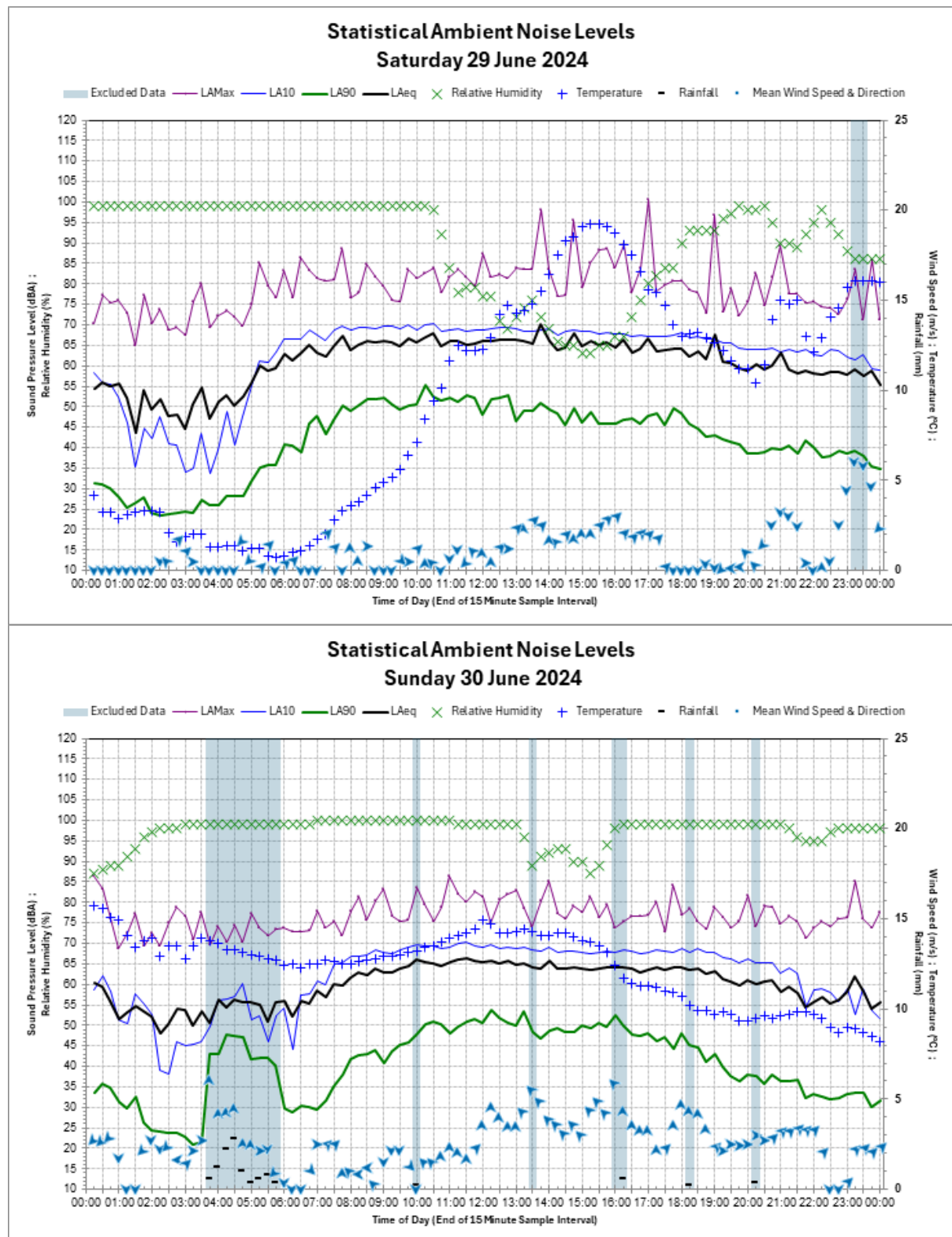
Noise and Vibration Impact Assessment

Status: Approved for use



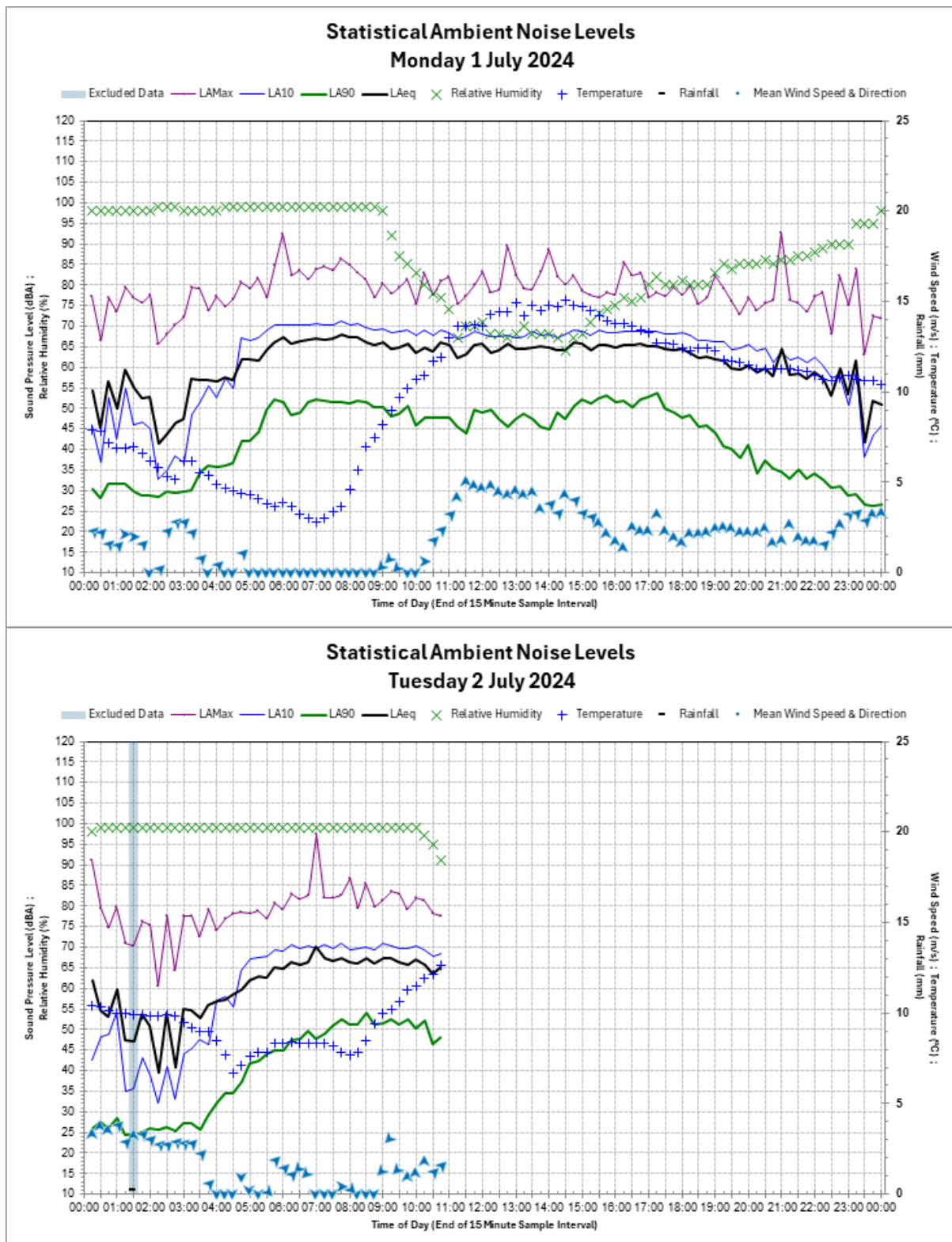
Noise and Vibration Impact Assessment

Status: Approved for use



Noise and Vibration Impact Assessment

Status: Approved for use



APPENDIX B – CONSTRUCTION NOISE LEVELS

Table 6.1: Construction equipment and scenario sound power levels

Equipment	Sound power level, dBA	Construction scenario							
		CS01	CS02	CS03	CS04	CS05	CS06	CS07-CS09	CS10
Scenario sound Power level, dBA		118	116	121	117	113	108	118	110
Light vehicles (4WD)	103	X	XA	X	X	X	X	X	X
Trucks (Med rigid)	108	X	X	X		X	X	X	X
Excavators (30t)	110	X	X	X		X			
Backhoes	111	X							
Front end loaders (23t)	112	X						X	X
Agitator trucks	109	X			X	X			
Generators	103	X		X	X	X			
Dump trucks (15 tonnes)	110	X						X	X
Jackhammers	113	X							
Concrete saws	118	X							
Chainsaws	114		X						
Mulchers	116		X						
Water carts	107		X						
Mobile cranes	113		X			X			
Vibratory rollers	109			X		X			
Line marking equipment (truck)	108				X				

Noise and Vibration Impact Assessment

Status: Approved for use

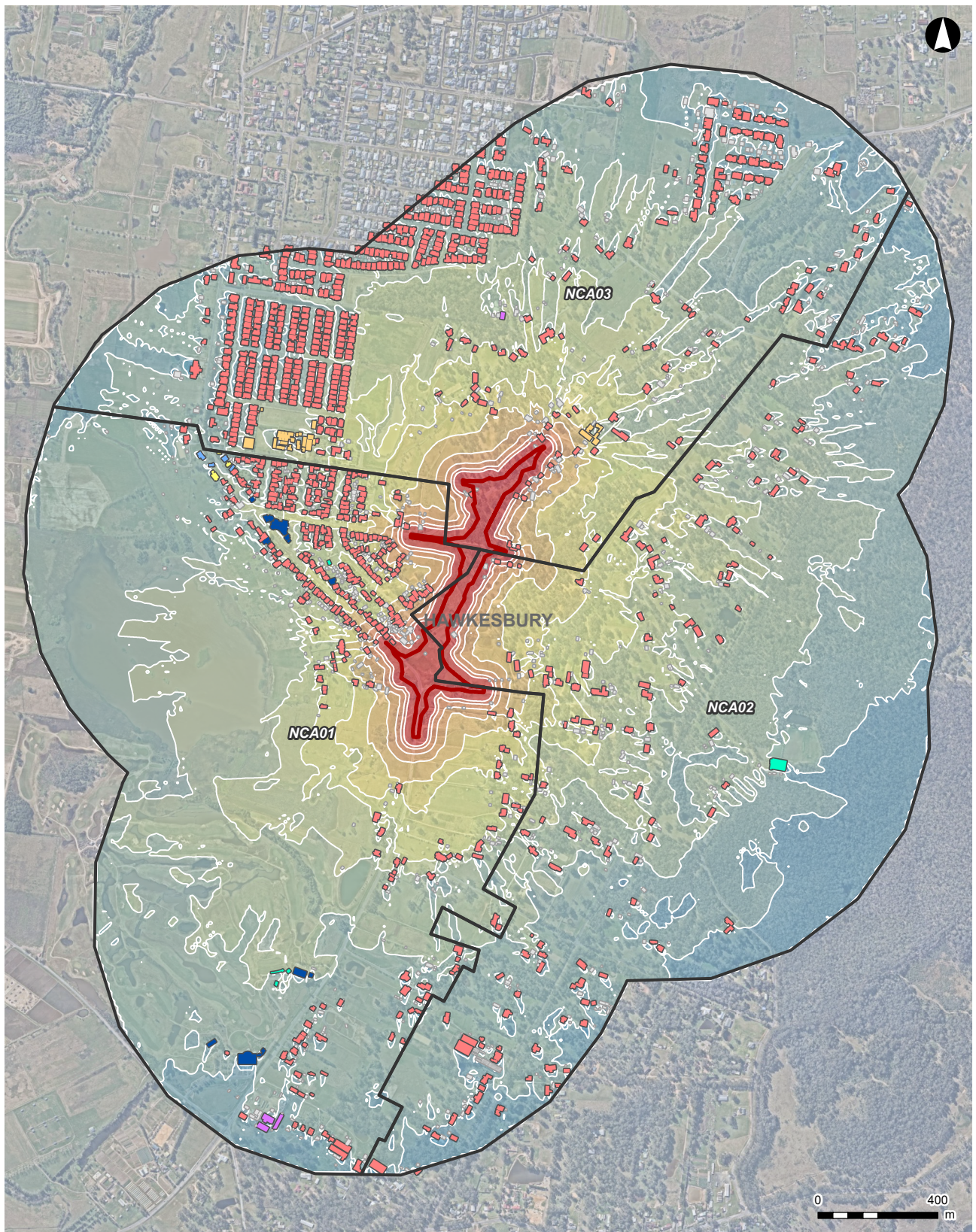
Equipment	Sound power level, dBA	Construction scenario			
Elevated work platforms	98			X	
Water pumps (concrete pump assumed)	109	X		X	X
Bulldozers (CAT D10)	121		X		
Compressors	109		X	X	
Milling machines (pavement profiler)	117			X	
Asphalt trucks (and sprayer)	106			X	
Concrete trucks	109			X	X
Concrete pumps	109			X	
Concrete mixers (pump assumed)	110			X	
Concrete pavers (pavement laying machine assumed)	114			X	
Concrete vibrators	113			X	
Curing machines (pavement laying machine)	114			X	
Slip formers (pavement laying machine assumed)	114			X	
Rock crusher	118				X
Piling rigs (rotary)	112		X		
Grader	113		X		
Vacuum trucks	109				X X

Noise and Vibration Impact Assessment

Status: Approved for use

Equipment	Sound power level, dBA	Construction scenario	
Compactors	106	X	X

APPENDIX C – CONSTRUCTION NOISE CONTOURS



Legend

 Proposal site

Sensitive receivers

 Active Recreation

 Commercial

 Community Use

 Educational institute

 Industrial

 Place of worship

 Residential

Noise contours, 30-85dBA (5 dBA intervals)

 30

 35

 40

 45

 50

 55

 60

 65

 70

 75

 80

 85

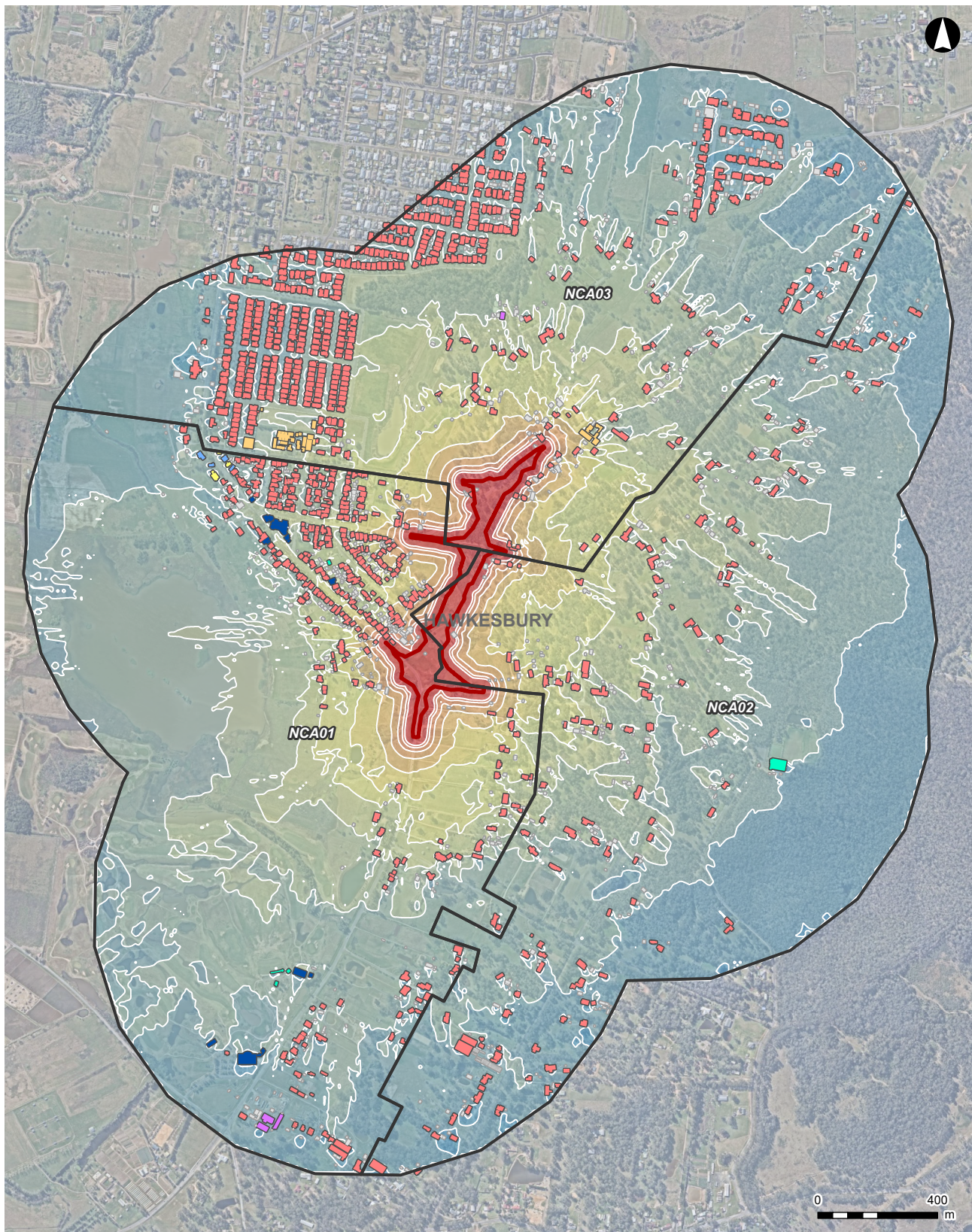


Figure C-1 - Noise contours, CS01

1:19,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 19, 2024



Path: C:\Users\lapmiller\ARCADISEasing Sydney Congestion - PTBP\H-GIS\A_Current\B_Maps\NVIA_Noise\VisualImpactAssessment\PTBP_NVIA.aprx



Legend

 Proposal site

Sensitive receivers

 Active Recreation

 Commercial

 Community Use

 Educational institute

 Industrial

 Place of worship

 Residential

**Noise contours, 30-85dBA
(5 dBA intervals)**

 30

 35

 40

 45

 50

 55

 60

 65

 70

 75

 80

 85

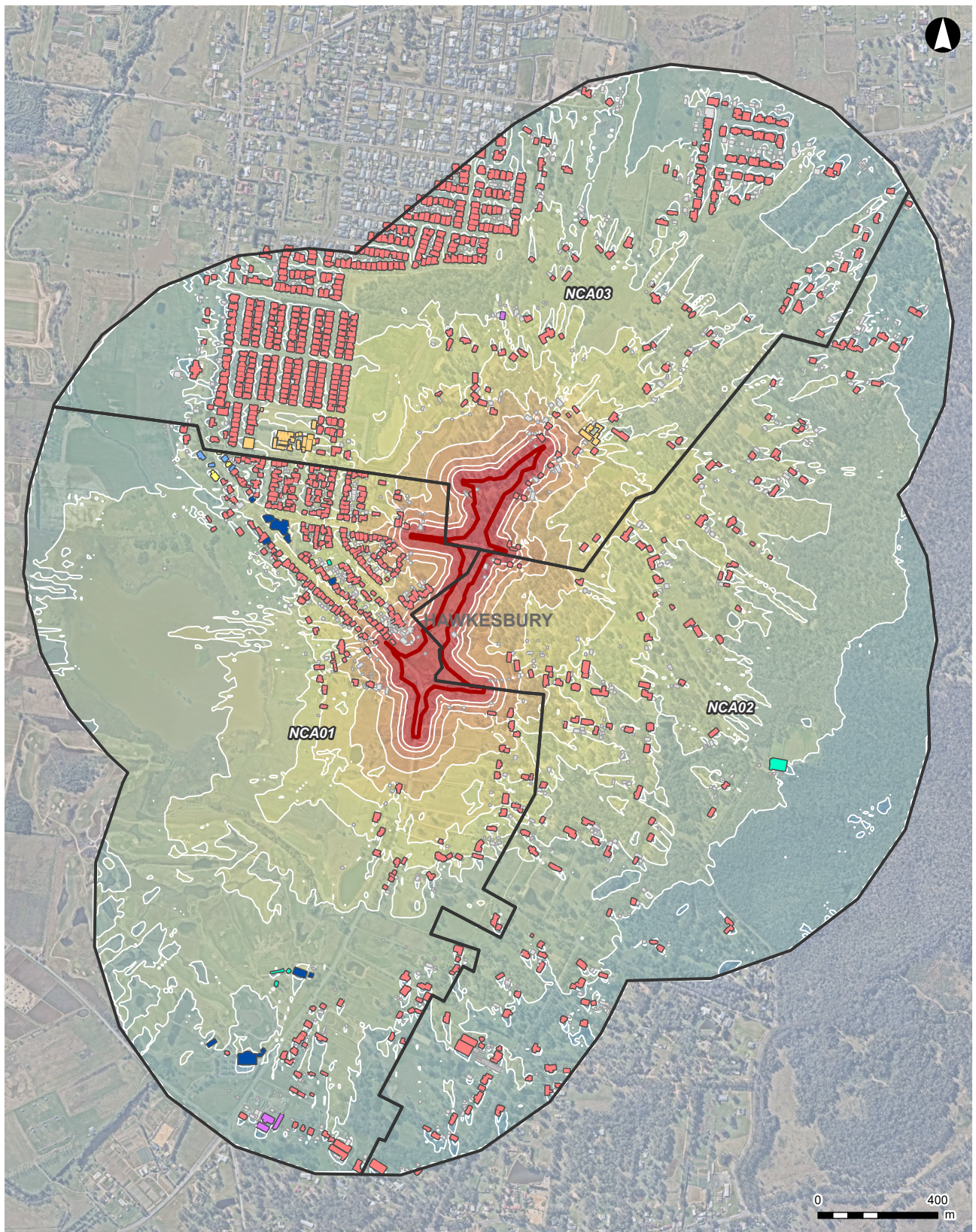


Figure C-2 - Noise contours, CS02

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Coordinate System: GDA2020 MGA Zone 56
Date issued: September 19, 2024



