

## LANE COVE WEST DATA CENTRE (SSD 9741)

### Noise verification report (Phase 3)

2 April 2026

AirTrunk Lane Cove Pty Ltd (ACN 635 539 749) as trustee for AirTrunk Lane Cove  
Trust (ABN 36 170 853 530)

TN357-07F02 SYD2 Data Centre - noise verification report (r4).docx

## Document details

Detail	Reference
Doc reference:	TN357-07F02 SYD2 Data Centre - noise verification report (r4).docx
Prepared for:	AirTrunk Lane Cove Pty Ltd (ACN 635 539 749) as trustee for AirTrunk Lane Cove Trust (ABN 36 170 853 530)
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## Document control

Date	Revision history	Non-issued revision	Issued revision	Prepared	Instructed	Reviewed / Authorised
19.02.2026	Initial issue – Draft for internal client review	0	1	R. Phillips (MAAS) / A. Leslie (MAAS)	R. Phillips (MAAS)	-
01.04.2026	Updated draft (inclusion of Period 3 measurements)	2	3	R. Phillips (MAAS) / A. Leslie (MAAS)	R. Phillips (MAAS)	P. Karantonis
02.04.2026	Final	-	4	R. Phillips (MAAS) / A. Leslie (MAAS)	R. Phillips (MAAS)	P. Karantonis
File Path: R:\AssocSydProjects\TN351-TN400\TN357 ale Lane Cove West Data Centre SSDA\T7 noise verification report\1 Docs\F02 NVR\TN357-07F02 SYD2 Data Centre - noise verification report (r4).docx						

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## Contents

1	Introduction	6
1.1	Overview and purpose of report	6
1.2	Project description	6
1.3	Project operations	7
2	Noise Verification Report requirements	8
2.1	SSD 9741 (MOD 4) B15 requirements	8
2.2	Noise limit requirements	8
3	Noise monitoring methodology	10
3.1	Compliance measurement methodology	10
3.1.1	Approach	10
3.1.2	Monitoring methods	11
3.2	Noise monitoring periods	13
3.3	Noise monitoring locations, type and purpose	13
3.4	Noise monitoring equipment	18
4	Noise measurement surveys	20
4.1	Monitoring period 1 – 13/11/2025 (night)	20
4.1.1	Noise monitoring locations	20
4.1.2	Analysis of the prevailing meteorological conditions	20
4.1.3	Noise monitoring	21
4.1.3.1	SYD2 onsite unattended monitoring	21
4.1.3.2	150 Epping Road (R1)	22
4.1.3.3	Magdala Road (R2)	24
4.1.3.4	Residences east of Pittwater Road, East Ryde – Rodney Street and Jeanette Street	28
4.1.3.5	Intermediate location (I1)	30
4.1.4	Assessment of annoying characteristics	30
4.2	Monitoring Period 2 – 19/12/2025 (day)	31
4.2.1	Noise monitoring locations	31
4.2.2	Analysis of the prevailing meteorological conditions	31
4.2.3	Noise monitoring	32
4.2.3.1	SYD2 onsite unattended monitoring	32
4.2.3.2	150 Epping Road (R1)	34
4.2.3.3	Magdala Road (R2)	37
4.2.3.4	Residences east of Pittwater Road, East Ryde – Rodney Street (R5)	40
4.2.3.5	1A Sirius Road (C1)	43
4.2.3.6	Lane cove bush walk (P1)	44
4.2.3.7	Intermediate location (I1)	45
4.2.4	Assessment of annoying characteristics	46

4.3	Monitoring Period 3 – 4/03/2026 to 6/03/2026 (night)	47
4.3.1	Overview	47
4.3.2	Noise monitoring locations	47
4.3.3	Removal of insect noise	47
4.3.4	Analysis of the prevailing meteorological conditions	48
4.3.5	Noise monitoring	49
4.3.5.1	SYD2 onsite unattended monitoring	49
4.3.5.2	Magdala Road (R2)	50
4.3.5.3	Magdala Road (R2) shielded location	66
4.3.5.4	Intermediate location (I1)	67
4.3.5.5	Residences east of Pittwater Road - Brereton Park	70
4.3.6	Assessment of annoying characteristics	73
5	Discussion of findings and recommendations	74
5.1	Discussion of findings	74
5.1.1	Period 1 (13/11/2025 - Night)	74
5.1.2	Period 2 (23/12/2025 – Day)	74
5.1.3	Evening period	75
5.1.4	Period 3 (04/03/2026 to 06/03/2026 – Night)	75
5.2	Review of predicted noise levels against measurements	75
APPENDIX A	Glossary of terminology	77
APPENDIX B	Noise monitoring locations	79
B.1	Period 1 (13/11/2025 night)	79
B.2	Period 2 (23/12/2025 day)	82
B.3	Period 3 (04/03/2026 to 06/03/2026 night)	88
APPENDIX C	Additional detailed assessment of annoying characteristics	91

## List of tables

Table 2-1: Noise Verification Report consent requirements (SSD 9741 (MOD 4) B15)	8
Table 3-1: Noise monitoring locations, type and purpose	13
Table 3-2: Noise monitoring equipment	18
Table 4-1: Attended noise measurement surveys weather observations (13/11/2025 – Night period)	21
Table 4-2: Unattended noise monitoring results, SYD2 rooftop (S1) - Period 1 – Thursday 13 Nov 2025	22
Table 4-3: Attended noise monitoring results (13/11/2025, 150 Epping Road (R1)	23
Table 4-4: Attended noise monitoring results (13/11/2025), Magdala Park (R2)	25
Table 4-5: Attended noise monitoring results (13/11/2025) (data centre dominant periods), Magdala Park (R2)	27
Table 4-6: Attended noise monitoring results (13/11/2025), Rodney Street and Jeanette St locations	29
Table 4-7: Unattended noise monitoring results, Magdala Park intermediate location (I1)	30

Table 4-8: Measured low frequency noise assessment - (13/11/2025 – Night period)	31
Table 4-9: Attended noise measurement surveys weather observations (19/12/2025 – Day period)	32
Table 4-10: Unattended noise monitoring results, SYD2 rooftop (S1) - Period 2 – Friday 19 Dec 2025	33
Table 4-11: Attended noise monitoring results 150 Epping Road (R1)	35
Table 4-12: Attended noise monitoring results (19/12/2025), Magdala Park (R2)	38
Table 4-13: Attended noise monitoring results (19/12/2025), Rodney Street (R5)	41
Table 4-14: Noise monitoring results, 1A Sirius Road (C1)	43
Table 4-15: Noise monitoring results, Lane Cove bush walk (P1)	44
Table 4-16: Unattended noise monitoring results, Magdala Park intermediate location (I1)	45
Table 4-17: Measured low frequency noise assessment - (19/12/2025 – Day period)	46
Table 4-18: Attended noise measurement surveys weather observations (04/03/2026 to 06/03/2026– Night period)	49
Table 4-19: Unattended noise monitoring results, SYD2 rooftop (S1) - Period 3 (04/03/2026 to 06/03/2026)	50
Table 4-20: Attended noise monitoring results – Magdala Park (R2) - Period 3 (04/03/2026 to 06/03/2026)	52
Table 4-21: Attended noise monitoring results – Magdala Park (R2) - Period 3 (04/03/2026 to 06/03/2026) – low ambient traffic noise periods	61
Table 4-22: Noise monitoring results - Magdala Park (R2) shielded - Period 3a to 3b (04/03/2026 to 05/03/2026)	66
Table 4-23: Noise monitoring results - Magdala Park intermediate location (I1) - Period 3 (04/03/2026 to 06/03/2026)	68
Table 4-24: Attended noise monitoring results, Brereton Park - Period 3 (04/03/2026 to 06/03/2026)	71
Table 4-25: Attended noise monitoring results – Brereton Park - Period 3 (04/03/2026 to 06/03/2026) – low ambient traffic noise periods	72
Table 4-26: Measured low frequency noise assessment – Period 3 (04/03/2026 to 06/03/2026)	73
Table 5-1: Summary of noise monitoring outcomes - Period 1 (night)	74
Table 5-2: Summary of noise monitoring outcomes - Period 2 (day) (including generator testing)	74
Table 5-3: Summary of noise monitoring outcomes – Period 3 (04/03/2026 to 06/03/2026 – night)	75
Table 5-4: Review of predicted noise levels against monitored noise levels	76

## List of figures

Figure 2-1: SSD 9741 (MOD4) CoC B14 Table 2	9
Figure 2-2: SSD 9741 (MOD4) CoC Appendix 2 – Nearby sensitive receivers	9
Figure 3-1: Noise monitoring locations – Period 1 (Night)	15
Figure 3-2: Noise monitoring locations – Period 2 (Day)	16
Figure 3-3: Noise monitoring locations – Period 3a to 3c (Night)	17
Figure 4-1: Example of insect noise removal process	48

# 1 Introduction

## 1.1 Overview and purpose of report

Renzo Tonin & Associates (RTA) has been engaged by AirTrunk Lane Cove Pty Ltd (ACN 635 539 749) (AirTrunk) to conduct the noise verification monitoring for the Lane Cove West Data Centre, located at 1 Sirius Road, Lane Cove West (Lot 1 DP 1271404) (known as SYD2 data centre) (the Project), in order to prepare a Noise Verification Report (NVR) to satisfy Significant Development (SSD) 9741 (MOD 4, dated 9 October 2024) Consent Condition (CoC) B15.

The purpose of this report is to undertake noise monitoring to determine the operational noise levels of the SYD2 data centre at nearby residential receiver locations identified in the consent, SSD 9741 (MOD 4) and assess these noise levels against the noise limits in the SSD 9741 CoC B14, following the commencement of Phase 3.

The project is made up of four phases. At the time of undertaking the noise monitoring several of these phases had commenced operation, and were either in full operation or partial operation, as detailed in Section 1.3.

Noise monitoring included both attended and unattended noise monitoring. The noise monitoring was undertaken over two separate monitoring periods.

The following sections detail the applicable noise requirements, measurement methodology, a summary of the key measurement results, and a discussion of the measurements and outcomes and recommendations.

The engineers involved in the monitoring and preparation of the report are suitably qualified and appropriately experienced acoustic engineers, are of member grade of the Australian Acoustical Society (AAS) (or were instructed by), are employed by a firm being a member of the Association of Australasian Acoustic Consultants (AAAC) and have extensive experience in environmental acoustics.

This report is technical in nature and uses acoustic terminology throughout APPENDIX A contains a glossary of acoustic terms used in this report.

## 1.2 Project description

The Project is the operation of a data centre located at 1 Sirius Road, Lane Cove West, formally known as Lot 15 DP 1179953. The development features a multi-storey building, with externally housed generators, chillers and transformers. The development includes air cooled chiller units and low voltage generators.

The site is zoned IN2 Light Industrial and is located in the Lane Cove local government area. Commercial receivers are located to the east of the site off Apollo Place and Sirius Road, while the Lane Cove

Bushwalk is located to the west of the site. The closest residential receivers are located to the north of the Project within the residential tower (Arise by Meriton) complex, to the northwest along Magdala Road and to the west off Jeanette Street. The subject site and surrounding area are shown in Figure 2-2.

The Lane Cove West Data Centre was approved as a State Significant Development Application (SSDA), granted under delegation by the Minister of Planning on 15 November 2019 under SSD-9741, with the latest modification, Modification 4 approved 9 October 2025.

### 1.3 Project operations

At the time of undertaking the noise monitoring several phases of the project had commenced, and were either in full operation, or partial operation, as detailed below:

- **Phase 1 (Shell A):** Operational as of July 2025
- **Phase 2 (Shell B):** 3 of 4 halls operational. 4th Hall to be operational Q4 2026
- **Phase 3 (Shell D):** 3 of 5 halls operational. 4th Hall to be operational Q1 2028, 5th hall currently unknown
- **Phase 4 (Shell C):** Shell under construction, timing of fit out of halls currently unknown

## 2 Noise Verification Report requirements

### 2.1 SSD 9741 (MOD 4) B15 requirements

The NVR requirements as detailed in SSD 9741 (MOD 4) B15 and addressed in this report are outlined in Table 2-1.

**Table 2-1: Noise Verification Report consent requirements (SSD 9741 (MOD 4) B15)**

Development consent condition	Where addressed
B15 Within three months of the commencement of operation of Phase 2, Phase 3 and Phase 4 as identified in Figure 2 in Appendix 1 (or as otherwise directed by the Planning Secretary), the Applicant must prepare and submit a Noise Verification Report to the satisfaction of the Planning Secretary. Each Noise Verification Report must:	This report
(a) be prepared by a suitably qualified, experienced and independent acoustic consultant whose appointment has been endorsed by the Planning Secretary;	Section 1.1
(b) demonstrate that noise verification has been carried out in accordance with the latest version of: (i) AS 1055:2018 Acoustics – Description and measurement of environmental noise (Standards Australia, 2018); (ii) Approved Methods for the Measurement and Analysis of Environmental Noise in NSW (EPA, 2022); and (iii) the monitoring and reporting requirements detailed in Section 7 of the Noise Policy for Industry (EPA, 2017)	Section 3 - Methodology
(c) include:	-
(i) an analysis of the prevailing meteorological conditions, applicable corrections for annoying noise characteristics (as per Fact Sheet C of the Noise Policy for Industry) and the development's compliance with the noise limits specified in condition B14;	Section 4.1.1 and 4.2.2 - Prevailing meteorological conditions Section 4.1.4 and 4.2.4 - Annoying noise characteristics
(ii) an analysis any discrepancies between the predicted and actual noise impacts of the development (as described in the Modification Assessments); and	Section 4 - Noise measurement surveys Section 5.1 – Summary of outcomes Section 5.2 - Analysis any discrepancies between the predicted and actual noise impacts
(iii) a description of additional at-source and transmission pathway mitigation measures implemented, and/or a description of contingency measures to be implemented (including a timetable for the implementation of any required actions), to address any exceedance of the noise limits specified in condition B14.	n/a

### 2.2 Noise limit requirements

The monitoring was undertaken to monitor SYD2 noise levels and compare them against the noise limits detailed in CoC B14 Table 2, of the consolidated consent conditions for SSD 9741 (MOD 4). The operational noise limits are reproduced below in Figure 2-1. The locations where the noise limits apply are shown in CoC Appendix 2 which is reproduced below in Figure 2-2.



Figure 2-1: SSD 9741 (MOD4) CoC B14 Table 2

Table 2 Noise Limits (dB(A))

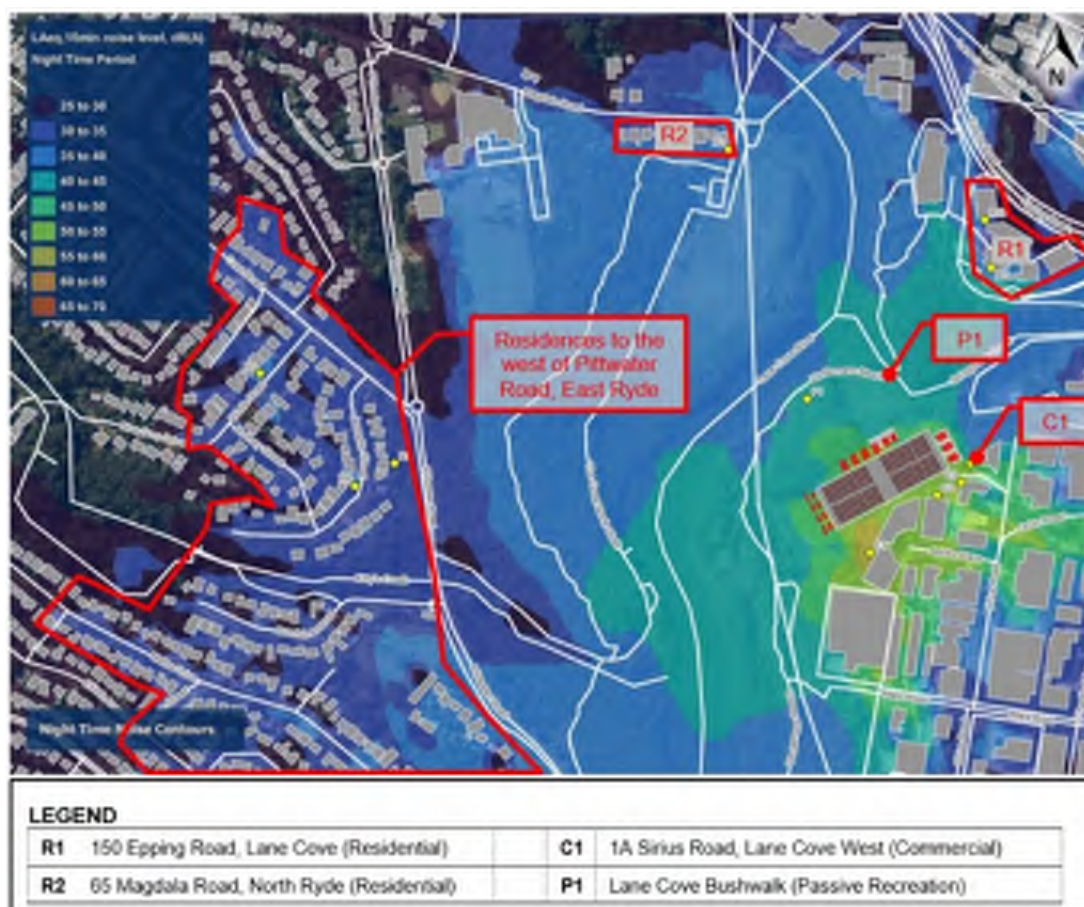
Location	Day L <sub>Aeq</sub> (15 minute)	Evening L <sub>Aeq</sub> (15 minute)	Night L <sub>Aeq</sub> (15 minute)
R1	51	48	43
C1	63	N/A	N/A
P1	48	N/A	N/A
Any residence to the west of Pittwater Road, East Ryde	45	40	35
R2	46	42	36

Noise generated by the development is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the Noise Policy for Industry (EPA, 2017) (as may be updated or replaced from time to time).

The noise criteria in Table 2 do not apply during emergency operations.

**Note:** The location of the sensitive receivers referred to in Table 2 are shown in Appendix 2 of this consent.

Figure 2-2: SSD 9741 (MOD4) CoC Appendix 2 – Nearby sensitive receivers



## 3 Noise monitoring methodology

### 3.1 Compliance measurement methodology

#### 3.1.1 Approach

Noise monitoring was undertaken in accordance with the guidance documents detailed in Significant Development (SSD) 9741 (MOD 4, dated 9 October 2024) Consent Condition (CoC) B15(b), as detailed in Table 2-1.

As required by CoC B15, the noise survey is to be conducted in accordance with the NSW EPA *Noise Policy for Industry* (EPA 2017) (NPfI).