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Legend

 Proposal site

Sensitive receivers

 Active Recreation

 Commercial

 Community Use

 Educational institute

 Industrial

 Place of worship

 Residential

**Noise contours, 30-85dBA
(5 dBA intervals)**

 30

 35

 40

 45

 50

 55

 60

 65

 70

 75

 80

 85

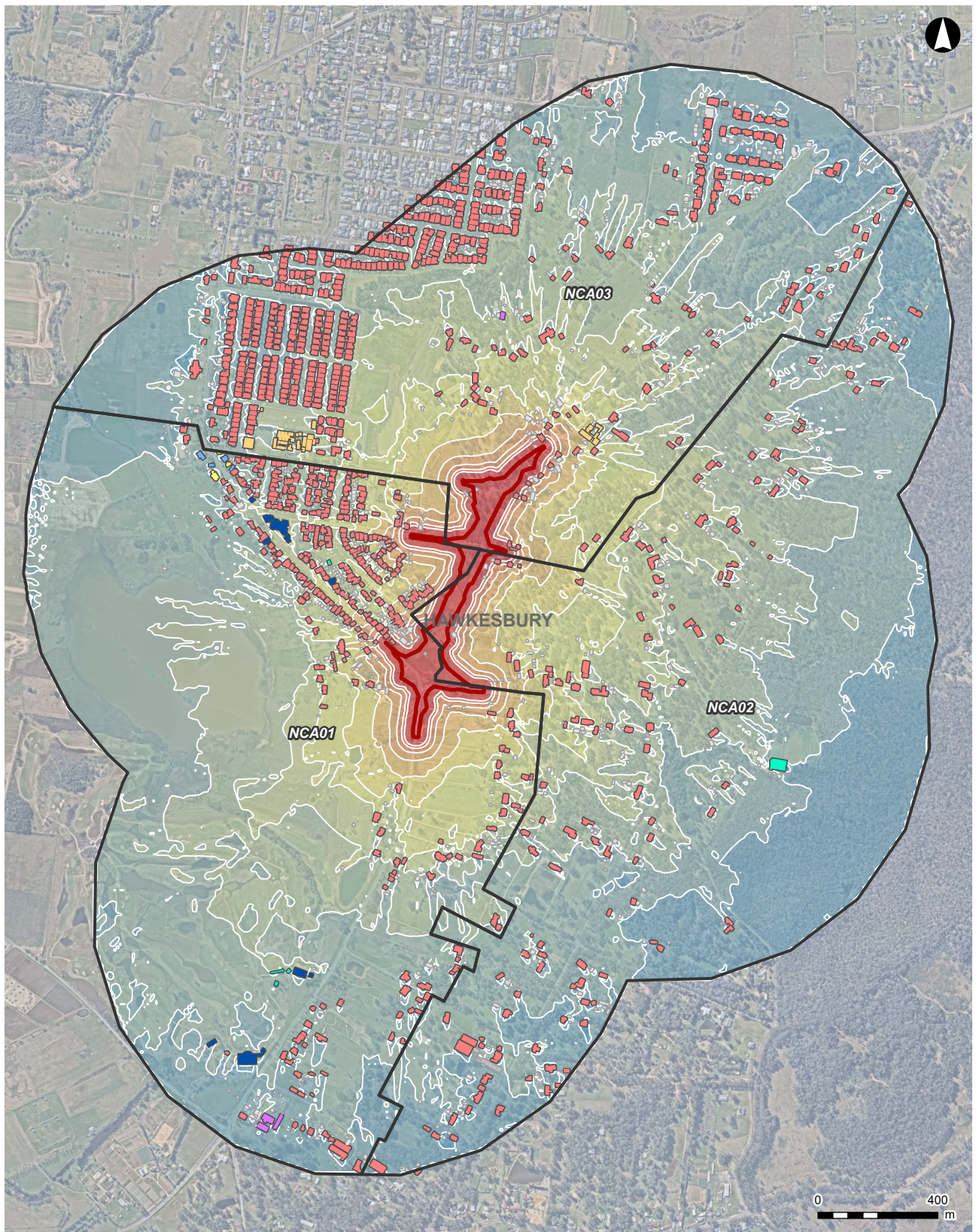


Figure C-3 - Noise contours, CS03

1:19,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 19, 2024



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Legend

 Proposal site

Sensitive receivers

 Active Recreation

 Commercial

 Community Use

 Educational institute

 Industrial

 Place of worship

 Residential

**Noise contours, 30-85dBA
(5 dBA intervals)**

 30

 35

 40

 45

 50

 55

 60

 65

 70

 75

 80

 85

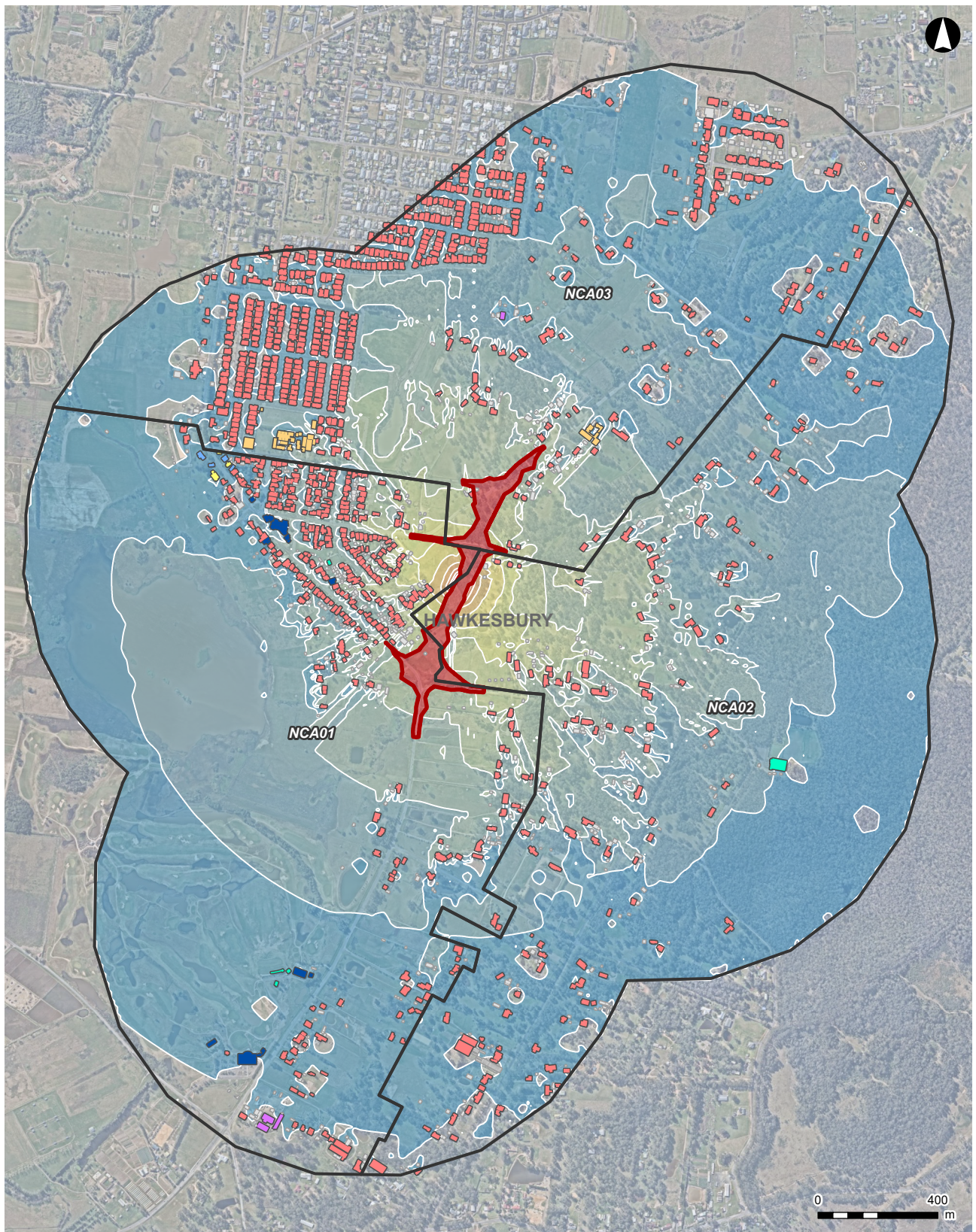


Figure C-4 - Noise contours, CS04

1:19,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 19, 2024



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Legend

 Proposal site

Sensitive receivers

 Active Recreation

 Commercial

 Community Use

 Educational institute

 Industrial

 Place of worship

 Residential

**Noise contours, 30-85dBA
(5 dBA intervals)**

 30

 35

 40

 45

 50

 55

 60

 65

 70

 75

 80

 85

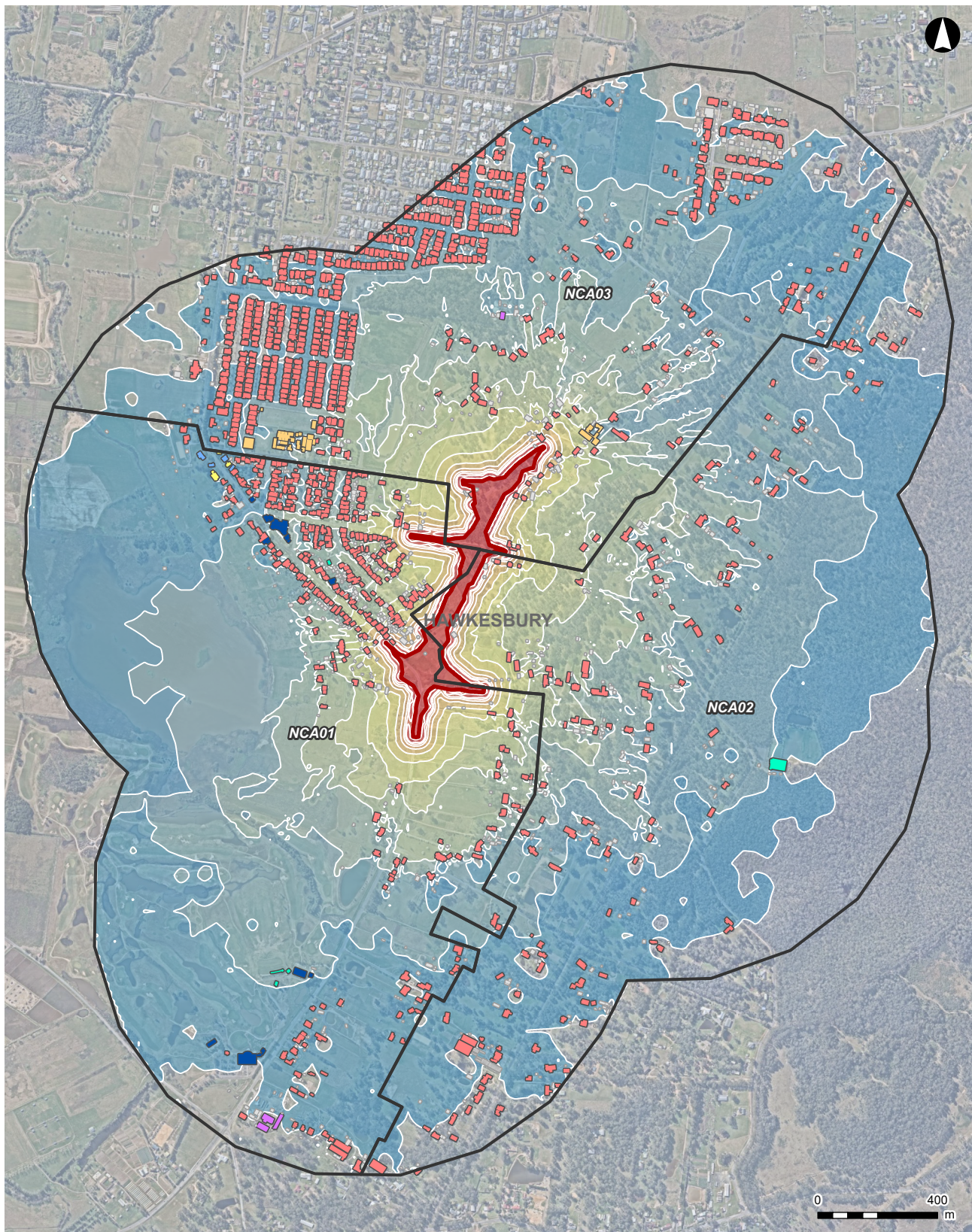


Figure C-5 - Noise contours, CS05

1:19,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 19, 2024



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Legend

 Proposal site

Sensitive receivers

 Active Recreation

 Commercial

 Community Use

 Educational institute

 Industrial

 Place of worship

 Residential

**Noise contours, 30-85dBA
(5 dBA intervals)**

 30

 35

 40

 45

 50

 55

 60

 65

 70

 75

 80

 85

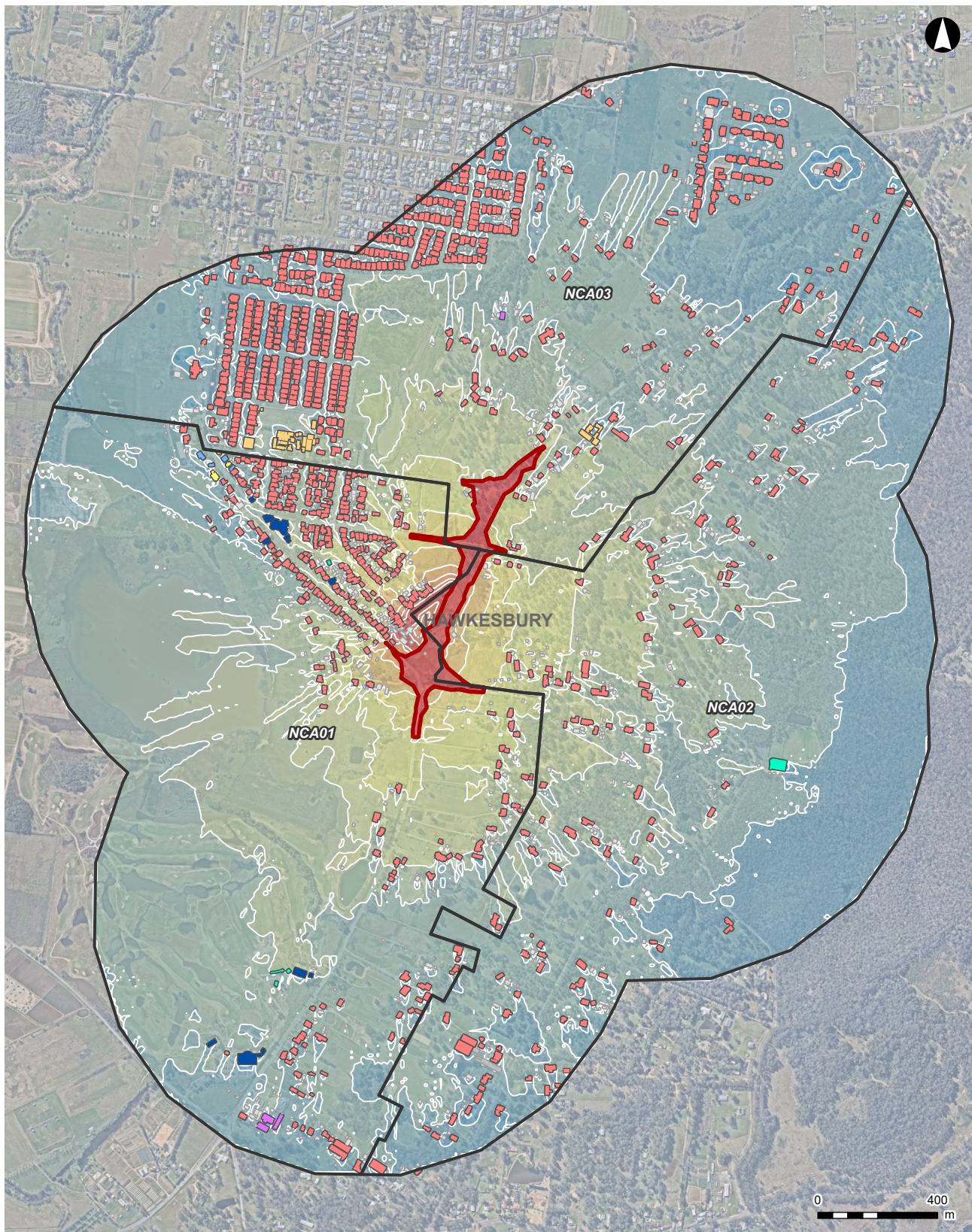


Figure C-6 - Noise contours, CS06

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Coordinate System: GDA2020 MGA Zone 56
Date issued: September 19, 2024



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Legend

 Proposal site

Sensitive receivers

 Active Recreation

 Commercial

 Community Use

 Educational institute

 Industrial

 Place of worship

 Residential

**Noise contours, 30-85dBA
(5 dBA intervals)**

 30

 35

 40

 45

 50

 55

 60

 65

 70

 75

 80

 85

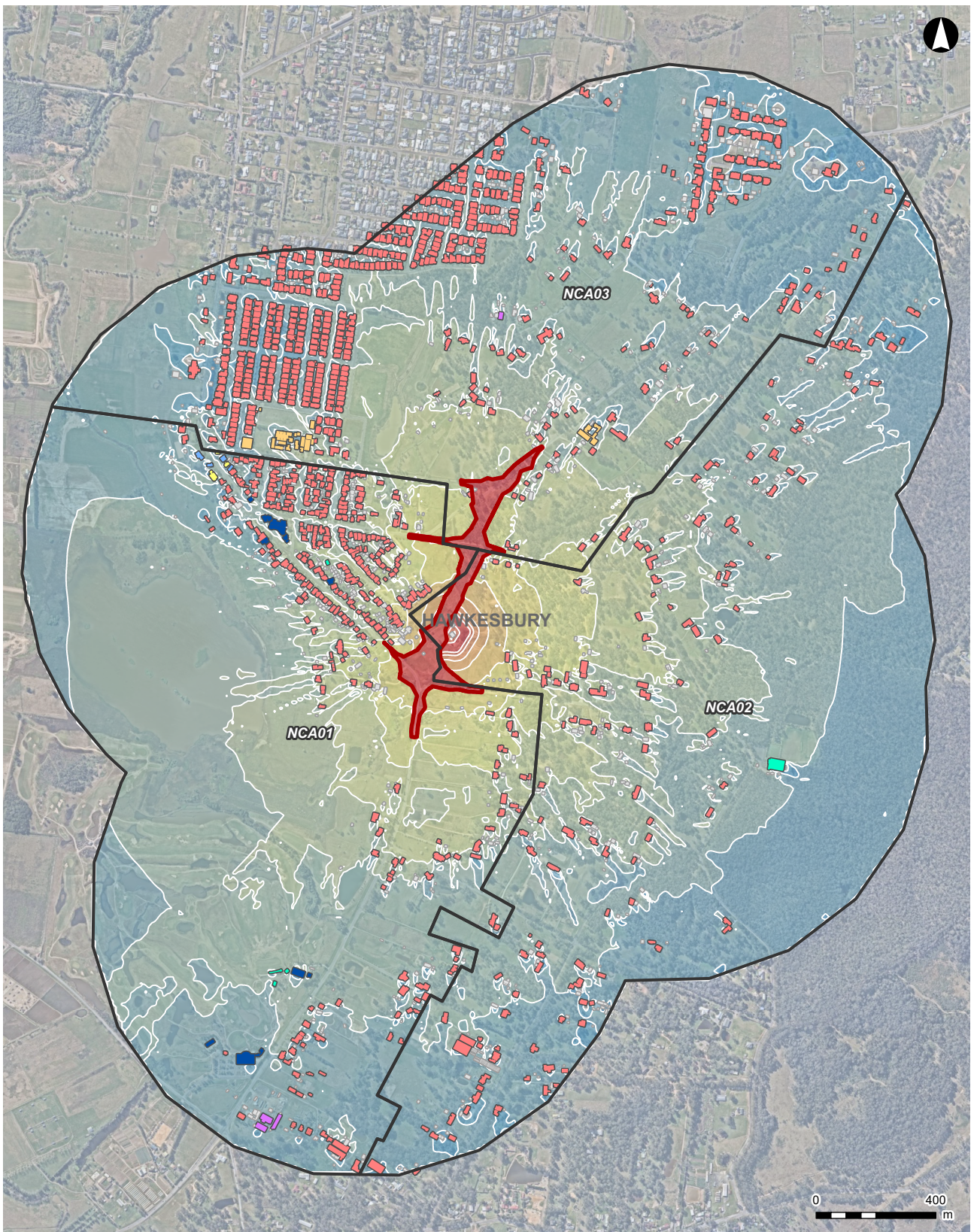


Figure C-7 - Noise contours, CS07

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Coordinate System: GDA2020 MGA Zone 56
Date issued: September 19, 2024



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Legend

 Proposal site	 Educational institute	Noise contours, 30-85dBA (5 dBA intervals)	 45	 70
Sensitive receivers	 Industrial		 50	 75
 Active Recreation	 Place of worship		 55	 80
 Commercial	 Residential		 60	 85
 Community Use			 65	
			 30	
			 35	
			 40	

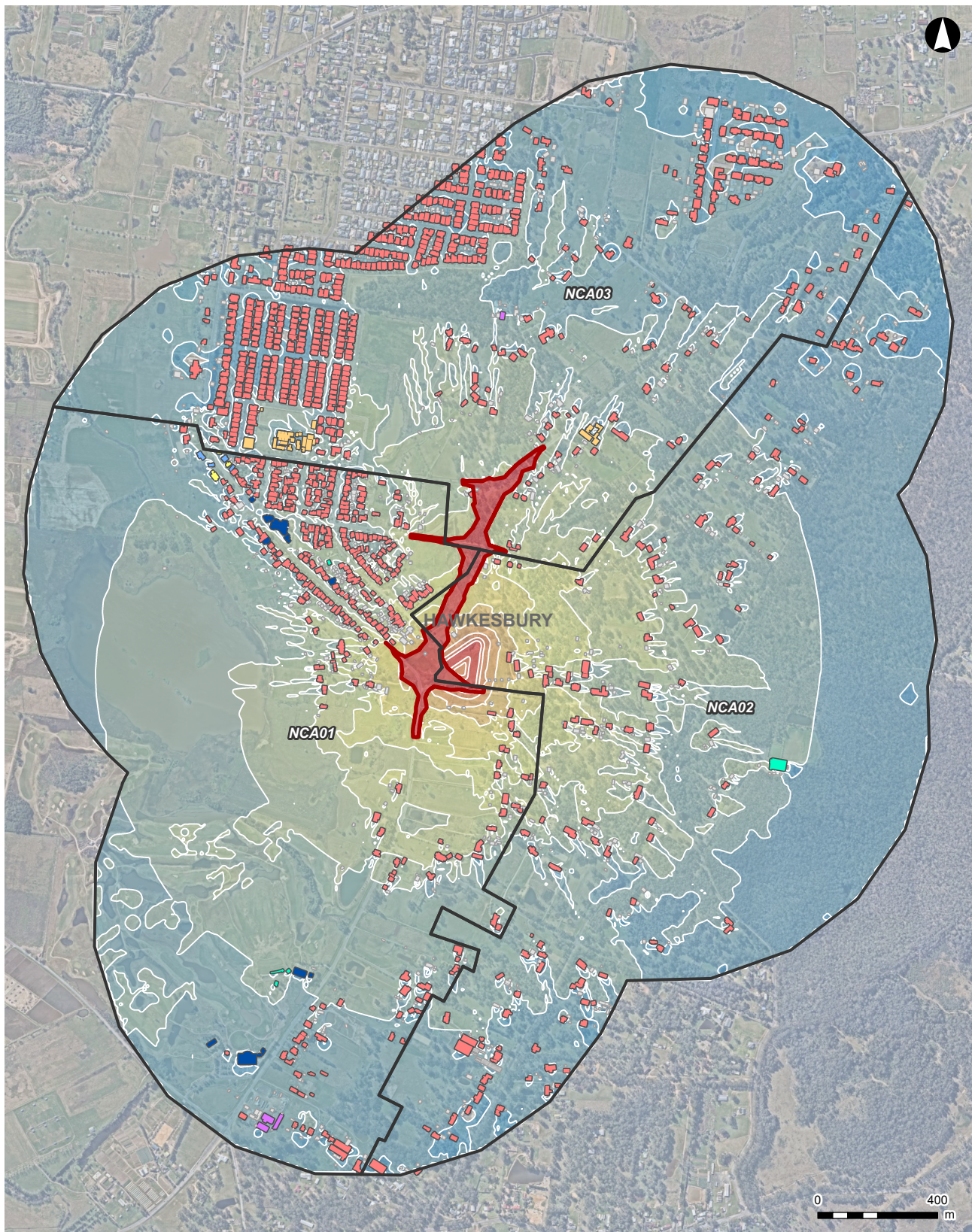


Figure C-8 - Noise contours, CS08

1:19,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 19, 2024



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Legend

 Proposal site

Sensitive receivers

 Active Recreation

 Commercial

 Community Use

 Educational institute

 Industrial

 Place of worship

 Residential

Noise contours, 30-85dBA (5 dBA intervals)

 30

 35

 40

 45

 50

 55

 60

 65

 70

 75

 80

 85



Figure C-9 - Noise contours, CS09

1:19,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 19, 2024



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APPENDIX D – OPERATIONAL ROAD TRAFFIC VOLUMES

All Project Roads	Existing (2024)					Opening Year No Build (2027)				
	Cars/h (d)	trucks/h (d)	cars/h (n)	trucks/h (n)	speed	Cars/h (d)	trucks/h (d)	cars/h (n)	trucks/h (n)	speed
Pitt Town Bypass Northbound	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pitt Town Bypass Southbound	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bathurst Street Northbound	254	25	53	9	50	292	29	49	8	50
Bathurst Street Southbound	259	26	54	9	50	281	28	71	11	50
Cattai Road Northbound	114	17	22	6	62	130	19	20	6	62
Cattai Road Northbound	114	17	22	6	62	130	19	20	6	62
Cattai Road Southbound	114	17	22	6	61	125	19	29	8	61
Cattai Road Southbound	114	17	22	6	61	125	19	29	8	61
Chatham Street Northbound	141	25	25	8	41	157	28	22	7	41
Chatham Street Southbound	134	24	24	8	43	151	27	32	10	43
Eldon Street after Cattai Road Eastbound	141	25	25	8	41	157	28	22	7	41
Eldon Street after Cattai Road Westbound	134	24	24	8	43	151	27	32	10	43
Old Pitt Town Road Eastbound	32	1	6	0	41	36	1	5	0	41
Old Pitt Town Road Westbound	31	1	5	0	43	35	1	7	0	43
Pitt Town Road Northbound	256	25	55	9	62	295	29	51	8	62
Pitt Town Road Southbound	262	26	57	9	63	284	28	74	12	63

All Project Roads	Opening Year Build (2027)					Design Year No Build (2037)				
	Cars/h (d)	trucks/h (d)	cars/h (n)	trucks/h (n)	speed	Cars/h (d)	trucks/h (d)	cars/h (n)	trucks/h (n)	speed
Pitt Town Bypass Northbound	98	10	16	3	70	NA	NA	NA	NA	NA
Pitt Town Bypass Southbound	94	9	24	4	70	NA	NA	NA	NA	NA

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Status: Approved for use

All Project Roads	Opening Year Build (2027)					Design Year No Build (2037)				
	Cars/h (d)	trucks/h (d)	cars/h (n)	trucks/h (n)	speed	Cars/h (d)	trucks/h (d)	cars/h (n)	trucks/h (n)	speed
Bathurst Street Northbound	194	19	33	5	50	326	32	55	9	50
Bathurst Street Southbound	187	18	47	8	50	314	31	79	13	50
Cattai Road Northbound	130	19	20	6	62	145	22	23	6	62
Cattai Road Northbound	130	19	20	6	62	145	22	23	6	62
Cattai Road Southbound	125	19	29	8	61	139	21	33	9	61
Cattai Road Southbound	125	19	29	8	61	139	21	33	9	61
Chatham Street Northbound	58	10	8	3	41	175	31	25	8	41
Chatham Street Southbound	56	10	12	4	43	168	30	36	11	43
Eldon Street after Cattai Road Eastbound	58	10	8	3	41	175	31	25	8	41
Eldon Street after Cattai Road Westbound	56	10	12	4	43	168	30	36	11	43
Old Pitt Town Road Eastbound	36	1	5	0	41	40	2	6	0	41
Old Pitt Town Road Westbound	35	1	7	0	43	39	2	8	0	43
Pitt Town Road Northbound	295	29	51	8	62	329	33	57	9	62
Pitt Town Road Southbound	284	28	74	12	63	317	31	82	13	63

All Project Roads	Design Year Build (2037)				
	Cars/h (d)	trucks/h (d)	cars/h (n)	trucks/h (n)	speed
Pitt Town Bypass Northbound	110	11	18	3	70
Pitt Town Bypass Southbound	105	10	26	4	70
Bathurst Street Northbound	217	21	36	6	50
Bathurst Street Southbound	208	21	52	9	50
Cattai Road Northbound	145	22	23	6	62
Cattai Road Northbound	145	22	23	6	62
Cattai Road Southbound	139	21	33	9	61

Noise and Vibration Impact Assessment

Status: Approved for use

All Project Roads	Design Year Build (2037)				
	Cars/h (d)	trucks/h (d)	cars/h (n)	trucks/h (n)	speed
Cattai Road Southbound	139	21	33	9	61
Chatham Street Northbound	65	11	9	3	41
Chatham Street Southbound	63	11	13	4	43
Eldon Street after Cattai Road Eastbound	65	11	9	3	41
Eldon Street after Cattai Road Westbound	63	11	13	4	43
Old Pitt Town Road Eastbound	40	2	6	0	41
Old Pitt Town Road Westbound	39	2	8	0	43
Pitt Town Road Northbound	329	33	57	9	62
Pitt Town Road Southbound	317	31	82	13	63

Noise and Vibration Impact Assessment

Status: Approved for use



APPENDIX E – OPERATIONAL NOISE LEVELS

RID	Address	NCA	Receiver type	Facade	Predicted noise level												Road contributions	Predicted noise level												Change in noise level (Build - No Build)	RWCC noise criteria	Trigger 1: Change in noise level	Trigger 2: Cumulative limit	Trigger 3: Acute limit	Qualifies	Category of treatment (Controlling)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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					Floor	Direction	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night								Day	Night																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
R0454	53 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	46	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44

RID	Address	NCA	Receiver type	Facade	Predicted noise level										Road contributions Opening year	Predicted noise level Design year										Road contributions Design year	Change in noise level (Build - No Build)				RWCC noise criteria	Trigger 1: Change in noise level	Trigger 2: Cumulative limit		Trigger 3: Acute limit		Qualifies	Category of treatment (Controlling)						
					Floor		Direction		No Build		Day		Night			Non-project		Project		No Build		Day		Night			Non-project		Project				Opening year		Design				Limit		Day		Night	
					Day	Night	Day	Night	Day	Night	Day	Night	Day	Night		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night		Day	Night	Day	Night			Day	Night	Day	Night			Day	Night	Day	Night		
R0500	45 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF NW	54	50	54	50	54	54	50	54	50	54	54	50	54	54	50	54	54	50	54	54	50	54	54	50	54	54	50	54	54	50	-	-	-	-						
R0500	45 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL NW	61	55	59	53	59	53	36	30	62	56	60	54	60	54	40	34	-1.8	-2.1	-1.8	-2.1	60	55	-	-	-	-	-	-	-	-	-									
R0500	45 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF NW	54	48	52	46	52	46	30	30	55	49	53	47	53	47	34	30	-1.9	-1.9	-1.7	-1.8	60	55	-	-	-	-	-	-	-	-	-									
R0500	45 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL SE	56	50	54	44	50	44	30	30	57	51	55	49	53	49	34	30	-1.7	-1.8	-1.7	-1.9	60	55	-	-	-	-	-	-	-	-	-									
R0500	45 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF SE	47	41	46	40	45	39	31	30	48	42	46	40	46	40	35	30	-1.6	-1.7	-1.6	-1.7	60	54	-	-	-	-	-	-	-	-	-									
R0500	45 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL SE	57	52	56	50	56	50	38	32	58	52	56	50	56	50	41	36	-1.7	-1.8	-1.7	-1.8	60	55	-	-	-	-	-	-	-	-	-									
R0500	45 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL SE	64	58	62	56	62	56	38	32	65	59	63	57	63	57	42	36	-1.8	-2.0	-1.7	-2.0	60	55	-	-	-	-	-	-	-	-	-									
R0500	45 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF SE	49	44	48	42	48	42	33	30	50	44	48	42	48	42	36	30	-1.7	-1.7	-1.7	-1.7	60	55	-	-	-	-	-	-	-	-	-									
R0500	45 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL SE	56	50	54	48	54	48	38	33	56	50	54	49	54	49	42	36	-1.6	-1.6	-1.6	-1.6	60	55	-	-	-	-	-	-	-	-	-									
R0500	45 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF SW	68	61	66	59	66	59	33	30	68	62	66	59	66	59	41	35	-1.8	-2.2	-1.8	-2.3	60	55	-	-	-	-	-	-	-	-	-									
R0500	45 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL SW	68	62	67	60	67	60	37	32	69	63	67	60	67	60	44	38	-1.8	-2.2	-1.8	-2.4	60	55	-	-	-	-	-	-	-	-	-									
R0500	45 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF SW	67	60	65	58	65	58	32	30	67	61	66	59	66	59	41	35	-1.8	-2.2	-1.8	-2.3	60	55	-	-	-	-	-	-	-	-	-									
R0500	45 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL SW	68	61	66	59	66	59	37	31	68	62	66	60	66	60	43	38	-1.8	-2.2	-1.8	-2.3	60	55	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF NE	42	36	50	44	41	35	50	44	43	37	51	45	40	33	51	45	7.7	8.1	7.8	8.1	55	49	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL NE	47	41	52	47	45	39	51	46	47	41	53	47	48	38	52	47	5.8	6.0	6.0	5.9	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF NE	44	38	52	46	44	38	49	43	48	42	52	46	45	42	36	45	-0.1	-0.2	-0.1	-0.2	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL NE	49	43	52	47	48	42	50	45	49	44	53	47	46	40	52	46	3.5	3.6	3.7	3.6	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF NE	42	36	42	36	40	34	38	32	42	36	43	37	39	34	40	34	0.4	0.4	0.5	0.5	54	48	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL NE	47	41	47	41	45	40	42	36	48	42	48	42	45	39	45	39	-0.2	-0.1	0.1	0.1	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF NW	42	36	49	43	41	35	49	43	43	37	50	44	40	34	50	44	7.0	7.4	7.3	7.4	55	49	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL NW	47	41	51	45	45	40	50	40	48	42	52	46	45	39	51	45	4.0	4.1	4.3	4.1	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF NW	42	36	42	36	40	34	38	32	42	36	44	38	40	34	42	36	0.4	0.5	1.7	1.8	54	48	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL NW	47	41	47	41	45	40	42	37	48	42	48	42	45	39	45	40	0.1	0.2	0.6	0.6	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF NW	45	39	44	38	45	37	35	30	40	44	38	42	37	38	32	-0.3	-0.3	-0.3	-0.3	55	50	-	-	-	-	-	-	-	-	-										
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL NW	49	43	48	42	47	41	41	35	49	44	49	43	47	41	44	38	-0.8	-0.7	-0.7	-0.7	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF NW	42	36	42	36	40	34	37	31	42	36	42	36	39	34	39	33	0.1	0.2	0.1	0.2	54	48	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL NW	47	41	47	41	45	40	42	36	48	42	47	41	44	38	-0.3	-0.2	-0.3	-0.3	55	50	-	-	-	-	-	-	-	-	-	-										
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF NW	46	40	44	39	44	38	35	30	46	40	45	39	44	38	39	33	-1.4	-1.3	-1.3	-1.2	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL NW	50	44	48	43	48	42	41	35	50	44	49	44	47	42	34	38	-1.1	-0.9	-0.9	-0.8	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF NW	40	34	42	36	40	34	30	30	40	34	41	34	41	34	30	33	0.1	0.2	0.1	0.2	50	46	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL SE	51	46	51	45	50	44	44	39	52	46	52	46	49	44	48	42	-0.4	-0.2	-0.2	-0.3	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF SE	44	38	44	39	42	37	40	34	44	39	45	40	42	36	43	37	0.3	0.4	0.9	0.9	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL SE	52	47	51	45	50	44	44	39	52	46	52	46	49	44	48	42	-0.4	-0.3	-0.3	-0.4	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL SE	53	47	52	47	52	46	44	39	53	48	53	47	50	44	50	44	-0.5	-0.4	-0.5	-0.4	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF SE	49	41	47	46	48	42	40	34	50	44	49	47	44	39	43	38	-0.8	-0.6	-0.6	-0.6	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL SW	53	47	52	46	51	46	43	38	53	48	53	47	51	45	48	42	-0.9	-0.8	-0.8	-0.7	55	50	-	-	-	-	-	-	-	-	-									
R0633	47 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF SW	52	46	51	45	50	45	44	38	52	47	52	46	49	43	48	43	-0.7	-0.6	-0.7	-0.6																				

RID	Address	NCA	Receiver type	Facade	Floor	Direction	Predicted noise level												Road contributions	Predicted noise level	Road contributions	Change in noise level	RWCC noise criteria	Trigger 1: Change in noise level	Trigger 2: Cumulative limit	Trigger 3: Acute limit	Qualifies	Category of treatment (Controlling)								
							Opening year		Design year		No Build		Build		No Build		Build												No Build		Build		No Build		Build	
							Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night											Day	Night	Day	Night	Day	Night	Day	Night
							Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night											Day	Night	Day	Night	Day	Night	Day	Night
R0863	58 GLEBE RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	N	45	42	49	43	47	42	43	47	42	43	47	48	42	49	44	44	38	48	42	1.1	1.1	1.1	1.1	56	51	-	-	-	-		
R0863	58 GLEBE RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	S	49	43	50	44	49	43	44	38	48	49	44	50	45	46	40	49	43	40	48	42	1.0	0.9	0.9	1.0	56	51	-	-	-	-	
R0863	58 GLEBE RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	W	50	44	51	46	50	44	49	43	51	46	53	47	47	41	52	46	1.6	1.6	1.6	1.6	1.6	51	46	-	-	-	-				
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	37	32	35	30	34	30	30	30	38	32	35	30	34	30	30	2.7	1.5	2.7	2.0	50	44	-	-	-	-	-	-	-	-		
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	41	35	38	32	37	32	30	30	41	35	38	32	30	30	2.9	2.5	2.7	2.1	51	45	-	-	-	-	-	-	-	-			
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	41	35	38	32	38	32	30	30	41	35	38	33	38	32	30	30	2.8	2.6	2.8	2.7	53	47	-	-	-	-	-	-	-	-	
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	43	37	40	35	40	34	30	30	43	37	41	35	40	34	33	30	2.6	2.4	2.6	2.6	55	49	-	-	-	-	-	-	-	-	
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	43	37	42	36	41	36	30	30	43	38	42	36	36	30	41	35	2.9	2.6	2.9	2.8	57	51	-	-	-	-	-	-	-	-	
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	44	39	43	37	43	37	32	30	45	39	43	38	38	33	42	36	1.2	1.1	1.2	1.3	57	51	-	-	-	-	-	-	-	-	
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	45	39	43	38	42	37	36	31	46	40	44	38	41	36	40	34	2.0	1.7	2.0	1.9	58	52	-	-	-	-	-	-	-	-	
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	47	41	45	39	44	38	38	32	47	41	45	39	43	37	41	36	2.1	1.7	2.1	2.0	59	53	-	-	-	-	-	-	-	-	
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	46	40	43	38	42	37	37	31	46	40	44	38	41	36	40	35	2.1	1.7	2.1	2.0	58	52	-	-	-	-	-	-	-	-	
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	47	41	45	39	44	38	38	32	47	42	45	40	43	37	42	36	2.0	1.8	2.0	1.9	59	54	-	-	-	-	-	-	-	-	
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	47	41	45	39	44	38	38	32	47	42	45	40	43	37	42	36	2.0	1.8	2.0	1.9	59	54	-	-	-	-	-	-	-	-	
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	42	36	39	34	39	33	30	30	42	36	40	34	39	33	34	30	2.4	2.2	2.2	2.3	54	48	-	-	-	-	-	-	-	-	
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	43	37	40	34	39	34	30	30	43	37	40	35	40	34	33	30	2.8	2.6	2.7	2.7	55	49	-	-	-	-	-	-	-	-	
R0569	34 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	42	36	39	34	39	33	30	30	42	36	40	34	39	33	34	30	2.4	2.2	2.2	2.3	54	48	-	-	-	-	-	-	-	-	
R0594	33 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	42	36	44	38	41	36	40	34	42	36	44	39	38	33	43	37	2.0	2.4	2.1	2.3	54	48	-	-	-	-	-	-	-	-	
R0594	33 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	45	39	46	40	44	38	41	36	45	39	46	41	41	36	45	39	1.1	1.4	1.3	1.3	57	51	-	-	-	-	-	-	-	-	
R0594	33 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	42	36	40	34	42	36	30	30	42	36	40	35	40	34	30	30	1.5	1.3	1.4	1.4	54	48	-	-	-	-	-	-	-	-	
R0594	33 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	42	36	40	34	42	36	30	30	42	36	40	35	40	34	30	30	1.5	1.3	1.4	1.4	54	48	-	-	-	-	-	-	-	-	
R0594	33 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	44	39	43	37	43	37	33	30	45	39	44	38	43	37	37	31	1.3	1.2	1.3	1.2	57	51	-	-	-	-	-	-	-	-	
R0594	33 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	51	45	49	44	49	43	35	30	51	46	50	44	49	44	39	34	1.5	1.4	1.5	1.4	58	53	-	-	-	-	-	-	-	-	
R0594	33 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	52	47	51	45	51	45	37	32	52	47	51	46	51	46	41	36	1.4	1.4	1.4	1.4	58	53	-	-	-	-	-	-	-	-	
R0594	33 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	52	46	51	46	50	45	43	37	52	46	52	46	50	44	47	41	0.4	0.2	0.2	0.2	58	53	-	-	-	-	-	-	-	-	
R0594	33 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	52	47	51	45	51	45	37	31	53	47	52	46	51	45	41	36	1.4	1.3	1.4	1.4	58	53	-	-	-	-	-	-	-	-	
R0594	33 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	52	46	50	44	50	44	35	30	52	46	50	45	50	45	39	34	1.7	1.5	1.5	1.5	58	53	-	-	-	-	-	-	-	-	
R0594	33 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	53	47	51	45	51	45	30	30	53	47	51	46	52	46	41	36	1.5	1.5	1.5	1.5	58	53	-	-	-	-	-	-	-	-	
R0363	36 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	49	43	48	42	47	42	38	33	49	44	48	43	47	42	42	37	1.1	0.9	1.0	1.0	60	55	-	-	-	-	-	-	-	-	
R0363	36 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	50	44	49	43	48	43	40	34	50	45	50	44	48	43	43	38	1.0	0.9	0.9	0.9	60	55	-	-	-	-	-	-	-	-	
R0363	36 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	47	42	47	42	45	40	30	30	47	42	47	42	45	40	39	34	0.9	0.9	0.9	0.8	60	54	-	-	-	-	-	-	-	-	
R0363	36 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	49	44	48	43	48	42	39	34	50	44	49	43	48	42	42	37	1.0	0.9	1.0	0.9	60	55	-	-	-	-	-	-	-	-	
R0363	36 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	46	40	44	39	44	39	33	30	47	41	45	40	44	39	36	30	1.6	1.4	1.5	1.5	59	53	-	-	-	-	-	-	-	-	
R0363	36 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	47	42	47	42	45	40	30	30	48	43	47	42	46	41	41	35	1.3	1.4	1.2	1.3	60	54	-	-	-	-	-	-	-	-	
R0363	36 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	46	40	45	40	44	39	37	32	46	41	46	40	44	39	41	35	0.4	0.4	0.5	0.4	58	53	-	-	-	-	-	-	-	-	
R0363	36 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	48	42	47	42	46	41	39	34	48	43	48	42	46	41	42	37	0.7	0.5	0.6	0.6	60	55	-	-	-	-	-	-	-	-	
R0363	36 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	45	40	45	40	44	39	36	31	46	41	46	40	44	39	44	38	0.8	0.8	0.8	0.8	59	53	-	-	-	-	-				

RID	Address	NCA	Receiver type	Facade	Floor	Direction	Predicted noise level		Road contributions	Opening year	Predicted noise level		Design year	Predicted noise level		Design year	Predicted noise level		Design year	Change in noise level		(Build - No Build)	RWCC noise criteria	Trigger 1: Chronic noise level		Trigger 2: Cumulative limit		Trigger 3: Acute limit		Qualifies	Category of treatment (Controlling)				
							Day	Night			Day	Night		Day	Night		Day	Night		Day	Night			Day	Night	Day	Night	Day	Night			Day	Night	Day	Night
							No Build	Build			No-build	Project		No Build	Build		No-build	Project		No Build	Build			No-build	Project	No Build	Build	No-build	Project			No Build	Build	No-build	Project
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	44	44	42	37	41	38	42	37	41	38	42	37	41	38	42	37	-1.4	-1.2	-1.4	-1.3	58	50	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	45	40	44	38	43	37	38	32	46	40	44	39	41	35	42	36	-1.4	-1.2	-1.4	-1.3	58	52	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	44	38	43	37	42	36	37	31	45	39	43	38	43	37	31	45	-1.5	-1.2	-1.4	-1.4	57	51	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	46	40	45	39	43	37	38	33	47	41	45	39	43	38	43	37	-1.5	-1.2	-1.5	-1.5	59	53	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	39	33	37	32	37	31	30	30	39	34	38	32	37	31	32	30	-1.4	-1.3	-1.4	-1.4	51	46	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	42	37	41	35	40	34	33	30	43	37	41	36	39	34	37	31	-1.7	-1.5	-1.7	-1.7	55	49	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	45	39	43	37	42	36	37	31	45	39	43	38	43	37	31	45	-1.5	-1.2	-1.5	-1.5	59	53	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	47	41	45	40	44	38	39	33	47	41	46	40	42	36	43	38	-1.5	-1.4	-1.6	-1.5	59	53	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	36	30	33	30	33	30	30	30	36	30	34	30	32	30	30	30	-2.2	0.0	-2.1	-0.2	48	42	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	40	34	38	32	37	32	31	30	41	35	39	33	36	30	35	30	-2.0	-1.9	-1.9	-2.0	53	47	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	42	37	42	36	41	36	30	30	43	37	42	36	36	30	41	35	-0.9	-0.8	-1.0	-0.9	56	49	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	44	38	43	37	42	37	33	30	44	39	43	38	38	33	42	36	-1.2	-1.1	-1.3	-1.2	56	51	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	44	38	43	37	42	37	33	30	44	39	43	38	38	33	42	36	-1.2	-1.1	-1.3	-1.2	56	51	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	46	40	45	39	43	38	39	33	47	41	45	39	42	36	42	37	-1.5	-1.3	-1.5	-1.5	59	53	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	45	39	43	38	42	37	37	31	45	40	44	38	40	34	42	36	-1.5	-1.4	-1.5	-1.7	57	52	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	47	41	45	40	44	38	39	33	47	41	46	40	42	36	43	38	-1.6	-1.3	-1.6	-1.6	59	53	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	45	39	43	37	42	36	36	31	45	39	43	38	39	34	41	35	-1.8	-1.7	-1.8	-1.9	57	51	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	47	41	45	40	44	39	39	33	47	41	46	40	42	36	42	38	-1.4	-1.4	-1.4	-1.5	59	53	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	40	34	37	31	36	31	30	30	40	34	37	32	37	31	30	30	-2.9	-2.7	-2.9	-2.9	52	46	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	43	37	40	34	40	34	30	30	43	38	41	35	40	34	34	30	-2.8	-2.6	-2.7	-2.8	55	50	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	43	35	38	32	37	32	30	30	41	38	38	32	30	30	30	30	-2.7	-2.5	-2.7	-2.6	53	47	-	-	-	-	-	-		
R0557	32 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	43	37	40	35	40	34	30	30	43	38	41	35	40	34	33	30	-2.6	-2.3	-2.4	-2.6	55	50	-	-	-	-	-	-		
R0604	31 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	43	37	46	40	42	37	43	37	43	37	46	40	39	33	45	39	3.0	3.4	3.1	3.3	55	49	-	-	-	-	-	-		
R0604	31 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	45	39	47	41	44	38	44	39	46	40	48	42	42	36	47	41	2.2	2.4	2.3	2.3	57	52	-	-	-	-	-	-		
R0604	31 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	44	39	42	36	42	36	30	30	45	39	43	37	42	36	33	30	-2.3	-2.1	-2.2	-2.3	57	51	-	-	-	-	-	-		
R0604	31 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	47	41	45	39	44	39	33	30	47	41	45	39	44	39	37	31	-1.9	-1.9	-1.8	-1.9	57	52	-	-	-	-	-	-		
R0604	31 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	45	39	47	41	45	39	43	38	46	40	48	42	42	36	40	49	2.1	2.0	2.0	2.0	57	52	-	-	-	-	-	-		
R0604	31 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	47	41	49	43	46	41	45	39	48	42	49	43	45	39	47	41	1.4	1.6	1.4	1.4	57	52	-	-	-	-	-	-		
R0604	31 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	44	39	43	38	43	37	33	30	45	39	44	38	42	37	38	32	-1.1	-1.0	-1.1	-1.1	57	51	-	-	-	-	-	-		
R0604	31 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	47	41	49	43	46	41	45	39	48	42	49	43	45	39	47	41	1.5	1.0	0.9	1.0	52	50	-	-	-	-	-	-		
R0640	41 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	46	40	47	41	41	36	46	40	46	41	48	42	39	34	47	41	1.2	1.3	1.2	1.0	55	50	-	-	-	-	-	-		
R0640	41 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	48	42	49	43	44	38	48	42	48	43	50	44	42	36	49	43	1.4	1.4	1.4	1.2	55	50	-	-	-	-	-	-		
R0640	41 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	44	39	46	40	45	40	38	33	46	41	45	40	38	42	35	41	1.1	1.1	1.1	1.0	54	50	-	-	-	-	-	-		
R0640	41 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	48	42	50	45	46	40	48	43	48	42	51	45	44	38	50	44	2.7	2.7	2.8	2.5	55	50	-	-	-	-	-	-		
R0640	41 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	48	43	46	41	46	40	39	33	49	43	47	41	43	37	45	39	-1.9	-1.9	-2.0	-2.1	55	50	-	-	-	-	-	-		
R0640	41 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	50	44	49	43	47	42	43	37	50	45	49	43	45	40	47	41	-1.4	-1.2	-1.3	-1.4	55	50	-	-	-	-	-	-		
R0640	41 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	49	43	46	41	46	40	39	33	49	43	47	41	43	37	45	39	-1.8	-1.7	-1.8	-1.9	55	50	-	-	-	-	-	-		
R0640	41 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	50	44	49	43	47	42	43	37	50	45	49	43	45	40	47	41	-1.4	-1.2	-1.3	-1.4	55	50	-	-	-	-	-	-		
R0640	41 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	44	38	46	42	42	37	47	41	45	39	484																			

RID	Address	NCA	Receiver type	Facade	Predicted noise level				Road contributions	Predicted noise level				Road contributions	Change in noise level				RWCC noise criteria	Trigger 1:		Trigger 2:		Trigger 3:		Category of								
					Floor	Direction	No Build			Non-project	Project		No Build		Build		Non-project	Project		Opening year	Design		Day	Night	Day		Night	Day	Night	Day	Night	Day	Night	
							Day	Night			Day	Night			Day	Night		Day			Night	Day												Night
R0677	38 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	49	41	46	40	37	42	36	33	30	45	40	42	37	40	35	39	-2.8	-2.7	-2.9	-2.8	55	51	-	-	-				
R0677	38 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	45	39	42	36	41	36	33	30	45	40	42	37	40	35	39	33	-2.8	-2.7	-2.9	-2.8	55	51	-	-	-				
R0677	38 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	48	42	45	40	44	39	38	32	49	43	46	40	43	38	42	36	-2.9	-2.7	-2.8	-2.8	55	51	-	-	-				
R0677	38 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	41	35	40	34	38	33	30	28	42	36	41	37	31	30	32	26	-1.4	-1.2	-1.1	-1.1	56	48	-	-	-				
R0677	38 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	46	40	44	38	43	37	38	32	46	41	45	39	41	35	42	36	-2.0	-1.9	-1.8	-1.9	55	51	-	-	-				
R0677	38 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	44	39	45	40	43	37	41	35	45	39	46	40	42	37	43	37	0.8	0.8	0.8	0.8	55	51	-	-	-				
R0677	38 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	39	32	38	32	36	30	32	30	45	39	44	38	44	39	30	30	-0.4	-0.3	-0.3	-0.3	48	43	-	-	-				
R0677	38 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	42	36	41	35	40	35	32	30	43	37	41	36	40	35	36	30	-1.2	-1.2	-1.2	-1.1	55	49	-	-	-				
R0677	38 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	45	39	45	38	43	37	36	30	45	39	44	38	42	37	39	33	-1.1	-0.9	-0.9	-1.0	55	51	-	-	-				
R0677	38 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	45	39	46	40	44	38	42	37	48	40	47	41	43	37	44	38	0.9	1.0	0.9	0.9	55	51	-	-	-				
R0677	38 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	47	41	49	44	45	40	47	42	47	42	50	44	45	39	48	43	2.5	2.5	2.5	2.4	55	51	-	-	-				
R0677	38 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	45	39	45	40	43	38	41	36	45	40	46	40	43	37	43	37	0.7	0.8	0.8	0.7	55	51	-	-	-				
R0677	38 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	47	41	50	44	45	40	48	43	47	42	51	45	45	39	49	43	3.4	3.5	3.5	3.3	55	51	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	N	53	45	53	45	52	44	41	35	54	45	54	45	53	44	45	39	0.3	0.3	0.2	0.2	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	E	49	41	49	41	49	40	31	30	50	41	50	41	50	41	35	30	0.0	0.0	0.0	0.0	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	N	53	45	53	45	52	44	41	35	54	45	54	45	53	44	45	39	0.0	0.0	0.1	0.0	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	E	50	42	50	42	50	42	42	36	55	47	55	47	55	46	46	40	0.1	0.0	0.1	0.0	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	N	51	43	52	44	51	43	41	35	53	44	53	44	52	43	45	39	0.3	0.3	0.1	0.1	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	N	53	45	53	45	53	44	42	36	54	45	54	46	40	40	30	0.1	0.2	0.2	0.1	57	52	-	-	-					
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	N	51	43	51	43	51	43	40	34	52	44	52	44	51	42	45	39	0.2	0.2	0.1	0.1	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	N	52	44	52	44	52	44	41	35	53	45	53	45	53	44	46	40	0.1	0.1	0.2	0.2	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	N	51	43	51	43	51	43	41	35	52	44	52	44	51	42	45	39	0.2	0.2	0.2	0.2	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	N	52	44	52	45	52	44	42	36	53	45	53	45	53	43	46	40	0.1	0.2	0.1	0.2	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	S	46	39	47	41	45	38	43	37	46	39	48	41	43	35	46	40	1.5	1.8	1.5	1.8	57	51	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	S	47	40	48	42	47	40	38	31	48	41	49	42	43	37	41	1.2	1.5	1.3	1.6	57	52	-	-	-					
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	S	43	37	46	40	42	37	43	37	44	38	46	40	39	33	45	40	2.2	2.4	2.3	2.5	56	50	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	S	45	39	46	41	44	38	43	37	45	39	47	41	40	34	46	40	1.8	2.0	2.1	2.1	57	51	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	S	45	39	47	41	45	39	44	38	47	40	49	42	43	37	41	1.6	2.0	1.7	2.0	57	51	-	-	-					
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	S	46	40	48	41	45	39	43	38	47	40	48	42	43	36	47	41	1.7	2.0	1.8	2.1	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	S	44	38	46	40	44	38	43	37	45	39	47	41	40	33	46	40	2.0	2.3	2.2	2.3	57	51	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	S	45	39	47	41	45	39	44	38	47	40	49	42	43	37	41	1.5	1.7	1.5	1.7	57	52	-	-	-					
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	S	44	38	46	40	43	37	43	37	45	39	47	41	40	33	46	40	2.1	2.3	2.2	2.3	57	51	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	S	45	39	47	41	45	39	43	38	46	40	48	42	41	35	47	41	1.7	2.0	1.8	2.1	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	S	46	39	47	41	46	39	44	38	47	40	49	42	44	36	47	41	1.6	1.8	1.8	1.9	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	S	45	39	47	41	45	38	43	37	46	39	48	41	42	34	46	40	2.0	2.3	2.0	2.3	57	51	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	W	51	43	51	43	51	42	41	35	52	44	52	44	51	42	45	39	0.1	0.1	0.1	0.1	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	W	52	44	52	45	52	44	42	36	53	45	53	45	52	43	46	40	0.2	0.1	0.1	0.1	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	W	51	43	51	43	51	42	41	35	52	44	52	44	51	42	45	39	0.1	0.1	0.1	0.1	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	W	52	44	52	45	52	44	45	39	53	45	53	45	52	43	46	40	0.2	0.1	0.1	0.1	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	W	46	39	48	41	45	38	43	38	47	40	48	42	44	35	46	41	1.8	2.0	1.8	2.0	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	1.FL	W	51	43	51	43	51	42	41	35	52	44	52	44	51	42	45	39	0.1	0.1	0.1	0.1	57	52	-	-	-				
R0677	38 OLD PITT TOWN RD, PITT TOWN NSW 2756	NCA02	Residential	GF	W	46	39																											

RID	Address	NCA	Receiver type	Facade	Floor	Direction	Predicted noise level		Road contributions		Predicted noise level		Road contributions		Change in noise level		RNCG noise criteria	Trigger 1: Change in noise level		Trigger 2: Cumulative limit		Trigger 3: Acute limit		Qualifies	Category of treatment (Controlling)	
							Opening year		Opening year		Design year		Design year		Build - No Build			Build - No Build								
							No Build	Build	No-build	Project	No-build	Project	No-build	Project	No-build	Project		No-build	Project							
Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night			
R0837	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	GF	S	50	44	50	44	50	44	50	44	50	44	50	0.0	0.0	0.1	0.0	0.0	0.0	59	54		
R0837	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	51	45	51	45	51	45	51	45	51	45	51	0.1	0.1	0.1	0.1	0.1	0.1	59	54		
R0837	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	GF	S	36	30	36	30	36	30	36	30	36	30	36	0.4	0.4	0.5	0.4	0.4	0.4	48	43		
R0837	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	43	37	43	37	43	37	43	37	43	37	43	0.3	0.3	0.4	0.3	0.3	0.3	57	52		
R0837	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	GF	W	53	47	53	47	52	46	45	40	53	48	54	48	-0.1	0.0	0.1	0.0	0.0	59	54		
R0837	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	53	48	53	48	52	47	46	40	54	48	54	48	-0.1	0.0	0.1	0.0	0.1	59	54		
R0837	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	GF	W	52	47	52	47	52	47	46	40	53	47	52	47	0.0	0.2	0.2	0.1	0.1	59	54		
R0837	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	53	47	53	48	53	47	45	39	54	48	52	46	0.0	0.1	0.2	0.2	0.2	59	54		
R0837	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	GF	W	51	45	51	45	50	44	46	40	52	46	52	46	0.0	0.0	0.1	0.0	0.0	59	54		
R0837	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	52	46	52	46	50	45	40	30	46	40	51	0.1	0.2	0.2	0.1	0.1	0.1	59	54		
R0845	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	GF	N	49	43	49	43	47	41	45	40	50	44	50	44	0.0	0.2	0.2	0.1	0.1	59	54		
R0845	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	45	39	46	40	45	39	38	32	46	40	46	40	0.5	0.5	0.5	0.5	0.5	57	52		
R0845	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	GF	N	49	43	49	43	47	41	45	40	50	44	50	44	0.1	0.2	0.2	0.1	0.1	57	52		
R0845	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	49	44	49	44	49	44	40	30	46	40	51	0.2	0.2	0.2	0.2	0.2	57	52			
R0845	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	GF	N	42	36	44	38	40	35	41	35	42	36	44	38	37	31	43	37	1.8	1.8	54	48	
R0845	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	46	40	47	41	45	39	42	37	46	40	47	42	42	36	46	40	1.2	1.3	1.3	57	52
R0845	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	GF	S	49	44	49	44	49	44	40	30	50	44	50	44	0.0	0.4	0.4	0.4	0.4	59	54		
R0845	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	50	45	50	45	50	45	34	30	51	45	51	45	50	45	42	36	0.0	0.1	0.1	57	52
R0845	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	GF	W	48	42	48	42	48	42	36	30	48	42	48	43	47	42	42	36	0.2	0.2	0.2	57	52
R0845	396 PITT TOWN RD, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	48	42	48	42	48	42	36	30	48	42	48	43	47	42	42	36	0.2	0.2	0.2	57	52
R0845	VILLA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	61	54	56	50	56	50	32	30	61	54	56	50	56	50	36	30	-4.9	-3.9	-4.8	60	55
R0845	VILLA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	62	57	61	55	61	55	32	30	62	57	61	55	61	55	35	30	-5.3	-4.0	-5.1	63	58
R0845	VILLA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	66	59	61	55	61	55	32	30	66	59	61	55	61	55	35	30	-5.3	-4.0	-5.1	63	58
R0845	VILLA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63	58
R0845	VIA 3 21 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	67	59	61	55	61	55	36	30	67	59	61	55	61	55	36	30	-5.3	-4.0	-5.1	63</	

RID	Address	NCA	Receiver type	Facade	Predicted noise level				Road contributions	Predicted noise level				Road contributions	Change in noise level				RWCC noise criteria	Trigger 1: Change in noise level		Trigger 2: Cumulative limit		Trigger 3: Acute limit		Category of (controlling)			
					Opening year		No Build			Design year		No Build			Opening year		Design			Day		Night		Day			Night		
					Floor	Direction	No Build	Day	Night	Build	Day	Night	Day	Night	No Build	Day	Night	No-build	Project	Day	Night	Day	Night	Day	Night		Day	Night	
R0816	90 BOOTLES LANE, PITT TOWN NSW 2756	NCA03	Residential	GF	S	40	35	40	34	39	33	37	32	30	44	38	44	38	40	34	41	36	-0.3	-0.2	-0.2	-0.2	56	50	-
R0816	90 BOOTLES LANE, PITT TOWN NSW 2756	NCA03	Residential	GF	S	43	38	43	38	43	37	32	30	44	38	44	38	40	34	41	36	-0.3	-0.2	-0.2	-0.2	56	51	-	
R0816	90 BOOTLES LANE, PITT TOWN NSW 2756	NCA03	Residential	GF	W	42	36	41	36	41	36	31	30	44	38	42	36	38	31	30	34	-0.5	-0.5	-0.5	-0.5	48	42	-	
R0816	90 BOOTLES LANE, PITT TOWN NSW 2756	NCA03	Residential	GF	W	40	35	40	34	39	33	31	30	41	35	40	34	36	30	38	33	-0.7	-0.6	-0.7	-0.7	53	47	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	60	62	68	59	68	59	37	32	70	63	68	60	68	60	41	35	-1.7	-2.3	-1.6	-2.4	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	70	62	68	60	68	60	39	33	70	63	69	61	69	61	43	37	-1.8	-2.3	-1.7	-2.5	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	69	61	67	59	67	59	37	32	69	62	67	60	67	60	41	35	-1.7	-2.2	-1.6	-2.3	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	69	61	67	59	67	59	37	32	69	62	67	60	67	60	41	35	-1.7	-2.2	-1.6	-2.3	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	48	43	47	41	47	41	30	30	49	43	47	41	47	41	30	30	-1.7	-1.7	-1.7	-1.8	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	51	45	49	44	49	44	30	30	52	46	50	44	50	44	32	30	-1.7	-1.7	-1.6	-1.7	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	43	36	41	35	41	35	30	30	43	37	41	35	41	35	30	30	-1.9	-1.7	-1.8	-1.8	55	49	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	47	41	45	39	45	39	30	30	47	41	46	40	45	39	32	30	-1.9	-1.7	-1.8	-1.8	59	53	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	60	54	59	52	59	52	30	30	61	54	59	52	59	52	30	30	-1.6	-1.9	-1.5	-2.0	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	61	55	60	53	60	53	31	30	62	56	60	54	60	54	35	30	-1.6	-1.9	-1.6	-2.0	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	62	56	60	54	60	54	32	30	62	56	61	54	61	54	35	30	-1.6	-1.8	-1.6	-2.0	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	63	57	62	55	62	55	37	31	64	58	62	56	62	56	40	34	-1.7	-1.8	-1.6	-1.9	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	61	55	60	53	60	53	32	30	62	56	60	54	60	54	35	30	-1.6	-1.9	-1.6	-1.9	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	63	56	61	54	61	54	36	31	63	57	62	55	62	55	40	34	-1.6	-1.8	-1.6	-1.9	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	57	51	55	49	55	49	30	30	57	52	56	50	56	50	31	30	-1.7	-1.7	-1.7	-1.8	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	59	53	57	51	57	51	34	30	59	53	58	52	58	52	37	31	-1.7	-1.7	-1.6	-1.8	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	60	54	59	52	59	52	30	30	60	54	59	52	59	52	30	30	-1.6	-1.9	-1.6	-2.0	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	66	60	65	58	65	58	38	32	67	60	65	58	65	58	41	36	-1.6	-2.0	-1.6	-2.1	60	55	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	43	37	41	35	41	35	30	30	43	37	42	36	41	35	33	30	-1.4	-1.3	-1.3	-1.2	55	49	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	46	40	44	39	44	39	30	30	46	40	45	39	44	39	36	30	-1.4	-1.3	-1.4	-1.2	58	53	-	
R0243	70 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	42	36	41	35	41	35	30	30	43	37	42	36	41	35	33	30	-1.3	-1.1	-1.3	-1.2	55	49	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	46	40	44	39	44	39	31	30	46	40	45	39	44	39	36	30	-1.4	-1.3	-1.4	-1.2	58	52	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	68	62	67	60	67	60	38	33	70	63	68	60	68	60	42	36	-1.8	-2.3	-1.8	-2.4	60	55	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	58	52	56	50	56	50	30	30	58	52	57	51	57	51	30	30	-1.6	-1.7	-1.6	-1.7	60	55	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	68	62	67	60	67	60	38	33	70	63	68	60	68	60	42	36	-1.8	-2.3	-1.8	-2.4	60	55	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	58	52	56	50	56	50	30	30	58	52	57	51	57	51	30	30	-1.6	-1.7	-1.6	-1.7	60	55	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	59	53	57	52	55	52	30	30	60	54	59	52	55	52	30	30	-1.7	-1.7	-1.7	-1.8	60	55	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	64	57	62	55	62	55	30	30	64	58	62	55	62	55	30	30	-1.8	-2.1	-1.8	-2.2	60	55	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	65	58	63	56	63	56	34	30	66	59	64	57	64	57	38	32	-2.0	-2.1	-2.0	-2.2	60	55	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	61	57	61	55	61	55	30	30	61	57	61	55	61	55	30	30	-1.9	-1.9	-1.8	-2.0	60	55	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	64	58	62	56	62	56	36	30	65	59	63	57	63	57	39	33	-1.8	-1.9	-1.8	-2.0	60	55	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	45	39	43	37	43	37	30	30	45	40	44	38	44	38	31	30	-1.7	-1.6	-1.6	-1.6	57	52	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	44	38	42	36	42	36	30	30	44	38	42	36	42	36	30	30	-1.8	-1.7	-1.7	-1.8	60	55	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	44	38	42	36	42	36	30	30	44	38	43	37	42	37	31	30	-1.7	-1.6	-1.7	-1.6	56	50	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	48	42	47	41	46	41	32	30	49	43	47	41	47	41	35	30	-1.8	-1.6	-1.6	-1.6	60	55	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	44	37	42	36	42	36	30	30	44	37	42	36	42	36	30	30	-1.6	-1.5	-1.6	-1.5	57	51	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	48	43	47	41	47	41	33	30	49	43	47	42	47	41	36	30	-1.6	-1.4	-1.6	-1.6	60	55	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	44	38	43	37	42	37	30	30	45	39	43	37	43	37	32	30	-1.6	-1.5	-1.6	-1.6	57	51	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	49	43	47	41	47	41	32	30	49	43	47	42	47	41	36	30	-1.7	-1.6	-1.6	-1.6	58	53	-	
R0262	68 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	44																							