The NPfI provides guidance in Chapter 7 for monitoring the performance of a noise-generating industrial facility. NPfI Section 7.1.1 provides guidance as to how to review noise emissions, which includes direct measurement at a receiver location, direct measurement at alternative or intermediate location/s, unattended monitoring and modelling, in this order of preference. It notes that this range of compliance assessment techniques may be used individually, or in combination, to provide a means of determining compliance with a noise limit. At times, the best available compliance assessment methodology will only allow for a balance-of-probabilities type determination of compliance and repeat assessment may be needed. It also makes it clear that *"A noise limit applies to the noise from a particular development/activity and not to general ambient noise. Therefore, it is often necessary to use techniques to attempt to separate the noise from a facility versus noise from other sources."*

For the CoC B15 noise monitoring, the following points were considered in the monitoring methodology:

- Epping Road (and aircraft noise during the daytime period) was contributing to noise levels at all selected receiver locations, generally at similar or greater levels than the noise limits.
- Near all receiver locations, noise levels identified during previous noise monitoring surveys from ambient and background noise non-Project sources, were found to be at or greater than the noise limits.
- Previous monitoring for the Project identified limitations in attempts to use directional monitoring equipment and similar approaches to quantify Project noise, because of the high levels of existing traffic noise dominating the ambient and background noise environments, along with issues caused by aircraft flyovers.

Given the impact of road traffic noise from Epping Road and the high existing levels of non-Project noise sources [from distant and nearby road traffic, aircraft flyover noise, and natural sources (ie. cicadas, birds, etc.)) at the noise verification monitoring locations, it is important that extraneous non-site noise sources are removed from the measured noise levels.

Section 7 of the NPfl notes that determining the  $L_{Aeq(15\text{minute})}$  site noise contribution in situations where the noise environment is influenced by many noise sources can be a complex process, requiring the use of techniques to separate facility noise from other ambient sources. Professional judgement and multiple techniques have been used to give the necessary level of confidence in the results.

As the noise limits apply to the noise emissions from the Project operations only and not to general ambient noise, multiple techniques have been used to separate the noise from Project sources from other noise sources. A range of monitoring and analysis was undertaken, including attended and unattended at-receiver monitoring, noise monitoring at intermediate locations, and a range of post processing analysis methods to determine the Project noise contribution, separately from the noise levels of the ambient noise environment.

The monitored data was post-processed to determine Project noise emission levels, through correlation of attended noise monitoring data, unattended noise monitoring, engineers' observations and field notes, along with validation noise modelling to determine the Project noise contribution at receivers.

### 3.1.2 Monitoring methods

To address CoC B15, the following items were incorporated into the monitoring plan and methodology.

Attended noise monitoring was undertaken on five separate monitoring periods covering the day (one occasion - Period 2) and night (four occasions - Periods 1, and Period 3a/3b/3c). For the evening, noise monitors were left on the SYD2 roof to confirm the at Project noise levels remained similar to the day, so that daytime estimates could be used to review against the evening noise limits.

To evaluate the worst-case scenario for noise emissions, noise monitoring during the day were undertaken during a period where existing external temperatures were high, and for the night, this was selected when noise-enhancing conditions were expected to be present.

Based on the results from the attended monitoring for the first two periods, it was found that obtaining results at all receivers was challenging due to elevated ambient noise levels.

During the night, background noise environment is typically controlled by a combination of road traffic noise from Epping Road and site noise, to varying degrees, at the key residential receivers.

The third period of noise monitoring was conducted over three consecutive nights as detailed in Section 3.2. The purpose of this monitoring was to focus on obtaining results at Magdala Road (R2) and gain more confidence of the measured site noise levels at these receivers.

The monitoring locations were selected with consideration of capturing potential highest noise levels for the identified receiver locations in CoC B14.

Monitoring was conducted by multiple engineers so that concurrent attended monitoring data was obtained across the receiver areas.

All attended measurements were undertaken at 1.5 metres above the local ground level and in the free field. The exception was for R2, where an additional noise monitor at 4.5m was used to represent the adjacent receivers on Magdala Road.

All sound level meters were time-synchronised to allow the on-site and receiver noise measurements to be correlated. A sound recording was made at all measurement locations to aid with post-processing of the noise measurement results and correlate with engineers' audibility notes with recorded audio of on-site noise at residential receivers.

For each receiver area, noise monitoring was undertaken for multiple 15-minute periods during each assessment period, to capture representative samples at locations that have the potential for the highest site noise levels.

During the at-receiver monitoring, there was at times a significant contribution from non-Project noise sources, such as distant and nearby road traffic, aircraft flyovers, other extraneous sources and natural sources (ie. cicadas, birds, etc.). As such, there was focus on the periods during the monitoring where these non-Project noise sources were at a minimum, with site noise contribution audible to allow the Project contribution noise to be determined. As such, standard industry practices and methods consistent with the NPfl were used to further analyse the noise monitoring data to separate out the Project operational noise emissions from the general ambient noise.

To assess the noise emissions from the subject site against the applicable noise limits, the contribution from the site operations in isolation from other noise sources, needs to be determined. As further detailed below, the measured noise data was analysed with the assistance of correlation between onsite and intermediate location noise monitoring, combined with audio recordings and matching monitoring data.

During the attended monitoring, observation notes were made concurrently detailing the source or likely source of noise, typical measured noise levels, and whether noise from the direction of the Project site was audible and distinguishable, along with the prevailing meteorological conditions. The notes included direction of the audible noise source, approximate level and potential source contribution level in the ambient noise environment.

The monitoring periods were also supported by unattended monitoring (Section 4 to assist with the post-monitoring analysis.

Unattended noise monitors were deployed in the locations shown in Figure 3-1 and Figure 3-2 with the purpose and installation details included in Table 3-1.

The analysis process used the onsite and intermediate noise monitoring locations to aid with correlation of in-path and at-source noise levels during periods when the Project site was audible and distinguishable.

### 3.2 Noise monitoring periods

Noise monitoring was undertaken during the following periods:

- **Period 1** – Thursday, 13 November 2025 – Night
- **Period 2** – Friday, 19 December 2025 – Day
- **Periods 3a to 3c** – Wednesday, 4 February to Friday, 6 February 2026 – Night

### 3.3 Noise monitoring locations, type and purpose

The noise monitoring locations are detailed in Table 3-1 below and shown in Figure 3-1, Figure 3-2 and Figure 3-3.

**Table 3-1: Noise monitoring locations, type and purpose**

Location	Location	Purpose of noise monitor
<b>Period 1 (night)</b>		
SYD2	1 Sirius Road - Northern gantry top level	To provide at-source monitoring point, to aid with reviewing variations with at-source levels, at receiver noise level correlation, and assist with reviewing of evening compliance
R1a	150 Epping Road Between Building C and Building D	At-receiver attended noise monitoring
R1c	150 Epping Road Grass in front of building C	At-receiver attended noise monitoring
R2a	Adjacent to 59 Magdala Road (1.5m above ground)	At-receiver attended noise monitoring
R2b	Adjacent to 59 Magdala Road (4.5m above ground)	Attended monitoring, using an unattended noise monitor, adjacent to the attended noise monitor, to confirm noise levels representative of the first level of Magdala Road residences
R2c	Shielded location within playground, south of 57 Magdala Rd	At-receiver attended noise monitoring location, shielded by the Project by sports field club house, near to the Magdala residences. Noise monitoring location was selected in an attempt to provide a location that was shielded from site noise and exposed to a similar level of road traffic noise to quantify the level of traffic noise at the monitoring location.
I1	Southern end of Magdala Park	To provide intermediate monitoring point, to aid with reviewing variations in noise level at a location with better signal to noise ratio in the path between the receiver (R2 and R5) and the Project, at receiver noise level correlation and contribution estimates
R5a	Residences east of Pittwater Road, East Ryde	Footpath in front of 12 Rodney Street
R5b		On the footpath near 16 Jeanette St
R5c		On the footpath near 20 Jeanette St

Location	Location	Purpose of noise monitor
<b>Period 2 (day)</b>		
SYD2	1 Sirius Road Northen gantry top level	To provide at-source monitoring point, to aid with reviewing variations with at-source levels, at receiver noise level correlation, and assist with reviewing of evening compliance
R1a	150 Epping Road Between Building C and Building D	At-receiver attended noise monitoring
R1b	150 Epping Road Rooftop of Tower A	Unattended noise monitor, representative of the residences at the top of Tower A (Arise, 150 Epping Road), to aid with review of site estimates at these elevated residences. Location controlled by traffic noise from Epping Road
R2a	Adjacent to 59 Magdala Road (1.5m)	At-receiver attended noise monitoring
R2b	Adjacent to 59 Magdala Road (4.5m)	Unattended noise monitor, adjacent to the attended noise monitor, to confirm noise levels representative of the first level of Magdala Road residences
R2c	Shielded location within playground, south of 57 Magdala Rd	At-receiver unattended noise monitoring location, shielded by the Project by sports field club house, near to the Magdala residences
I1	Magdala Park      Southern end of Magdala Park	To provide intermediate monitoring point, to aid with reviewing variations in noise level at a location with better signal to noise ratio between the Project and receivers, at receiver noise level correlation and contribution estimates
R5a	Footpath in front of 12 Rodney Street	At-receiver attended noise monitoring
P1	Lane cove bush walk (passive recreation) North of SYD2 on walking track	At-receiver unattended noise monitoring
C1	1A Sirius Rd, Lane Cove West Western balcony, facing SYD2 (Reference C4 in all SYD2 noise assessments)	At-receiver unattended noise monitoring
<b>Period 3 (night)</b>		
SYD2b	1 Sirius Road - Northen gantry top level	To provide at-source monitoring point, to aid with reviewing variations with at-source levels, at receiver noise level correlation
R2a	Northern end of Magdala Park Playground (1.5m above ground)	Attended noise monitoring. Noise monitoring location moved approximately 10 metres to the south of the original R1a.
R2b	Northern end of Magdala Park Playground (4.5m above ground)	Attended monitoring, to confirm noise levels representative of the first level of Magdala Road residences. Noise monitoring location moved approximately 10 metres to the south of the original R1b.
R2c	Shielded location within playground, south of 57 Magdala Rd	Combination of attended and unattended noise monitoring. Location is shielded from the Project by sports field club house, near to the Magdala residences. Whilst shielded, the site is still audible during periods of low traffic on Epping Road.
R6	Brereton Park	Attended and unattended noise monitoring at additional location to be representative of the most impacted residences west of Pittwater Road in East Ryde.
I1	Southern end of Magdala Park	To provide intermediate monitoring point, to aid with reviewing variations in noise level at a location with better signal to noise ratio in the path between the receiver (R2 and R6) and the Project, at receiver noise level correlation and contribution estimates.



Figure 3-1: Noise monitoring locations – Period 1 (Night)





Figure 3-2: Noise monitoring locations – Period 2 (Day)

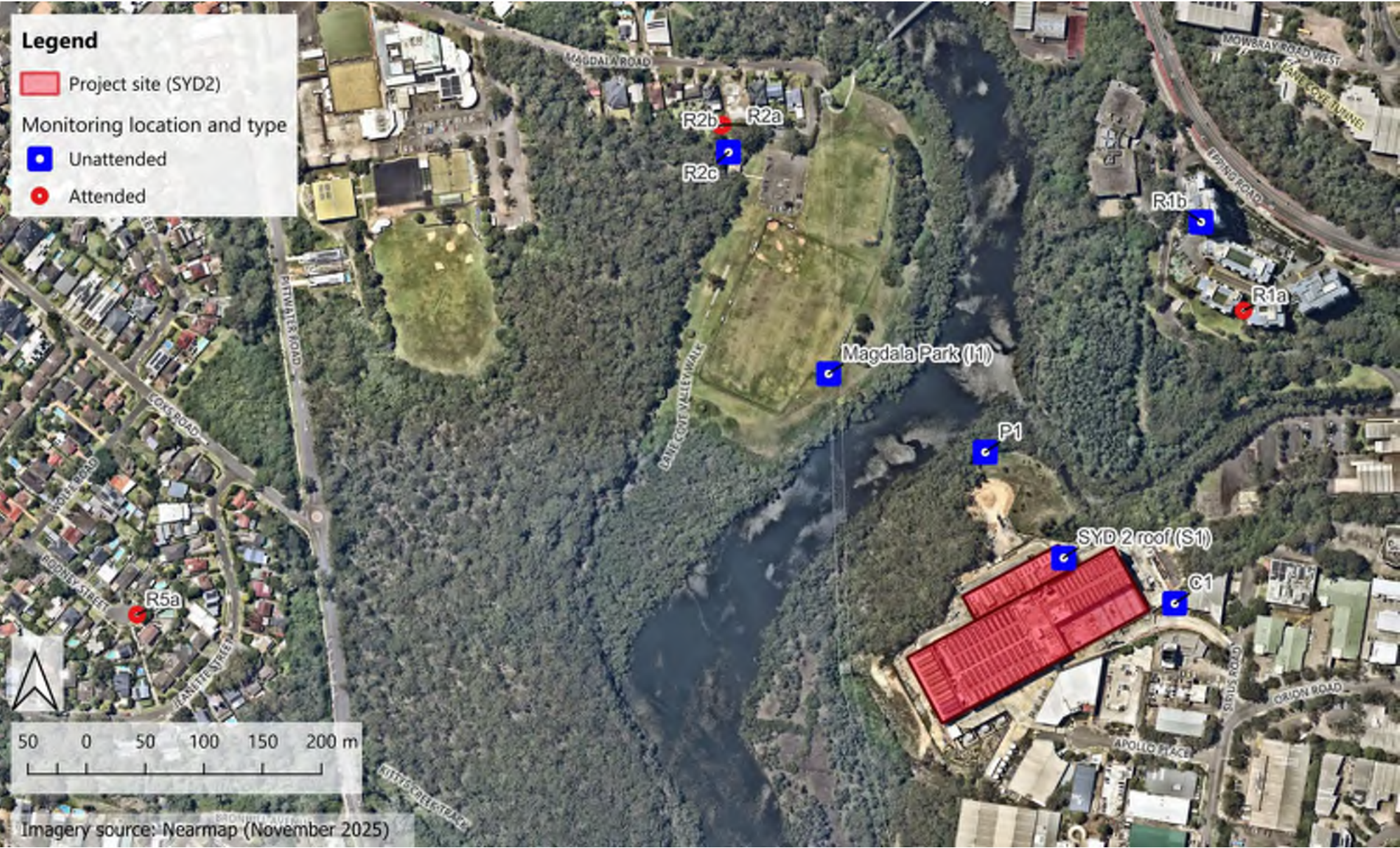




Figure 3-3: Noise monitoring locations – Period 3a to 3c (Night)



### 3.4 Noise monitoring equipment

The noise monitoring equipment used for the measurements included NTi Audio Type XL2 precision sound level analysers and were Class 1 instruments having accuracy suitable for field and laboratory use.

All instrumentation complies with IEC 61672 (parts 1-3) '*Electroacoustics – Sound Level Meters*' and IEC 60942 '*Electroacoustics – Sound calibrators*' and carries current NATA certification (or if less than 2 years old, manufacturers certification). The equipment calibration was field checked prior and subsequent to the measurement period using a Bruel & Kjaer Type 4231 calibrator, with no significant calibration drift observed.

A detailed list of equipment is provided in Table 3-2 below.

**Table 3-2: Noise monitoring equipment**

Reference location	Address	Location	Equipment (RTA internal reference)
<b>Period 1 (night)</b>			
SYD2	1 Sirius Road	Northern gantry top level	NTi XL2 (RTA07-018)
R1a/c	150 Epping Road	a. Between Building C and Building D c. Grass in front of building C	NTi XL2 (XL2 B)
R2a	Magdala Park	Adjacent to 59 Magdala Road (1.5m)	NTi XL2 (XL2 C)
R2b	Magdala Park	Adjacent to 59 Magdala Road (4.5m)	NTi XL2 (RTA07-046)
I1	Magdala Park	Southern end of Magdala Park	NTi XL2 (RTA07-045)
R5	Rodney Street and Jeanette Street	Multiple	NTi XL2 (XL2 A)
<b>Period 2 (day)</b>			
SYD2	1 Sirius Road	Northern gantry top level	NTi XL2 (RTA07-008)
R1a	150 Epping Road	Between Building C and Building D	NTi XL2 (XL2-C)
R1b	150 Epping Road	Rooftop of Tower A	NTi XL2 (RTA06-008)
R2a	Magdala Park	Adjacent to 59 Magdala Road (1.5m)	NTi XL2 (RTA07-005)
R2b	Magdala Park	Adjacent to 59 Magdala Road (4.5m)	NTi XL2 (RTA07-044)
R2c	Magdala Park	Shielded from SYD2 near 59 Magdala Road	NTi XL2 (RTA07-006)
I1	Magdala Park	Southern end Magdala Park	NTi XL2 (RTA07-045)
R5	Rodney Street	Footpath in front of 5 Rodney Street	NTi XL2 (RTA07-046)
P1	Lane cove bush walk (passive recreation)	North of SYD2 on walking track	NTi XL2 (RTA07-007)
C1	1A Sirius Rd, Lane Cove West	Western balcony	NTi XL2 (RTA07 047)



Reference location	Address	Location	Equipment (RTA internal reference)
<b>Period 3a to 3c (night)</b>			
SYD2b	1 Sirius Road	Northern gantry top level	NTi XL2 (RTA06-004)
R2a	Magdala Park	Northern end of Magdala Park Playground (1.5m)	NTi XL2 (XL2-C)
R2b	Magdala Park	Northern end of Magdala Park Playground (4.5m)	NTi XL2 (RTA07-005)
R2c	Magdala Park	Southern end of Magdala Park Playground (shielded)	NTi XL2 (RTA07-046)
R6	Brereton Park	Brereton Park, East Ryde	NTi XL2 (RTA07-045) 4/03 and 5/3
			NTi XL2 (RTA07- 06/03/2026)
I1	Magdala Park	Southern end of Magdala Park	NTi XL2 (RTA07-047)

## 4 Noise measurement surveys

### 4.1 Monitoring period 1 – 13/11/2025 (night)

#### 4.1.1 Noise monitoring locations

Noise monitoring locations are shown in Figure 3-1. Monitoring was conducted by three engineers so that concurrent attended monitoring data was obtained across the three receiver areas of R1, R2 and residences east of Pittwater Road.

#### 4.1.2 Analysis of the prevailing meteorological conditions

Meteorological conditions during the monitoring period were analysed to determine the prevailing wind and temperature inversion conditions were both appropriate, and whether they were consistent with the requirements of the consent.

To determine the prevailing meteorological conditions during the monitoring, data was sourced from the DPHI Macquarie Park AWS (approximately 5km NNW of the Project site) to aid in determining temperature inversion conditions and prevailing noise-enhancing meteorological conditions during the monitoring. This was also correlated with data from the automatic weather station (AWS) located at Lumsaine Ave, East Ryde (Weatherground ref: ISYDNEY648) closer to the Project site, (approximate 700m from the Project site) and observations at all attended monitoring locations. For a period of the monitoring, the wind speed was monitored on-site (ground conditions) to confirm the results were consistent with the reference automatic weather station and as required by the NPfl at each monitoring location. On-site weather observations were generally consistent with the DPHI AWS data.

During the attended noise measurement periods the weather conditions were as detailed in Table 4-1.