RID	Address	NCA	Receiver type	Facade	Predicted noise level		Road contributions		Predicted noise level Design year	Road contributions		Change in noise level (Build - No Build)	Change in noise level (Build - No Build)		RWCC noise criteria	Trigger 1: Change in noise level		Trigger 2: Cumulative limit		Trigger 3: Acute limit		Qualifies	Category of (Controlling)			
					No Build		No Build			No Build			No Build			No Build		Day		Day				Day		
					Floor	Direction	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night		Day	Night	
R0777	9 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	GF SE	60	59	59	57	53	57	55	49	53	51	53	55	57	55	50	55	50	-	-			
R0777	9 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL SE	67	60	58	53	55	49	56	50	68	60	59	53	47	41	58	53	-8.8	-7.5	-8.9	-7.6	55	50
R0777	9 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	GF SE	66	59	57	51	52	47	55	49	67	60	57	51	41	38	57	51	-9.6	-8.2	-9.6	-8.4	55	50
R0777	9 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL SE	67	60	58	52	55	49	55	49	67	60	59	53	47	41	58	53	-8.9	-7.6	-8.9	-7.7	55	50
R0777	9 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	GF SW	40	34	36	30	34	30	32	30	41	35	37	31	30	30	35	30	-4.1	-4.2	-4.0	-4.2	53	47
R0777	9 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL SW	44	38	40	34	37	32	36	30	44	38	40	34	34	30	30	33	-4.0	-4.1	-3.9	-4.0	55	50
R0777	9 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	GF SW	62	55	53	47	48	42	51	45	63	62	56	53	47	41	36	43	-8.7	-8.9	-8.5	-8.8	56	53
R0777	9 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL SW	62	56	54	48	49	43	52	46	63	57	54	48	43	37	54	48	-8.9	-8.5	-8.8	-8.5	55	50
R0591	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF E	48	42	45	39	44	39	36	30	45	42	45	40	44	38	39	34	-2.9	-2.6	-2.9	-2.8	60	54
R0591	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF N	48	42	45	39	44	39	35	30	49	43	45	39	44	39	38	32	-3.3	-3.0	-3.4	-3.4	60	55
R0591	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF N	45	40	42	37	42	36	32	30	46	40	43	37	42	36	35	30	-3.0	-2.7	-2.8	-2.8	58	52
R0591	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF S	45	39	43	37	42	37	36	30	45	39	44	38	42	36	39	33	-1.5	-1.3	-1.5	-1.5	57	51
R0591	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF W	46	41	43	38	43	38	32	30	47	41	44	38	43	38	36	30	-2.9	-2.6	-2.8	-2.8	59	53
R0591	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF W	46	40	43	37	43	37	32	30	46	41	43	38	43	37	35	30	-2.8	-2.5	-2.8	-2.8	58	53
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF E	43	38	42	36	40	35	35	30	44	38	42	36	40	34	38	32	-1.8	-1.5	-1.6	-1.7	56	50
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL E	47	41	45	39	44	38	37	32	47	42	45	39	44	38	40	34	-2.2	-2.0	-2.1	-2.2	59	54
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF E	59	53	54	49	54	49	30	30	60	53	55	49	55	49	35	30	-4.6	-4.0	-4.6	-4.4	60	55
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL E	60	54	55	50	55	50	34	30	61	54	56	50	56	50	38	32	-4.6	-3.9	-4.5	-4.2	60	55
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF N	65	58	60	54	60	54	37	31	66	59	61	55	61	55	42	36	-5.2	-4.0	-5.0	-4.3	60	55
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	66	59	61	55	61	55	38	33	67	60	62	55	62	55	44	38	-5.2	-4.0	-4.9	-4.3	60	55
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF N	66	59	61	55	61	55	37	31	66	59	61	55	61	55	44	38	-5.2	-3.9	-5.1	-4.3	60	55
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	67	59	61	56	61	56	39	33	67	60	62	56	62	56	46	40	-5.2	-3.9	-5.1	-4.3	60	55
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF S	44	39	43	38	42	37	36	30	45	44	41	45	39	44	38	39	-3.3	-3.0	-3.4	-3.1	59	53
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	47	41	45	40	45	39	38	32	48	42	46	40	44	39	41	35	-1.6	-1.4	-1.6	-1.6	60	54
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF S	43	37	41	36	40	35	34	30	43	38	42	36	40	34	37	31	-1.7	-1.5	-1.6	-1.6	55	50
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	46	41	44	39	44	38	37	31	47	41	45	39	44	38	39	34	-2.3	-2.0	-2.1	-2.1	59	53
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF W	49	43	45	40	45	40	30	30	49	43	46	40	45	40	32	30	-3.5	-3.2	-3.5	-3.5	60	55
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL W	51	45	47	42	47	42	32	30	51	46	48	42	47	42	36	31	-3.6	-3.3	-3.6	-3.6	60	55
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF W	52	46	48	43	48	43	30	30	52	47	49	43	48	42	36	31	-4.2	-3.8	-4.2	-4.0	60	55
R0586	9 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL W	54	48	50	45	50	45	32	30	55	49	51	45	50	45	36	30	-4.1	-3.6	-4.1	-4.0	60	55
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	GF E	47	41	44	38	42	36	40	34	47	42	44	39	42	36	41	35	-3.1	-3.0	-3.0	-3.2	57	53
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL E	50	44	46	41	46	41	42	36	53	47	49	43	47	41	45	39	-3.2	-3.0	-3.2	-3.2	57	53
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	GF E	47	41	45	39	43	37	40	34	47	42	45	39	41	35	43	37	-2.1	-2.1	-2.0	-2.2	57	53
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL E	49	43	47	41	45	39	41	36	49	43	47	41	43	37	45	39	-2.2	-2.2	-2.2	-2.3	57	53
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	GF E	49	44	46	41	46	41	40	34	52	46	49	43	47	41	45	39	-2.1	-2.1	-2.0	-2.1	57	53
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL E	51	46	48	43	47	42	42	36	52	46	49	43	47	41	44	39	-3.1	-2.9	-3.1	-3.1	57	53
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	GF N	46	41	44	39	43	37	40	34	47	41	45	39	40	35	43	37	-2.0	-2.0	-1.8	-2.0	57	53
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	47	43	46	41	46	41	42	36	49	43	47	41	43	37	45	39	-2.0	-2.0	-1.8	-2.0	57	53
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	GF N	37	32	35	30	34	30	30	30	38	32	35	30	34	30	30	30	-2.6	-1.5	-2.6	-2.0	50	44
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	41	36	39	33	38	33	31	30	42	36	39	34	38	32	34	30	-2.6	-2.4	-2.6	-2.6	54	48
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	GF N	37	32	35	30	34	30	30	30	38	32	35	30	34	30	30	30	-2.9	-1.6	-2.7	-2.1	50	44
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	42	36	39	33	38	33	30	30	42	36	39	34	38	32	34	30	-2.8	-2.5	-2.8	-2.7	54	48
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	GF S	45	39	42	36	39	33	39	33	45	40	42	36	38	32	40	34	-2.9	-2.9	-2.9	-3.2	57	52
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	47	44	47	42	47	42	40	34	48	42	46	40	44	38	40	34	-3.0	-2.9	-3.0	-3.1	53	47
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	GF S	48	43	45	39	43	38	40	34	49	43	46	40	43	38	41	35	-3.3	-3.2	-3.3	-3.4	57	53
R0568	10 IRIS ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	51	45	47	42	46	41	4															

RID	Address	NCA	Receiver type	Facade	Predicted noise level										Road contributions Opening year	Predicted noise level Design year										Road contributions Design year	Change in noise level (Build - No Build)										RWCC noise criteria	Trigger 1: Change in noise level	Trigger 2: Cumulative limit	Trigger 3: Acute limit	Qualifies	Category of treatment (Controlling)
					Floor		Direction		No Build		Day		Night			Non-project		Project		No Build		Day		Night			Non-project		Project		Opening year		Design									
					Day	Night	Day	Night	Day	Night	Day	Night	Day	Night		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night		Day	Night	Day	Night	Day	Night	Day	Night								
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	GF	NW	52	46	54	48	49	53	46	53	47	54	48	55	49	41	35	55	49	1.7	1.7	1.7	1.6	55	50	-	-	-	-	-	-								
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL	NW	53	47	55	49	50	44	53	47	54	48	55	49	41	35	55	49	1.7	1.7	1.7	1.6	1.5	55	50	-	-	-	-	-	-								
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	GF	NW	55	49	56	51	55	49	50	44	55	49	57	51	38	32	57	51	1.5	1.5	1.5	1.6	1.6	55	50	-	-	-	-	-	-								
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL	NW	56	50	57	52	56	50	51	45	56	50	58	52	40	34	58	52	1.9	1.9	1.9	1.7	1.5	55	50	-	-	-	-	-	-								
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	GF	SE	44	37	44	38	44	37	36	30	45	38	45	38	43	35	41	35	0.6	0.6	0.6	0.6	0.6	55	50	-	-	-	-	-	-								
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL	SE	47	41	47	41	47	41	38	33	48	41	48	42	45	38	45	39	0.5	0.5	0.5	0.5	0.4	55	50	-	-	-	-	-	-								
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	GF	SW	52	46	53	47	48	42	52	46	52	46	54	48	43	35	53	48	1.5	1.5	1.5	1.6	1.4	55	50	-	-	-	-	-	-								
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL	SW	53	47	54	48	49	43	53	47	53	47	55	49	44	36	54	49	1.4	1.4	1.4	1.5	1.3	55	50	-	-	-	-	-	-								
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	GF	SW	48	42	51	45	46	40	50	44	49	42	52	46	43	35	51	45	3.3	3.6	3.3	3.4	3.5	55	50	-	-	-	-	-	-								
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL	SW	50	44	53	47	47	41	50	45	50	44	53	47	44	37	52	46	3.1	3.1	3.1	3.1	3.2	55	50	-	-	-	-	-	-								
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	GF	SW	45	39	50	45	46	40	49	43	46	39	51	45	42	34	51	45	5.1	5.9	5.0	5.9	5.9	55	50	-	-	-	-	-	-								
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL	SW	51	45	53	47	47	41	49	44	48	41	52	46	44	36	52	46	4.7	5.4	4.7	5.2	5.5	55	50	-	-	-	-	-	-								
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	GF	SW	47	41	47	41	47	41	38	33	48	41	48	42	45	38	45	3.1	3.1	3.1	3.1	3.1	55	50	-	-	-	-	-	-									
R0874	8 CATTAL RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL	SW	52	46	54	48	48	42	52	47	52	47	54	48	41	35	54	48	1.9	1.9	2.1	1.9	1.5	55	50	-	-	-	-	-	-								
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	42	36	39	34	38	33	33	30	42	36	40	34	38	32	36	30	-2.3	-2.2	-2.3	-2.4	54	48	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	41	35	38	33	38	32	30	30	41	36	39	33	37	31	30	30	-2.4	-2.1	-2.3	-2.4	54	48	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	44	38	42	36	41	35	34	30	44	39	42	36	41	35	37	31	-2.4	-2.3	-2.3	-2.4	56	51	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	45	39	43	37	42	36	34	30	45	40	43	37	42	36	37	31	-2.5	-2.4	-2.4	-2.6	57	52	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	41	35	39	33	38	32	32	30	41	36	39	33	37	31	35	30	-2.4	-2.2	-2.3	-2.3	53	48	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	41	35	39	33	37	32	31	30	41	35	39	33	37	31	34	30	-2.5	-2.2	-2.4	-2.4	53	47	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	42	36	39	34	38	33	33	30	42	36	40	34	38	32	36	30	-2.3	-2.1	-2.2	-2.3	54	48	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	42	37	40	34	39	33	33	30	43	37	41	35	39	33	36	30	-2.4	-2.1	-2.3	-2.3	55	49	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	42	37	39	34	39	34	30	30	43	37	40	34	39	34	30	30	-3.0	-2.8	-3.0	-3.0	55	49	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	41	35	38	32	37	32	30	30	41	36	39	33	37	31	30	30	-2.8	-2.6	-2.7	-2.8	53	48	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	44	38	41	35	40	35	30	30	44	38	41	35	40	35	33	30	-3.2	-2.8	-3.0	-3.1	56	50	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	44	38	42	36	41	35	34	30	45	39	42	36	41	35	37	31	-2.5	-2.4	-2.5	-2.5	57	51	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	43	37	40	34	39	34	30	30	45	38	41	35	40	34	30	30	-3.0	-2.7	-2.9	-2.9	55	49	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	43	37	40	34	39	34	30	30	45	38	40	35	40	34	31	30	-3.0	-2.7	-2.9	-2.8	55	49	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	42	36	39	33	39	33	30	30	42	37	39	34	39	33	30	30	-3.0	-2.8	-3.0	-3.0	54	49	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	40	34	37	31	40	35	30	30	41	36	40	34	39	33	30	30	-2.9	-2.6	-2.8	-2.8	54	49	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	40	35	37	32	37	31	30	30	41	35	38	32	37	31	31	30	-3.0	-2.7	-3.0	-2.9	53	47	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	44	38	41	35	40	35	30	30	44	38	41	35	41	35	31	30	-3.1	-2.8	-3.0	-3.0	56	50	-	-	-	-	-	-									
R0373	7A LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	40	34	37	31	40	35	30	30	41	36	40	34	39	33	30	30	-2.9	-2.6	-2.8	-2.8	54	49	-	-	-	-	-	-									
R0323	8 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	41	35	38	33	38	32	30	30	42	36	39	33	38	32	37	31	-2.9	-2.7	-2.9	-2.9	54	48	-	-	-	-	-	-									
R0323	8 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	45	40	43	38	43	37	33	30	46	40	44	38	42	37	37	31	-2.4	-2.2	-2.4	-2.3	58	52	-	-	-	-	-	-									
R0323	8 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	41	35	38	33	38	32	30	30	42	36	39	33	38	32	37	31	-2.9	-2.7	-2.9	-2.9	54	48	-	-	-	-	-	-									
R0323	8 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	45	39	43	38	42	37	36	30	46	40	44	38	42	36	40	34	-1.9	-1.6	-1.7	-1.8	58	52	-	-	-	-	-	-									
R0323	8 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	37	31	34	30	33	30	30	30	37	31	35	30	33	30	30	30	-2.2	-2.0	-2.1	-1.3	49	43	-	-	-	-	-	-									
R0323	8 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	42	36	40	34	39	33	33	3																													

RID	Address	NCA	Receiver type	Facade	Predicted noise level		Road contributions	Predicted noise level												RWCC noise criteria	Trigger 1: Change in noise level		Trigger 2: Cumulative limit		Trigger 3: Acute limit		Qualifies	Category of treatment (controlling)			
					level	Opening year		noise level													Day	Night	Day	Night	Day	Night					
								No Build	Day	Night	Build	Day	Night	No-build	Day	Night	Build	Day	Night										No-build	Day	Night
R0606	8 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	50	53	50	53	50	53	50	53	50	53	50	53	50	53	50	53	-1.2	3.8	-1.1	-4.1	-6.0	55	-	-	-	-
R0606	8 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	59	53	55	50	55	50	40	34	60	54	56	50	55	50	42	-3.6	-4.3	-3.8	-4.1	-4.2	60	55	-	-	-	
R0606	8 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	45	48	51	45	50	45	37	30	55	49	51	45	35	30	-4.1	-3.7	-4.2	-4.1	-6.0	55	-	-	-	-		
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	51	45	47	47	46	41	37	31	44	38	46	47	44	38	46	-1.7	-4.0	-1.7	-4.2	-4.0	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	53	46	48	42	47	42	38	33	53	47	49	43	46	40	45	40	-4.6	-4.0	-4.5	-4.1	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	51	45	48	42	47	41	40	35	52	46	48	42	45	39	46	40	-3.7	-3.2	-3.7	-3.5	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	53	47	49	44	48	43	42	36	52	46	48	43	44	38	45	40	-4.7	-4.1	-4.8	-4.4	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	50	44	46	40	45	39	39	33	51	45	46	40	42	36	44	38	-4.7	-4.1	-4.8	-4.4	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	52	46	47	42	46	41	40	34	52	46	48	42	44	38	45	40	-4.5	-4.0	-4.6	-4.2	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	52	45	48	42	47	41	42	36	52	46	48	43	44	38	46	41	-3.9	-3.2	-3.9	-3.4	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	53	47	49	44	48	42	43	37	53	47	50	44	45	40	48	42	-3.6	-3.2	-3.8	-3.3	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	49	43	46	40	44	39	40	34	50	44	46	40	42	37	44	38	-3.6	-3.4	-3.6	-3.6	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	51	45	47	42	46	41	41	35	51	45	48	42	44	39	45	39	-3.5	-3.3	-3.5	-3.5	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	50	44	46	41	45	39	40	35	50	44	47	41	42	36	45	39	-3.7	-3.3	-3.9	-3.6	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	51	45	48	42	47	41	41	35	52	46	48	42	44	39	46	40	-3.7	-3.2	-3.7	-3.4	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	52	46	48	43	47	42	39	33	53	47	49	43	45	39	46	41	-4.0	-3.5	-4.0	-3.6	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	43	37	42	36	41	36	35	30	43	38	43	37	41	35	38	32	-0.8	-0.6	-0.8	-0.8	55	50	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	45	39	44	39	43	38	37	32	46	40	45	39	43	37	40	35	-0.9	-0.7	-0.8	-0.9	58	52	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	43	37	41	36	41	35	33	30	43	37	42	36	40	35	37	31	-1.1	-0.9	-1.1	-1.0	55	49	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	45	39	44	38	43	37	35	30	45	40	44	38	43	37	39	33	-1.2	-1.0	-1.1	-1.2	57	52	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	43	37	42	37	41	36	34	31	44	38	43	37	41	35	38	32	-0.8	-0.7	-0.8	-0.8	56	50	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	45	39	44	39	43	38	37	31	46	40	45	39	43	38	40	34	-0.9	-0.7	-0.8	-0.8	58	52	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	51	45	48	41	46	40	37	32	47	41	44	38	43	37	40	34	-1.7	-1.4	-1.7	-1.4	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	52	46	48	42	47	42	39	33	53	47	48	43	45	39	46	40	-4.5	-3.8	-4.4	-4.0	60	55	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	45	39	41	36	41	36	30	30	45	39	42	36	41	36	31	30	-3.5	-3.1	-3.4	-3.4	57	51	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	47	41	43	38	43	38	32	30	47	41	44	38	43	37	34	30	-3.2	-2.9	-3.2	-3.1	59	53	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	44	38	43	37	42	36	35	30	44	39	43	37	42	36	38	32	-1.3	-1.2	-1.2	-1.3	56	51	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	46	40	45	39	44	38	37	32	47	41	45	40	44	38	40	34	-1.4	-1.2	-1.3	-1.3	59	53	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	44	38	43	37	42	36	35	30	44	39	43	37	42	36	38	32	-1.3	-1.1	-1.1	-1.1	59	53	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	46	40	44	39	44	38	36	31	46	40	45	39	43	38	40	34	-1.3	-1.1	-1.2	-1.1	58	52	-	-	-	
R0613	8 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	44	38	42	37	42	36	33	30	44	38	43	37	41	36	37	31	-1.3	-1.3	-1.3	-1.3	56	50	-	-	-	
R0519	8 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	46	40	44	39	44	38	36	31	46	40	45	39	43	38	40	34	-1.4	-1.2	-1.4	-1.2	59	53	-	-	-	
R0519	8 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	44	38	42	36	41	35	34	30	44	39	42	36	40	35	37	31	-2.3	-2.1	-2.3	-2.3	56	51	-	-	-	
R0519	8 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	47	41	45	39	44	38	37	31	47	42	45	39	43	38	40	34	-2.4	-2.2	-2.3	-2.4	59	54	-	-	-	
R0519	8 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	40	36	37	31	36	30	30	24	40	34	37	30	34	28	31	24	-2.2	-2.1	-2.2	-2.2	53	48	-	-	-	
R0519	8 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	44	38	42	36	41	35	34	30	44	39	42	36	40	34	38	32	-2.3	-2.1	-2.3	-2.2	56	51	-	-	-	
R0519	8 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	44	38	42	36	41	35	34	30	44	39	42	37	41	35	37	31	-2.3	-2.1	-2.3	-2.2	56	51	-	-	-	
R0519	8 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	46	40	44	38	43	37	36	31	48	42	45	39	43	38	40	34	-2.2	-2.1	-2.2	-2.2	53	48	-	-	-	
R0519	8 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	39	33	36	30	35	30	30	30	39	33	37	31	35	30	32	30	-2.7	-2.5	-2.6	-2.7	51	45	-	-	-	
R0519	8 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	43	37	41	35	40	34	34	30	44	38	41	35	39	34	36	30	-2.6	-2.4	-2.5	-2.6	56	50	-	-	-	
R0519	8 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	40	34	38	32	33	28	28	22	34	30	34	38	32	30	22	21	-1.9	-2.1	-1.9	-2.1	52	46	-	-	-	
R0519	8 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	44	38	42	36	41	35	35	30	44	39	42	36	40	34	38	32	-2.1	-2.1	-2.2	-2.3	56	51	-	-	-	
R0519	8 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	44	38																								

RID	Address	NCA	Receiver type	Facade	Predicted noise level		Road contributions	Predicted noise level		Road contributions	Change in noise level		RMCQ noise criteria	Trigger 1: Change in noise level		Trigger 2: Cumulative limit		Trigger 3: Acute limit		Qualifies	Category of treatment (Controlling)			
					No Build	Opening year		No Build	Design year		No Build	Design year		No Build	Design year	No Build	Design year	No Build	Design year					
							Floor			Direction			Day							Night		Day	Night	Day
R0638	12 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	E	51	47	41	46	41	45	41	43	41	42	-4.3	-3.9	-4.3	58	53	-	-	
R0638	12 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	E	53	47	48	43	48	43	53	47	49	43	42	-4.2	-3.8	-4.1	-4.0	58	53	
R0638	12 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	SW	50	45	46	41	46	41	50	45	47	41	42	-4.2	-3.8	-4.3	-4.3	58	53	
R0638	12 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	SW	52	47	48	43	48	43	52	47	49	43	42	-4.1	-3.7	-4.1	-4.1	58	53	
R0638	12 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	SW	51	45	46	41	46	41	50	45	47	41	42	-4.3	-3.9	-4.3	-4.3	58	53	
R0638	12 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	SW	52	47	48	43	48	43	52	47	49	43	42	-4.1	-3.8	-4.2	-4.2	58	53	
R0638	12 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	E	54	48	51	45	50	44	54	48	51	46	47	-3.7	-3.4	-3.7	-3.4	58	53	
R0638	12 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	E	55	49	52	46	51	45	55	49	52	47	48	-4.0	-3.5	-4.0	-3.6	58	53	
R0638	12 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	SW	43	37	42	36	40	35	35	30	43	38	42	36	-4.0	-3.4	-4.1	-1.5	55	50
R0638	12 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	SW	45	40	44	39	43	37	46	41	44	38	43	-3.7	-3.2	-3.5	-1.7	55	50	
R0638	12 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	SW	43	37	42	36	41	35	35	30	43	38	42	37	-4.0	-3.4	-4.1	-1.1	55	50
R0638	12 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	SW	45	40	44	39	43	37	46	41	44	38	43	-3.4	-1.2	-1.2	-1.2	58	52	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	SW	46	40	43	38	43	37	46	41	44	38	43	-3.7	-3.2	-3.5	-1.7	55	50	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	47	41	44	38	43	38	45	39	43	37	39	-3.3	-2.7	-2.6	-2.7	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	E	46	40	43	37	42	37	46	41	43	38	42	-3.6	-2.8	-2.9	-2.9	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	42	36	41	35	40	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43	38	42	-3.7	-3.1	-3.2	-3.2	58	53	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	E	49	43	46	41	45	40	49	43	46	41	45	-3.9	-2.9	-2.9	-2.9	59	54	
R0509	12 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	SE	43	37	42	36	41	35	40	35	43									

RID	Address	NCA	Receiver type	Facade	Predicted noise level												Road contributions Opening year	Predicted noise level Design year												Road contributions Design year	Change in noise level (Build - No Build)	RMCC noise criteria	Trigger 1: Change in noise level	Trigger 2: Cumulative limit	Trigger 3: Acute limit	Qualifies	Category of treatment (Controlling)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
					Floor		Direction		No Build		No Build		No Build		No Build			No Build		No Build		No Build		No Build		No Build		No Build										No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build		No Build	

RID	Address	NCA	Receiver type	Facade	Predicted noise level		Road contributions Opening year	Predicted noise level		Road contributions Design year	Predicted noise level		Change in noise level (Build - No Build)	RWCC noise criteria		Trigger 1: Change in noise level	Trigger 2: Cumulative limit		Trigger 3: Acute limit	Qualifies		Category of treatment (Controlling)	
					Floor			No Build			No Build			No Build			No Build			No Build			
					Day	Night		Day	Night		Day	Night		Day	Night		Day	Night		Day	Night		Day
R0619	3 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	61	59	59	59	59	59	59	59	59	59	59	59	59	59	59	-	-	
R0619	3 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	44	38	43	37	42	36	30	45	39	43	38	42	36	38	33	-1.5	-1.3	
R0619	3 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	47	41	45	40	44	39	36	33	47	42	46	40	41	38	42	36	-1.5	-1.2
R0619	3 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	53	47	52	46	50	44	48	42	53	47	53	47	46	40	51	46	-1.3	-0.8
R0619	3 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	46	40	45	39	44	38	38	33	46	41	45	40	43	37	42	36	-1.3	-0.9
R0619	3 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	51	45	47	41	47	41	30	30	51	46	47	42	47	42	30	30	-4.0	-3.7
R0619	3 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	52	46	48	43	48	43	30	30	53	47	49	43	49	43	34	30	-3.9	-3.6
R0619	3 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	57	50	52	46	52	46	30	30	57	51	52	46	52	46	30	30	-4.9	-4.0
R0619	3 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	58	51	53	47	53	47	30	30	58	52	53	47	53	47	34	30	-4.8	-4.0
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	39	33	42	36	36	30	41	35	39	34	43	37	36	30	42	36	3.1	3.3
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	42	36	44	38	39	34	42	36	43	37	45	39	39	33	43	37	1.5	1.8
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	47	41	49	43	46	41	48	40	48	42	50	44	42	36	49	43	1.5	2.0
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	53	46	52	46	50	44	48	42	53	47	53	47	46	40	51	46	-0.9	-0.4
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	48	42	50	45	47	42	47	41	48	42	51	45	43	37	50	44	2.3	2.9
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	53	47	52	46	50	44	48	42	53	47	53	47	45	38	52	46	-0.9	-0.4
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	43	38	41	35	40	35	30	30	44	38	41	36	41	35	33	30	-2.6	-2.3
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	46	40	43	38	43	37	33	30	46	40	44	38	43	37	37	31	-2.4	-2.1
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	43	37	40	35	40	35	30	30	43	38	41	35	40	35	33	30	-2.4	-2.2
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	45	39	43	37	42	37	33	30	46	40	43	38	42	37	37	31	-2.2	-2.0
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	40	34	45	39	38	32	44	38	41	35	46	41	38	31	46	40	5.0	5.2
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	43	37	46	41	41	35	45	40	44	38	48	42	40	34	47	41	3.4	3.8
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	42	36	42	36	42	36	33	33	45	40	44	38	42	36	32	32	1.8	1.7
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	44	38	44	38	41	36	40	35	44	39	45	39	41	36	42	36	0.0	0.2
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	43	37	40	35	40	34	30	30	43	37	41	35	40	35	33	30	-2.1	-1.9
R0666	3 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	45	39	43	37	42	37	34	30	45	40	44	38	42	36	32	32	-1.8	-1.7
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	41	35	38	33	38	32	30	30	41	36	39	33	38	32	32	30	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	45	39	43	37	42	37	33	30	46	40	43	38	42	37	36	30	-2.4	-2.2
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	46	40	43	38	43	37	33	30	48	41	41	39	44	39	37	31	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	46	40	43	38	43	37	33	30	48	41	41	39	44	39	37	31	-2.9	-2.7
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	46	40	43	38	43	37	33	30	48	41	41	39	44	39	37	31	-2.9	-2.7
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	30	48	42	45	39	44	39	33	33	-2.7	-2.4
R0449	3 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	42	45	39	44	39	36	3										

[illegible]

RID	Address	NCA	Receiver type	Facade	Predicted noise level		Road contributions Opening year	Predicted noise level Design year										Change in noise level (Build - No Build)				RNCG noise criteria	Trigger 1: Change in noise level	Trigger 2: Cumulative limit	Trigger 3: Acute limit	Qualifies	Category of treatment (Controlling)							
					Floor	Direction		No Build		Build		Non-project		Project		No Build		Build		Non-project								Project		Opening year		Design		
								Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night							Day	Night	Day	Night	Day	Night	
R0690	7 BUCKRIDGE ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	32	45	32	45	35	48	35	48	38	51	35	48	35	48	38	51	35	48	38	51	35	48	38	51	35	48	38	51	1
R0690	7 BUCKRIDGE ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	41	55	41	55	44	58	41	55	44	58	41	55	44	58	41	55	44	58	41	55	44	58	41	55	44	58	41	55	1
R0690	7 BUCKRIDGE ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	44	58	44	58	47	61	44	58	47	61	44	58	47	61	44	58	47	61	44	58	47	61	44	58	47	61	44	58	1
R0690	7 BUCKRIDGE ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	50	64	50	64	53	67	50	64	53	67	50	64	53	67	50	64	53	67	50	64	53	67	50	64	53	67	50	64	1
R0690	7 BUCKRIDGE ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	37	51	38	52	35	49	38	52	35	49	38	52	35	49	38	52	35	49	38	52	35	49	38	52	35	49	38	52	1
R0690	7 BUCKRIDGE ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	49	63	49	64	46	60	49	64	46	60	49	64	46	60	49	64	46	60	49	64	46	60	49	64	46	60	49	64	1
R0690	7 BUCKRIDGE ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	47	61	48	62	45	59	48	62	45	59	48	62	45	59	48	62	45	59	48	62	45	59	48	62	45	59	48	62	1
R0690	7 BUCKRIDGE ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	49	63	49	64	46	60	49	64	46	60	49	64	46	60	49	64	46	60	49	64	46	60	49	64	46	60	49	64	1
R0690	7 BUCKRIDGE ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	42	56	43	57	40	54	43	57	40	54	43	57	40	54	43	57	40	54	43	57	40	54	43	57	40	54	43	57	1
R0690	7 BUCKRIDGE ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	44	58	45	59	42	56	45	59	42	56	45	59	42	56	45	59	42	56	45	59	42	56	45	59	42	56	45	59	1
R0447	7 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	48	62	48	62	49	63	48	62	49	63	48	62	49	63	48	62	49	63	48	62	49	63	48	62	49	63	48	62	1
R0447	7 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	45	59	42	56	41	55	41	55	41	55	41	55	41	55	41	55	41	55	41	55	41	55	41	55	41	55	41	55	1
R0447	7 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	44	58	41	55	41	55	41	55	41	55	41	55	41	55	41	55	41	55	41	55	41	55	41	55	41	55	41	55	1
R0597	7 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	59	73	59	73	61	75	59	73	61	75	59	73	61	75	59	73	61	75	59	73	61	75	59	73	61	75	59	73	1
R0597	7 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	66	80	66	80	69	83	66	80	69	83	66	80	69	83	66	80	69	83	66	80	69	83	66	80	69	83	66	80	1
R0597	7 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	55	69	55	69	56	70	55	69	56	70	55	69	56	70	55	69	56	70	55	69	56	70	55	69	56	70	55	69	1
R0597	7 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	61	75	61	75	62	76	61	75	62	76	61	75	62	76	61	75	62	76	61	75	62	76	61	75	62	76	61	75	1
R0597	7 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	43	57	40	54	39	53	40	54	39	53	40	54	39	53	40	54	39	53	40	54	39	53	40	54	39	53	40	54	1
R0597	7 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	46	60	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	1
R0597	7 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	44	58	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	1
R0597	7 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	58	72	58	72	59	73	58	72	59	73	58	72	59	73	58	72	59	73	58	72	59	73	58	72	59	73	58	72	1
R0597	7 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	49	63	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	1
R0597	7 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	62	76	62	76	63	77	62	76	63	77	62	76	63	77	62	76	63	77	62	76	63	77	62	76	63	77	62	76	1
R0597	7 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	49	63	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	1
R0597	7 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	62	76	62	76	63	77	62	76	63	77	62	76	63	77	62	76	63	77	62	76	63	77	62	76	63	77	62	76	1
R0641	6 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	E	46	60	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	1
R0641	6 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	48	62	46	60	45	59	46	60	45	59	46	60	45	59	46	60	45	59	46	60	45	59	46	60	45	59	46	60	1
R0641	6 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	N	49	63	46	60	45	59	46	60	45	59	46	60	45	59	46	60	45	59	46	60	45	59	46	60	45	59	46	60	1
R0641	6 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	51	65	49	63	47	61	49	63	47	61	49	63	47	61	49	63	47	61	49	63	47	61	49	63	47	61	49	63	1
R0641	6 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	S	44	58	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	1
R0641	6 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	46	60	45	59	44	58	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	42	56	43	57	1
R0641	6 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	GF	W	47	61	43	57	43	57	43	57	43	57	43	57	43	57	43	57	43	57	43	57	43	57	43	57	43	57	43	57	1
R0641	6 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	49	63	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	45	59	1
R0524	6 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	39	53	38	52	37	51	38	52	37	51	38	52	37	51	38	52	37	51	38	52	37	51	38	52	37	51	38	52	1
R0524	6 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	41	55	40	54	39	53	40	54	39	53	40	54	39	53	40	54	39	53	40	54	39	53	40	54	39	53	40	54	1
R0524	6 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	39	53	38	52	37	51	38	52	37	51	38	52	37	51	38	52	37	51	38	52	37	51	38	52	37	51	38	52	1
R0524	6 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	41	55	40	54	39	53	40	54	39	53	40	54	39	53	40	54	39	53	40	54	39	53	40	54	39	53	40	54	1
R0524	6 LIVERPOOL ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	39	53	38	52	37</																								

RID	Address	NCA	Receiver type	Facade	Predicted noise level		Road contributions	Opening year	Predicted noise level		Road contributions	Design year	Predicted noise level		Road contributions	Design year	Change in noise level		RWCC noise criteria	Trigger 1: Change in noise level	Trigger 2: Cumulative limit	Trigger 3: Acute limit	Qualifies	Category of treatment (Controlling)								
					Day	Night			Day	Night			Day	Night			Day	Night							Day	Night						
																											Non-project	Project	Non-project	Project	Non-project	Project
R0682	4 MAWSON PL, PITT TOWN NSW 2756	NCA01	Residential	1.FL SW	Day	38	43	41	43	41	43	41	43	41	35	37	43	-1.0	4.3	3.8	-0.2	56	50	-	-							
R0682	4 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL E	60	54	57	51	56	51	46	40	61	55	57	51	56	50	52	-4.6	-3.3	-2.9	-3.3	58	53	-	-					
R0682	4 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL E	61	55	58	52	57	52	47	42	62	56	58	52	56	51	53	48	-3.5	-3.2	-3.4	-3.4	58	53	-	-				
R0682	4 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL E	52	45	48	42	46	40	44	38	53	47	49	42	36	47	41	-4.6	-4.7	-4.5	-4.9	58	53	-	-					
R0682	4 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	51	45	48	42	46	40	44	38	53	47	49	42	36	47	41	-4.6	-4.7	-4.5	-4.9	58	53	-	-					
R0682	4 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	51	45	48	42	46	40	44	38	53	47	49	42	36	47	41	-4.6	-4.7	-4.5	-4.9	58	53	-	-					
R0682	4 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	51	45	48	42	46	40	44	38	53	47	49	42	36	47	41	-4.6	-4.7	-4.5	-4.9	58	53	-	-					
R0682	4 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	51	46	47	41	45	39	43	37	52	46	47	42	39	33	47	-4.4	-4.4	-4.4	-4.5	46	58	53	-	-				
R0682	4 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	53	47	49	43	47	42	44	39	54	48	50	44	42	36	49	43	-3.8	-3.9	-4.0	-4.2	58	53	-	-				
R0682	4 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	54	48	50	44	48	42	44	39	54	48	50	44	42	36	49	43	-3.8	-3.9	-4.0	-4.2	58	53	-	-				
R0682	4 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	66	59	61	55	61	55	46	40	66	59	62	55	61	55	52	46	-4.5	-3.7	-4.4	-3.9	58	53	-	-				
R0682	4 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL W	46	40	42	37	42	37	30	30	47	41	43	37	42	37	32	30	-4.0	-3.6	-4.0	-4.0	58	53	-	-				
R0682	4 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL W	47	41	44	38	43	38	32	30	48	42	44	38	44	38	36	30	-3.9	-3.6	-3.8	-3.8	58	53	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL E	44	38	41	35	41	35	30	30	45	39	41	36	41	35	32	30	-3.3	-2.9	-3.2	31	57	51	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL E	47	41	44	38	43	38	32	30	48	42	44	38	44	38	36	30	-3.3	-2.8	-3.3	-3.1	60	54	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF N	59	51	53	47	53	47	30	30	61	54	56	50	54	48	40	34	-4.9	-4.1	-4.4	-4.4	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL E	65	58	60	54	60	54	40	34	66	58	60	54	60	54	42	36	-5.3	-4.1	-5.1	-4.3	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL E	58	52	53	48	53	48	30	30	59	52	54	48	54	48	30	30	-5.0	-4.0	-4.9	-4.5	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	64	57	59	53	59	53	37	31	65	58	60	53	60	53	40	34	-5.4	-4.0	-5.0	-4.4	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	64	56	58	52	58	52	35	30	64	57	59	52	59	52	37	31	-5.3	-4.0	-5.2	-4.5	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	64	57	59	53	59	53	37	31	65	58	60	53	60	53	40	34	-5.2	-4.0	-5.0	-4.4	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	64	57	59	53	59	53	37	31	65	58	60	53	60	53	40	34	-5.2	-4.0	-5.0	-4.4	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	67	60	62	56	62	56	40	34	68	60	63	56	62	56	47	41	-5.4	-3.9	-5.2	-4.3	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF N	67	59	61	55	61	55	39	34	68	60	62	55	62	55	46	40	-5.5	-3.9	-5.2	-4.3	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL N	67	60	62	56	62	56	41	35	68	60	63	56	63	56	47	41	-5.4	-3.9	-5.2	-4.3	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF S	44	38	42	36	41	36	34	30	44	38	43	37	41	35	37	31	-1.7	-1.5	-1.6	-1.4	56	50	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	46	40	44	39	44	39	37	31	47	41	45	39	44	38	40	34	-2.0	-1.7	-1.9	-1.9	56	53	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF S	43	36	39	34	39	33	30	30	43	37	40	34	39	33	31	30	-3.2	-2.6	-3.0	-2.7	55	49	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	46	40	43	37	42	37	32	30	46	40	43	36	43	36	30	30	-3.2	-2.6	-3.0	-2.8	58	52	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	47	41	44	39	44	39	37	31	48	42	44	39	44	38	37	32	-3.1	-2.8	-3.1	-3.0	58	52	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	48	42	45	40	45	40	36	31	49	43	46	40	45	39	40	34	-3.0	-2.7	-2.9	-2.9	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	49	43	46	40	45	40	36	31	49	43	46	40	45	39	40	34	-3.0	-2.7	-2.9	-2.9	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	49	43	46	40	45	40	36	31	49	43	46	40	45	39	40	34	-3.0	-2.7	-2.9	-2.9	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	49	43	46	40	45	40	36	31	49	43	46	40	45	39	40	34	-3.0	-2.7	-2.9	-2.9	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	49	43	46	40	45	40	36	31	49	43	46	40	45	39	40	34	-3.0	-2.7	-2.9	-2.9	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	49	43	46	40	45	40	36	31	49	43	46	40	45	39	40	34	-3.0	-2.7	-2.9	-2.9	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	49	43	46	40	45	40	36	31	49	43	46	40	45	39	40	34	-3.0	-2.7	-2.9	-2.9	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	49	43	46	40	45	40	36	31	49	43	46	40	45	39	40	34	-3.0	-2.7	-2.9	-2.9	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	49	43	46	40	45	40	36	31	49	43	46	40	45	39	40	34	-3.0	-2.7	-2.9	-2.9	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	49	43	46	40	45	40	36	31	49	43	46	40	45	39	40	34	-3.0	-2.7	-2.9	-2.9	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	49	43	46	40	45	40	36	31	49	43	46	40	45	39	40	34	-3.0	-2.7	-2.9	-2.9	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	49	43	46	40	45	40	36	31	49	43	46	40	45	39	40	34	-3.0	-2.7	-2.9	-2.9	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	49	43	46	40	45	40	36	31	49	43	46	40	45	39	40	34	-3.0	-2.7	-2.9	-2.9	60	55	-	-				
R0607	5 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL S	49	43	46	40	45	40	36																					

RID	Address	NCA	Receiver type	Facade	Predicted noise level Opening year	Road contributions Opening year												Predicted noise level Design year												Road contributions Design year												Change in noise level (Build - No Build)				RMCC noise criteria	Trigger 1: Change in noise level	Trigger 2: Cumulative limit				Trigger 3: Acute limit				Qualifies	Category of treatment (Controlling)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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R0573	26 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	E	47	40	43	38	40	35	34	30	44	38	42	36	40	34	37	31	-1.1	-1.0	-1.1	-1.1	50	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-</

RID	Address	NCA	Receiver type	Facade	Floor	Direction	Predicted noise level		Road contributions		Predicted noise level Design year	Road contributions		Change in noise level (Build - No Build)	Design		RMCG noise criteria	Trigger 1: Change in noise level	Trigger 2: Cumulative limit	Trigger 3: Acute limit	Qualifies	Category of treatment (Controlling)						
							No Build	Opening year	No-build	Design year		No-build	Design year		No-build	Design year												
Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night							
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	1.FL	E		42	32	41	32	37	31	42	37	43	37	30	-0.5	-0.4	-0.4	54	49	-					
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	GF	N		36	30	35	30	35	30	36	31	36	30	35	30	-0.4	-0.2	-0.4	55	48	43				
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	1.FL	N		38	32	37	32	37	32	30	39	33	38	32	36	31	33	30	-0.6	-0.5	-0.5	48	41	45	
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	GF	S		31	30	33	30	33	30	30	31	30	30	30	30	30	30	0.0	0.0	0.0	43	41	0.0		
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	1.FL	N		35	30	33	30	32	30	30	35	30	34	30	32	30	30	30	-1.6	0.0	-1.5	0.0	47	42	
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	GF	N		31	30	30	30	30	30	30	31	30	30	30	30	30	30	30	-0.7	0.0	-1.2	0.0	43	42	
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	1.FL	N		35	30	33	30	32	30	30	35	30	33	30	32	30	30	30	-1.6	0.0	-1.5	0.0	47	42	
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	GF	N		38	32	37	32	37	32	30	38	32	38	32	34	30	36	30	-0.2	-0.2	-0.2	-0.3	50	44	
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	1.FL	N		39	34	39	33	39	33	30	40	34	39	34	36	30	37	31	-0.5	-0.5	-0.4	-0.5	52	46	
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	GF	S		43	38	43	38	43	38	30	44	38	43	38	31	30	37	30	-1.3	-1.3	-1.3	-1.3	53	47	
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	1.FL	S		41	36	40	34	39	33	33	30	42	36	40	35	38	32	37	31	-1.4	-1.2	-1.3	-1.2	54	48
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	GF	S		41	36	40	34	39	33	33	30	42	36	40	35	38	32	37	31	-1.3	-1.3	-1.4	-1.3	54	48
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	1.FL	S		43	38	43	38	43	38	30	44	38	43	38	31	30	37	30	-1.4	-1.2	-1.3	-1.2	54	48	
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	GF	W		35	30	33	30	32	30	30	35	30	33	30	32	30	30	30	-2.2	0.0	-2.1	0.0	47	42	
R0459	23 FERNADELL DR. PITT TOWN NSW 2756	NCA03	Residential	1.FL	W		38	32	36	30	35	30	30	38	32	36	30	35	30	30	30	-2.0	-1.8	-2.0	-1.9	50	44	
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	GF	N		34	40	34	42	33	32	40	34	38	34	38	34	30	30	0.0	0.0	0.0	0.0	46	38	31	
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	E		39	33	39	33	39	32	30	40	33	40	33	39	32	33	30	0.1	0.1	0.1	0.2	52	45	
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	GF	E		36	30	36	30	36	30	30	37	30	37	30	36	30	30	0.1	0.0	0.0	0.1	49	42		
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	E		40	34	40	34	40	34	30	42	36	40	34	39	32	35	0.2	0.2	0.2	0.2	54	47		
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	GF	N		44	38	44	38	42	36	39	44	38	45	39	40	34	43	37	0.5	0.5	0.5	0.4	56	50	
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	N		45	39	45	40	44	38	41	41	35	45	39	42	35	44	38	0.6	0.7	0.7	0.7	57	51	
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	GF	S		38	32	38	32	38	32	30	38	33	39	33	36	31	35	30	0.2	0.2	0.2	0.2	50	45	
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	S		41	35	41	35	41	35	32	40	41	36	42	36	39	34	38	0.3	0.2	0.2	0.2	53	48	
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	GF	N		34	40	34	42	33	32	40	34	38	34	38	34	30	30	0.4	0.4	0.4	0.3	52	46		
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	S		42	36	42	37	41	36	36	42	37	43	37	40	34	40	0.6	0.6	0.6	0.5	54	49		
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	GF	W		43	37	44	38	42	37	39	44	38	45	39	41	35	42	36	0.7	0.8	0.7	0.7	56	50	
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	W		45	40	46	38	42	37	40	45	39	46	40	36	40	36	0.8	0.8	0.8	0.6	58	52		
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	GF	W		39	33	39	33	38	33	30	39	33	39	34	37	31	35	30	0.3	0.3	0.3	0.2	51	45	
R0568	23 GLEBE RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	W		41	36	42	36	41	35	34	40	42	36	40	34	39	33	0.3	0.3	0.3	0.2	54	48		
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	GF	E		50	43	50	43	50	43	30	40	50	43	50	43	40	43	0.3	0.4	0.3	0.4	51	45		
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	E		51	44	52	44	52	44	37	32	52	44	53	45	50	42	49	0.2	0.3	0.4	0.4	55	50	
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	GF	E		34	30	36	30	34	30	32	30	35	30	37	31	31	30	36	1.6	0.0	1.8	0.5	47	42	
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	E		38	32	38	32	38	32	30	38	32	34	33	33	30	37	41	1.4	1.1	1.9	0.5	49	44	
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	GF	E		45	39	48	42	45	39	44	39	45	40	48	42	43	37	46	41	2.8	2.8	2.8	2.7	55	50
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	E		48	41	49	44	46	40	47	41	47	41	50	44	44	38	49	43	3.1	3.1	3.1	2.9	55	50
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	GF	E		51	45	56	50	56	48	51	45	57	50	58	50	52	43	56	50	0.7	1.3	0.6	0.9	55	50
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	E		56	49	57	50	56	49	51	45	57	50	58	50	52	43	56	50	0.7	1.3	0.6	0.9	55	50
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	GF	N		55	48	57	50	55	48	51	45	56	49	57	50	49	51	56	50	1.2	1.8	1.0	1.6	55	50
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	N		56	49	58	51	56	49	52	46	57	50	58	51	51	43	57	50	1.3	2.0	1.3	1.8	56	51
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	GF	N		55	48	56	50	55	48	51	45	56	49	57	50	50	42	56	49	0.9	1.5	0.7	1.3	55	50
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	N		56	49	57	51	56	49	52	46	57	50	58	51	51	43	57	50	0.9	1.6	0.7	1.2	55	50
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	GF	S		47	41	48	42	45	40	34	48	42	46	41	46	41	40	46	1.6	4.1	1.1	4.7	47	42	
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	S		49	42	53	47	48	42	50	45	50	43	54	48	48	40	52	47	3.7	4.4	4.1	4.8	55	50
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	GF	S		47	42	51	45	46	40	49	44	48	42	52	46	44	39	51	45	3.5	3.7	4.1	4.1	55	50
R0822	22 OLD PITT TOWN RD. PITT TOWN NSW 2756	NCA02	Residential	1.FL	S		49	42	53	47	48	42	50	45	50	43	54	48	48	40	52	47	3.7	4.4	4.1	4.8	55	50
R0822	22 OLD PITT TOWN RD																											

RID	Address	NCA	Receiver type	Facade	Predicted noise level Opening year										Road contributions Opening year	Predicted noise level Design year										Road contributions Design year	Change in noise level (Build - No Build)				RMCC noise criteria	Trigger 1: Change in noise level		Trigger 2: Cumulative limit		Trigger 3: Acute limit		Qualifies	Category of treatment (Controlling)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
					Floor	Direction	No Build		Day		Night		Non-project	Project		Day		Night		No Build	Build		Night		Non-project		Project		Day			Night		Opening year	Design		Day			Night	Day	Night	Day	Night																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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R0489	24 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	44	41	44	39	44	39	31	30	47	41	45	40	43	37	41	35	31	-1.9	-1.8	-1.9	-1.7	57	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

RID	Address	NCA	Receiver type	Facade	Floor	Direction	Predicted noise level Opening year										Road contributions Opening year	Predicted noise level Design year										Road contributions Design year	Change in noise level (Build - No Build)				RMCC noise criteria	Trigger 1: Change in noise level		Trigger 2: Cumulative limit		Trigger 3: Acute limit		Qualifies	Category of treatment (Controlling)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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R0578	23 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	46	40	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44	39	44

RID	Address	NCA	Receiver type	Facade	Predicted noise level				Road contributions	Predicted noise level				Road contributions	Change in noise level				RWCC noise criteria	Trigger 1:		Trigger 2:		Trigger 3:		Category of		
					Opening year					Design year					Design year					Opening year		Design year		Design year			Design year	
					Floor	Direction	No Build	Day	Night	Build	Day	Night	Non-project	Day	Night	Build	Day	Night	Non-project	Day	Night	Design	Day	Night	Day	Night	Day	Night
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	42	40	45	43	45	43	45	43	45	43	45	43	45	43	45	43	45	43	45	43	-	-	
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	42	36	39	34	39	33	30	42	37	40	34	39	33	32	30	-2.6	-2.3	-2.4	-2.4	54	49	-	
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	44	38	42	36	41	36	32	30	45	39	42	37	41	36	30	-2.1	-1.9	-2.1	-2.0	57	51	-	
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	43	38	41	35	40	35	30	42	37	40	34	39	33	30	-2.8	-2.4	-2.8	-2.6	50	44	-		
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	45	40	43	37	42	37	33	30	46	40	43	38	42	37	37	-2.5	-2.2	-2.4	-2.3	57	52	-	
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	42	37	44	35	40	35	42	37	44	38	39	34	43	37	1.6	1.8	2.0	1.9	54	49	-		
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	45	39	46	41	44	38	43	37	46	40	47	41	43	39	1.2	1.7	1.8	1.8	56	50	-		
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	41	36	40	35	40	34	32	30	42	36	41	35	39	34	-1.1	-1.0	-1.0	-0.9	54	48	-		
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	43	37	45	40	44	38	43	37	45	40	46	40	43	37	44	-0.5	-0.7	-0.7	-0.7	57	52	-	
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	44	38	42	37	42	36	30	45	39	43	37	42	37	31	-1.9	-1.7	-1.8	-1.8	57	51	-		
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	46	40	44	38	44	38	32	30	46	41	44	39	44	38	-1.8	-1.6	-1.7	-1.7	57	52	-		
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	45	39	44	39	43	37	33	30	45	40	45	39	43	37	41	-0.4	-0.2	-0.4	-0.4	57	52	-	
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	47	41	46	40	45	39	40	35	47	41	46	41	44	39	42	-1.1	-1.1	-1.2	-1.2	57	52	-	
R0615	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	46	41	46	40	45	39	40	35	47	41	46	41	44	39	42	-0.5	-0.3	-0.4	-0.4	57	52	-	
R0637	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	44	39	43	37	42	37	35	30	45	39	43	38	42	36	38	-1.7	-1.4	-1.4	-1.5	57	51	-	
R0637	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	45	39	46	41	44	38	43	37	45	39	47	41	43	37	45	-0.9	-0.9	-1.0	-1.0	57	51	-	
R0637	28 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	47	41	46	40	45	39	40	35	47	41	46	41	44	39	42	-0.5	-0.3	-0.4	-0.4	57	52	-	
R0879	30 CATTAR RD, PITT TOWN NSW 2756	NCA03	Residential	GF	NE	57	52	57	52	57	52	50	30	58	52	58	52	49	44	57	52	0.0	0.0	-0.1	0.0	60	55	-
R0879	30 CATTAR RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL	NE	58	53	58	53	58	53	32	30	59	53	59	53	51	45	58	53	-0.1	-0.1	-0.1	0.0	60	55	-
R0879	30 CATTAR RD, PITT TOWN NSW 2756	NCA03	Residential	GF	NW	60	54	60	54	60	54	48	43	60	55	60	55	50	44	60	54	0.1	0.0	0.1	0.0	60	55	-
R0879	30 CATTAR RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL	NW	61	55	61	55	61	55	49	44	61	56	61	56	51	46	61	55	0.0	0.0	-0.1	-0.1	60	55	-
R0879	30 CATTAR RD, PITT TOWN NSW 2756	NCA03	Residential	GF	SE	43	37	45	39	44	38	40	34	47	41	46	40	43	37	34	-0.3	-0.3	-0.3	-0.3	58	50	-	
R0879	30 CATTAR RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL	SE	49	43	49	44	49	43	41	35	49	43	50	44	48	42	46	40	0.8	0.8	0.7	0.8	60	55	-
R0879	30 CATTAR RD, PITT TOWN NSW 2756	NCA03	Residential	GF	SW	55	50	56	50	55	49	48	43	56	50	56	51	40	33	56	50	0.2	0.0	0.2	0.1	60	55	-
R0879	30 CATTAR RD, PITT TOWN NSW 2756	NCA03	Residential	1.FL	SW	57	51	57	51	57	50	44	44	57	51	57	50	44	34	57	51	-0.1	-0.1	-0.1	0.0	60	55	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	44	38	43	38	42	36	38	33	45	39	44	38	42	36	41	-0.6	-0.4	-0.3	-0.3	57	51	-	
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	46	41	46	40	44	39	40	34	47	41	46	41	44	38	42	36	-0.8	-0.6	-0.6	-0.6	58	53	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	47	41	46	41	45	40	37	31	47	41	46	41	44	38	42	36	-0.3	-0.1	-0.2	-0.2	57	51	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	44	38	44	38	42	36	39	33	44	38	44	38	41	35	41	35	-0.1	0.2	0.1	0.1	56	50	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	41	36	41	36	39	33	37	31	42	36	42	36	39	33	39	33	-0.3	-0.1	-0.2	-0.2	54	48	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	44	38	44	38	42	36	39	33	44	38	44	38	41	35	41	35	-0.3	-0.1	-0.2	-0.2	57	51	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	42	36	43	37	41	36	38	33	43	36	43	38	39	42	36	40	0.9	1.3	0.9	1.0	55	49	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	45	39	45	40	44	38	40	35	45	39	46	40	42	36	44	38	0.5	0.7	0.5	0.6	57	51	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	42	36	43	37	40	35	39	33	43	36	43	38	39	33	41	36	0.7	1.0	0.9	1.1	55	49	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	45	39	45	40	43	38	41	35	46	40	46	40	43	37	44	38	0.2	0.4	0.4	0.5	58	52	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	42	36	43	37	40	35	39	33	43	36	43	38	39	33	41	36	0.7	1.0	0.9	1.1	55	48	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	45	39	45	40	43	38	41	35	46	40	46	40	43	37	44	38	0.2	0.4	0.4	0.5	58	52	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	42	36	43	37	40	35	39	33	43	36	43	38	39	33	41	36	0.7	1.0	0.9	1.1	55	48	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	45	39	45	40	43	38	41	35	46	40	46	40	43	37	44	38	0.2	0.4	0.4	0.5	58	52	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	42	36	43	37	40	35	39	33	43	36	43	38	39	33	41	36	0.7	1.0	0.9	1.1	55	48	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	45	39	45	40	43	38	41	35	46	40	46	40	43	37	44	38	0.2	0.4	0.4	0.5	58	52	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	42	36	43	37	40	35	39	33	43	36	43	38	39	33	41	36	0.7	1.0	0.9	1.1	55	48	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	45	39	45	40	43	38	41	35	46	40	46	40	43	37	44	38	0.2	0.4	0.4	0.5	58	52	-
R0882	29 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	42	36	43	37	40	35	39	33	43	36	43	38	39	33	41	36	0.7	1.0					