**Table 4-1: Attended noise measurement surveys weather observations (13/11/2025 – Night period)**

Time period	Air temperature, °C <sup>3</sup>	Relative humidity, % <sup>3</sup>	Average wind speed (at 10 m above ground level), m/s <sup>3</sup>	Wind direction, degrees and Cardinal <sup>3</sup>	Stability Class (Night time) <sup>2</sup>	Cloud cover <sup>4</sup>	Rain
01:00 AM	11	76	0.4	W (277)	F	Cloud: 0/8	None
02:00 AM	11	77	0.8	NW (323)	F	Cloud: 0/8	None
03:00 AM	12	70	0.6	W (276)	F	Cloud: 0/8	None
04:00 AM	10	79	0.2	WSW (261)	F	Cloud: 0/8	None
05:00 AM	9	84	0.2	W (272)	F	Cloud: 0/8	None

- Notes:
1. During the attended monitoring, a handheld anemometer was used and confirmed wind speeds at the sound level meter were not above 5m/s, as required by the NPfl.
  2. Stability class, based upon NPfl Fact Sheet D1.4 'Use of sigma-theta data', using sigma-theta data from the DPHI Macquarie Park AWS.
  3. During the monitoring period, data from the ISYDNEY648 station showed still conditions.
  4. Based upon observations during the monitoring.

During the night monitoring period, wind conditions were generally still, and an analysis of the prevailing meteorological conditions was undertaken using the sigma-theta method as per NPfl Fact Sheet D1.4, and this confirmed that stable atmospheric conditions were present with likely temperature inversion conditions. Mist was observed on the Lane Cove River. As such, noise monitoring was undertaken during meteorological conditions at each of the monitoring locations in accordance with the consent requirements and NPfl, and representative of the NPfl noise enhancing conditions.

### 4.1.3 Noise monitoring

#### 4.1.3.1 SYD2 onsite unattended monitoring

Long-term unattended noise monitoring at the SYD2 rooftop was conducted during the entire monitoring period. The noise monitor was installed at the northern end of the northern gantry top level as shown in Figure 3-1. At this noise monitoring location, the SYD2 rooftop chillers were typically the dominant source of noise during the night. Based upon the observations during the attended measurements and deployment and retrieval periods, aircraft noise, construction noise and potentially periods of traffic would have also contributed to the measured noise levels during the day and evening periods. As the rooftop chillers produced relatively steady noise emissions compared to extraneous noise caused by aircraft flyovers, construction noise etc., the measured  $L_{A90}$  noise levels were used to represent the underlying steady mechanical plant noise.

The purpose of conducting rooftop monitoring was for multiple reasons including to review any potential variations in noise from the mechanical plant on the SYD2 rooftop over the monitoring period. From Table 4-2, mechanical plant levels were found to be consistent throughout the measurement period.

The long-term noise monitoring graphs are presented in APPENDIX B, and a summary of the noise monitoring is presented in Table 4-2 below.

**Table 4-2: Unattended noise monitoring results, SYD2 rooftop (S1) - Period 1 – Thursday 13 Nov 2025**

Start time	Measured noise level, dB(A)			
	L <sub>AFmax</sub>	L <sub>AFmin</sub>	L <sub>Aeq</sub> <sup>1</sup>	L <sub>A90</sub> <sup>1</sup>
1:30:00	56	51	52	52
1:45:00	56	51	52	52
2:00:00	55	51	52	52
2:15:00	56	50	52	51
2:30:00	58	51	52	52
2:45:00	58	51	52	51
3:00:00	55	51	52	51
3:15:00	56	51	52	51
3:30:00	57	51	53	52
3:45:00	56	51	53	52
4:00:00	56	51	53	52

Notes: 1. The noise monitoring graphs show a steady rise in the early morning period, from around 3am, but more apparent from 4am, which corresponds road traffic morning shoulder period on Epping Road, which increases the L<sub>A90</sub> levels during this period. As such, the measured noise levels during the early morning would have road traffic contributions.

#### 4.1.3.2 150 Epping Road (R1)

The highest expected noise levels for R1 receivers is at the top of the Meriton residential tower (Tower A). However, for the night monitoring, Meriton was contacted in an attempt to conduct measurements on the rooftop of Tower A, however due to safety concerns, it was not possible at night. As such, a ground level location was identified that would provide the greatest opportunity to minimise the impact of extraneous traffic noise from Epping Road. Noise modelling was then used to determine a transfer function to the worst case residences at R1 (i.e. the upper floors of Tower A), and estimate Project noise levels at the top of Tower A.

Attended noise monitoring was conducted on the grass area to the south of Building C, and between Building C and Building D as shown in Figure 3-1. The area on the grass south of Building C was initially selected in an attempt to provide the best signal to noise ratio, however it was found that traffic noise from Epping Road was impacting the measurements. The location between Building C and Building D was then selected and was found to have a stronger signal-to-noise ratio, however it was still impacted by road traffic noise throughout the measurement. Whilst the Project site was typically a contributing source of noise during quiet periods, corrections were necessary to isolate the site noise contribution.

During the noise monitoring period, winds were typically still, consistent with the analysis in Section 4.1.1, which represented noise-enhancing conditions for the measurement location. The measured noise levels and calculated site contribution are provided Table 4-3 below. Based on the measured noise levels, Project noise is determined to comply at the worst case receiver location.

Table 4-3: Attended noise monitoring results (13/11/2025, 150 Epping Road (R1))

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A) <sup>2</sup>				Comments	Estimated site contribution at measurement location (R1a), LAeq, 15min, dB(A)	Estimated site contribution at R1 <sup>1</sup> , LAeq, 15min, dB(A)	Noise limit LAeq, 15min, dB(A)	Complies?
			LAfmax	LAfmin	LAeq	LA90					
R1a	On grass on front of Building C	2:00 AM to 2:15 AM	51	40	43	41	Audibly similar contribution of noise from site and traffic for measured LA90 background noise level. Epping Road audible to the north-west. Truck passbys up to approx. 46 LAf. Vehicle noise audible at all times during measurement period approx. 40-43 LAf	38	41	43	Yes
R1a	On grass on front of Building C	2:15 AM to 2:30 AM	48	41	44	42	Audibly similar contribution of noise from site and traffic for measured LA90 background noise level, contribution based upon quiet period with reduced traffic. Epping Road audible to the north-west. Vehicle noise audible at all times during measurement period approx. 40-43 LAf	38	41	43	Yes
R1a	On grass on front of Building C	2:30 AM to 2:45 AM	50	41	44	42	Audibly similar contribution of noise from site and traffic for measured LA90 background noise level. Epping Road audible to the north-west. Vehicle noise audible at all times during measurement period approx. 40-43 LAf	39	42	43	Yes
R1c	On grass between Building C & D	2:45 AM to 3:00 AM	54	39	43	40	Measured LA90 background noise level dominated by site with minor contribution of traffic noise. Traffic noise higher during passbys, however background noise of traffic reduced (relative to previous monitoring location) due to shielding from Meriton buildings. Heavy vehicle passbys on Epping Road approx. 50-52 LAf. Heavy vehicle passbys on Epping Road approx. 45 LAf.	39	42	43	Yes
R1c	On grass between Building C & D	3:00 AM to 3:15 AM	55	39	44	40	Measured LA90 background noise level dominated by site with minor contribution of traffic noise. Traffic noise higher during passbys, however background noise of traffic reduced (relative to previous monitoring location) due to shielding from Meriton buildings. Heavy vehicle passbys on Epping Road approx. 45 to 50-52 LAf.	39	42	43	Yes

Notes

1.

Difference between measurement location and worst case R1 (upper floors of Tower A) from predicted noise levels in the PWNA noise assessment,(220364-13 – AT SYD2 - Treatment Summary – R4.4, dated 9 April 2024, Version R4.4) which shows a difference of 3 dB(A), between the R-1A (5m) location and the top of tower (R-1C)(60m).

2.

This represents the measured noise levels associated with all noise sources (including road/rail traffic, natural sources and site noise)

#### 4.1.3.3 Magdala Road (R2)

Attended noise monitoring was conducted in Magdala Park, directly south of 57 Magdala Road. Two monitors were deployed, one at 1.5m and 4.5m above ground level, to represent the potentially most affected locations on the R2 residential receivers. The noise monitoring location is as shown in shown in Figure 3-1.

At the noise monitoring location, the following sources of noise were audible:

- **Traffic noise from Epping Road** to the north-east was the dominant source of noise. The road traffic noise controlled both the ambient and background noise level and was relatively steady and continuous throughout the measurement periods, generally 39-44 dB(A)  $L_{AF}$ , with only three identified periods where there were lulls in traffic noise.
- **SYD2 mechanical plant noise** was just faintly audible during most time periods when there were reduced traffic noise levels. Whilst traffic noise dominated the ambient noise levels, the data centre contribution was more apparent when traffic noise reduced or was more distant. During the monitoring, there were three periods between 2:00am and 2:45am, where there was enough of a lull in traffic noise such as the data centre noise dominated the measured noise level. These periods were used to estimate the data centre contribution at the receiver locations.

As traffic noise picked up marginally from around 2:45am, noise levels at the intermediate logger location, and onsite, were used to assist with Project contributions during these periods, although the site was faintly audible, it was challenging to estimate the contribution noise level.

The contribution considered the measured noise levels at both 1.5m and 4.5m above ground level. The contribution estimates focused on the periods when there were breaks in the traffic noise, and minimum measured noise levels to minimise the contribution of extraneous noise.

Due to the marginal confidence in the outcomes from this monitoring period, due to the challenging nature of separating traffic noise from site noise, additional monitoring, presented in Section 4.3 was undertaken to gain further information about the Project site noise levels at Magdala Road residences.

The results from the noise monitors are provided in Table 4-4 below.



Table 4-4: Attended noise monitoring results (13/11/2025), Magdala Park (R2)

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A) <sup>1</sup>				Comments	Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A)	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Complies?
			L <sub>AFmax</sub>	L <sub>AFmin</sub>	L <sub>Aeq</sub>	L <sub>A90</sub>				
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:00 AM to 2:15 AM	52	36	42	37	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~42/43dB(A), range 40 to 46 dB(A)), truck passbys on Epping Road (43-51 dB(A)) (~50-80 degrees). Occasional light wind in trees, and occasional bird.	36 <sup>2</sup>	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		51	37	43	38	Background noise levels: Epping Road traffic and data centre audible (~40/41 dB(A)) and wind in trees (~43 dB(A)). Some contribution of faint natural noises (crickets).  Site noise: Site noise audible during quiet periods of traffic, one period where data centre noise dominated during lull in traffic (See Table 4-5).	36 <sup>2</sup>		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:15 AM to 2:30 AM	52	35	42	38	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~42/43dB(A)). Occasional light wind in trees, and occasional birds (~42 dB(A)).	35 <sup>2</sup>	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		51	37	42	39	Background noise levels: Epping Road traffic and data centre audible (~39/40 dB(A)).  Site noise: Site noise audible during quiet periods traffic, one period where data centre noise dominated during lull in traffic (See Table 4-5).	36 <sup>2</sup>		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:30 AM to 2:45 AM	53	35	43	38	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~42/43dB(A), range 40 to 53 dB(A)), truck passbys and loud cars on Epping Road (49-53 dB(A)) (~50-80 degrees).	35 <sup>2</sup>	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		55	37	44	39	Background noise levels: Epping Road traffic and data centre audible (~38-40 dB(A)). Nearby water pump station (~1min)(~41 dB(A)).  Site noise: Site noise audible (faint at ~42/43dB(A)) during quiet periods of traffic, one period where data centre noise dominated during lull in traffic (See Table 4-5).	36 <sup>2</sup>		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:45 AM to 3:00 AM	53	37	42	39	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~41/42 dB(A), range 40 to 45 dB(A)), truck passbys on Epping Road (45-53 dB(A)) (~50-80 degrees).	35 <sup>3</sup>	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		54	38	44	40	Background noise levels: Epping Road traffic and data centre faintly audible (~39-41 dB(A)).  Site noise: Site noise audible (faint at ~42/43 dB(A)) during quiet periods of traffic. No periods observed without traffic contribution.	36 <sup>3</sup>		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	3:00 AM to 3:15 AM	48	36	41	38	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~41-44 dB(A) (~50-80 degrees).	36 <sup>3</sup>	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		50	37	42	39	Background noise levels: Epping Road traffic and data centre faintly audible (~37-41 dB(A)).  Site noise: Site noise audible (faint at ~42/43 dB(A)) during quiet periods of traffic. No periods observed without traffic contribution.	36 <sup>3</sup>		Yes

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A) <sup>1</sup>				Comments	Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A)	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Complies?
			L <sub>AFmax</sub>	L <sub>AFmin</sub>	L <sub>Aeq</sub>	L <sub>A90</sub>				
R2c	Shielded location within playground, south of 57 Magdala Rd <sup>4</sup>	3:15 AM to 3:30 AM	55	36	42	38	At R2c, Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~41-47 dB(A)), motorbike passby on Epping Road (48/49 dB(A)) (~50-80 degrees). Possum and bird noise events (43 to 51 dB(A)).	-	-	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		56	37	43	39	Background noise levels: Epping Road traffic (~36-39 dB(A)). Site noise: Site noise not audible (at ~36-39 dB(A)) during quiet periods of traffic.	36 <sup>3</sup>	36	Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	3:30 AM to 3:45 AM	49	38	42	39	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~41-44 dB(A) (~50-80 degrees). Background noise levels: Epping Road traffic and data centre faintly audible (~39-41 dB(A)).	36 <sup>3</sup>	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		53	39	43	40	Site noise: Site noise audible (faint at ~40-42 dB(A)) during quiet periods of traffic. No periods observed without traffic contribution.	36 <sup>3</sup>		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	3:45 AM to 4:00 AM	51	38	43	40	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~40-46 dB(A) (~50-80 degrees). Background noise levels: Traffic noise increasing on Epping Road traffic and data centre very faintly audible (~39-40 dB(A)).	36 <sup>3</sup>	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		51	40	43	41	Site noise: Site noise audible (faint at ~40 dB(A)) during quiet periods of traffic, generally not clearly distinguishable at 44 dB(A). No periods observed without traffic contribution.	36 <sup>3</sup>		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	4:00 AM to 4:15 AM	48	38	42	40	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~41-44 dB(A) (~50-80 degrees). Background noise levels: Traffic noise increasing on Epping Road traffic and data centre faintly audible (~39-41 dB(A)),	36 <sup>3</sup>	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		49	38	43	40	Site noise: Site noise audible (faint at ~40-42 dB(A)) during quiet periods of traffic. No periods observed without traffic contribution.	36 <sup>3</sup>		Yes

- Notes:
1.

This represents the measured noise levels associated with all noise sources (including road/rail traffic, natural sources and site noise)
2.

Estimated level based upon Table 4-5 for relevant time period.
3.

No lulls in traffic noise were observed during 15-minute period, and so estimated level based upon at-site variations with reference to periods with greater confidence. During these periods, the difference between 1.5m and 4.5m was based upon measured difference during periods with greater confidence.
4.

Shielded location did not provide conclusive results due to variables in traffic noise levels.

Table 4-5: Attended noise monitoring results (13/11/2025) (data centre dominant periods), Magdala Park (R2)

Reference location	Location	Measurement period (analysis period, sec)	Type	Measured noise level (15-minute) (all sources), dB(A) <sup>1</sup>				Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A)	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Exceedance, dB(A)	Comment
				L <sub>AFmax</sub>	L <sub>Aeq</sub>	L <sub>A90</sub>	L <sub>AFmin</sub>				
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:11 AM (00:15)	Attended	38	37	36	36	36 <sup>2</sup>	36	-	Lull in traffic noise, and measured noise level during period dominated by data centre
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	39	38	37	37	36 <sup>2</sup>		-	
I1	Intermediate		Unattended	43	41	39	39	39	-	-	-
S1	SYD2 roof		Unattended	53	52	51	51	51	-	-	-
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:24AM (00:09)	Attended	39	37	35	35	35 <sup>2</sup>	36	-	Lull in traffic noise, and measured noise level during period dominated by data centre
R2a	Adjacent to 57 Magdala Rd (4.5m)		Attended	39	38	37	37	36 <sup>2</sup>		-	
I1	Intermediate		Unattended	43	40	41	40	40	-	-	-
S1	SYD2 roof		Unattended	53	52	52	52	52	-	-	-
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:39AM (00:16)	Attended	37	36	35	35	35 <sup>2</sup>	36	-	Lull in traffic noise, and measured noise level during period dominated by data centre
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	38	37	37	37	36 <sup>2</sup>		-	
I1	Intermediate		Unattended	41	40	40	40	40	-	-	-
S1	SYD2 roof		Unattended	52	52	51	51	51	-	-	-

Notes:

1.

This represents the measured noise levels associated with all noise sources (including road/rail traffic, natural sources and site noise)

2.

Considering the small duration of the lulls in traffic noise available for analysis, traffic noise was still contributing throughout the measurement periods even when vehicles were at a distance. To address this level of underlying contribution of traffic noise, the analysis conservatively assumed that traffic noise was at least 10 dB(A) below the minimum (L<sub>Amin</sub>) noise level, as part of the site noise determination process. There was only marginal confidence in the estimated levels due to the challenging nature of separating traffic noise from site noise. Accordingly additional night monitoring was undertaken and presented in Section 4.3.

#### 4.1.3.4 Residences east of Pittwater Road, East Ryde - Rodney Street and Jeanette Street

Attended noise monitoring was conducted at residences in Rodney Street, on the footpath outside 12 Rodney Street. The noise monitoring location was selected to represent the most impacted residences in the area, whilst being shielded from noise from Epping Road. The noise monitoring location is as shown in shown in Figure 3-1.

Other measurement locations such as 16 and 20 Jeanette Street nearby were also evaluated to determine whether the mechanical plant was audible there as these locations were more shielded from both traffic on Epping Road and the Project.

At the noise monitoring locations, the following sources of noise were audible:

- **Traffic noise from Pittwater Road** to the southeast was the dominant source of noise when traffic is present on the road. Traffic was intermittent throughout the measurement period. During the measurement periods, traffic noise was approximately 39-48 dB(A)  $L_{AF}$ .
- **Traffic noise from Epping Road** to the northeast was the contributing source of noise when traffic was present there. Traffic was intermittent throughout the measurement periods, with 16 Jeanette St being particularly impacted by it. During the measurement period, traffic noise was approximately 39-54 dB(A)  $L_{AF}$  with 54 dB(A) event being a particularly noisy heavy vehicle.
- **SYD2 Project noise** was audible during all measurement periods, except at 16 Jeanette St. The ambient noise levels during these periods were controlled by traffic on either Epping Rd or Pittwater Rd and intermittent bird calls. SYD2 noise was audible only during quiet periods when measured noise levels were 33-35 dB(A)  $L_{AF}$ .
- **Occasional natural noises (birds)** contributed to the measured noise levels during all measurement periods. These dominated at the measurement locations whenever it occurred and increased in frequency of occurrence during the measurement period, contributing between 45-55 dB(A).

Table 4-6: Attended noise monitoring results (13/11/2025), Rodney Street and Jeanette St locations

Reference location	Location	Start	Measured noise level (15-minute) (all sources), dB(A) <sup>1</sup>				Comment	Estimate site contribution at measurement location R5, dB L <sub>Aeq</sub>	Noise limit dB L <sub>Aeq</sub>	Complies
			L <sub>A</sub> F <sub>max</sub>	L <sub>A</sub> F <sub>min</sub>	L <sub>A</sub> eq	L <sub>A</sub> 90				
R5a	On the footpath near 12 Rodney St	1:59 AM to 2:14 AM	74	32	41	33	Contribution of noise from site dominates for measured L <sub>A90</sub> background noise level. Epping road intermittently audible to the north and northwest. Truck passbys up to approx. 41-42 dB(A). Occasional bird calls audible at around 50-55 dB(A).	32	35	Yes
R5a		2:17 AM to 2:32 AM	56	32	37	34	Contribution of noise from site audible in the measured L <sub>A90</sub> background noise level. Epping road intermittently audible to the north and northwest. Truck passbys between 41-42 dB(A). Occasional bird calls audible at around 50-55 dB(A).	32		Yes
R5b	On the footpath near 16 Jeanette St	3:03 AM to 3:18 AM	62	35	41	37	Contribution of noise from Epping Rd and Pittwater Rd dominates for measured L <sub>A90</sub> background noise level between 36-37 dB(A). Pittwater road intermittently audible to the north and northwest.	< 30	35	Yes
R5b		3:18 AM to 3:33 AM	55	35	40	36	Truck passbys up to approx. 49 dB(A). Site noise not distinguishable. Occasional bird noise audible at around 40-41 dB(A).	< 30		Yes
R5c	On the footpath near 20 Jeanette St	3:44 AM to 3:59 AM	65	34	39	34	Contribution of noise from site audible in the measured L <sub>A90</sub> background noise level. Epping Road intermittently audible to the north and northwest. Truck passbys up to approx. 37-40 dB(A). Pittwater Road intermittently audible to the north and northwest. Truck passbys up to approx. 46 dB(A). Occasional bird noise audible at around 36-39 dB(A).	34	35	Yes
R5c		3:59 AM to 4:14 AM	56	33	38	34		33		Yes

Notes: 1. This represents the measured noise levels associated with all noise sources (including road/rail traffic, natural sources and site noise)

#### 4.1.3.5 Intermediate location (I1)

Unattended noise monitoring was conducted at an intermediate location in Magdala Park at the south-western end. The noise monitoring location is as shown in Figure 3-1. The noise monitoring location was selected to provide an intermediate point between the Magdala residences and SYD2.

Attended noise measurements at the noise monitoring location, identified that traffic was still the dominant source of ambient noise. The  $L_{A90}$  was controlled by a combination of traffic noise from Epping Road and SYD2 rooftop equipment. The results of the noise monitoring are presented in Table 4-7 below.

**Table 4-7: Unattended noise monitoring results, Magdala Park intermediate location (I1)**

Start time	Duration (min)	Measured noise level (15-minute) (all sources), dB(A)				
		$L_{AFmax}$	$L_{AFmin}$	$L_{Aeq}$	$L_{A10}$	$L_{A90}$
1:30 AM	15	51	40	43	45	41
1:45 AM	15	72	40	46	46	42
2:00 AM	15	75	39	46	48	42
2:15 AM	15	56	40	45	47	42
2:30 AM	15	56	40	45	48	42
2:45 AM	15	60	41	46	48	43
3:00 AM	15	63	41	46	48	42
3:15 AM	15	67	41	45	47	42
3:30 AM	15	68	41	45	47	43
3:45 AM	15	54	41	45	47	43
4:00 AM	15	50	41	44	45	42

#### 4.1.4 Assessment of annoying characteristics

In accordance with Fact Sheet C of the NPfI, a low frequency correction is considered following analysis of the measured C and A-weighted  $L_{eq,T}$  noise level contributions for each time period. A correction is to be considered further where the C minus A level is 15 dB or more.

Based upon the measured receiver noise levels presented in Section 4.1.3, a summary of the measured noise levels is provided in Table 4-6 below.

From the measured noise levels at all locations (intermediate and receiver), the dB(C) minus dB(A), is not 15 dB(A) or greater except for some periods at R2. A further detailed assessment for these periods found that they were not above the NPfI Table C2 threshold values, and so no modifying factor correction required for any measurements.

**Table 4-8: Measured low frequency noise assessment - (13/11/2025 – Night period)**

Measurement location	dB(C) minus dB(A) range <sup>1</sup>	Further detailed assessment <sup>1</sup>
150 Epping Road R1	11 to 13 dB	n/a
Magdala Road R2	10 to 17 dB <sup>2</sup>	Some periods exceeds screening test so additional review against the NPfI Table C2 threshold values presented in APPENDIX C. Result: Threshold values not exceeded, so no modifying factor correction required.
Rodney Street R5	10 to 12 dB	n/a
Intermediate (I1)	8 to 12 dB	n/a

Notes:

1. Where data centre noise could be separated from the overall noise measurement, analysis has been undertaken on these measured noise levels. For other periods, the assessment of the measurement period has been undertaken.

2. See further detailed analysis for in APPENDIX C.

## 4.2 Monitoring Period 2 – 19/12/2025 (day)

### 4.2.1 Noise monitoring locations

Noise monitoring location are shown in Figure 3-2. Monitoring was conducted by three engineers so that concurrent attended monitoring data was obtained across the three receiver areas of R1, R2 and residences east of Pittwater Road.

### 4.2.2 Analysis of the prevailing meteorological conditions

Meteorological conditions during the monitoring period were analysed to determine the prevailing wind and/or temperature inversion conditions were appropriate, and whether they were consistent with the requirements of the consent.

To determine the prevailing meteorological conditions during the monitoring, data was sourced from the DPHI Macquarie Park AWS (approximately 5km NNW of the Project site) to aid with determining temperature inversion conditions and prevailing noise-enhancing meteorological conditions during the monitoring. This was also correlated with automatic weather station (AWS) located at Lumsaine Ave, East Ryde (Weatherground ref: ISYDNEY648) closer to the Project site, (approximate 700m from the Project site) and observations at all attended monitoring locations.

For a period of the monitoring, the wind speed was monitored on-site (ground conditions) to confirm they were consistent with those at the reference automatic weather station and as required by the NPfI at each monitoring location. On-site weather observations were generally consistent with the DPHI AWS data.

During the attended noise measurement periods the weather conditions were as detailed in Table 4-1.

**Table 4-9: Attended noise measurement surveys weather observations (19/12/2025 – Day period)**

Time period	Air temperature, °C <sup>3</sup>	Relative humidity, % <sup>3</sup>	Average wind speed (at 10 m above ground level), m/s <sup>3</sup>	Wind direction, degrees and Cardinal <sup>3</sup>	Stability Class <sup>2</sup>	Cloud cover <sup>4</sup>	Rain
13:00	41-42	16	1.0	W (292)	A	Cloud: 1/8-3/8	None
14:00	40-42	15	1.1	SSW (215)	A	Cloud: 4/8-6/8	None
15:00	36-39	21	0.4	E (108)	A	Cloud: 6/8-8/8	None
16:00	32-37	22	0.7	ENE (75)	A	Cloud: 4/8	None
17:00	32-34	41	1.8	ESE (122)	B	Cloud: 4/8-6/8	None

Notes: During the attended monitoring, a handheld anemometer was used and confirmed wind speeds at the sound level meter were not above 5m/s, as required by the NPfl.

Stability class, based upon NPfl Fact Sheet D1.4 'Use of sigma-theta data', using sigma-theta data from the DPHI Macquarie Park AWS.

Range based upon data from the ISYDNEY648 station data. These were consistent with DPHI Macquarie Park AWS.

Based upon observations during the monitoring.

During the monitoring period, temperatures ranged between 36° to 42° celsius, and so were representative of worst-case heat wave conditions, maximising the required noise source levels.

As such, noise monitoring was undertaken during meteorological conditions at each of the monitoring locations in accordance with the consent requirements and NPfl, and representative of the NPfl noise enhancing conditions.

### 4.2.3 Noise monitoring

#### 4.2.3.1 SYD2 onsite unattended monitoring

Unattended noise monitoring at the SYD2 rooftop was from 19 December to December 21 2025. The noise monitor was installed at the northern end of the northern gantry top level as shown in Figure 3-2.

At this noise monitoring location, the SYD2 rooftop chillers were typically the dominant source of noise. As the rooftop chillers produced relatively steady noise emissions compared to extraneous noise caused by aircraft flyovers etc., the measured  $L_{A90}$  noise levels were used to represent the underlying mechanical plant noise. During the measurement period there was no construction occurring.

The purpose of conducting rooftop monitoring was to determine any variations in noise from the mechanical plant on the SYD2 rooftop, and as a reference location point for cross-referencing when reviewing noise monitoring and modelling levels at residential receiver locations to aid with estimations. The long-term noise monitoring graphs are presented in APPENDIX B, and a summary of the noise monitoring is presented in Table 4-10 below.



**Table 4-10: Unattended noise monitoring results, SYD2 rooftop (S1) - Period 2 – Friday 19 Dec 2025**

Start time	Measured noise level, dB(A) <sup>2</sup>				Comments
	L <sub>AFmax</sub>	L <sub>AFmin</sub>	L <sub>Aeq</sub>	L <sub>A90</sub>	
1:45 PM to 2:00 PM	83	54	56	55	
2:00 PM to 2:15 PM	62	55	56	56	
2:15 PM to 2:30 PM	59	54	56	56	
2:30 PM to 2:45 PM	59	55	56	56	Attended monitoring period
2:45 PM to 3:00 PM	61	54	56	55	
3:00 PM to 3:15 PM	61	55	56	56	
<b>3:15 PM to 3:30 PM<sup>1</sup></b>	<b>62</b>	<b>55</b>	<b>57</b>	<b>56</b>	
<b>3:30 PM to 3:45 PM<sup>1</sup></b>	<b>75</b>	<b>55</b>	<b>58</b>	<b>56</b>	
<b>3:45 PM to 4:00 PM<sup>1</sup></b>	<b>72</b>	<b>55</b>	<b>59</b>	<b>56</b>	
4:00 PM to 4:15 PM	73	55	59	56	
4:15 PM to 4:30 PM	76	54	60	56	
4:30 PM to 4:45 PM	74	55	60	56	
4:45 PM to 5:00 PM	75	55	59	57	
5:00 PM to 5:15 PM	77	55	59	56	
5:15 PM to 5:30 PM	73	55	59	56	
5:30 PM to 5:45 PM	74	54	59	56	
5:45 PM to 6:00 PM	76	55	61	56	
6:00 PM to 6:15 PM	75	55	60	56	
6:15 PM to 6:30 PM	73	55	59	56	
6:30 PM to 6:45 PM	76	56	60	57	
6:45 PM to 7:00 PM	73	55	59	56	
7:00 PM to 7:15 PM	76	54	60	55	
7:15 PM to 7:30 PM	73	54	59	55	
7:30 PM to 7:45 PM	75	54	57	55	
7:45 PM to 8:00 PM	74	55	58	56	
8:00 PM to 8:15 PM	70	55	57	56	
8:15 PM to 8:30 PM	71	56	59	57	
8:30 PM to 8:45 PM	71	55	57	56	
8:45 PM to 9:00 PM	62	55	56	56	
9:00 PM to 9:15 PM	60	54	56	55	
9:15 PM to 9:30 PM	61	54	55	55	
9:30 PM to 9:45 PM	60	54	56	55	
9:45 PM to 10:00 PM	63	53	56	55	

Notes: **Bold** indicates when generator testing was occurring.

#### 4.2.3.2 150 Epping Road (R1)

Attended noise monitoring was conducted at two locations at R1, between Building C and Building D (R1A) and on the rooftop of Tower A (R1B) as shown in Figure 3-2. The location at R1A between Building C and Building D was selected to have the best signal-to-noise ratio of the site relative to ambient noise (dominated by road traffic and planes flying overhead). The measurement location R1B on the rooftop of Tower A was also selected to determine if it was possible to obtain a better signal-to-noise ratio. At both measurement locations, site noise was not audible, therefore site noise was calculated based on measured noise levels from R2, along with noise modelling to determine the transfer function correction.

During the noise monitoring period, winds were measured at approximately 2-3m/s from the southeast when installing the noise monitor at the rooftop of Tower A. This is consistent with the data obtained from Sydney Olympic Park AWS station 66212 (as shown on the graphs in APPENDIX B). These wind conditions and directions represent typical worst case conditions for the measurement location. Wind was typically measured as being still at the monitoring location between Building C and Building D.

The measured noise levels and calculated site contribution are provided in Table 4-11 below. The measured noise levels comply with the noise limits.

Table 4-11: Attended noise monitoring results 150 Epping Road (R1)

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A) <sup>2</sup>				Comment	Estimated site contribution at measurement location <sup>1</sup> , L <sub>Aeq, 15min</sub> , dB(A)	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Complies?
			L <sub>A</sub> F <sub>max</sub>	L <sub>A</sub> F <sub>min</sub>	L <sub>A</sub> eq	L <sub>A</sub> 90				
R1A_02	On grass between Building C & D	2:15 PM to 2:30 PM	78	46	53	49	Site noise inaudible at measurement location Cars passing by on adjacent driveway typically 60-62 L <sub>AF</sub> Loud car passby on driveway up to 78 L <sub>AF</sub> Heavy vehicles on Epping Road approx. 60 L <sub>AF</sub> General traffic on Epping Road approx. 45-50 L <sub>AF</sub> Cicada noise for short duration approx. 1 minute. 51 L <sub>AF</sub>	< 39 <sup>3</sup>	51	Yes
R1A_02	On grass between Building C & D	2:30 PM to 2:45 PM	66	42	49	46	Site noise inaudible at measurement location Cars passing by on adjacent driveway typically 60-62 L <sub>AF</sub> Motorbike and heavy vehicles on Epping Road approx. 62 L <sub>AF</sub> Heavy vehicles on Epping Road approx. 60 L <sub>AF</sub> General traffic on Epping Road approx. 45-50 L <sub>AF</sub> Cicada noise for short duration approx. 1 minute. 51 L <sub>AF</sub>	< 36 <sup>3</sup>	51	Yes
R1A_02	On grass between Building C & D	2:45 PM to 3:00 PM	64	45	50	47	Site noise inaudible at measurement location Heavy vehicles on Epping Road approx. 58 L <sub>AF</sub> General traffic on Epping Road approx. 45-50 L <sub>AF</sub> Cicada noise for short duration approx. 1 minute. 50 L <sub>AF</sub>	< 39 <sup>1</sup>	51	Yes
R1A_02	On grass between Building C & D	3:00 PM to 3:15 PM	70	45	50	47	Site noise inaudible at measurement location Heavy vehicles on Epping Road approx. 58 L <sub>AF</sub> General traffic on Epping Road approx. 45-50 L <sub>AF</sub> Cicada noise for short duration approx. 5 minutes. 47-50 L <sub>AF</sub> Bird noise for approx. 1 minute. up to 65 L <sub>AF</sub>	< 39 <sup>1</sup>	51	Yes
R1A_02	On grass between Building C & D	3:15 PM to 3:30 PM	75	44	55	47	Site noise inaudible at measurement location Planes consistent throughout every 1 to 2 minutes. Approx 60-72 L <sub>AF</sub> Heavy vehicles on Epping Road approx. 55 L <sub>AF</sub> General traffic on Epping Road approx. 45-50 L <sub>AF</sub> Cicada noise for short duration approx. 1 minute. 51 L <sub>AF</sub>	< 39 <sup>1</sup>	51	Yes
R1A_02	On grass between Building C & D	3:30 PM to 3:45 PM	72	44	55	47	Site noise inaudible at measurement location Planes consistent throughout every 1 to 2 minutes. Approx 60-72 L <sub>AF</sub> Heavy vehicles on Epping Road approx. 55 L <sub>AF</sub> General traffic on Epping Road approx. 45-50 L <sub>AF</sub> Cicada noise for short duration approx. 1 minute. 51 L <sub>AF</sub>	< 40 <sup>1</sup>	51	Yes

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A) <sup>2</sup>				Comment	Estimated site contribution at measurement location <sup>1</sup> ,	Noise limit	Complies?
			L <sub>AFmax</sub>	L <sub>AFmin</sub>	L <sub>Aeq</sub>	L <sub>A90</sub>		L <sub>Aeq, 15min</sub> , dB(A)	L <sub>Aeq, 15min</sub> , dB(A)	
R1B	Tower A rooftop	1:45 PM to 2:00 PM	63	49	52	50	Site noise inaudible at measurement location Mechanical plant on roof of R1 constant throughout approx. 50 L <sub>AF</sub> Traffic noise from Epping Rd to the north and south approx. 50 L <sub>AF</sub> Plane fly over up to approx. 60 L <sub>AF</sub> (up to 76 in later measurements) <i>Wind gusts 2-3m/s southeast</i>	< 40	51	Yes
R1B	Tower A rooftop	2:00 PM to 2:15 PM	59	49	51	51	Unattended monitoring.	< 41 <sup>3</sup>	51	Yes
R1B	Tower A rooftop	2:15 PM to 2:30 PM	65	48	51	50	Unattended monitoring, see relevant comments for ground level.	< 40 <sup>3</sup>	51	Yes
R1B	Tower A rooftop	2:30 PM to 2:45 PM	60	49	51	50	Unattended monitoring, see relevant comments for ground level.	< 40 <sup>3</sup>	51	Yes
R1B	Tower A rooftop	2:45 PM to 3:00 PM	55	50	51	51	Unattended monitoring, see relevant comments for ground level.	< 44 <sup>1</sup>	51	Yes
R1B	Tower A rooftop	3:00 PM to 3:15 PM	66	50	52	51	Unattended monitoring, see relevant comments for ground level.	< 44 <sup>1</sup>	51	Yes
R1B	Tower A rooftop	3:15 PM to 3:30 PM	74	49	56	51	Unattended monitoring, see relevant comments for ground level. Generator testing partially during this period.	< 44 <sup>1</sup>	51	Yes
R1B	Tower A rooftop	3:30 PM to 3:45 PM	74	49	57	51	Unattended monitoring, see relevant comments for ground level. Generator testing during this period.	< 45 <sup>1</sup>	51	Yes
R1B	Tower A rooftop	3:45 PM to 4:00 PM	76	50	57	51	Unattended monitoring, see relevant comments for ground level. Generator testing partially during this period.	< 45 <sup>1</sup>	51	Yes

Notes:

1.

As site was inaudible throughout, this was calculated based upon the difference between R2 measurement location and R1 assessment locations based upon the PWNA noise assessment,(220364-13 – AT SYD2 - Treatment Summary – R4.4, dated 9 April 2024, Version R4.4) which shows a difference of 3 dB(A), between the R-1A (5m) location and the top of tower (R-1C)(60m). Noting the site was inaudible, this the best estimate as per the NPfl.

2.

This represents the measured noise levels associated with all noise sources (including road/rail traffic, natural sources and site noise)

3.

Based upon 10dB(A) off the LA90 noise level as site was inaudible throughout.

#### 4.2.3.3 Magdala Road (R2)

Attended noise monitoring was conducted in Magdala Park, directly south of 57 Magdala Road. Two monitors were deployed, one at 1.5m and 4.5m above ground level, to be representative of the potentially most affected locations on the R2 residential receivers. The noise monitoring location is as shown in Figure 3-2.