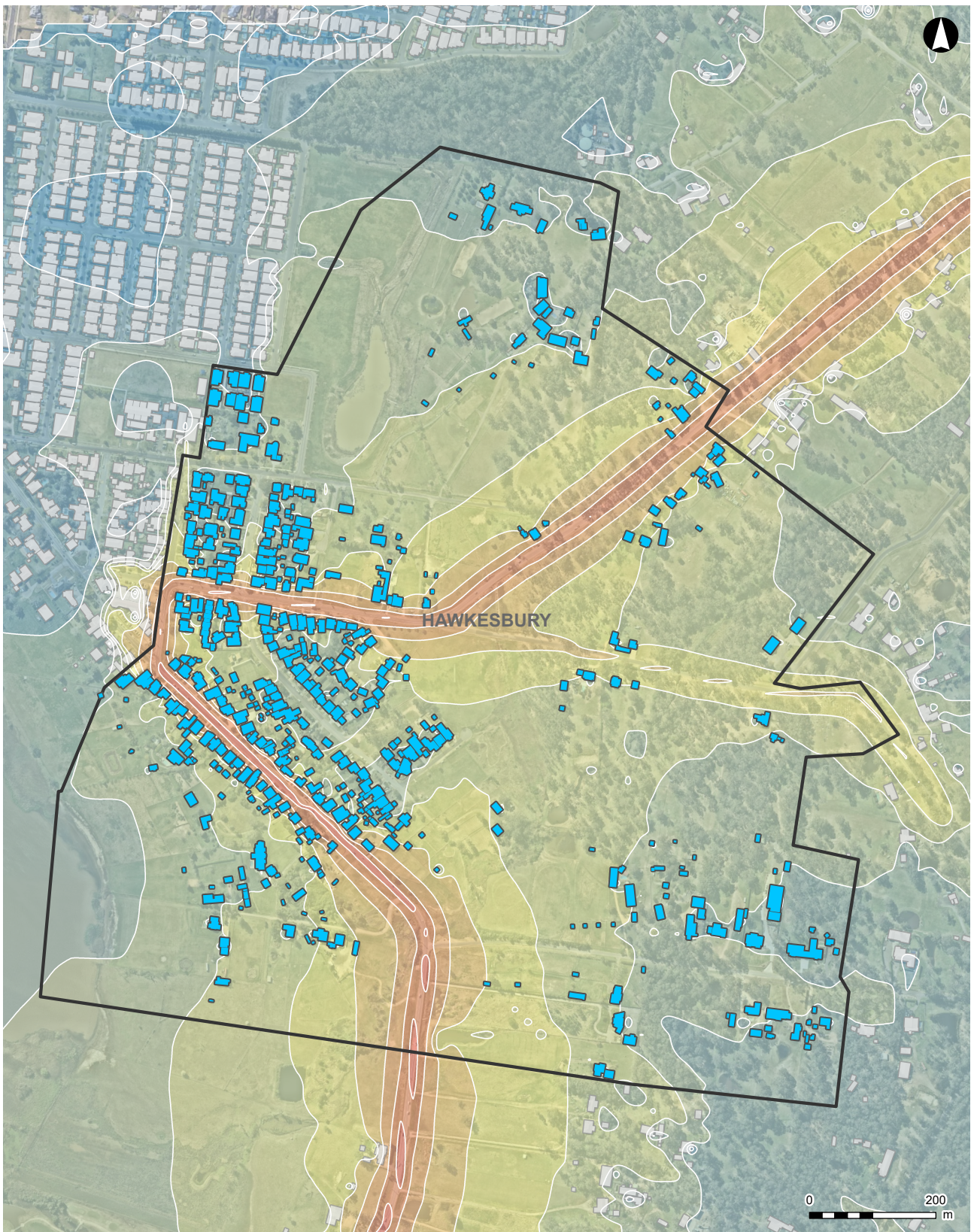
RID	Address	NCA	Receiver type	Facade	Predicted noise level		Road contributions		Predicted noise level		Road contributions		Change in noise level		RWCC noise criteria	Trigger 1: Change in noise level	Trigger 2: Cumulative limit	Trigger 3: Acute limit	Qualifies	Category of treatment (Controlling)
					level	Opening year	No Build	Build	No Build	Build	No Build	Build	No Build	Build						
R0300	27 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	62	51	57	51	62	51	57	51	62	51	57	-5.1	-3.9	-5.1	55
R0300	27 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	67	59	61	55	67	60	62	56	62	56	40	-5.5	-3.9	-5.3	60
R0300	27 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	61	54	56	50	61	55	56	50	56	50	33	-5.1	-3.9	-4.9	60
R0300	27 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	68	59	61	55	68	59	61	55	68	59	30	-5.3	-3.8	-5.2	60
R0386	26 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	52	46	48	42	52	47	48	43	48	43	31	-4.4	-3.8	-4.3	60
R0386	26 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	45	39	41	36	41	36	30	30	45	39	42	-3.6	-3.1	-3.4	57
R0386	26 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	44	39	41	35	41	35	30	30	45	39	41	-3.5	-3.1	-3.4	57
R0386	26 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	65	57	59	54	59	54	31	30	65	58	60	-5.4	-3.9	-5.1	60
R0386	26 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	55	57	59	53	59	53	30	30	65	58	60	-5.4	-3.9	-5.1	60
R0386	26 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	69	58	60	54	60	54	32	30	69	60	54	-5.2	-3.9	-5.0	60
R0386	26 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	51	46	47	42	47	42	30	30	52	46	48	-4.2	-3.8	-4.1	60
R0386	26 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	57	50	52	47	52	47	30	30	57	51	53	-4.7	-3.9	-4.7	60
R0465	27-29 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA03	Residential	1.FL	E	46	40	45	39	44	38	39	34	46	41	46	-4.0	-3.4	-4.1	58
R0465	27-29 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA03	Residential	1.FL	N	39	34	39	33	39	33	30	30	40	34	40	-3.4	-2.8	-3.4	54
R0465	27-29 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA03	Residential	1.FL	N	41	36	41	35	40	35	30	30	42	36	40	-3.4	-2.8	-3.4	54
R0465	27-29 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA03	Residential	GF	S	42	36	41	35	40	34	34	30	43	37	41	-1.4	-1.3	-1.4	55
R0465	27-29 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA03	Residential	1.FL	S	46	40	44	39	43	37	38	32	46	40	45	-1.4	-1.4	-1.4	58
R0465	27-29 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA03	Residential	1.FL	N	45	39	43	37	43	37	30	30	46	40	45	-1.3	-1.3	-1.3	58
R0465	27-29 BUCKINGHAM ST, PITT TOWN NSW 2756	NCA03	Residential	1.FL	W	41	35	38	33	38	33	30	30	41	36	39	-3.3	-2.4	-2.3	53
R0434	26A BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	41	36	39	34	39	33	30	30	42	36	40	-3.4	-2.9	-3.1	54
R0434	26A BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	44	39	43	37	42	36	35	30	45	39	43	-3.7	-3.1	-3.7	57
R0434	26A BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	40	34	39	34	39	34	30	30	40	35	40	-3.4	-2.9	-3.0	52
R0434	26A BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	42	37	41	36	41	36	30	30	42	37	41	-1.0	-1.0	-1.0	52
R0434	26A BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	43	37	41	35	40	34	33	30	43	38	41	-2.0	-1.5	-1.7	57
R0434	26A BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	45	40	44	38	43	37	37	32	46	40	44	-1.7	-1.6	-1.7	58
R0434	26A BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	39	33	36	30	39	33	30	30	39	34	37	-3.0	-2.6	-2.7	51
R0434	26A BUCKINGHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	42	36	39	34	39	34	30	30	43	37	40	-2.7	-2.5	-2.6	53
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	41	36	41	35	39	33	37	31	42	36	42	-0.7	-0.5	-0.3	54
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	44	39	43	37	43	37	30	30	44	38	44	-0.3	-0.3	-0.2	54
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	43	37	40	35	40	34	31	30	43	37	41	-3.5	-3.0	-3.4	55
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	45	39	43	37	43	37	34	30	46	40	44	-3.8	-3.2	-3.8	58
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	41	36	39	34	39	34	30	30	42	36	40	-3.3	-2.8	-3.1	54
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	44	38	42	36	41	36	31	30	44	39	42	-3.7	-3.1	-3.7	57
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	43	37	41	35	41	35	30	30	43	38	41	-3.5	-3.1	-3.4	55
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	45	39	43	37	43	37	30	30	46	40	45	-3.8	-3.2	-3.8	58
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	42	36	40	34	39	34	30	30	43	37	40	-2.5	-2.2	-2.4	55
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	44	39	42	37	42	36	34	30	45	39	43	-2.1	-1.9	-2.0	57
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	42	36	40	34	39	34	30	30	43	37	40	-2.6	-2.4	-2.4	55
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	44	39	42	36	42	36	31	30	45	39	43	-2.3	-2.1	-2.3	57
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	45	39	44	38	43	37	37	32	45	40	45	-0.8	-0.7	-0.8	57
R0602	26 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	47	41	46	39	46	41	36	33	48	41	46	-0.9	-0.7	-0.9	59
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	43	37	39	33	39	33	30	30	43	37	39	-3.8	-3.3	-3.7	55
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	47	41	43	38	43	38	30	30	48	42	44	-3.8	-3.4	-3.7	58
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	58	50	51	45	51	45	30	30	58	50	51	-4.7	-3.8	-4.6	58
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	57	51	53	47	53	47	35	30	58	52	54	-4.4	-3.7	-4.4	60
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	43	37	40	34	39	34	30	30	43	38	40	-3.4	-3.0	-3.4	56
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	47	41	43	38	43	38	30	30	48	42	44	-4.1	-3.5	-4.1	58
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	43	37	39	34	39	33	30	30	43	37	40	-3.8	-3.2	-3.8	55
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	47	41	43	38	43	38	30	30	48	42	44	-4.1	-3.5	-4.1	58
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	43	37	40	34	39	34	30	30	43	37	40	-3.4	-3.0	-3.4	56
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	47	41	43	38	43	38	30	30	48	42	44	-4.1	-3.5	-4.1	58
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	43	37	39	34	39	33	30	30	43	37	40	-3.8	-3.2	-3.8	55
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	48	42	44	38	44	38	32	30	48	42	44	-4.3	-3.7	-4.3	60
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	66	56	61	55	61	55	34	30	67	58	62	-5.5	-3.9	-5.3	60
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	69	62	66	60	66	60	32	30	69	62	56	-5.8	-3.9	-5.2	60
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	66	58	60	54	60	54	34	30	66	59	61	-5.4	-3.9	-5.2	60
R0346	28 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	69	62	66	60	66	60	32	30							

RID	Address	NCA	Receiver type	Facade	Predicted noise level		Road contributions	Predicted noise level										Change in noise level (Build - No Build)	RWCG noise criteria	Trigger 1: Change in noise level		Trigger 2: Cumulative limit		Trigger 3: Acute limit		Qualifies	Category of (controlling)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
					level	Opening year		Non-project					Project							Non-project					Project					noise limit		noise limit		noise limit																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
							Floor	Direction	No Build	Day	Night	Build	Day	Night	Day	Night	No Build	Day	Night	Build	Day	Night	Non-project	Day	Night	Project	Day	Night	Opening year	Day	Night	Design	Day	Night	Day	Night	Day	Night	Day	Night																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
R0561	14 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	F	41	35	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	-	-	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
R0561	14 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	F	45	39	43	37	42	37	33	30	46	40	43	37	42	36	37	31	-2.4	-2.2	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	-	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
R0561	14 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	F	41	35	39	39	39	39	39	39	42	36	39	39	39	39	39	39	-2.5	-2.3	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
R0561	14 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	F	45	40	43	37	42	37	33	30	46	40	43	38	42	36	37	31	-2.7	-2.5	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
R0561	14 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	F	46	36	40	36	40	36	30	30	47	41	44	38	43	37	38	33	-2.7	-2.5	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
R0561	14 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	F	41	35	39	39	39	39	39	39	42	36	41	35	39	39	39	39	-1.0	-0.8	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
R0561	14 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	F	46	40	44	38	43	38	38	33	47	41	45	39	43	37	40	34	-1.7	-1.5	-1.7	-1.5	-1.6	-1.5	-1.6	-1.5	-1.6	-1.5	-1.6	-1.5	-1.6	-1.5	-1.6	-1.5	-1.6	-1.5	-1.6	-1.5	-1.6	-1.5	-1.6	-1.5	-1.6	-1.5	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
R0561	14 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	F	46	40	44	39	44	39	34	30	49	41	45	39	44	39	35	30	-2.3	-2.0	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
R0561	14 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	F	46	41	45	39	43	38	39	33	47	41	45	39	43	37	40	34	-1.1	-0.9	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
R0561	14 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SE	F	43	37	41	36	40	34	36	30	43	37	42	36	40	34	38	32	-1.3	-1.1	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
R0561	14 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SE	F	46	41	45	39	43	38	39	33	47	41	45	39	43	37	41	36	-1.7	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
R0561	14 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	SW	F	46	41	44	39	44	39	30	30	49	41	45	39	44	39	35	30	-2.3	-2.0	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
R0561	14 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	SW	F	48	42	46	40	46	40	33	30	48	43	46	41	46	40	38	32	-2.2	-2.1	-2.2	-2.1	-2.2	-2.1	-2.2	-2.1	-2.2	-2.1	-2.2	-2.1	-2.2	-2.1	-2.2	-2.1	-2.2	-2.1	-2.2	-2.1	-2.2	-2.1	-2.2	-2.1	-2.2	-2.1	-2.2	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
R0562	15 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	61	55	56	51	56	51	31	30	62	55	57	51	57	51	35	30	-4.8	-4.0	-4.7	-4.3	-6.0	-5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
R0562	15 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	62	57	57	52	57	52	37	31	62	57	57	51	57	51	35	30	-4.8	-4.0	-4.7	-4.3	-6.0	-5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

RID	Address	NCA	Receiver type	Facade	Predicted noise level		Road contributions	Opening year	Predicted noise level		Road contributions	Design year	Predicted noise level		Road contributions	Design year	Change in noise level		RWCG noise criteria	Trigger 1: Change in noise level		Trigger 2: Cumulative limit		Trigger 3: Acute limit		Qualifies	Category of treatment (Controlling)		
					Day	Night			Day	Night			Day	Night			Day	Night										Day	Night
					Floor	Direction	No Build	Build	No-build	Project	No Build	Build	No-build	Project	Opening year	Design	No Build	Build	No-build	Project	Opening year	Design							
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	60	54	56	59	54	56	59	54	56	59	54	56	59	54	56	-	-	-	-	-	-	-		
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	61	55	57	61	57	61	57	62	56	57	61	57	61	40	35	-4.6	-4.0	-4.6	-4.2	60	55	-	-	
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	57	51	52	47	52	47	31	30	57	51	53	47	53	47	35	30	-4.3	-3.8	-4.2	-4.2	60	55	-	-
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	58	52	54	48	54	48	54	49	54	48	54	49	54	40	34	-4.4	-3.8	-4.1	-4.1	60	55	-	-	
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	44	38	40	35	40	34	31	30	44	38	41	35	40	34	30	-3.4	-3.1	-3.3	-3.3	56	50	-	-	
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	40	34	36	30	36	30	27	26	40	34	36	30	33	33	30	-3.3	-3.1	-3.3	-3.3	60	55	-	-	
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	60	54	55	50	55	50	30	30	61	54	56	50	56	50	31	30	-4.8	-4.0	-4.7	-4.4	60	55	-	-
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	61	55	56	51	56	51	33	30	62	55	57	51	57	51	37	31	-4.8	-4.0	-4.8	-4.4	60	55	-	-
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	60	54	56	50	56	50	30	30	61	56	56	50	52	30	30	-4.1	-3.8	-4.6	-4.2	60	55	-	-	
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	61	55	57	51	57	51	35	30	62	56	57	51	57	51	38	32	-4.6	-3.8	-4.5	-4.1	60	55	-	-
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	67	59	61	55	61	55	38	32	67	60	62	56	62	56	43	37	-5.4	-3.9	-5.1	-4.2	60	55	-	-
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	68	60	62	56	62	56	39	33	68	61	63	56	63	56	44	38	-5.3	-4.0	-5.0	-4.2	60	55	-	-
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	63	56	58	52	58	52	30	30	63	56	58	52	58	52	31	30	-4.9	-3.9	-4.8	-4.3	60	55	-	-
R0527	20 ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	64	57	59	53	59	53	33	30	64	57	59	53	59	53	37	31	-5.0	-3.9	-4.8	-4.3	60	55	-	-
R0541	19 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	45	39	43	38	42	37	36	30	46	40	44	38	42	37	39	33	-2.0	-1.7	-1.9	-2.0	58	52	-	-
R0541	19 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	45	39	43	38	42	37	36	30	46	40	44	38	42	37	39	33	-2.1	-1.9	-2.0	-2.0	58	52	-	-
R0541	19 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	44	38	42	37	42	36	32	30	44	39	43	37	42	36	36	30	-1.6	-1.5	-1.5	-1.6	56	51	-	-
R0541	19 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	46	40	44	38	43	38	32	30	46	40	44	38	44	38	35	30	-1.9	-1.7	-1.8	-1.8	58	52	-	-
R0541	19 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	44	38	43	37	42	37	34	30	44	39	43	38	42	37	37	31	-1.2	-1.1	-1.1	-1.1	56	51	-	-
R0541	19 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	44	38	42	37	42	36	31	30	44	39	43	37	42	37	34	30	-1.6	-1.5	-1.5	-1.6	56	51	-	-
R0541	19 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	48	42	46	40	46	40	31	30	48	42	46	40	46	40	34	30	-2.1	-1.9	-1.9	-1.9	60	55	-	-
R0541	19 WELLESLEY ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	47	41	45	39	45	39	30	30	47	41	45	40	45	39	33	30	-2.0	-1.9	-1.9	-1.8	59	53	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	51	45	47	42	47	42	30	30	52	46	48	42	48	42	33	30	-3.8	-3.5	-3.8	-3.8	60	55	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	54	48	50	45	50	45	35	30	54	48	50	45	50	45	37	34	-3.7	-3.4	-3.7	-3.7	60	55	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	56	50	52	46	52	46	30	30	57	51	52	47	52	47	33	30	-4.3	-3.9	-4.2	-4.2	60	55	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	58	53	54	49	54	49	35	30	59	53	55	49	55	49	39	33	-4.1	-3.7	-4.2	-4.1	60	55	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	57	51	53	47	53	47	30	30	57	51	53	47	53	47	34	30	-4.7	-4.0	-4.7	-4.2	60	55	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	60	54	55	50	55	50	35	30	60	54	56	50	56	50	39	33	-4.6	-3.9	-4.5	-4.3	60	55	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	56	50	51	46	51	46	30	30	56	50	52	46	51	46	31	30	-4.4	-4.0	-4.3	-4.4	60	55	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	57	51	53	47	53	47	30	30	57	51	53	47	53	47	34	30	-4.2	-3.9	-4.2	-4.2	60	55	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	60	55	56	51	56	51	31	30	61	55	57	51	57	51	34	30	-4.2	-3.7	-4.2	-4.1	60	55	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	61	56	57	52	57	52	36	30	62	56	58	52	58	52	39	33	-4.2	-3.7	-4.1	-4.0	60	55	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	65	59	62	56	62	56	30	30	65	59	62	56	62	56	30	30	-5.2	-3.9	-5.0	-4.3	60	55	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	66	59	61	55	61	55	31	30	66	59	61	55	61	55	35	30	-5.1	-3.8	-5.0	-4.2	60	55	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	66	58	61	55	61	55	30	30	66	59	61	55	61	55	30	30	-5.2	-3.8	-5.1	-4.2	60	55	-	-
R0298	22 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	65	58	60	54	60	54	30	30	65	58	60	54	60	54	30	30	-5.1	-3.8	-5.0	-4.3	60	55	-	-
R0610	22 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NE	71	64	69	61	69	61	48	43	72	64	70	62	70	62	55	48	-1.8	-2.4	-1.6	-2.6	60	55	-	-
R0610	22 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NE	71	64	70	62	70	62	49	44	72	65	70	62	70	62	56	49	-1.8	-2.4	-1.7	-2.5	60	55	-	-
R0610	22 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	68	60	65	58	60	58	34	30	68	60	62	56	62	56	37	34	-2.7	-1.8	-2.2	-2.8	60	55	-	-
R0610	22 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	67	60	65	58	65	58	39	34	67	61	66	59	66	59	43	37	-1.8	-2.2	-1.7	-2.3	60	55	-	-
R0610	22 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	65	58	63	56	63	56	34	30	65	59	63	57	63	57	38	32	-1.9	-2.0	-1.8	-2.1	60	55	-	-
R0610	22 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	NW	67	60	65	58	65	58	34	30	67	61	66	59	66	59	43	37	-1.9	-2.0	-1.8	-2.1	60	55	-	-
R0610	22 BATHURST ST, PITT TOWN NSW 2756	NCA01	Residential	GF	NW	65	58	63	56	63	56	33	30																

RID	Address	NCA	Receiver type	Facade	Predicted noise level										Road contributions Opening year	Predicted noise level										Road contributions Design year	Change in noise level (Build - No Build)	RWCC noise criteria	Trigger 1: Change in noise level		Trigger 2: Cumulative limit		Trigger 3: Acute limit		Qualifies	Category of treatment (Controlling)							
					level		level		level		level		level			level		level		level		level		level																			
					Opening year		level		level		level		level			level		level		level		level		level					level														
					Floor	Direction	No	Day	Night	Day	Night	Non-project	Project	Day		Night	Day	Night	Non-build	Build	Day	Night	Non-project	Project	Day				Night	Day	Night	Non-project	Project	Day			Night	Day	Night	Day	Night		
R3033	18 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	43	37	40	44	39	34	30	44	39	34	30	44	39	34	30	44	39	34	30	44	39	34	30	44	-3.4	-2.8	-3.4	-3.1	60	54	-	-	-	-	-	-	-	-
R3033	18 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	43	37	40	44	39	34	30	44	39	34	30	44	39	34	30	44	39	34	30	44	39	34	30	44	-3.3	-2.8	-3.3	-3.1	56	50	-	-	-	-	-	-	-	-
R3033	18 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	48	42	45	39	44	39	34	30	49	42	45	39	44	38	38	32	-3.5	-2.9	-3.4	-3.2	60	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R3033	18 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	48	42	45	39	44	39	34	30	49	42	45	39	44	38	38	32	-3.5	-2.9	-3.4	-3.2	60	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R3033	18 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	50	43	46	40	45	40	35	30	50	44	46	41	46	40	38	33	-3.8	-3.1	-3.6	-3.4	60	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R3033	18 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	54	48	50	44	50	44	32	30	55	48	50	44	50	44	36	30	-4.6	-3.8	-4.6	-4.2	60	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R3033	18 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	56	49	51	46	51	45	35	30	56	50	52	46	51	45	39	33	-4.5	-3.7	-4.4	-4.1	60	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R3033	18 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	S	67	59	62	55	62	55	35	30	68	60	62	56	62	56	37	32	-5.7	-3.9	-5.4	-4.3	60	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R3033	18 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	S	68	60	62	56	62	56	37	31	69	60	63	56	39	33	-5.5	-3.9	-5.3	-4.3	60	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R3033	18 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	W	59	51	54	48	54	48	30	30	59	52	54	46	54	48	30	30	-5.3	-3.7	-5.1	-4.1	60	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R3033	18 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	60	52	54	48	54	48	31	30	60	53	55	49	55	49	35	30	-5.1	-3.8	-5.0	-4.1	60	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R3033	18 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	W	61	53	56	50	56	50	30	30	62	54	56	50	56	50	30	30	-5.3	-3.8	-5.2	-4.2	60	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R3033	18 CHATHAM ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	57	49	51	45	50	45	30	30	57	50	52	46	51	45	39	33	-5.2	-3.6	-5.2	-4.2	58	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	GF	E	41	35	40	35	40	35	30	30	41	35	41	35	35	30	39	34	-0.4	-0.3	-0.4	-0.3	53	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	1.FL	E	42	36	41	36	41	35	30	30	42	36	42	36	37	31	40	34	-0.4	-0.5	-0.4	-0.5	54	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	GF	E	45	39	44	39	43	37	39	33	46	40	45	39	40	34	43	38	-0.8	-0.7	-0.7	-0.8	58	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	1.FL	E	46	40	45	39	44	38	39	34	46	41	46	40	41	35	44	38	-0.8	-0.8	-0.7	-0.8	58	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	GF	N	41	35	40	35	40	35	30	30	41	35	41	35	35	30	39	34	-0.4	-0.3	-0.4	-0.4	53	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	1.FL	N	42	36	41	36	41	35	30	30	42	36	42	36	37	31	40	34	-0.4	-0.4	-0.5	-0.5	54	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	GF	N	31	30	30	30	30	30	30	30	31	30	30	30	30	30	30	30	-0.9	0.0	-1.3	0.0	43	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	1.FL	N	35	30	34	30	33	30	30	30	35	30	34	30	32	30	30	30	-1.4	0.0	-1.4	0.0	47	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	GF	N	32	30	31	30	30	30	30	30	33	30	31	30	30	30	30	30	-1.2	0.0	-1.1	0.0	45	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	1.FL	N	36	30	35	30	34	30	30	30	36	31	35	30	33	30	31	30	-1.3	-0.1	-1.2	-0.5	48	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	GF	N	41	36	41	35	40	35	30	30	42	36	41	35	35	30	40	34	-0.5	-0.5	-0.5	-0.5	54	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	1.FL	N	42	36	41	36	41	35	30	30	42	37	42	36	37	31	40	35	-0.6	-0.7	-0.6	-0.6	54	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	GF	S	44	38	43	37	42	36	38	32	45	39	44	38	36	30	43	37	-0.8	-0.9	-0.8	-0.9	57	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	1.FL	S	45	39	44	38	43	37	39	33	45	40	45	39	38	32	44	38	-0.8	-0.8	-0.8	-0.8	57	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	GF	W	35	30	33	30	32	30	30	30	36	30	33	30	32	30	30	30	-2.2	0.0	-2.1	0.0	48	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0495	19 FERNADELL DR, PITT TOWN NSW 2756	NCA03	Residential	1.FL	W	38	32	36	31	36	30	30	30	39	33	37	31	35	30	31	30	-2.0	-1.8	-1.9	-1.9	51	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0559	18A ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	40	35	40	35	40	35	30	30	41	35	40	35	38	33	32	-2.9	-2.6	-2.7	-2.8	59	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
R0559	18A ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	50	44	47	41	46	40	39	34	50	44	47	41	46	40	42	36	-3.0	-2.7	-2.9	-3.0	60	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0559	18A ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	45	39	42	37	41	36	36	30	46	40	43	37	41	35	38	32	-2.8	-2.6	-2.7	-2.8	58	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0559	18A ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	49	43	46	41	45	40	39	33	50	44	47	41	45	39	41	36	-2.9	-2.7	-2.9	-2.9	60	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0559	18A ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	E	51	45	47	42	47	41	36	30	51	46	48	42	47	41	39	34	-3.7	-3.4	-3.7	-3.7	60	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0559	18A ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	E	55	49	51	46	51	45	40	35	55	50	52	46	51	45	44	38	-3.8	-3.5	-3.8	-3.8	60	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0559	18A ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	GF	N	40	35	38	32	37	31	30	30	41	35	38	32	36	30	34	30	-2.8	-2.6	-2.8	-2.9	53	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
R0559	18A ELDON ST, PITT TOWN NSW 2756	NCA01	Residential	1.FL	N	45	39	42	36	41	35	35	30	45	39	42	37	40	35	38	32	-2.7	-2.6	-2.8	-2.8	57	51	-	-	-	-	-	-	-	-	-	-						