At the noise monitoring location, the following sources of noise were audible:

- **Traffic noise from Epping Road** to the north-east was the dominant source of noise. The road traffic noise controlled both the ambient and background noise level and was relatively steady and continuous throughout the measurement periods, generally 40-45 dB(A)  $L_{AF}$ . There were no periods where traffic noise was not substantially contributing.
- **SYD2 mechanical plant noise** was just faintly audible to barely audible during all measurement time periods, when there were reduced traffic noise levels. Whilst traffic noise dominated the ambient noise levels, the data centre contribution was more apparent when traffic noise reduced or were more distant. When road traffic noise, natural noises (ie. insects), and cars in the intervening carpark in the direction of the Project were contributing noise levels above 46 dB(A), the site was not clearly distinguishable.

The contribution considered the measured noise levels at both 1.5m and 4.5m above ground level. The contribution estimates focused on the periods when there were low levels of traffic noise, and minimum measured noise levels to minimise the contribution of extraneous noise.

The results from the noise monitors are provided in Table 4-12 below.

Table 4-12: Attended noise monitoring results (19/12/2025), Magdala Park (R2)

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A) <sup>2</sup>				Comments	Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A) <sup>1</sup>	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Complies?
			L <sub>AFmax</sub>	L <sub>AFmin</sub>	L <sub>Aeq</sub>	L <sub>A90</sub>				
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:45 PM to 3:00 PM	77	40	52	42	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~41-43dB(A) (~60-80 degrees). Occasional wind in tress (~45/46 dB(A)). Neighbourhood noises (ie. Dogs barking ~52 dB(A)).  Background noise levels: Epping Road traffic and data centre audible (~41-43 dB(A)). Some contribution of faint natural noises (periods of cicadas)(remained at 41 dB(A))	38	46	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		62	41	65	42	Site noise: Site noise audible (~130-150 degrees, at 42/43 dB(A)) during quiet periods of traffic.	39		
R2a	Adjacent to 57 Magdala Rd (1.5m)	3:00 PM to 3:15 PM	62	40	45	42	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~41-43 dB(A) (~60-80 degrees). Occasional wind in tress (~42 dB(A)). Occasional bird. Plane flyover (~55-60 dB(A)). Nearby water pump station (~3min)(remained at ~43 dB(A)). Local traffic movement on Magdala Road (~52-55 dB(A)).	39	46	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		62	40	65	41	Background noise levels: Epping Road traffic and data centre audible (~41-43 dB(A)). Some contribution of faint natural noises (periods of insects)(~ 42/43 dB(A))  Site noise: Site noise audible (~120-150 degrees, at 42/43 dB(A)) during quiet periods of traffic.  Wind up to 2.9m/s, from SSE (160 degrees)	39		
R2a	Adjacent to 57 Magdala Rd (1.5m)	3:15 PM to 3:30 PM	74	41	55	43	<b>PERIOD WITH GENERATOR TESTING (started approximately at 3:20pm)</b>  Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~43/44 dB(A, up to 56 dB(A) for motorbikes), (~60 degrees). Car idling in carpark with air-conditioner on (~44 dB(A)). Occasional bird (~44 dB(A)). Local traffic movement on Magdala Road (~47 dB(A)). Plane flyovers (~46-72 dB(A)). Some contribution of faint natural noises (periods of insects, ~ 43-47 dB(A))	39	46	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		75	41	76	43	Background noise levels: Epping Road traffic and data centre faintly audible (~42-44 dB(A)).  Site noise: Site noise audible (faint at ~42/44dB(A)) during quiet periods of traffic.	39		
R2a	Adjacent to 57 Magdala Rd (1.5m)	3:30 PM to 3:45PM	70	41	54	43	<b>PERIOD WITH GENERATOR TESTING</b>  Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~42 dB(A, ~60 degrees). Occasional birds (~50-55 dB(A)).	39	46	Yes

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A) <sup>2</sup>				Comments	Estimated site contribution at measurement location,	Noise limit	Complies?
			L <sub>A</sub> F <sub>max</sub>	L <sub>A</sub> F <sub>min</sub>	L <sub>A</sub> eq	L <sub>A</sub> 90		L <sub>A</sub> eq, 15min, dB(A) <sup>1</sup>	L <sub>A</sub> eq, 15min, dB(A)	
R2b	Adjacent to 57 Magdala Rd (4.5m)		70	42	71	43	5 x plane flyovers (~50-69 dB(A)). Some contribution of natural noises (periods of cicadas, ~ 46 dB(A))  Background noise levels: Epping Road traffic and data centre faintly audible (~41-44 dB(A)). and contribution of natural noises (periods of insects, ~ 43-47 dB(A)).  Site noise: Site noise audible (faint at ~41-43 dB(A)) during quiet periods of traffic.	40		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	3:45PM to 4:00PM	72	42	54	44	<b>PERIOD WITH GENERATOR TESTING (stopped at 3:51pm)</b>  Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~45-46 dB(A, ~60 degrees). Occasional wind in tress (~45/46 dB(A)). 4 x plane flyovers (~59-68 dB(A)). Car idling in carpark with air-conditioner on departs Distant thunder to north.	40	46	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		73	43	74	44	Background noise levels: Epping Road traffic and data centre barely audible (~42-44 dB(A)). and contribution of natural noises (periods of insects, ~ 41-43 dB(A)).  Site noise: Site noise barely audible at ~45/46 dB(A)) during quiet periods of traffic.	41		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	4:00PM to 4:15PM	70	40	53	43	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (typically ~42-44 dB(A, ~60 degrees). 4 x plane flyovers (~61-67 dB(A)).  Background noise levels: Epping Road traffic and data centre barely audible (~43-44 dB(A)). and contribution of natural noises picked up (periods of insects to NE, ~ 46 dB(A)).	38	46	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		76	42	77	43	Site noise: Site noise faintly audible at ~43/44 dB(A)) during quiet periods of traffic. Became inaudible with cicadas and car with air-conditioning dominating (~46 dB(A)) in carpark in direction of site.	40		Yes

Notes: 1. No lulls in traffic noise were observed during 15-minute period, and so estimated level based upon reference to the estimated traffic contributions under the LAmin noise level, during the quiet traffic period.

#### 4.2.3.4 Residences east of Pittwater Road, East Ryde - Rodney Street (R5)

Attended noise monitoring was conducted in Rodney Street, on the footpath outside 12 Rodney Street. The noise monitoring location was selected to represent the most impacted residences in the area, whilst being shielded from noise from Epping Road. The noise monitoring location is as shown in Figure 3-2.

At the noise monitoring locations, the following sources of noise were audible:

- **Traffic noise from Pittwater Road** to the south-east was the dominant source of noise when traffic is present on the road. Traffic was intermittent throughout the measurement periods with traffic noise contribution being approximately 42-43 dB(A)  $L_{AF}$ .
- **Traffic noise from Epping Road** to the northeast was the dominant source of noise when traffic is present on the road. Traffic was intermittent throughout the measurement periods with traffic noise contribution being approximately 42-43 dB(A)  $L_{AF}$ .
- **SYD2 Project noise** was audible during some measurement periods outside of generator testing, specifically when the ambient levels dipped below 37 dB(A). The ambient noise levels during these periods were controlled by traffic on either Epping Rd or Pittwater Rd or from Cicadas to the southeast. The noise contribution directly preceding generator testing at the proposal was determined to be 37-38 dB(A)  $L_{AF}$ . During generator testing, the site dominated the background, unless the cicadas estimated to be close to the proposal also picked up during the same period. The site contribution during generator testing was determined to be 42-45 dB(A).
- **Cicadas** were audible intermittently during all measurement periods. They dominated the background, even masking the noise from the proposal when they were active, contributing between 42-61 dB(A). This variation can be attributed to their general location as the cicadas present near the proposal in the southeast direction contributed 42-45 dB(A) while cicadas in the vicinity of the measurement location contributed 49-61 dB(A).
- **Aircraft flyover noise:** During the measurement period, especially after 03:31 PM as air traffic picked up, **aircraft flying overhead** were typically measured at 66-74 dB(A)  $L_{AF}$ . As the noise monitoring location was nearly directly under the flight path for aircraft approaching Sydney Airport from the north, aircraft were regular and the periods without contribution from aircraft noise was infrequent.
- **Construction noise from 18 Jeanette Street:** During the measurement period, there was impulsive contribution from hammering at 18 Jeanette St, the site contributing between 53-63 dB(A). It did not impact either the background levels due to its very infrequent nature.



**Table 4-13: Attended noise monitoring results (19/12/2025), Rodney Street (R5)**

Location	Start	Duration	Total measured noise level, dB(A)					Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A)	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Comment
			L <sub>AFmax</sub>	L <sub>AFmin</sub>	L <sub>Aeq</sub>	L <sub>A10</sub>	L <sub>A90</sub>			
On the footpath near 12 Rodney St	2:25 PM	0:14:55	65	37	44	48	39	38 <sup>1</sup>	45	<p>Site audible in the background with some contribution from traffic on Pittwater and Epping Rd until the cicadas picked up at 2:37 PM.</p> <p>Cicadas dominate the amenity from 2:37 PM, contributing 49 dB(A) close to the monitoring location.</p> <p>Contribution of noise from site audible at the measurement location at 37-38 dB(A).</p> <p>Occasional contribution from construction activity at 18 Jeanette St (around 53 dB(A)).</p>
	2:40 PM	0:15:00	77	37	50	53	40	< 37 <sup>1</sup>	45	<p>Traffic on Pittwater and Epping Rd dominates background, contributing 42-43 dB(A) when heavy vehicles pass through there. Site noise generally difficult to distinguish.</p> <p>Cicadas dominate the background levels from 2:50 PM onwards after dropping off by 2:39 PM, contributing 43 dB(A) audible from the southeast within the vicinity of the proposal.</p> <p>Occasional contribution from construction activity (drilling) at 18 Jeanette St (around 46 dB(A)).</p>
	2:55 PM	0:15:00	74	39	50	54	41	< 39 <sup>1</sup>	45	<p>Traffic on Pittwater and Epping Rd dominates background, contributing 42-43 dB(A) when heavy vehicles pass through there. No site noise audible during this period. Site noise generally difficult to distinguish.</p> <p>Cicadas dominate the background levels from 2:57 PM onwards after dropping off by 2:54 PM, contributing 43 dB(A) audible from the southeast within the vicinity of the proposal.</p> <p>Nearby cicadas dominate the amenity when active contributing 54-61 dB(A) close to the monitoring location.</p> <p>Chainsaw active near the proposal, contributing 47-49 dB(A) when active.</p> <p>Occasional contribution from a construction event at 18 Jeanette St (around 71 dB(A)).</p>

Location	Start	Duration	Total measured noise level, dB(A)					Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A)	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Comment
			L <sub>A</sub> F <sub>max</sub>	L <sub>A</sub> F <sub>min</sub>	L <sub>A</sub> eq	L <sub>A</sub> 10	L <sub>A</sub> 90			
	3:10 PM	0:15:00	74	39	47	50	41	< 41 <sup>1</sup>	45	Traffic on Pittwater and Epping Rd dominates background until site generator testing started, contributing 42-43 dB(A) when heavy vehicles pass through there.  Site generator testing initiated at 3:20 PM, and increased background noise levels, to total noise level 41-42 dB(A) at the measurement location.
	3:25 PM	0:15:00	76	42	58	63	45	< 42 <sup>1</sup>	45	Site audible in the background throughout measurement period, contributing around 42 dB(A) until the cicadas picked up at 3:30 PM.  Cicadas dominate the background levels from 3:30 PM onwards, contributing 44-46 dB(A) audible from the southwest.
	3:40 PM	0:10:50	71	42	56	62	44	< 42 <sup>1</sup>	45	Site audible in the background as generator testing finished during this measurement period, audible at around 42-44 dB(A) when the cicadas dropped off at 3:40 PM.

Notes: 1. Due to the contribution of cicada noise, this the best estimate as per the NPfl.

#### 4.2.3.5 1A Sirius Road (C1)

Attended noise monitoring was conducted at 1A Sirius Road on the northern Balcony of the Harley Davidson commercial receiver (C1). The measurement location was selected to represent the worst case commercial receivers identified in SSD 9741 (MOD4) CoC B14 Table 2.

At the measurement location, the Project site noise was a dominant source of noise, along with contributions from insect noise (cicadas, crickets etc.), road traffic noise from Epping Road and M2 Motorway, and mechanical plant noise from adjacent site at 2 Sirius Road.

The measured noise levels and calculated site contribution are provided in Table 4-14 below. The measured  $L_{Aeq}$  noise levels have not had extraneous noise removed, however based on the  $L_{A90}$ , (which is considered representative of the Project site noise), the measured site noise throughout the unattended noise monitoring was approximately 52 dB(A). This noise levels was consistent with observations conducted when installing the noise monitor. Based on this, the measured noise levels comply with the noise limits at the measurement location.

**Table 4-14: Noise monitoring results, 1A Sirius Road (C1)**

Start time	Measured noise level, dB(A)					Estimate site contribution at measurement location <sup>1</sup> , dB $L_{Aeq, 15min}$	Noise limit $L_{Aeq, 15min}$ , dB(A)	Complies?
	$L_{AFmax}$	$L_{AFmin}$	$L_{Aeq}$	$L_{A10}$	$L_{A90}$			
12:15 PM to 12:30 PM	84	50	60	62	52	52	63	Yes
12:30 PM to 12:45 PM	62	50	53	54	52	52	63	Yes
12:45 PM to 1:00 PM	60	50	52	53	51	51	63	Yes
1:00 PM to 1:15 PM	63	51	53	54	52	52	63	Yes
1:15 PM to 1:30 PM	61	51	53	54	52	52	63	Yes
1:30 PM to 1:45 PM	66	51	53	54	52	52	63	Yes
1:45 PM to 2:00 PM	59	50	52	53	51	51	63	Yes
2:00 PM to 2:15 PM	65	50	52	52	51	51	63	Yes
2:15 PM to 2:30 PM	60	50	52	53	51	51	63	Yes
2:30 PM to 2:45 PM	62	50	52	52	51	51	63	Yes
2:45 PM to 3:00 PM	65	50	52	53	51	51	63	Yes
3:00 PM to 3:15 PM	61	51	53	56	52	52	63	Yes
3:15 PM to 3:30 PM	72	51	56	55	52	52	63	Yes
3:30 PM to 3:45 PM	71	50	56	59	51	51	63	Yes
3:45 PM to 4:00 PM	73	50	56	59	51	51	63	Yes

Notes: 5.  $L_{A90}$  is considered representative of the Project site noise

#### 4.2.3.6 Lane cove bush walk (P1)

Attended noise monitoring was conducted on the Lane Cove bush walk track. The measurement location was selected to represent the worst case location on the track, to the north of the Project site as shown in Figure 3-2.

At the measurement location, site noise was a dominant source of noise, along with insect noise (cicadas, crickets etc.), road traffic noise from Epping Road and M2 Motorway, and mechanical plant noise from adjacent site at 2 Sirius Road.

The measured noise levels and calculated site contribution are provided in Table 4-15 below. The measured  $L_{Aeq}$  noise levels have not had extraneous noise removed, however based on the  $L_{A90}$ , (which is considered representative of the site noise), the measured site noise is approximately 41-44dB(A), which was consistent with observations conducted when installing the noise monitor. Based on this, the measured noise levels comply with the noise limits.

**Table 4-15: Noise monitoring results, Lane Cove bush walk (P1)**

Monitoring period	Measured noise level, dB(A)					Estimate site contribution at measurement location <sup>1</sup> , dB $L_{Aeq, 15min}$	Noise limit $L_{Aeq, 15min}$ , dB(A)	Complies?
	$L_{AFmax}$	$L_{AFmin}$	$L_{Aeq}$	$L_{A10}$	$L_{A90}$			
1:00 PM to 1:15 PM	57	42	45	47	43	43	48	Yes
1:15 PM to 1:30 PM	64	41	46	47	43	43	48	Yes
1:30 PM to 1:45 PM	59	42	46	47	43	43	48	Yes
1:45 PM to 2:00 PM	62	40	45	44	42	42	48	Yes
2:00 PM to 2:15 PM	47	40	42	43	41	41	48	Yes
2:15 PM to 2:30 PM	48	40	43	45	42	42	48	Yes
2:30 PM to 2:45 PM	53	40	43	44	42	42	48	Yes
2:45 PM to 3:00 PM	55	41	43	45	42	42	48	Yes
3:00 PM to 3:15 PM	60	41	44	44	42	42	48	Yes
3:15 PM to 3:30 PM	74	41	54	53	42	42	48	Yes
<b>3:30 PM to 3:45 PM<sup>2</sup></b>	<b>69</b>	<b>42</b>	<b>54</b>	<b>58</b>	<b>44</b>	<b>44</b>	<b>48</b>	<b>Yes<sup>1</sup></b>
3:45 PM to 4:00 PM	72	41	54	58	43	43	48	Yes
4:00 PM to 4:15 PM	74	41	57	60	43	43	48	Yes
4:15 PM to 4:30 PM	72	43	55	59	44	44	48	Yes
4:30 PM to 4:45 PM	71	43	53	57	44	44	48	Yes
4:45 PM to 5:00 PM	71	43	54	58	44	44	48	Yes
5:00 PM to 5:15 PM	71	42	54	57	44	44	48	Yes

- Notes:
1.  $L_{A90}$  is considered representative of the Project site noise
  2. Generator testing during full 15 minute measurement period

#### 4.2.3.7 Intermediate location (I1)

Unattended noise monitoring was conducted at an intermediate location in Magdala Park at the south-western end. The noise monitoring location is as shown in Figure 3-2.

The noise monitoring location was selected to provide an intermediate point between the Magdala residences and SYD2.

Attended noise measurements at the noise monitoring location, identified that traffic was still the dominant source of ambient noise. The LA90 was controlled by a combination of traffic noise from Epping Road and SYD2 rooftop equipment. The results of the noise monitoring are presented in Table 4-16 below.

**Table 4-16: Unattended noise monitoring results, Magdala Park intermediate location (I1)**

Monitoring period	Measured noise level, dB(A)				
	L <sub>AFmax</sub>	L <sub>AFmin</sub>	L <sub>Aeq</sub>	L <sub>A10</sub>	L <sub>A90</sub>
1:45 PM to 2:00 PM	76	40	49	46	42
2:00 PM to 2:15 PM	56	40	43	45	42
2:15 PM to 2:30 PM	57	41	44	45	42
2:30 PM to 2:45 PM	54	40	43	44	42
2:45 PM to 3:00 PM	54	41	45	46	43
3:00 PM to 3:15 PM	61	41	45	46	43
3:15 PM to 3:30 PM	73	42	54	53	44
3:30 PM to 3:45 PM	70	44	55	58	45
3:45 PM to 4:00 PM	72	44	54	58	46
4:00 PM to 4:15 PM	74	44	57	59	46
4:15 PM to 4:30 PM	73	44	56	58	47

#### 4.2.4 Assessment of annoying characteristics

In accordance with Fact Sheet C of the NPfI, a low frequency correction is considered following analysis of the measured C and A-weighted  $L_{eq,T}$  noise level contributions for each time period. A correction is to be considered where the C minus A level is 15 dB or more.

Based upon the measured receiver noise levels presented in Section 4.2.3, a summary of the measured noise levels is provided in Table 4-17 below.

From the measured noise levels at all locations (intermediate and receiver), the dB(C) minus dB(A), is below 15 dB, and so no modifying factor correction is required for any of the measurements.

**Table 4-17: Measured low frequency noise assessment - (19/12/2025 – Day period)**

Measurement location	dB(C) minus dB(A) range <sup>1,2</sup>	Further detailed assessment <sup>1</sup>
150 Epping Road R1	9 to 13 dB	n/a
Magdala Road R2	6 to 14 dB	n/a
Rodney Street R5	7 to 12 dB	n/a
1A Sirius Road (C1)	7 to 14 dB	n/a
Lane cove bush walk (P1)	8 to 14 <sup>4</sup> dB	n/a
Intermediate (I1)	8 to 14 <sup>4</sup> dB	n/a
SYD Roof (S1)	9 to 11 dB	n/a

Notes:

1. Where data centre noise could be separated from the overall noise measurement, analysis has been undertaken on these measured noise levels. For other periods, the assessment of the measurement period has been undertaken.

2. See further detailed analysis for in APPENDIX C.

3. Periods with high winds generating low-frequency have been excluded.

4. Noise levels influenced by road traffic and other extraneous noise (planes, insects etc.), so assessment based upon representative periods without these extraneous sources.

### 4.3 Monitoring Period 3 – 4/03/2026 to 6/03/2026 (night)

#### 4.3.1 Overview

Three consecutive nights of monitoring were conducted from 4 to 6 February 2026 to gain a further understanding of the site noise emissions, as all previous measurements found that elevated ambient noise made it challenging to determine the contribution of the Project site noise at the nearby residences.

The focus of these night measurements were for residences on Magdala Road, along with residences to the west of Pittwater Road. The noise monitoring was conducted from approximately 1:00am to 3:00am each night when ambient noise was lowest.

As with prior night measurements, there were only short periods of typically 5 to 20 seconds in duration where traffic noise from Epping Road would reduce to a point where site noise was a dominant source of noise. However, even during these periods of lower traffic noise, there was typically some distant traffic noise that was always audible.

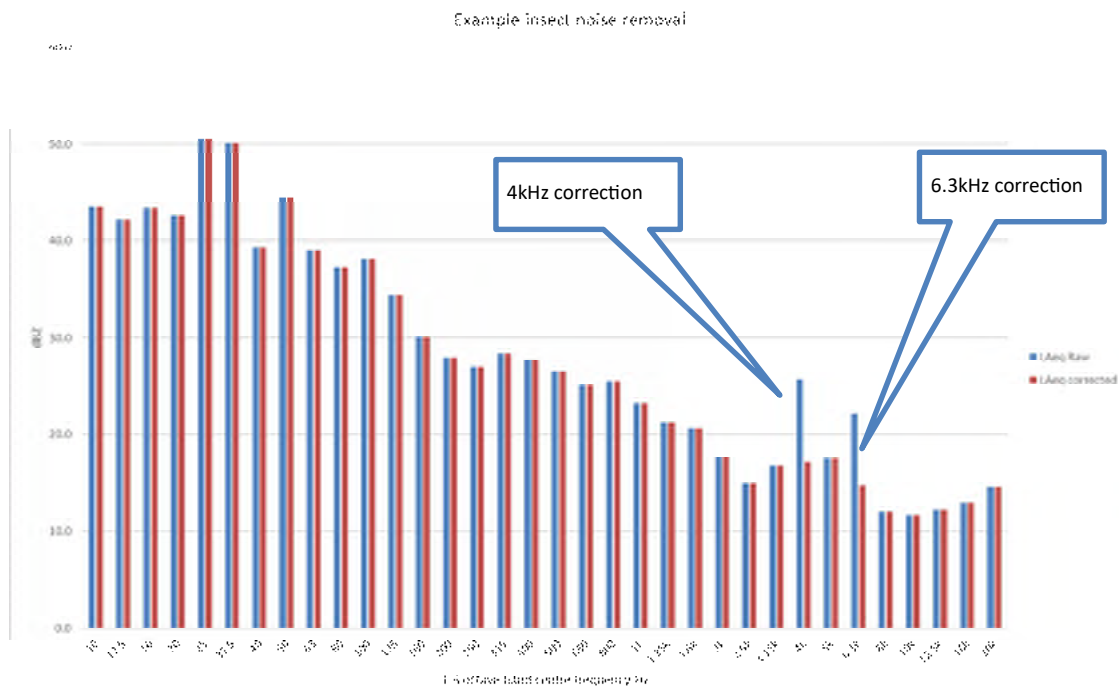
Attempts were made to place noise monitors in shielded locations so that traffic noise could be subtracted from the total measured noise levels, however no suitable location was able to be identified. Based on this, calculations have been conducted in combination with measurements to best determine Project site contribution noise levels at the residences.

#### 4.3.2 Noise monitoring locations

Noise monitoring locations are shown in Figure 3-3 and in APPENDIX B. Monitoring was conducted by two engineers so that concurrent attended monitoring data was obtained across the two receiver areas of R2 and residences east of Pittwater Road.

#### 4.3.3 Removal of insect noise

During the Period 3 measurements, insect noise was constant throughout on all three nights. The insect noise was dominant in the 4kHz and 6.3kHz one-third octave band frequency ranges. For the calculation of site noise, these frequencies were adjusted to remove insect noise. The following figure provides an example of the process by showing the before ( $L_{Aeq\text{ raw}}$ ) and after ( $L_{Aeq\text{ corrected}}$ ) of a sample from one measurement conducted during the measurement period. The removal of insect noise has been conducted for the  $L_{Aeq}$  noise levels as presented in Table 4-21 and Table 4-25.

**Figure 4-1: Example of insect noise removal process**

#### 4.3.4 Analysis of the prevailing meteorological conditions

Meteorological conditions during the monitoring period have been analysed to determine the prevailing wind and temperature inversion conditions were both appropriate, and whether they were consistent with the requirements of the consent.

To determine the prevailing meteorological conditions during the monitoring, data was sourced from the DPHI Macquarie Park AWS (approximately 5km NNW of the Project site) to aid with determining temperature inversion conditions and prevailing noise-enhancing meteorological conditions during the monitoring. This was also correlated with automatic weather station (AWS) located at Lumsaine Ave, East Ryde (Weatherground ref: ISYDNEY648) closer to the Project site, (approximate 700m from the Project site) and observations at all attended monitoring locations. For a period of the monitoring, the wind speed was monitored on-site (ground conditions) to confirm they were consistent with those measured at the reference automatic weather station and as required by the NPfI at each monitoring location. On-site weather observations were generally consistent with the DPHI AWS data.

During the attended noise measurement periods the weather conditions were as detailed in Table 4-18.



**Table 4-18: Attended noise measurement surveys weather observations (04/03/2026 to 06/03/2026– Night period)**

Time period (Start)	Air temperature, (deg C)	Relative humidity, %	Average wind speed (at 10 m above ground level), m/s	Wind direction, degrees	Stability Class (Night time) <sup>2</sup>	Cloud cover	Rain (mm)
<b>04/03/2026</b>							
01:00 AM	22	91	0	43	F	6/8	0
02:00 AM	22	92	0	12	G	6/8	0
<b>05/03/2026</b>							
01:00 AM	21	94	1	341	G	1/8	0
02:00 AM	21	94	0	122	G	1/8 to 6/8 <sup>3</sup>	0
<b>06/03/2026</b>							
01:00 AM	21	93	1	344	G	2/8	0
02:00 AM	21	94	1	346	G	2/8	0

Notes:

1. During the attended monitoring, a handheld anemometer was used and confirmed wind speeds at the sound level meter were not above 5m/s, as required by the NPfl.
2. Stability class, based upon NPfl Fact Sheet D1.4 'Use of sigma-theta data', using sigma-theta data from the DPHI Macquarie Park AWS.
3. Cloud cover varied from approximately 1/8 up to 6/8 and back to 1/8 over the measurement period.

### 4.3.5 Noise monitoring

#### 4.3.5.1 SYD2 onsite unattended monitoring

Long-term unattended noise monitoring at the SYD2 rooftop was conducted during the monitoring period. The noise monitor was installed at the northern end of the northern gantry top level as shown in Figure 3-3 and in APPENDIX B. The noise monitoring location was revised from the previous measurements to be more central to all rooftop plant. This was not possible in the previous measurements period due to localised noise from a nearby PTU.

Consistent with the data presented at the SYD2 noise monitor for the previous periods, to remove extraneous noise, the  $L_{A90}$  has been used to represent the underlying mechanical plant noise.

From Table 4-19 below, mechanical plant levels were found to be consistent throughout the measurement period.

**Table 4-19: Unattended noise monitoring results, SYD2 rooftop (S1) - Period 3 (04/03/2026 to 06/03/2026)**

Start time	Measured noise level, dB(A)			
	L <sub>AFmax</sub>	L <sub>AFmin</sub>	L <sub>Aeq</sub>	L <sub>A90</sub>
<b>04/03/2026</b>				
1:00:00	58	55	56	56
1:15:00	60	55	57	56
1:30:00	58	55	56	56
1:45:00	58	55	56	56
2:00:00	58	55	56	55
2:15:00	58	55	56	55
2:30:00	64	54	56	55
2:45:00	60	54	56	55
3:00:00	57	54	56	55
<b>05/03/2026</b>				
1:00:00	60	54	56	55
1:15:00	58	54	56	55
1:30:00	59	54	56	55
1:45:00	58	54	56	55
2:00:00	66	55	56	55
2:15:00	58	55	56	56
2:30:00	58	55	57	56
2:45:00	59	54	56	56
3:00:00	58	54	56	55
<b>06/03/2026</b>				
1:00:00	69	54	56	55
1:15:00	64	54	56	55
1:30:00	62	54	56	55
1:45:00	61	54	56	55
2:00:00	57	54	55	55
2:15:00	57	54	55	55
2:30:00	58	54	55	55
2:45:00	57	54	55	55
3:00:00	69	54	56	55

#### 4.3.5.2 Magdala Road (R2)

Attended noise monitoring was conducted in Magdala Park, at the northern end of the Magdala playground. Two noise monitors were deployed, one at 1.5m and 4.5m above ground level, to represent the potentially most affected locations on the R2 residential receivers. The noise monitoring location is as shown in Figure 3-3 and in APPENDIX B.

At the noise monitoring location, the following sources of noise were audible during the monitoring period:

- **Traffic noise from Epping Road** to the north and east was the dominant source of noise, along with constant insect noise. The road traffic noise controlled both the ambient and background noise level and was relatively steady and continuous throughout the measurement periods, generally 37-40 dB(A)  $L_{AF}$  and 40-45 dB(A)  $L_{AF}$  during heavy vehicle passbys on Epping Road.
- **SYD2 mechanical plant noise** was just faintly audible during most time periods, but more distinguishable when there were reduced traffic noise levels. Whilst traffic noise dominated the ambient noise levels, the data centre contribution was more apparent when traffic noise reduced or was more distant.

The contribution considered the measured noise levels at both 1.5m and 4.5m above ground level. The contribution estimates focused on the periods when there were breaks in the traffic noise, and minimum measured noise levels to minimise the contribution of extraneous noise.

The results from the noise monitors are provided in Table 4-4 below. The results provide the 15 minute summary noise levels as measured at the noise monitors. Table 4-21 provides an analysis of the periods during each of the 15 minute measurements where traffic noise levels were at their lowest. Results of the onsite SYD2 logger and the Magdala Intermediate location logger during the correlated time period have also been provided to reference against. It was noted on the third night (06/03/2026) of measurements that traffic noise was generally elevated at the noise monitoring location, resulting in few periods in which analysis could be conducted.

During the monitoring in Period 3, there were times when there were lulls in traffic noise such as that data centre noise dominated the measured noise level. These were of lower noise levels and of longer duration than the Period 1 monitoring. These measured lowest noise levels over Period 3 were used to conservatively determine the data centre contribution at the receiver locations.

Table 4-20: Attended noise monitoring results – Magdala Park (R2) - Period 3 (04/03/2026 to 06/03/2026)

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A)				Comments	Estimated site contribution at measurement location, $L_{Aeq, 15min, dB(A)^2}$	Noise limit $L_{Aeq, 15min, dB(A)}$	Complies?
			$L_{AFmax}$	$L_{AFmin}$	$L_{Aeq}$	$L_{A90}$				
04/03/2026										
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:00 AM to 1:15 AM	69	36	46	37	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ .  Cricket noise constant throughout measurement.  Dog barking for approx. 3 minutes elevating $L_{Amax}$ and $L_{Aeq}$ levels.	34	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		68	36	46	39	Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ )..  Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels.  3 periods during measurement with low traffic noise.	35		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:15 AM to 1:30 AM	49	35	38	37	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ .  Cricket noise constant throughout measurement.	34	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		46	36	39	38	Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ).  Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels.  2 periods during measurement with low traffic noise.	35		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:30 AM to 1:45 AM	61	35	38	37	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ .  Cricket noise constant throughout measurement.	34	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		48	36	39	38	Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ).  Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels.  3 periods during measurement with low traffic noise.	35		Yes

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A)				Comments	Estimated site contribution at measurement location, $L_{Aeq, 15min, dB(A)}^2$	Noise limit $L_{Aeq, 15min, dB(A)}$	Complies?
			$L_{AFmax}$	$L_{AFmin}$	$L_{Aeq}$	$L_{A90}$				
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:45 AM to 2:00 AM	57	36	38	37	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ . Cricket noise constant throughout measurement.	34	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		47	36	40	38	Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Magdala park pump room audible for approx. 1 minute 40dB(A) $L_{AF}$ . Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. 3 periods during measurement with low traffic noise.	35		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:00 AM to 2:15 AM	74	35	40	36	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ . Cricket noise constant throughout measurement.	33	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		54	36	39	38	Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. 3 periods during measurement with low traffic noise.	34		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:15 AM to 2:30 AM	59	34	37	36	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ . Cricket noise constant throughout measurement.	33	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		48	35	39	38	Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. 3 periods during measurement with low traffic noise.	34		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:30 AM to 2:45 AM	49	35	38	36	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ .	33	36	Yes

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A)				Comments	Estimated site contribution at measurement location, $L_{Aeq, 15min, dB(A)}^2$	Noise limit $L_{Aeq, 15min, dB(A)}$	Complies?
			$L_{AFmax}$	$L_{AFmin}$	$L_{Aeq}$	$L_{A90}$				
R2b	Adjacent to 57 Magdala Rd (4.5m)		49	36	39	38	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. 2 periods during measurement with low traffic noise.	34		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:45 AM to 3:00 AM	49	34	38	36	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ .	33	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		46	35	40	38	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. 2 periods during measurement with low traffic noise.	34		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	3:00 AM to 3:15 AM	51	35	38	36	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ .	33	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		48	36	40	38	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. 2 periods during measurement with low traffic noise.	34		Yes
05/03/2026										
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:00 AM to 1:15 AM	53	35	39	36	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ .	33	36	Yes

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A)				Comments	Estimated site contribution at measurement location, $L_{Aeq, 15min, dB(A)^2}$		Noise limit $L_{Aeq, 15min, dB(A)}$	Complies?
			$L_{AFmax}$	$L_{AFmin}$	$L_{Aeq}$	$L_{A90}$					
R2b	Adjacent to 57 Magdala Rd (4.5m)		48	35	40	37	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. 2 periods during measurement with low traffic noise.	34			Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:15 AM to 1:30 AM	51	33	38	35	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ .	33		36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		47	34	38	36	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. Traffic noise dropped to the lowest point over the entire Period 3 of measurements. During this period 33 dB(A) $L_{Amin}$ was measured at 1.5m and 34 dB(A) $L_{AF}$ at the 4.5m location. 1 period during measurement with very low traffic noise.	34			Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:30 AM to 1:45 AM	59	34	39	36	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45 dB(A) $L_{AF}$ .	33		36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		52	35	40	37	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38 dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. 3 periods during measurement with low traffic noise.	34			Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:45 AM to 2:00 AM	61	35	40	37	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ .	33		36	Yes

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A)				Comments	Estimated site contribution at measurement location, $L_{Aeq, 15min, dB(A)^2}$	Noise limit $L_{Aeq, 15min, dB(A)}$	Complies?
			$L_{AFmax}$	$L_{AFmin}$	$L_{Aeq}$	$L_{A90}$				
R2b	Adjacent to 57 Magdala Rd (4.5m)		53	37	41	39	Cricket noise constant throughout measurement. Motorbike passby on Epping Road up to 53dB(A) $L_{AF}$ . Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. No periods of low traffic.	34		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:00 AM to 2:15 AM	58	35	42	37	Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ . Cricket noise constant throughout measurement.	34	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		58	36	43	39	Motorbike passby on Epping Road up to 56dB(A) $L_{AF}$ . Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. Light wind from approximately 2:08am. Wind noise audible in trees. No periods of low traffic noise	35		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:15 AM to 2:30 AM	53	37	40	39	Epping Road (approx. 38-40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ . Cricket noise constant throughout measurement.	34	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		50	39	42	41	Background noise levels: Epping Road traffic and data centre audible (approx. 37-38dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. Wind reducing down to still throughout measurement but ambient and background traffic noise remains elevated. It was noted that the wind whilst measuring still at the monitoring location was monitored at BOM station to be now coming from an easterly direction. This was confirmed by an apparent increase in road traffic noise from Epping Road in a more easterly direction than previously identified). No periods of low traffic noise.	35		Yes



Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A)				Comments	Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A) <sup>2</sup>	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Complies?
			L <sub>AFmax</sub>	L <sub>AFmin</sub>	L <sub>Aeq</sub>	L <sub>A90</sub>				
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:30 AM to 2:45 AM	52	37	40	38	Epping Road (approx. 38-40dB(A) L <sub>AF</sub> . Heavy vehicles on Epping Road approx. 40-45dB(A) L <sub>AF</sub> . Cricket noise constant throughout measurement.	34	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		50	38	42	41	Background noise levels: Epping Road traffic and data centre audible (approx. 37-38dB(A) L <sub>AF</sub> ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. Wind still yet elevated traffic noise from Epping Road in comparison to previous measurements. No periods of low traffic noise.	35		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:45 AM to 3:00 AM	48	36	39	38	Epping Road (approx. 38-40dB(A) L <sub>AF</sub> . Heavy vehicles on Epping Road approx. 40-45dB(A) L <sub>AF</sub> . Cricket noise constant throughout measurement.	34	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		47	38	42	40	Background noise levels: Epping Road traffic and data centre audible (approx. 37-38dB(A) L <sub>AF</sub> ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. Wind still yet elevated traffic noise from Epping Road in comparison to previous measurements. No periods of low traffic noise.	35		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	3:00 AM to 3:15 AM	48	36	39	38	Epping Road (approx. 38-40dB(A) L <sub>AF</sub> . Heavy vehicles on Epping Road approx. 40-45dB(A) L <sub>AF</sub> . Cricket noise constant throughout measurement.	33	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		48	37	41	40	Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) L <sub>AF</sub> ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. Wind still yet elevated traffic noise from Epping Road in comparison to previous measurements. No periods of low traffic noise.	34		Yes