APPENDIX F – OPERATIONAL NOISE CONTOURS



Legend

- Operational noise study area
- Buildings within operational noise study area
- Buildings outside operational noise study area

Noise contours, 25-75 dBA
(5 dB intervals)

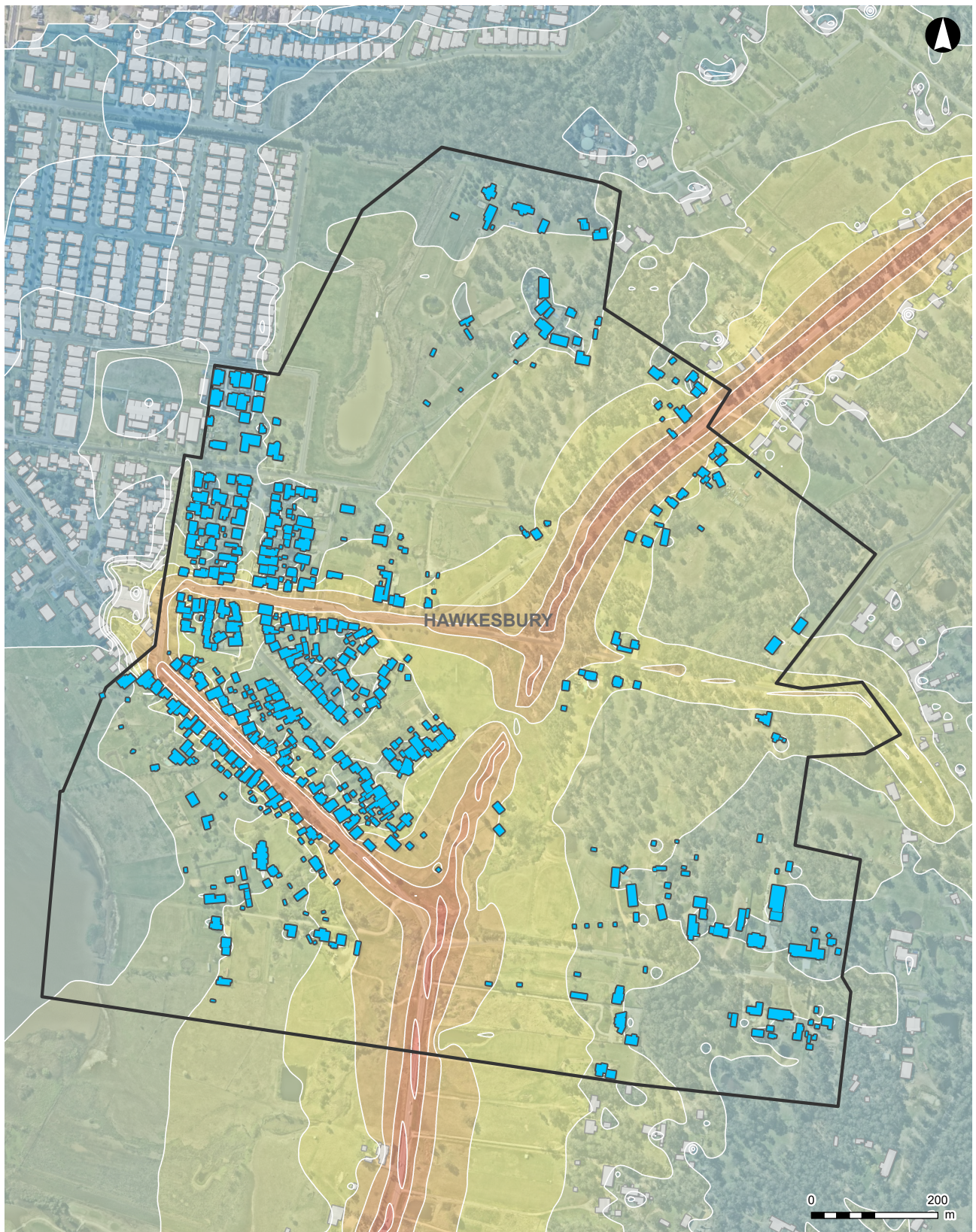
	25		50
	30		55
	35		60
	40		65
	45		70
			75



Figure F-1 - Operational noise contours
Opening year no build day period noise contours

1:9,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: October 9, 2024





Legend

- Operational noise study area
- Buildings within operational noise study area
- Buildings outside operational noise study area

Noise contours, 25-75 dBA
(5 dB intervals)

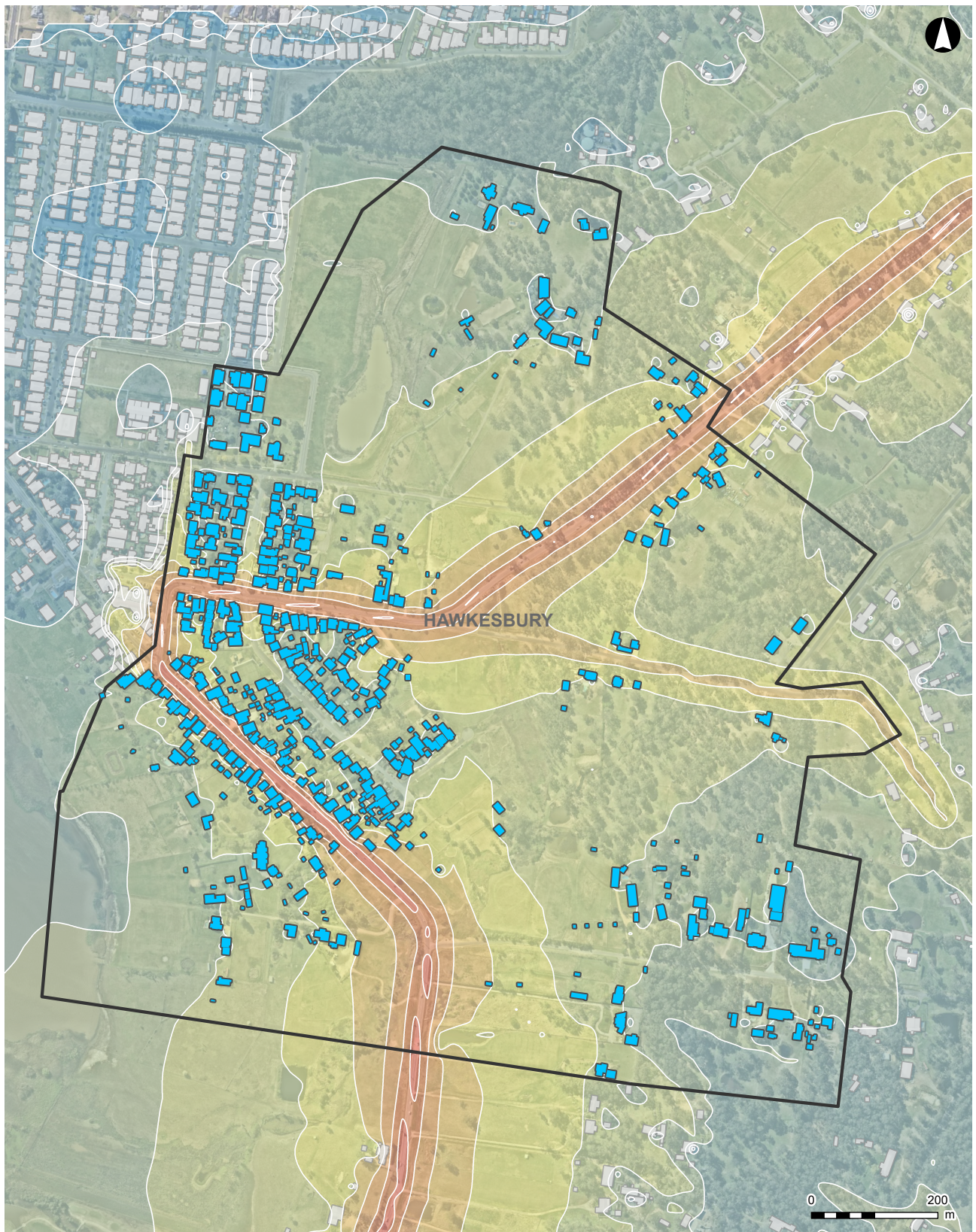
	25		50
	30		55
	35		60
	40		65
	45		70
			75



Figure F-2 - Operational noise contours
Opening year build day period noise contours

1:9,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: October 9, 2024





Legend

- Operational noise study area
- Buildings within operational noise study area
- Buildings outside operational noise study area

Noise contours, 25-75 dBA
(5 dB intervals)

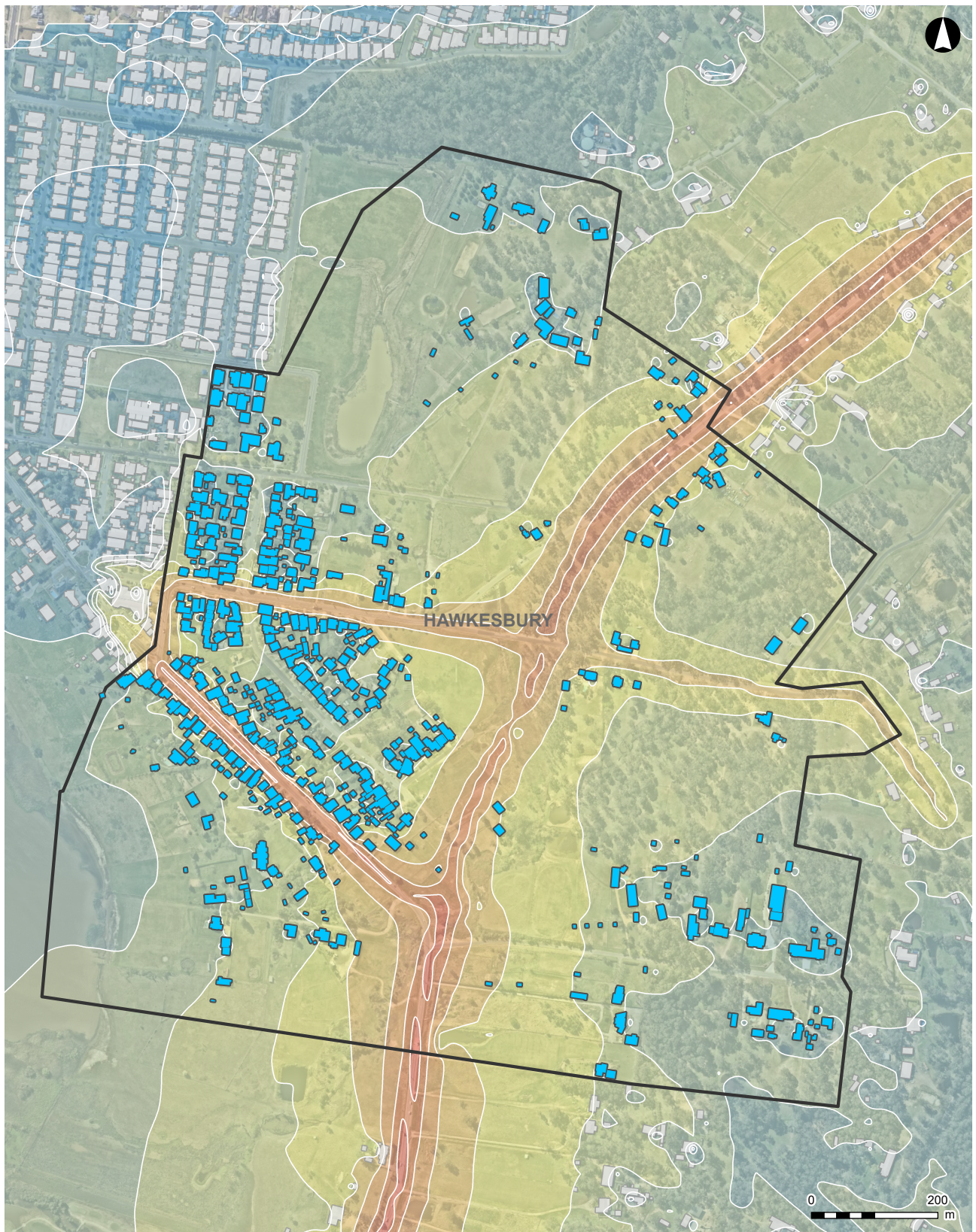
	25		50
	30		55
	35		60
	40		65
	45		70
			75



Figure F-3 - Operational noise contours
Design year no build day period noise contours

1:9,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: October 9, 2024





Legend

- Operational noise study area
- Buildings within operational noise study area
- Buildings outside operational noise study area

Noise contours, 25-75 dBA
(5 dB intervals)

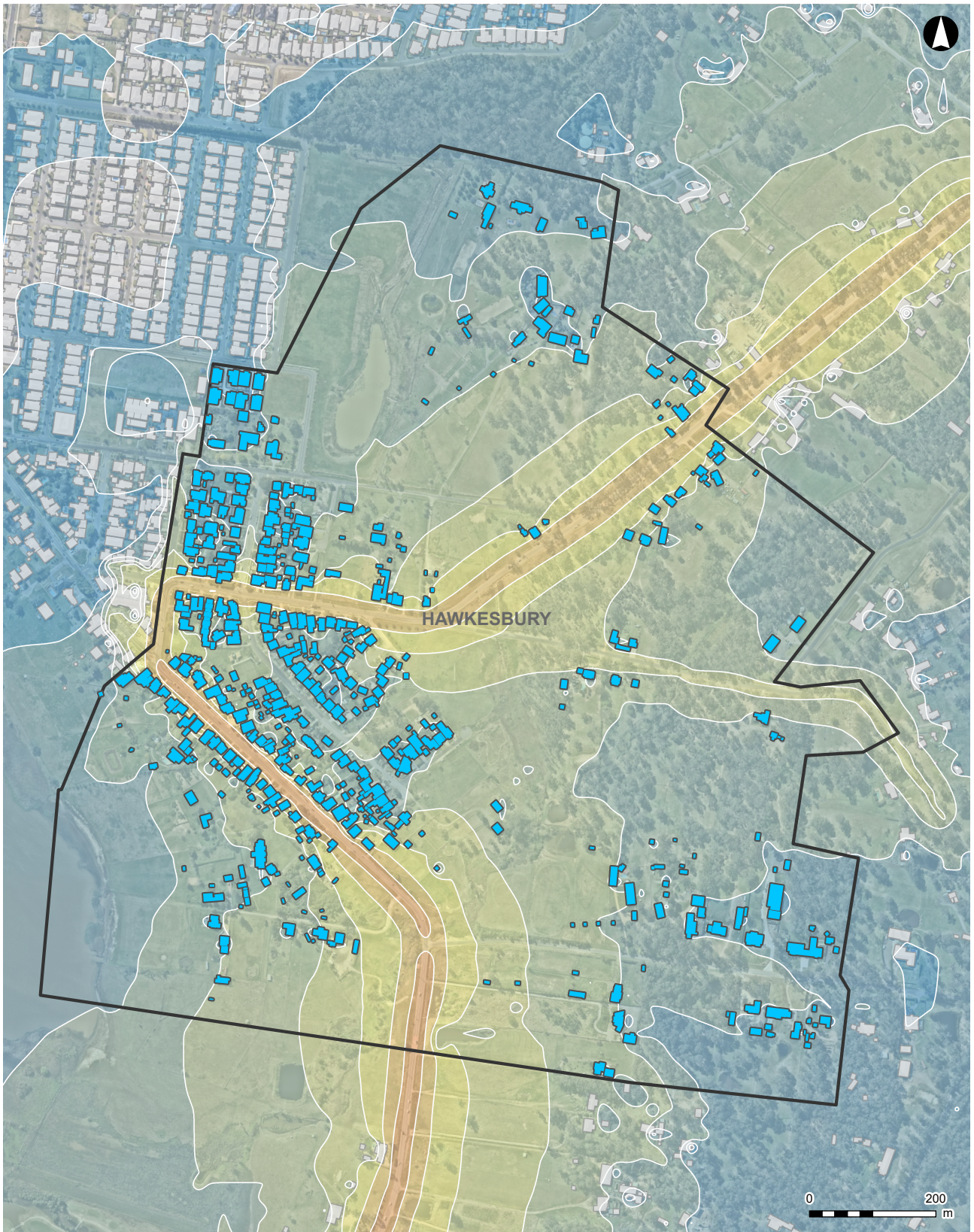
	25		50
	30		55
	35		60
	40		65
	45		70
			75



Figure F-4 - Operational noise contours
Design year build day period noise contours

1:9,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: October 9, 2024





Legend

- Operational noise study area
- Buildings within operational noise study area
- Buildings outside operational noise study area

Noise contours, 25-75 dBA
(5 dB intervals)

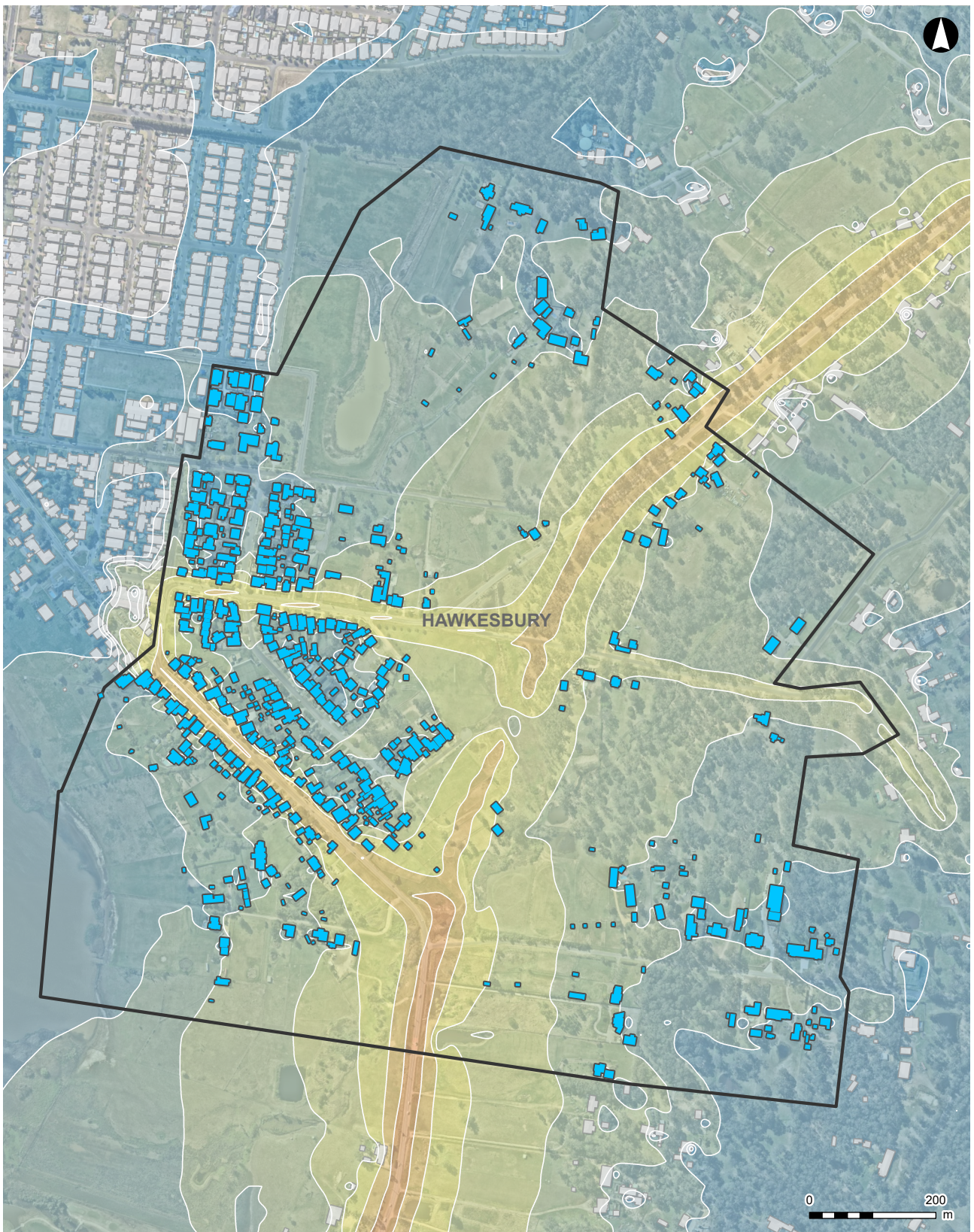
	25		50
	30		55
	35		60
	40		65
	45		70
			75



Figure F-5 - Operational noise contours
Opening year no build night period noise contours

1:9,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: October 9, 2024





Legend

- Operational noise study area
- Buildings within operational noise study area
- Buildings outside operational noise study area

Noise contours, 25-75 dBA
(5 dB intervals)

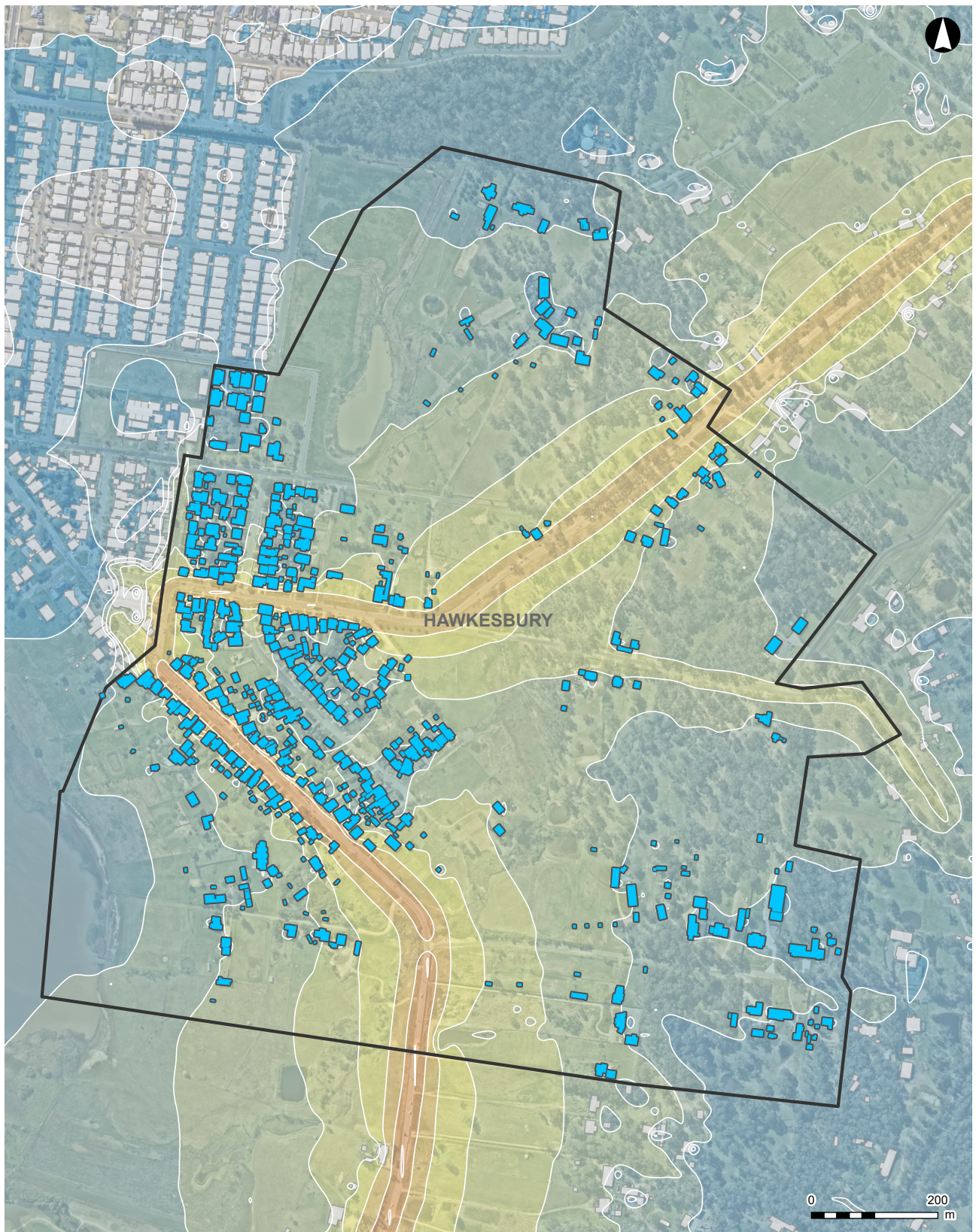
	25		50
	30		55
	35		60
	40		65
	45		70
			75



Figure F-6 - Operational noise contours
Opening year build night period noise contours

1:9,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: October 9, 2024





Legend

- Operational noise study area
- Buildings within operational noise study area
- Buildings outside operational noise study area

Noise contours, 25-75 dBA
(5 dB intervals)

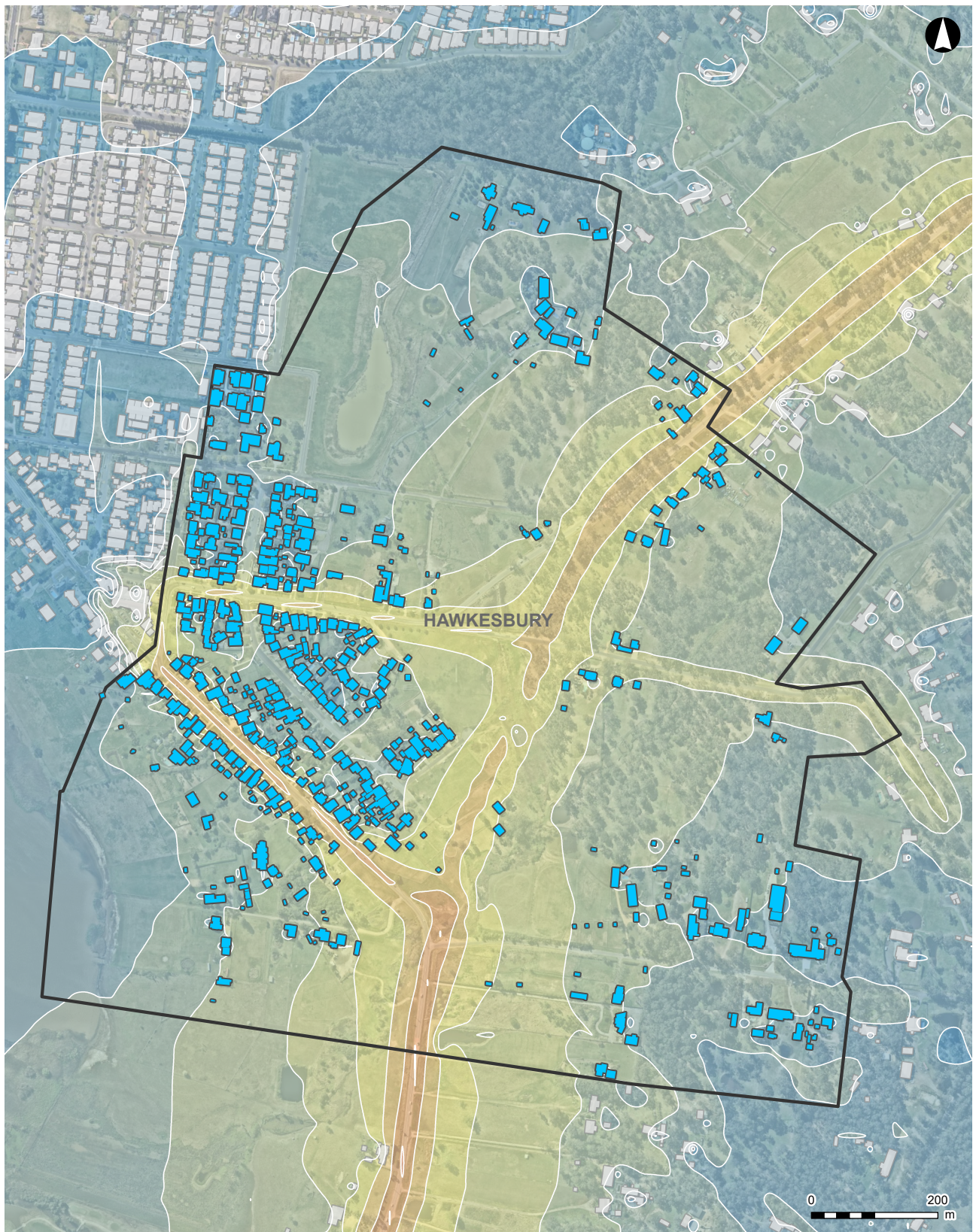
	25		50
	30		55
	35		60
	40		65
	45		70
			75



Figure F-7 - Operational noise contours
Design year no build night period noise contours