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A)				Comments	Estimated site contribution at measurement location, LAeq, 15min, dB(A) <sup>2</sup>	Noise limit LAeq, 15min, dB(A)	Complies?
			LA <sub>Fmax</sub>	LA <sub>Fmin</sub>	LA <sub>eq</sub>	LA <sub>90</sub>				
06/03/2026										
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:00 AM to 1:15 AM	51	36	40	38	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) LA <sub>F</sub> . Heavy vehicles on Epping Road approx. 40-45dB(A) LA <sub>F</sub> .	33	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		51	37	41	39	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) LA <sub>F</sub> ). Motorbike on Epping Road 51 dB(A) LA <sub>F</sub> . Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. No periods of low traffic noise.	34		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:15 AM to 1:30 AM	49	36	40		Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) LA <sub>F</sub> . Heavy vehicles on Epping Road approx. 40-45dB(A) LA <sub>F</sub> .	33	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		52	37	41	39	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) LA <sub>F</sub> ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. No periods of low traffic noise.	34		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:30 AM to 1:45 AM	58	37	41	39	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) LA <sub>F</sub> . Heavy vehicles on Epping Road approx. 40-45dB(A) LA <sub>F</sub> .	33	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		59	38	42	40	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) LA <sub>F</sub> ). Emergency services siren on Epping Road 50dB(A) LA <sub>F</sub> . Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. No periods of low traffic noise.	34		Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:45 AM to 2:00 AM	49	35	39	37	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) LA <sub>F</sub> . Heavy vehicles on Epping Road approx. 40-45dB(A) LA <sub>F</sub> .	33	36	Yes

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A)				Comments	Estimated site contribution at measurement location, $L_{Aeq, 15min}, dB(A)^2$		Noise limit $L_{Aeq, 15min}, dB(A)$	Complies?
			$L_{AFmax}$	$L_{AFmin}$	$L_{Aeq}$	$L_{A90}$					
R2b	Adjacent to 57 Magdala Rd (4.5m)		48	36	40	38	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. 1 period of low traffic noise.	34			Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:00 AM to 2:15 AM	54	34	39	36	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ .	33		36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		50	36	40	37	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. 1 period of low traffic noise.	34			Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:15 AM to 2:30 AM	62	36	39	37	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ .	33		36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		50	37	40	38	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. No period of low traffic noise.	34			Yes
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:30 AM to 2:45 AM	52	36	40	37	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) $L_{AF}$ . Heavy vehicles on Epping Road approx. 40-45dB(A) $L_{AF}$ .	33		36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		54	37	41	38	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) $L_{AF}$ ). Motorbike on Epping Road 45dB(A) $L_{AF}$ . Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. No period of low traffic noise.	34			Yes

Reference location	Location	Measurement period	Measured noise level (15-minute) (all sources), dB(A)				Comments	Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A) <sup>2</sup>	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Complies?
			L <sub>AFmax</sub>	L <sub>AFmin</sub>	L <sub>Aeq</sub>	L <sub>A90</sub>				
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:45 AM to 3:00 AM	50	36	39	37	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 38/40dB(A) L <sub>AF</sub> . Heavy vehicles on Epping Road approx. 40-45dB(A) L <sub>AF</sub> .	33	36	Yes
R2b	Adjacent to 57 Magdala Rd (4.5m)		49	37	40	38	Cricket noise constant throughout measurement. Background noise levels: Epping Road traffic and data centre audible (approx. 36-38dB(A) L <sub>AF</sub> ). Motorbike on Epping Road 45dB(A) L <sub>AF</sub> . Site noise: Site noise audible during quiet periods of traffic, however traffic noise always contributing to measured noise levels. 1 period of low traffic noise.	34		Yes

- Notes:
1. This represents the measured noise levels associated with all noise sources (including road traffic, natural sources and site noise, however excludes insect noise as detailed in Section 4.3.3.
  2. Estimated level based upon Table 4-21 for relevant time period.

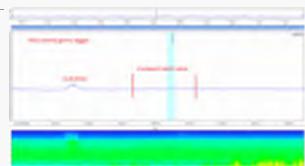
Table 4-21: Attended noise monitoring results – Magdala Park (R2) - Period 3 (04/03/2026 to 06/03/2026) – low ambient traffic noise periods

Reference location	Location	Measurement period (analysis period, sec)	Type	Measured noise level (15-minute) (all sources), dB(A) <sup>1</sup>				Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A) <sup>2</sup>	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Exceedance, dB(A)	Comment
				L <sub>AFmax</sub>	L <sub>Aeq</sub> insect corrected	L <sub>A90</sub>	L <sub>AFmin</sub>				
04/03/2026											
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:00am – 1:15am 38 sec (total)	Attended	38	35	36	36	34	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	41	37	38	37	35	36	-	
I1	Intermediate		Unattended	47	37	39	39	-	-	-	
S1	SYD2 roof		Unattended	57	55	56	55	-	-	-	
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:15am – 1:30am 56 sec (total)	Attended	41	36	35	35	34	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	41	37	36	36	35	36	-	
I1	Intermediate		Unattended	48	37	40	39	-	-	-	
S1	SYD2 roof		Unattended	59	55	56	56	-	-	-	
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:30am to 1:45am 1:57 total	Attended	41	36	36	36	34	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	40	37	37	37	35	36	-	
I1	Intermediate		Unattended	42	37	40	40	-	-	-	
S1	SYD2 roof		Unattended	105	55	77	56	-	-	-	
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:45am to 2:00am	Attended	42	36	36	36	34	36	-	Traffic noise contribution to measured noise levels. Site contribution based on

Reference location	Location	Measurement period (analysis period, sec)	Type	Measured noise level (15-minute) (all sources), dB(A) <sup>1</sup>				Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A) <sup>2</sup>	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Exceedance, dB(A)	Comment
				L <sub>AFmax</sub>	L <sub>Aeq</sub> insect corrected	L <sub>A90</sub>	L <sub>AFmin</sub>				
R2b	Adjacent to 57 Magdala Rd (4.5m)	2:09 min total	Attended	41	37	37	36	35	36	-	measured lowest levels over Period 3.
I1	Intermediate		Unattended	55	37	40	39	-	-	-	
S1	SYD2 roof		Unattended	57	55	56	55	-	-	-	
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:00am to 2:15am 2:07 total	Attended	40	35	35	35	33	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	40	37	37	36	34	36	-	
I1	Intermediate		Unattended	55	37	39	39	-	-	-	
S1	SYD2 roof		Unattended	57	55	56	55	-	-	-	
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:15am to 2:30am 0:59s total	Attended	38	35	34	34	33	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	40	36	36	35	34	36	-	
I1	Intermediate		Unattended	54	36	39	39	-	-	-	
S1	SYD2 roof		Unattended	57	55	56	55	-	-	-	
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:30am to 2:45am 0:48s total	Attended	38	35	35	35	33	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	40	36	36	36	34	36	-	
I1	Intermediate		Unattended	56	36	39	39	-	-	-	

Reference location	Location	Measurement period (analysis period, sec)	Type	Measured noise level (15-minute) (all sources), dB(A) <sup>1</sup>				Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A) <sup>2</sup>	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Exceedance, dB(A)	Comment
				L <sub>AFmax</sub>	L <sub>Aeq</sub> insect corrected	L <sub>A90</sub>	L <sub>AFmin</sub>				
S1	SYD2 roof		Unattended	58	55	56	55	-	-	-	
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:45am to 3:00am 0:48 total	Attended	37	35	34	34	33	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	40	36	36	36	34	36	-	
I1	Intermediate		Unattended	44	36	40	39	-	-	-	
S1	SYD2 roof		Unattended	57	54	56	55	-	-	-	
R2a	Adjacent to 57 Magdala Rd (1.5m)	3:00am to 3:15am 0:51 total	Attended	40	35	35	35	33	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	40	36	36	36	34	36	-	
I1	Intermediate		Unattended	45	36	40	40	-	-	-	
S1	SYD2 roof		Unattended	56	54	55	54	-	-	-	
05/03/2026											
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:00am – 1:15am 34 sec (total)	Attended	38	35	35	35	33	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	38	36	36	35	34	36	-	
I1	Intermediate		Unattended	60	43	40	40	-	-	-	
S1	SYD2 roof		Unattended	57	56	55	54	-	-	-	

Reference location	Location	Measurement period (analysis period, sec)	Type	Measured noise level (15-minute) (all sources), dB(A) <sup>1</sup>				Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A) <sup>2</sup>	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Exceedance, dB(A)	Comment
				L <sub>AFmax</sub>	L <sub>Aeq</sub> insect corrected	L <sub>A90</sub>	L <sub>AFmin</sub>				
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:15am – 1:30am 28 sec (total)	Attended	36	33	33	33	33	36	-	Traffic noise from Epping Road perceived to be lower than typical low periods, lowest of all measurements.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	36	34	34	34	34	36	-	
I1	Intermediate		Unattended	45	38	40	39	-	-	-	
S1	SYD2 roof		Unattended	56	55	54	54	-	-	-	
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:30am – 1:45am 37 sec (total)	Attended	40	34	34	34	33	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	41	36	35	35	34	36	-	
I1	Intermediate		Unattended	46	40	40	40	-	-	-	
S1	SYD2 roof		Unattended	57	55	55	54	-	-	-	
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:00am – 2:15am 13 sec (total)	Attended	38	35	35	35	34	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.  Slightly elevated mechanical plant noise from site not detected as measured increase at receiver.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	41	36	37	36	35	36	-	
I1	Intermediate		Unattended	48	39	43	42	-	-	-	
S1	SYD2 roof		Unattended	58	57	57	57	-	-	-	





Reference location	Location	Measurement period (analysis period, sec)	Type	Measured noise level (15-minute) (all sources), dB(A) <sup>1</sup>				Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A) <sup>2</sup>	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Exceedance, dB(A)	Comment
				L <sub>AFmax</sub>	L <sub>Aeq</sub> insect corrected	L <sub>A90</sub>	L <sub>AFmin</sub>				
06/03/2026											
R2a	Adjacent to 57 Magdala Rd (1.5m)	1:45am – 2:00am 10 sec (total)	Attended	37	34	36	35	33	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	38	37	36	36	34	36	-	
I1	Intermediate		Unattended	42	40	40	40	-	-	-	
S1	SYD2 roof		Unattended	56	55	55	55	-	-	-	
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:00am – 2:15am 42 sec (total)	Attended	39	34	36	34	33	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	39	37	36	36	34	36	-	
I1	Intermediate		Unattended	43	40	40	40	-	-	-	
S1	SYD2 roof		Unattended	55	55	54	54	-	-	-	
R2a	Adjacent to 57 Magdala Rd (1.5m)	2:45am – 3:00am 16s total	Attended	37	34	37	36	33	36	-	Traffic noise contribution to measured noise levels. Site contribution based on measured lowest levels over Period 3.
R2b	Adjacent to 57 Magdala Rd (4.5m)		Attended	38	37	37	37	34	36	-	
I1	Intermediate		Unattended	51	41	41	41	-	-	-	
S1	SYD2 roof		Unattended	56	55	54	54	-	-	-	

Notes:

1. This represents the measured noise levels associated with all noise sources (including road traffic, natural sources and site noise, however excludes insect noise as detailed in Section 4.3.3.
2. Estimated level based upon at-site variations with refence to periods with greater confidence.

#### 4.3.5.3 Magdala Road (R2) shielded location

A combination of attended and unattended noise monitoring was conducted at a shielded location on Magdala Park behind the facilities building near the playground. The noise monitoring location is as shown in Figure 3-3 and in APPENDIX B. The noise monitoring location was selected in an attempt to provide a location that was shielded from site noise and exposed to a similar level of road traffic noise to quantify the level of traffic noise at the monitoring location. The monitoring was conducted for two nights from 4 February to 5 February 2026.

It was found that in the shielded location, whilst there was reduction in site noise, site noise was still audible. Based on this, it was not possible to use this location to remove traffic noise from other measurements.

The results shown below are for information only and have not been relied upon for the calculation of site noise emissions.

The results of the noise monitoring are presented in Table 4-7 below.

**Table 4-22: Noise monitoring results - Magdala Park (R2) shielded - Period 3a to 3b (04/03/2026 to 05/03/2026)**

Start time	Measured noise level, dB(A)				Comments
	L <sub>AFmax</sub>	L <sub>AFmin</sub>	L <sub>Aeq</sub>	L <sub>A90</sub>	
04/03/2026					
1:00 AM	69	35	46	37	Unattended
1:15 AM	54	34	41	37	Unattended
1:30 AM	49	34	39	36	Unattended
1:45 AM	50	34	39	36	Unattended
2:00 AM	52	33	39	36	Unattended
2:15 AM	55	33	40	35	Unattended
2:30 AM	59	33	40	36	Unattended
2:45 AM	57	34	40	36	Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 35/38dB(A) LAF. Heavy vehicles on Epping Road approx. 41-45dB(A) LAF.  Cricket noise constant throughout measurement with occasional bird calls at 37 dB(A) LAF.  Background noise levels: Epping Road traffic and insects (approx. 36-37dB(A) LAF).  Site noise: slightly audible.  No periods of low traffic noise.

Start time	Measured noise level, dB(A)				Comments
	L <sub>A</sub> F <sub>max</sub>	L <sub>A</sub> F <sub>min</sub>	L <sub>A</sub> eq	L <sub>A</sub> 90	
3:00 AM	53	34	40	36	<p>Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 35/38dB(A) LAF. Heavy vehicles on Epping Road approx. 42-48dB(A) LAF.</p> <p>Cricket noise constant throughout measurement reaching as high as approx. 39-40dB(A) LAF.</p> <p>Background noise levels: Epping Road traffic and insects (approx. 36-37dB(A) LAF).</p> <p>Site noise: slightly audible.</p> <p>No periods of low traffic noise.</p>
<b>05/03/2026</b>					
1:00 AM	48	34	40	37	Unattended
1:15 AM	59	32	39	35	Unattended
1:30 AM	58	33	41	36	Unattended
1:45 AM	64	35	40	37	<p>Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 35/38dB(A) LAF. Heavy vehicles on Epping Road approx. 42-48dB(A) LAF.</p> <p>Cricket noise constant throughout measurement.</p> <p>Background noise levels: Epping Road traffic and insects (approx. 37-38dB(A) LAF).</p> <p>Site noise: slightly audible.</p> <p>No periods of low traffic noise.</p>
2:00 AM	65	34	43	37	<p>Ambient noise levels: Dominated by continuous traffic noise from Epping Road (approx. 35/38dB(A) LAF. Heavy vehicles on Epping Road approx. 42-48dB(A) LAF.</p> <p>Cricket noise constant throughout measurement.</p> <p>Background noise levels: Epping Road traffic and insects (approx. 36-38dB(A) LAF).</p> <p>Overhead flyby at 58 dB(A) LAF.</p> <p>Site noise: slightly audible.</p> <p>No periods of low traffic noise.</p>
2:15 AM	47	35	40	38	Unattended
2:30 AM	50	35	39	37	Unattended
2:45 AM	48	35	39	37	Unattended
3:00 AM	51	35	39	37	Unattended

#### 4.3.5.4 Intermediate location (I1)

A combination of attended and unattended noise monitoring was conducted at an intermediate location in Magdala Park at the south-western end. The noise monitoring location is as shown in Figure 3-3 and in APPENDIX B. The noise monitoring location was selected to provide an intermediate point between the Magdala residences and SYD2.

Attended noise measurements at the noise monitoring location, identified that traffic was still the dominant source of ambient noise. The L<sub>A</sub>90 was controlled by a combination of traffic noise from

Epping Road, insect noise and SYD2 rooftop equipment. The results of the noise monitoring are presented in Table 4-7 below.

**Table 4-23: Noise monitoring results - Magdala Park intermediate location (I1) - Period 3 (04/03/2026 to 06/03/2026)**

Start time	Measured noise level, dB(A)				Comments
	L <sub>AF</sub> max	L <sub>AF</sub> min	L <sub>Aeq</sub>	L <sub>A90</sub>	
04/03/2026					
1:00 AM	53	39	41	40	Unattended
1:15 AM	54	39	42	40	Unattended
1:30 AM	52	40	41	40	Unattended
1:45 AM	55	39	41	40	Unattended
2:00 AM	55	39	42	40	Unattended
2:15 AM	54	39	41	40	Ambient noise levels: Mechanical noise from site's direction and nearby insects combining for 39-41 dB(A) L <sub>AF</sub> . Cricket noise constant throughout measurement. Background noise levels: Mechanical noise from the site's direction and insects at 39-40 dB(A) L <sub>AF</sub> . Site noise: Mechanical noise from the site's direction was audible during the measurement.
2:30 AM	56	39	44	40	Ambient noise levels: Mechanical noise from site's direction and nearby insects combining for 39-41 dB(A) L <sub>AF</sub> with occasional bird calls at 41-43 dB(A) L <sub>AF</sub> . Heavy vehicles on Epping Road at approx. 42-43 dB(A) L <sub>AF</sub> . Cricket noise constant throughout measurement. Background noise levels: Mechanical noise from the site's direction and insects at 39-40 dB(A) L <sub>AF</sub> . Site noise: Mechanical noise from the site's direction was audible during the measurement.
2:45 AM	54	39	43	40	Unattended
3:00 AM	52	39	42	41	Unattended
05/03/2026					
1:00 AM	60	40	52	42	Unattended
1:15 AM	53	39	43	42	Unattended
1:30 AM	54	40	44	42	Unattended
1:45 AM	52	40	43	42	Unattended
2:00 AM	59	40	46	43	Unattended
2:15 AM	49	40	45	42	Unattended
2:30 AM	54	40	47	44	Unattended

Start time	Measured noise level, dB(A)				Comments
	L <sub>A</sub> F <sub>max</sub>	L <sub>A</sub> F <sub>min</sub>	L <sub>A</sub> eq	L <sub>A</sub> 90	
2:45 AM	55	40	46	43	<p>Ambient noise levels: Mechanical noise from site's direction and traffic from Epping Rd combining for 42-44 dB(A) L<sub>AF</sub>. Heavy vehicles on Epping Road at approx. 46-54 dB(A) L<sub>AF</sub>.</p> <p>Cricket noise constant throughout measurement.</p> <p>Background noise levels: Mechanical noise from the site's direction, insects and Epping Road traffic and data centre audible (approx. 40-43dB(A) L<sub>AF</sub>).</p> <p>Site noise: Mechanical noise and transformer hum from the site's direction was audible during the measurement.</p>
3:00 AM	53	41	46	43	<p>Ambient noise levels: Mechanical noise from site's direction and traffic from Epping Rd combining for 41-43 dB(A) L<sub>AF</sub>. Heavy vehicles on Epping Road approx. 46-54 dB(A) L<sub>AF</sub>.</p> <p>Cricket noise constant throughout measurement.</p> <p>Background noise levels: Mechanical noise from the site's direction, insects and Epping Road traffic and data centre audible (approx. 40-43 dB(A) L<sub>AF</sub>).</p> <p>Site noise: Mechanical noise from the site's direction was audible during the measurement.</p>
<b>06/03/2026</b>					
1:00 AM	54	40	43	41	Unattended
1:15 AM	48	40	43	41	Unattended
1:30 AM	57	40	44	42	Unattended
1:45 AM	51	40	42	41	Unattended
2:00 AM	48	39	42	40	Unattended
2:15 AM	49	40	42	41	Unattended
2:30 AM	55	40	44	41	<p>Ambient noise levels: Mechanical noise from site's direction and traffic from Epping Rd combining for 41-42 dB(A) L<sub>AF</sub>. Heavy vehicles on Epping Road approx. 46-53 dB(A) L<sub>AF</sub>.</p> <p>Cricket noise constant throughout measurement.</p> <p>Background noise levels: Mechanical noise from the site's direction, insects and Epping Road traffic and data centre audible (approx. 41-43dB(A) L<sub>AF</sub>).</p> <p>Site noise: Mechanical noise from the site's direction was audible during the measurement.</p>
2:45 AM	53	41	43	42	<p>Ambient noise levels: Mechanical noise from site's direction and traffic from Epping Rd combining for 41-43 dB(A) L<sub>AF</sub>.</p> <p>Cricket noise constant throughout measurement.</p> <p>Background noise levels: Mechanical noise from the site's direction, insects and Epping Road traffic and data centre audible (approx. 41-43 dB(A) L<sub>AF</sub>).</p> <p>Site noise: Mechanical noise from the site's direction was audible during the measurement.</p>
3:00 AM	54	40	43	41	Unattended

#### 4.3.5.5 Residences east of Pittwater Road - Brereton Park

Attended noise monitoring was conducted at Brereton Park, East Ryde. The noise monitoring location was selected to represent the most impacted residences in the area. The noise monitoring location is as shown in shown in Figure 3-3 and in APPENDIX B.