1:9,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: October 9, 2024





Legend

- Operational noise study area
- Buildings within operational noise study area
- Buildings outside operational noise study area

Noise contours, 25-75 dBA
(5 dB intervals)

	25		50
	30		55
	35		60
	40		65
	45		70
			75



Figure F-8 - Operational noise contours
Design year build night period noise contours

1:9,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: October 9, 2024



APPENDIX G – RECEIVERS WITHIN VIBRATION SAFE WORKING DISTANCE

Receiver ID	Address	Receiver ID	Address
R0866	23 OLD PITT TOWN RD, PITT TOWN NSW 2756	NA	54 WELLESLEY ST, PITT TOWN NSW 2756
R0874	8 CATTAI RD, PITT TOWN NSW 2756	NA	29 CATTAI RD, PITT TOWN NSW 2756
R0861	8 CATTAI RD, PITT TOWN NSW 2756	R0886	38 CATTAI RD, PITT TOWN NSW 2756
NA	22 BATHURST ST, PITT TOWN NSW 2756	R0879	30 CATTAI RD, PITT TOWN NSW 2756
R0777	9 CATTAI RD, PITT TOWN NSW 2756	R0822	22 OLD PITT TOWN RD, PITT TOWN NSW 2756
NA	51 WELLESLEY ST, PITT TOWN NSW 2756	R0850	23 OLD PITT TOWN RD, PITT TOWN NSW 2756
R0626	25 BATHURST ST, PITT TOWN NSW 2756	NA	29 CATTAI RD, PITT TOWN NSW 2756
R0852	23 OLD PITT TOWN RD, PITT TOWN NSW 2756	NA	54 WELLESLEY ST, PITT TOWN NSW 2756
NA	22 OLD PITT TOWN RD, PITT TOWN NSW 2756	R0610	22 BATHURST ST, PITT TOWN NSW 2756
R0849	28 OLD PITT TOWN RD, PITT TOWN NSW 2756	R0648	21 BATHURST ST, PITT TOWN NSW 2756
R0674	21 BATHURST ST, PITT TOWN NSW 2756	NA	51 WELLESLEY ST, PITT TOWN NSW 2756
NA	22 OLD PITT TOWN RD, PITT TOWN NSW 2756	NA	9 CATTAI RD, PITT TOWN NSW 2756
NA	9 CATTAI RD, PITT TOWN NSW 2756	NA	4 ELDON ST, PITT TOWN NSW 2756
NA	58 GLEBE RD, PITT TOWN NSW 2756	R0683	51 WELLESLEY ST, PITT TOWN NSW 2756
NA	22 OLD PITT TOWN RD, PITT TOWN NSW 2756	R0890	29 CATTAI RD, PITT TOWN NSW 2756
NA	9 CATTAI RD, PITT TOWN NSW 2756	R0682	4 ELDON ST, PITT TOWN NSW 2756

Noise and Vibration Impact Assessment

Status: Approved for use

Receiver ID	Address	Receiver ID	Address
NA	51 WELLESLEY ST, PITT TOWN NSW 2756	NA	1 CATTAI RD, PITT TOWN NSW 2756
NA	21 BATHURST ST, PITT TOWN NSW 2756	NA	9 CATTAI RD, PITT TOWN NSW 2756
R0633	21 BATHURST ST, PITT TOWN NSW 2756	NA	9 CATTAI RD, PITT TOWN NSW 2756
R0893	38 CATTAI RD, PITT TOWN NSW 2756		

NA: Uninhabited building or structure therefore no receiver ID is provided

Noise and Vibration Impact Assessment

Status: Approved for use

APPENDIX H – NOISE SENSITIVE RECEIVER IDS

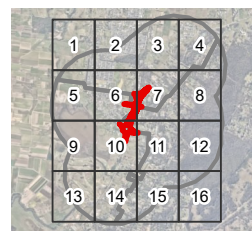


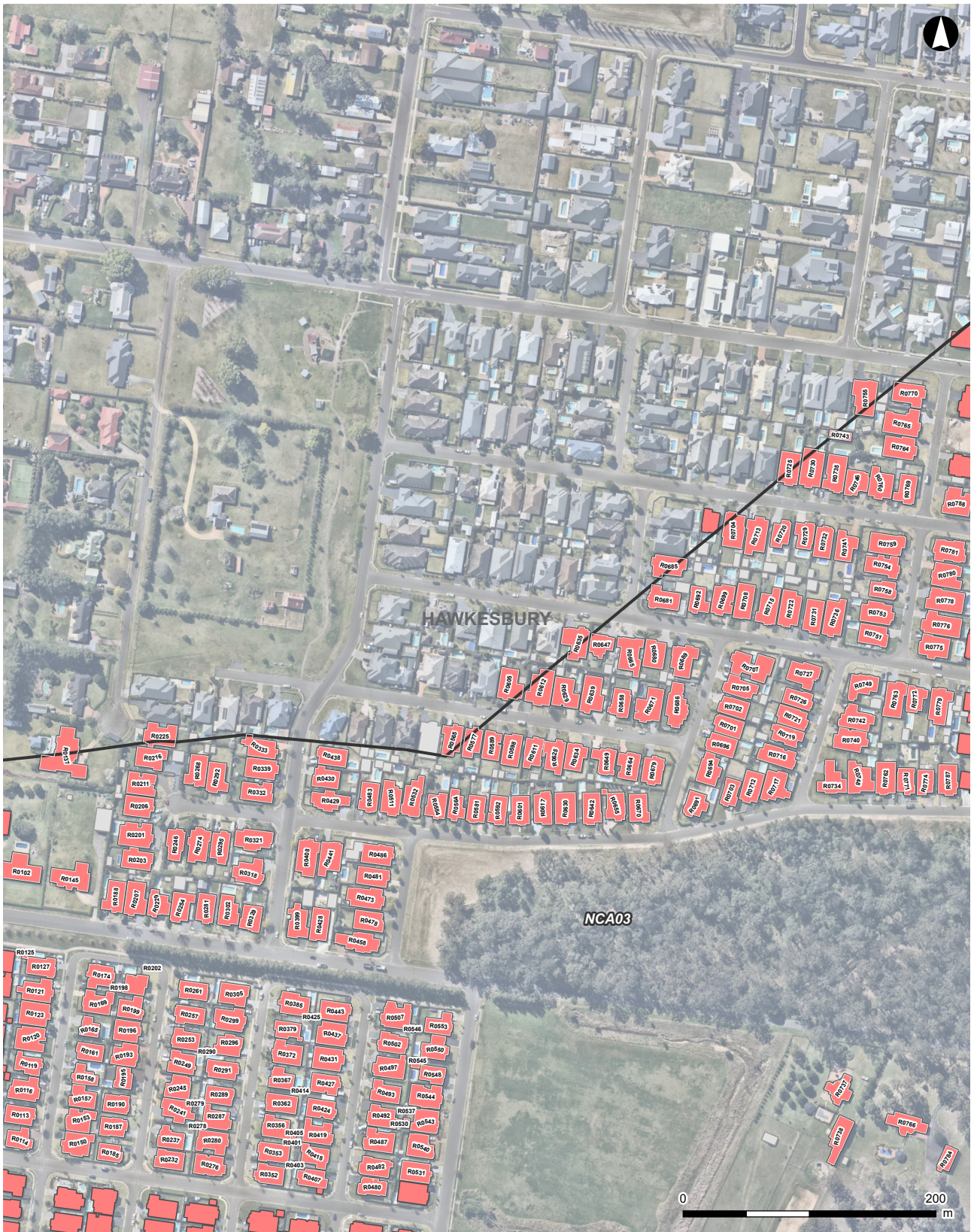
Legend

NCAs

Noise sensitive receivers

Residential



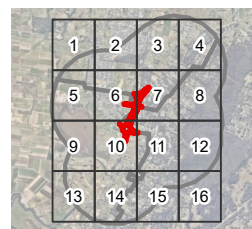


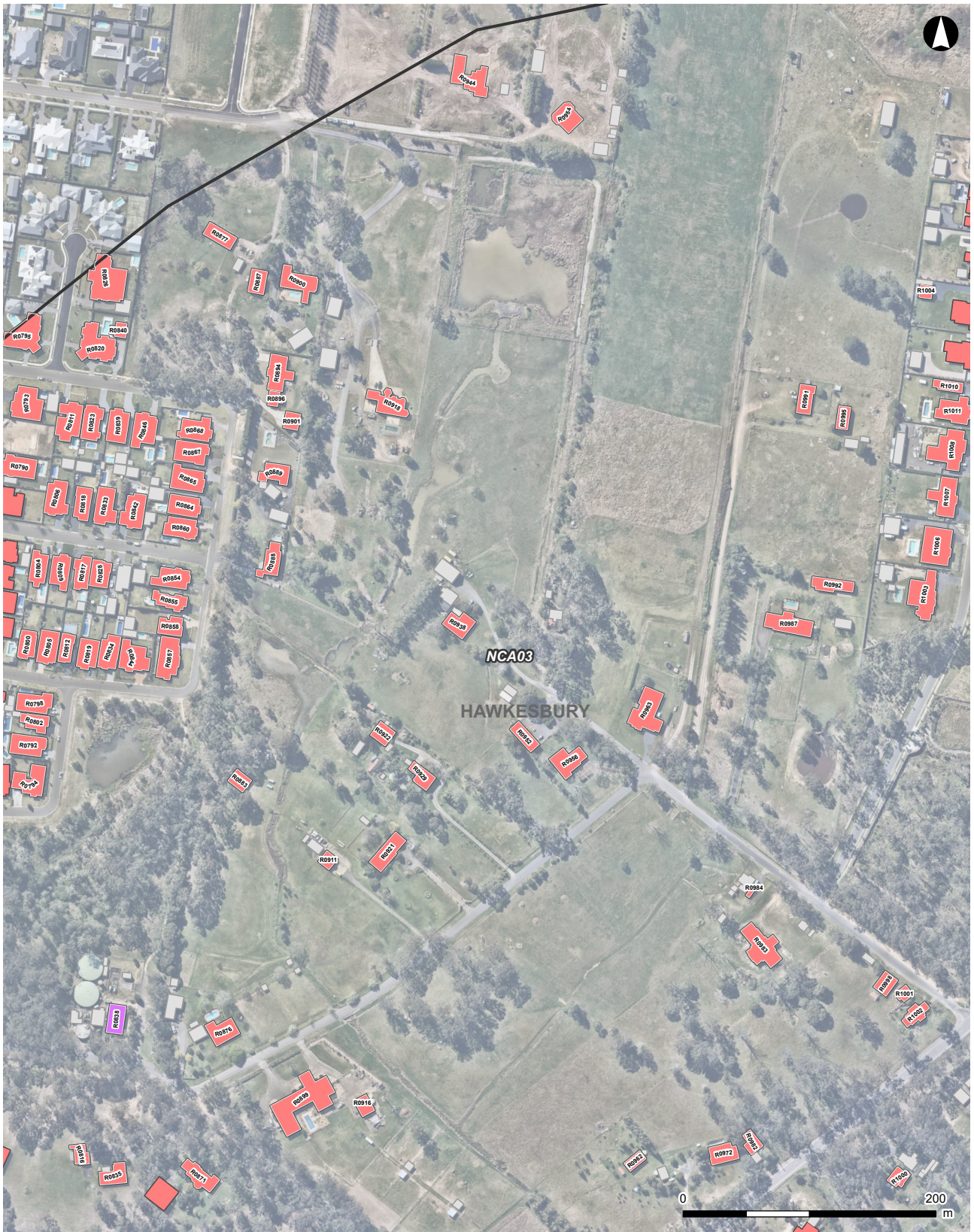
Legend

NCAs

Noise sensitive receivers

Residential





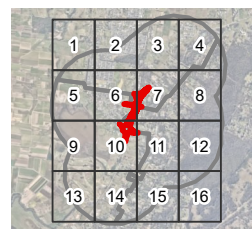
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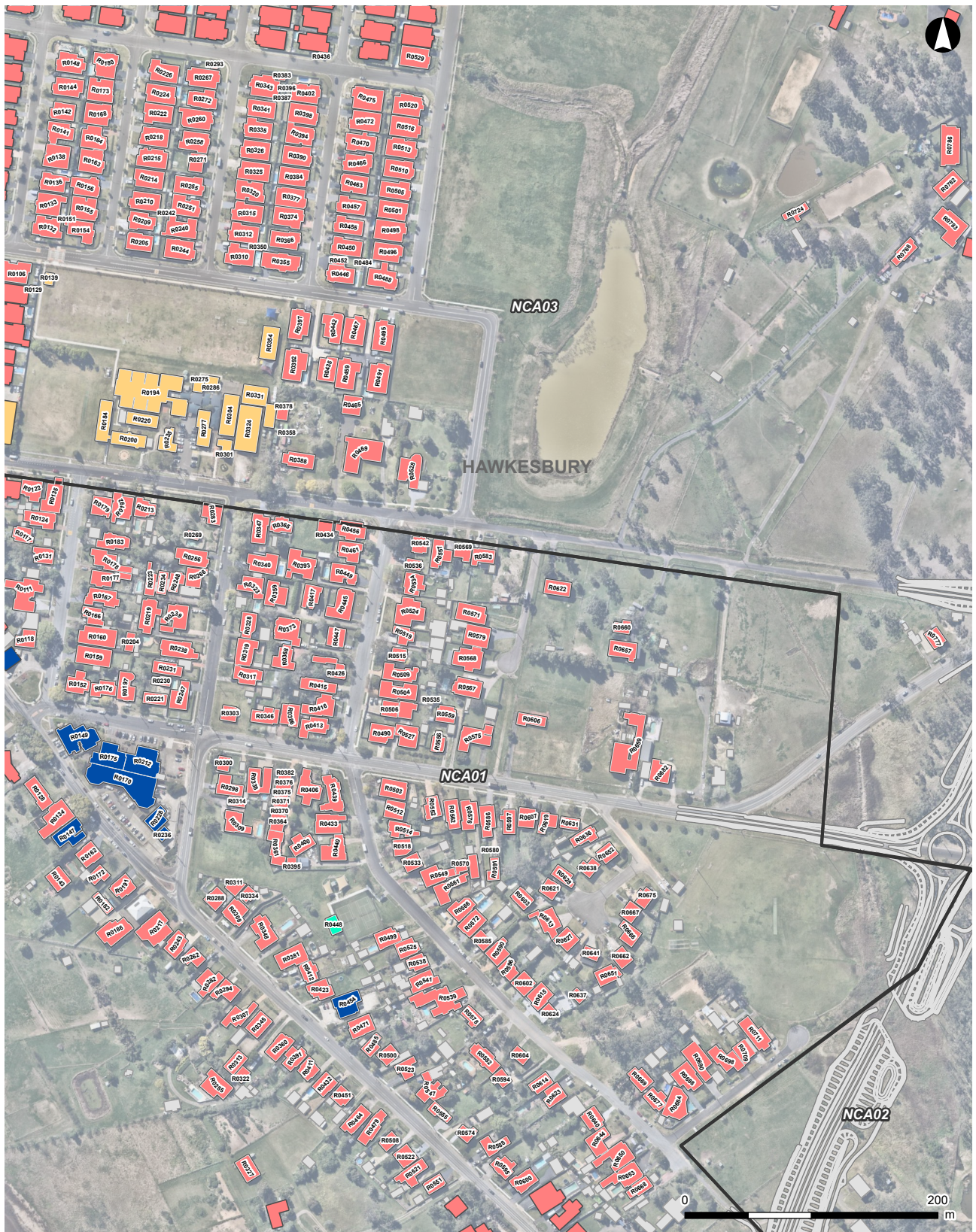
NCAs

Noise sensitive receivers

Industrial

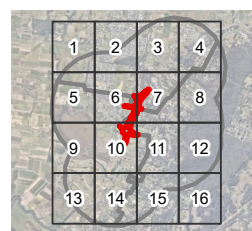
Residential

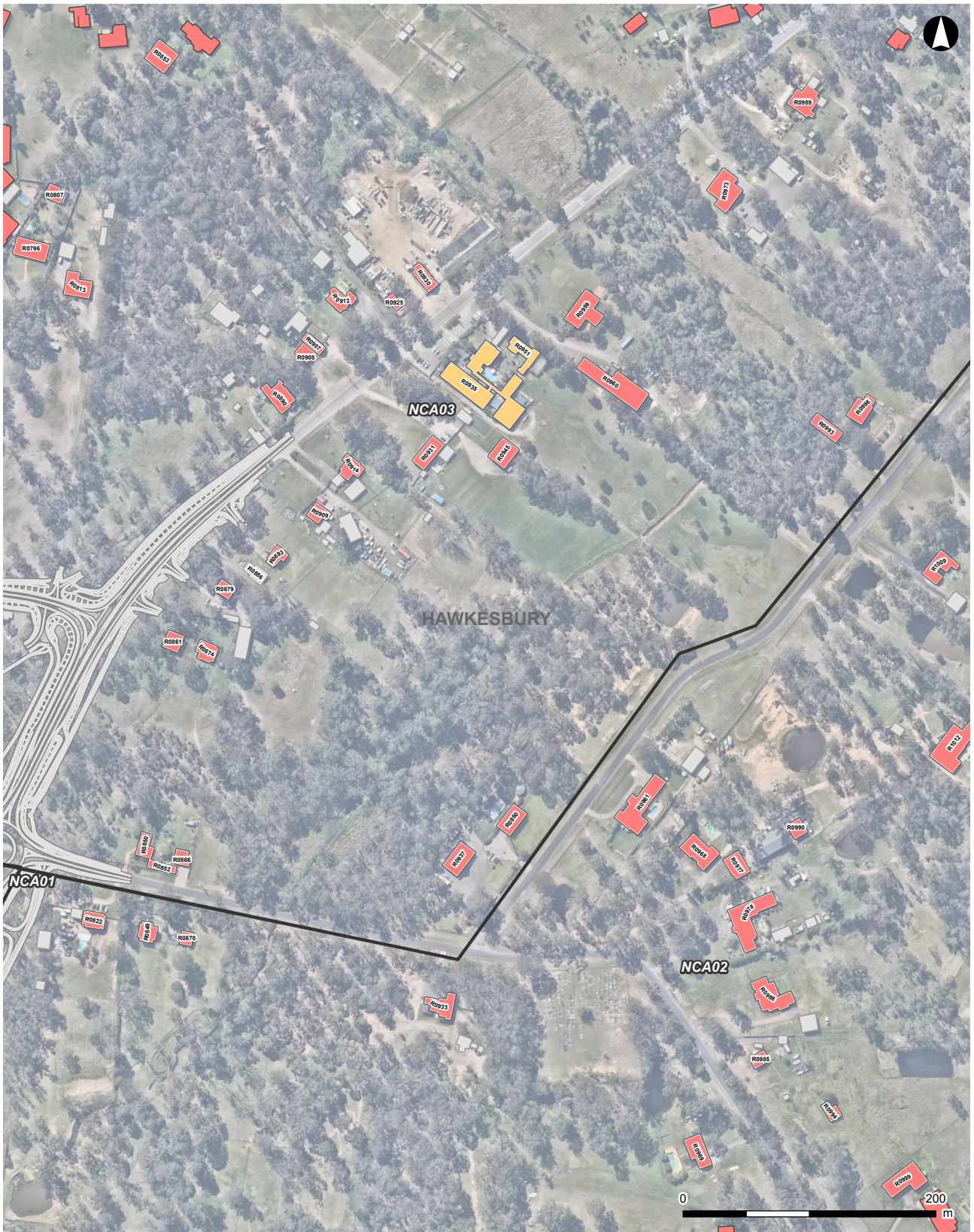




Legend

- NCAs
- Proposal design
- Noise monitoring locations
- Noise sensitive receivers
- Active Recreation
- Commercial
- Educational institute
- Residential

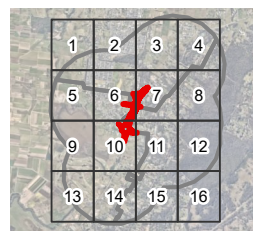




Legend

- | | |
|----------------------------|-----------------------|
| NCAs | Educational institute |
| Proposal design | Residential |
| Noise monitoring locations | |

Noise sensitive receivers



1:4,500 at A4

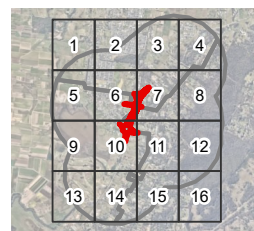
Coordinate System: GDA2020 MGA Zone 56

Date issued: October 9, 2024





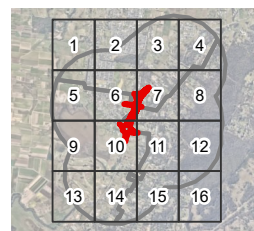
Legend
 NCAs





Legend

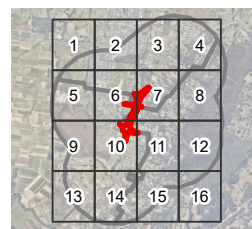
- NCAs
- Proposal design
- Noise monitoring locations
- Noise sensitive receivers
- Residential

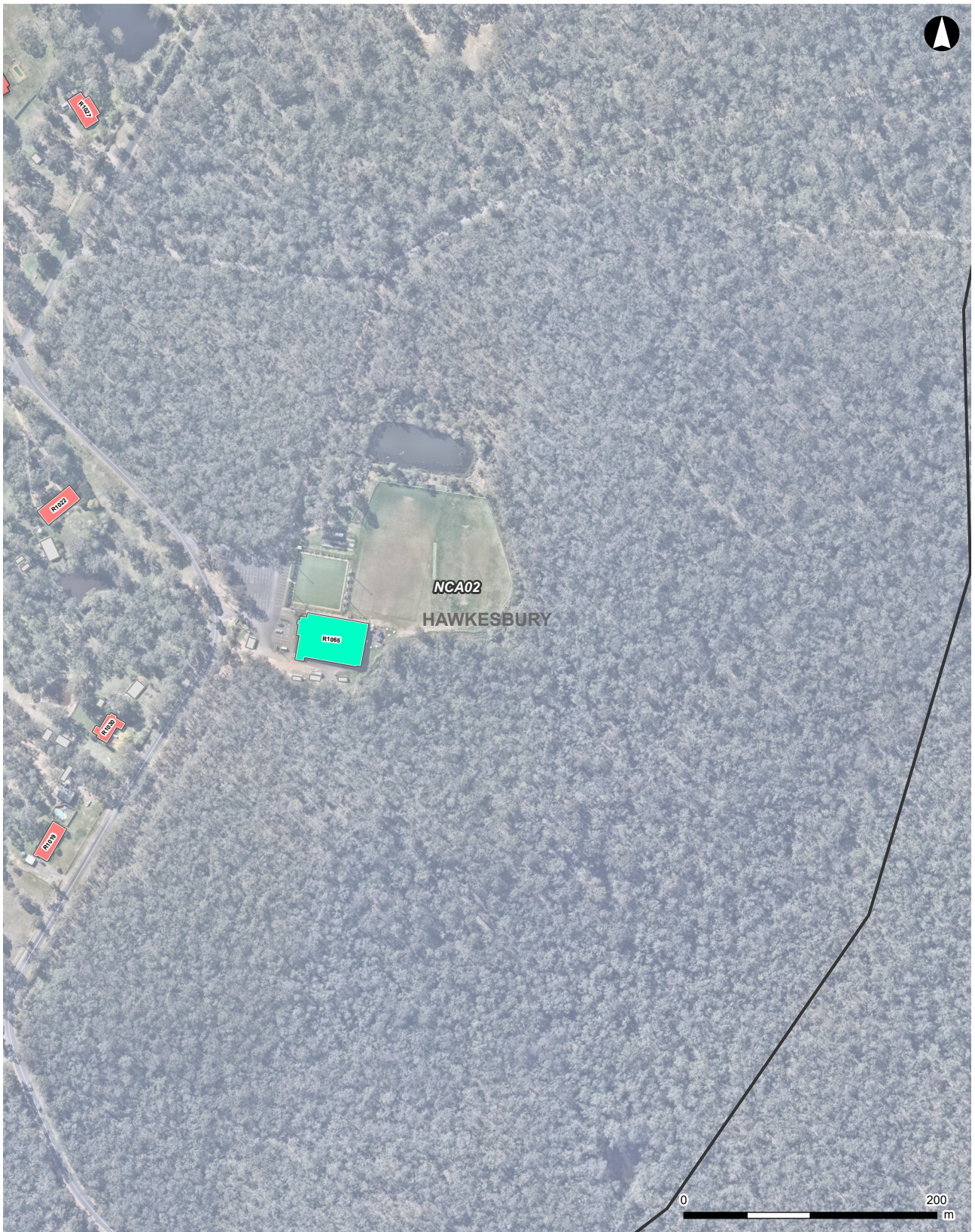




Legend

- NCAs
- Noise sensitive receivers
- Proposal design
- Residential





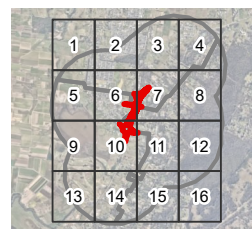
Legend

NCAs

Noise sensitive receivers

Active Recreation

Residential

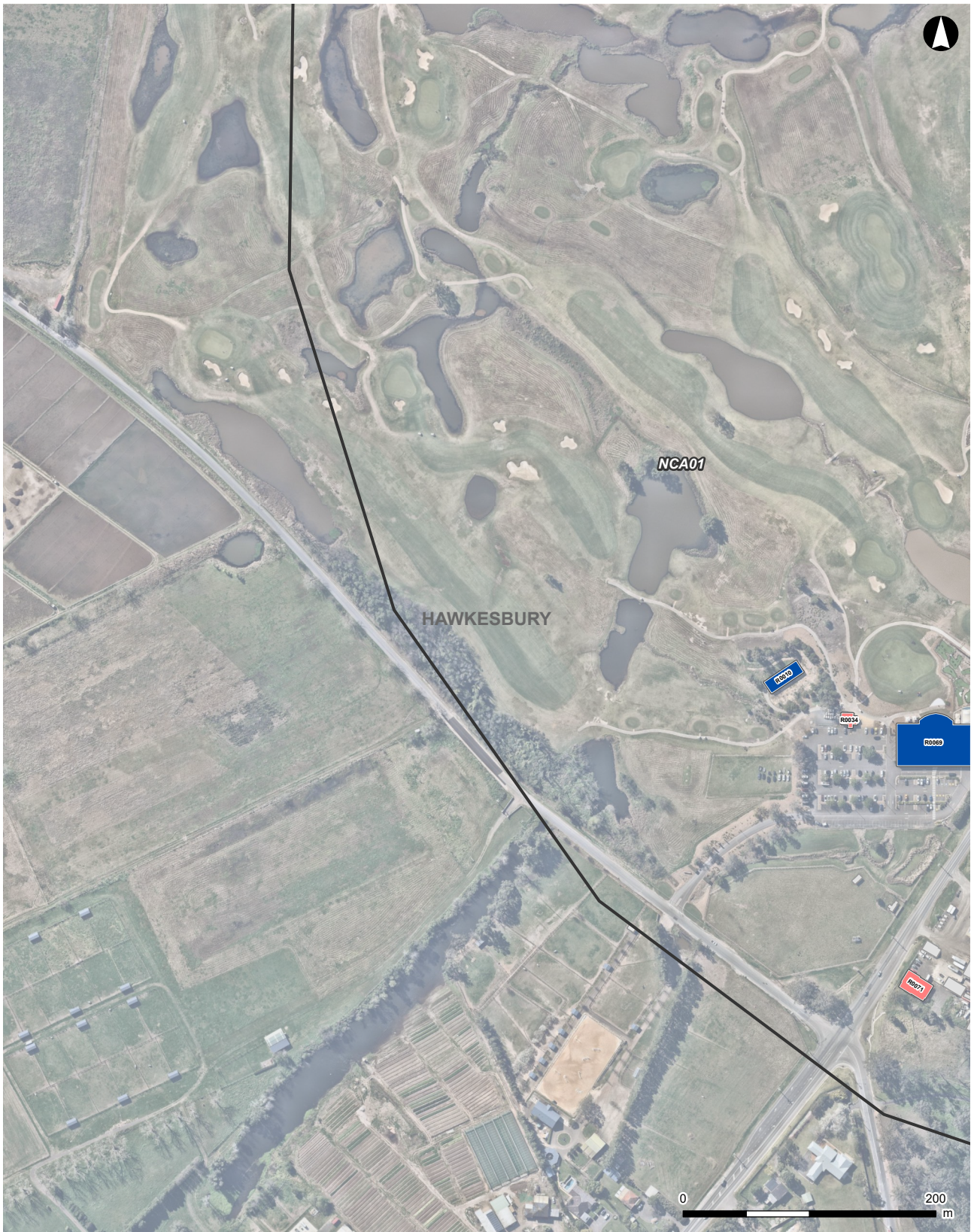


1:4,500 at A4

Coordinate System: GDA2020 MGA Zone 56

Date issued: October 9, 2024





Legend

NCAs

Noise sensitive receivers

Commercial

Residential



1:4,500 at A4

Coordinate System: GDA2020 MGA Zone 56

Date issued: October 9, 2024





Legend

NCAs

Noise sensitive receivers

Residential