At the noise monitoring locations, the following sources of noise were audible:

- **Traffic noise from Pittwater Road** to the southeast was the dominant source of noise when traffic is present on the road. Traffic was intermittent throughout the monitoring period. During the measurement periods, traffic noise was approximately 56-65 dB(A)  $L_{AF}$ .
- **Insect noise** from within Brereton Park was a constant source of noise throughout all monitoring periods. It dominated the background and amenity noise levels at the measurement location for all time periods, contributing between 42-47 dB(A)  $L_{AF}$  at the monitoring location.
- **Traffic noise from Epping Road** to the north and northeast was a key contributing source for background noise levels for the monitoring periods on 5<sup>th</sup> and 6<sup>th</sup> March only. During the measurement periods where it was audible, traffic noise contributed approximately 33-35 dB(A)  $L_{AF}$  with large contribution from nearby insect noise.
- **Mechanical plant noise from the site's direction** was discernibly audible on the 4<sup>th</sup> March only, with it being audible for very short time period on 6<sup>th</sup> March at this monitoring location. The ambient noise levels during these periods were controlled by insects throughout all measurement periods. Noise from the proposal's direction was audible during quiet periods at around 30-31 dB(A)  $L_{AF}$ .

Results from the addended measurements are presented in Table 4-24. The results provide the 15 minute summary noise levels as measured at the noise monitors. Table 4-25 provides an analysis of the periods during each of the 15 minute measurements when traffic noise levels were reduced.

Table 4-24: Attended noise monitoring results, Brereton Park - Period 3 (04/03/2026 to 06/03/2026)

Reference location	Time	Measured noise level (15-minute), dB(A) <sup>1</sup>				Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A)	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Comment
		L <sub>AFmax</sub>	L <sub>AFmin</sub>	L <sub>Aeq</sub>	L <sub>A90</sub>			
04/03/2026								
R6	1:15am to 1:30am	61	36	47	42	31	35	Site barely audible during the measurement, mostly masked by nearby insect noise
	1:30am to 1:45am	71	35	49	44	31	35	
	1:45am to 2:00am	60	36	47	40	31	35	
05/03/2026								
R6	1:00am to 1:15am	63	34	47	37	31	35	Site not audible. Insects and traffic were dominant noise sources during the measurement period
	1:15am to 1:30am	64	37	51	40	31	35	
06/03/2026								
R6	1:00am to 1:15am	73	39	52	43	31	35	Site barely audible during the measurement, mostly masked by nearby insect noise and traffic
	1:15am to 1:30am	65	38	49	41	31	35	

Table 4-25: Attended noise monitoring results – Brereton Park - Period 3 (04/03/2026 to 06/03/2026) – low ambient traffic noise periods

Reference location	Measurement period (analysis period, sec)	Type	Measured noise level (15-minute) (all sources), dB(A) <sup>2</sup>				Estimated site contribution at measurement location, L <sub>Aeq, 15min</sub> , dB(A)	Noise limit L <sub>Aeq, 15min</sub> , dB(A)	Exceedance, dB(A)	Comment
			L <sub>AFmax</sub>	L <sub>Aeq</sub> insect corrected	L <sub>A90</sub>	L <sub>AFmin</sub>				
04/03/2026										
R6	1:25am to 1:25am 32 sec (total)	Attended	48	31	43	43	31	35	-	Site barely audible during the measurement, mostly masked by nearby insect noise
	1:28am to 1:29am 30 sec (total)	Attended	49	31	43	42	31	35	-	
	1:37am to 1:38am 65 sec (total)	Attended	48	31	42	40	31	35	-	
	1:49am to 1:50am 21 sec (total)	Attended	49	31	41	39	31	35	-	
06/03/2026										
R6	1:15am to 1:15am 16 sec (total)	Attended	50	33	44	43	31	35	-	Site barely audible during the measurement, mostly masked by nearby insect noise and traffic noise. Higher insect corrected levels can be attributed to greater contribution from traffic noise during the measurement period.
	1:22am to 1:22am 20 sec (total)	Attended	48	34	42	41	31	35	-	

Notes:

1. This represents the measured noise levels associated with all noise sources (including road traffic, natural sources and site noise, however excludes insect noise as detailed in Section 4.3.3.



### 4.3.6 Assessment of annoying characteristics

In accordance with Fact Sheet C of the NPfI, a low frequency correction is considered following analysis of the measured C and A-weighted  $L_{eq,T}$  noise level contributions for each time period. A correction is to be considered further where the C minus A level is 15 dB or more.

Based upon the measured receiver noise levels presented in Section 4.2.3, a summary of the measured noise levels is provided in Table 4-26 below.

From the measured noise levels at all locations (intermediate and receiver), the dB(C) minus dB(A), is lower than 15 dB, and so no modifying factor correction required for any measurements.

**Table 4-26: Measured low frequency noise assessment – Period 3 (04/03/2026 to 06/03/2026)**

Measurement location	dB(C) minus dB(A) range <sup>1,2</sup>	Further detailed assessment <sup>1</sup>
Magdala Road R2	6-14	n/a
Brereton Park	0-2	n/a
Intermediate (I1)	2-13	n/a
SYD Roof (S1)	8-10	n/a

Notes:

1. Where data centre noise could be separated from the overall noise measurement, analysis has been undertaken on these measured noise levels. For other periods, the assessment of the measurement period has been undertaken.

2. See further detailed analysis for in APPENDIX C.

## 5 Discussion of findings and recommendations

### 5.1 Discussion of findings

During the at-receiver monitoring (attended and unattended), there was at times a significant contribution from non-Project noise sources, such as distant and nearby road traffic, aircraft flyover noise, other extraneous sources and natural sources (ie. cicadas, birds, etc.). As such, standard industry practices and methods consistent with the NPfI were used to further analyse the noise monitoring data to separate out the subject operational noise emissions from the general ambient noise.

#### 5.1.1 Period 1 (13/11/2025 - Night)

Based on measurements the monitoring locations represent the potentially worst affected locations in SSD 9741 (MOD4) CoC B14 Table 2. The monitoring survey determined the outcomes as presented in Table 5-1 for the night period.

**Table 5-1: Summary of noise monitoring outcomes - Period 1 (night)**

Reference location	Monitored noise levels comply
R1 (150 Epping Road, Lane Cove)	Yes
R2 (Magdala Road, North Ryde)	Yes
Any residence to the west of Pittwater Road, East Ryde	Yes

The noise monitoring identified site noise levels to be on the criteria in the worst case. However, it was difficult to separate out the road traffic noise from the site noise at the Magdala Road receivers. Accordingly, additional noise monitoring was undertaken to gain further information about the Project site noise levels at Magdala Road residences (see Section 4.3 and Section 5.1.4).

#### 5.1.2 Period 2 (23/12/2025 – Day)

Based on the measured levels, the monitoring locations represent the potentially worst affected locations in SSD 9741 (MOD4) CoC B14 Table 2. The monitoring survey determined the outcomes as presented in Table 5-2 for the day, including generator testing.

**Table 5-2: Summary of noise monitoring outcomes - Period 2 (day) (including generator testing)**

Reference location	Monitored noise levels comply
R1 (150 Epping Road, Lane Cove)	Yes
R2 (Magdala Road, North Ryde)	Yes
Any residence to the west of Pittwater Road, East Ryde	Yes
C1 (1A Sirius Road, Lane Cove West)	Yes
P1 (Lane Cove Bushwalk)	Yes

### 5.1.3 Evening period

All estimated Project noise levels shown in Section 4.2 for the day monitoring are lower than the evening noise limits when generator testing is not occurring. The noise monitoring data shown in Table 4-10 from the unattended noise monitor on the SYD2 roof shows noise levels onsite remained steady into the evening period. As such, the monitoring data demonstrates compliance for the evening period noise limits.

### 5.1.4 Period 3 (04/03/2026 to 06/03/2026 – Night)

Based on the measured levels the monitoring locations represent the potentially worst affected locations in SSD 9741 (MOD4) CoC B14 Table 2. The monitoring survey determined the outcomes as presented in Table 5-1 for the night period.

**Table 5-3: Summary of noise monitoring outcomes – Period 3 (04/03/2026 to 06/03/2026 – night)**

Reference location	Monitored noise levels comply
R2 (Magdala Road, North Ryde)	Yes
Any residence to the west of Pittwater Road, East Ryde	Yes

The results from the night attended monitoring indicate that there was potentially traffic noise from Epping Road and the surrounding road network influencing measured noise levels from the noise monitoring conducted on 13/11/2025.

At all nearby residential locations, removing traffic noise from the measured noise levels is a difficult process and generally relies upon obtaining measurements when traffic noise reduces significantly from typical levels and the Project site noise dominates the underlying noise level. Similar to the November 2025 measurements, the multiple nights of measurements in February 2026 found this was a rare event and may not even occur on any given night.

Based on the findings from the measurements and analysis conducted in Period 3 (04/03/2026 to 06/03/2026) the additional monitoring data supported that the data centre is operating within the consent noise limits.

## 5.2 Review of predicted noise levels against measurements

A comparison of the predicted noise levels for the Project with 3 out of 4 Phases operating with the measured noise levels, found they were generally consistent with the predicted noise levels, as shown in Table 5-4.

During the daytime, noise levels were generally substantially lower than expected, except for the adjacent commercial receivers C1 (1A Sirius Road, Lane Cove West), where noise levels were within 1 dB(A) of the predicted levels.

During the night, noise levels were generally within 1-2dB(A) of the predicted levels.

**Table 5-4: Review of predicted noise levels against monitored noise levels**

Consent reference location (NVIA receiver reference <sup>1</sup> )	Daytime, L <sub>Aeq</sub> , 15minute, dB(A)			Night, L <sub>Aeq</sub> , 15minute, dB(A)		
	Predicted <sup>1,3</sup>	Measured <sup>2</sup>	Difference	Predicted <sup>1,3</sup>	Measured <sup>2</sup>	Difference
R1 [(150 Epping Road, Lane Cove) (R1-A 5m)]	45	36 to 40	-9 to -5	39	38 to 39	-1 to 0
R1 [(150 Epping Road, Lane Cove) (R1-C 60m)]	49	40 to 45	-9 to -4	42	41 to 42	-1 to 0
R2 (Magdala Road, North Ryde) (R2 4.5m)	45	39 to 41	-6 to -4	35	34 – 35 <sup>5</sup>	-1 to 0
Any residence to the west of Pittwater Road, East Ryde (R4 - 4.5m) <sup>4</sup>	40	-	-	33	34	1
Any residence to the west of Pittwater Road, East Ryde (R5 - 4.5m) <sup>4</sup>	44	38 to 42	-6 to -2	34	33 to 34	-1 to 0
Any residence to the west of Pittwater Road, East Ryde (See Note 6)	40-45 <sup>6</sup>	-	-	35-40 <sup>6</sup>	31	-5 to -9
C1 (1A Sirius Road, Lane Cove West - C4)	51	51 to 52	0 to 1	n/a	n/a	n/a
P1 (Lane Cove Bushwalk)	47	41 to 44	-6 to -3	n/a	n/a	n/a

- Notes:
1. Predicted noise levels based upon the PWNA noise assessment,(220364-13 – AT SYD2 - Treatment Summary – R4.4, dated 9 April 2024, Version R4.4, Table 8 to Table 10), which have mitigation treatments installed. As these are for the full complete site, predicted noise levels have been reduced by 1.2 dB(A), consistent with the PWNA response dated 27 September 2023 regarding the predicted noise levels for each phase, as this would be equivalent to up to 75% of the full developed chillers potentially operating.
  2. Determined noise contribution level based on measurements as discussed in Section 4.
  3. Noise enhancing conditions adopted, considering the prevailing meteorological conditions during the survey.
  4. Predicted noise levels from R5 have been adopted, as Rodney Street is elevated in a similar manner to R5. At night measurements at 20 Jeanett Street were also undertaken.
  5. Measurements conducted on 13/11/2025 have been excluded as they were found to be potentially traffic noise impacted
  6. Predicted noise levels based upon the noise contours provided in PWNA noise assessment (220364 - Acoustic Assessment Airtrunk Data Centre - 1 Sirius Road, Lane Cove West – R22, Issue 23, dated 6 September 2023 – noise – Figure 12 to Figure 15).

## APPENDIX A Glossary of terminology



The following is a brief description of the technical terms used to describe noise to assist in understanding the technical issues presented.

Adverse weather	Weather effects that enhance noise (that is, wind and temperature inversions) that occur at a site for a significant period of time (that is, wind occurring more than 30% of the time in any assessment period in any season and/or temperature inversions occurring more than 30% of the nights in winter).
Ambient noise	The all-encompassing noise associated within a given environment at a given time, usually composed of sound from all sources near and far.
Assessment period	The period in a day over which assessments are made.
Assessment point	A point at which noise measurements are taken or estimated. A point at which noise measurements are taken or estimated.
Background noise	Background noise is the term used to describe the underlying level of noise present in the ambient noise, measured in the absence of the noise under investigation, when extraneous noise is removed. It is described as the average of the minimum noise levels measured on a sound level meter and is measured statistically as the A-weighted noise level exceeded for ninety percent of a sample period. This is represented as the L90 noise level (see below).
Decibel [dB]	The units that sound is measured in. The following are examples of the decibel readings of every day sounds: 0dB The faintest sound we can hear 30dB A quiet library or in a quiet location in the country 45dB Typical office space. Ambience in the city at night 60dB CBD mall at lunch time 70dB The sound of a car passing on the street 80dB Loud music played at home 90dB The sound of a truck passing on the street 100dB The sound of a rock band 120dB Deafening
dB(A)	A-weighted decibels. The A- weighting noise filter simulates the response of the human ear at relatively low levels, where the ear is not as effective in hearing low frequency sounds as it is in hearing high frequency sounds. That is, low frequency sounds of the same dB level are not heard as loud as high frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the "A" filter. A sound level measured with this filter switched on is denoted as dB(A). Practically all noise is measured using the A filter.
dB(C)	C-weighted decibels. The C-weighting noise filter simulates the response of the human ear at relatively high levels, where the human ear is nearly equally effective at hearing from mid-low frequency (63Hz) to mid-high frequency (4kHz), but is less effective outside these frequencies.
Frequency	Frequency is synonymous to pitch. Sounds have a pitch which is peculiar to the nature of the sound generator. For example, the sound of a tiny bell has a high pitch and the sound of a bass drum has a low pitch. Frequency or pitch can be measured on a scale in units of Hertz or Hz.
Impulsive noise	Having a high peak of short duration or a sequence of such peaks. A sequence of impulses in rapid succession is termed repetitive impulsive noise.
Intermittent noise	The level suddenly drops to that of the background noise several times during the period of observation. The time during which the noise remains at levels different from that of the ambient is one second or more.
L <sub>Max</sub>	The maximum sound pressure level measured over a given period.
L <sub>Min</sub>	The minimum sound pressure level measured over a given period.



L <sub>1</sub>	The sound pressure level that is exceeded for 1% of the time for which the given sound is measured.
L <sub>10</sub>	The sound pressure level that is exceeded for 10% of the time for which the given sound is measured.
L <sub>90</sub>	The level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L90 noise level expressed in units of dB(A).
L <sub>eq</sub>	The “equivalent noise level” is the summation of noise events and integrated over a selected period of time.
Reflection	Sound wave changed in direction of propagation due to a solid object obscuring its path.
SEL	Sound Exposure Level (SEL) is the constant sound level which, if maintained for a period of 1 second would have the same acoustic energy as the measured noise event. SEL noise measurements are useful as they can be converted to obtain L <sub>eq</sub> sound levels over any period of time and can be used for predicting noise at various locations.
Sound	A fluctuation of air pressure which is propagated as a wave through air.
Sound absorption	The ability of a material to absorb sound energy through its conversion into thermal energy.
Sound level meter	An instrument consisting of a microphone, amplifier and indicating device, having a declared performance and designed to measure sound pressure levels.
Sound pressure level	The level of noise, usually expressed in decibels, as measured by a standard sound level meter with a microphone.
Sound power level	Ten times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power.
Tonal noise	Containing a prominent frequency and characterised by a definite pitch.

APPENDIX B      Noise monitoring locations



B.1      Period 1 (13/11/2025 night)



Monitoring location	Figure
SYD2 roof (S1a)	
150 Epping Road R1a_01	





Monitoring location	Figure
150 Epping Road R1a_02	
Magdala Park (R2)	





Monitoring location	Figure
Rodney Street (R5a)	
20 Jeanette St (R5b)	

Monitoring location	Figure
16 Jeanette St (R5c)	
Magdala Park (intermediate location I1)	

**B.2      Period 2 (23/12/2025 day)**


Monitoring location	Figure
SYD2 roof (S1a)	
150 Epping Road R1a_02	



Monitoring location	Figure
150 Epping Road R1B	
Magdala Park (R2)	

Monitoring location	Figure
Rodney Street (R5)	
1A Sirius Road (C1)	





Monitoring location	Figure
Lane cove bush walk (P1)	


Monitoring location	Figure
Magdala Park (intermediate location I1)	




B.3      Period 3 (04/03/2026 to 06/03/2026 night)

Monitoring location	Figure
SYD2 roof (S1b)	
Magdala Park (R2)	



Monitoring location	Figure
Magdala Park (shielded)	
Magdala Park (intermediate location I1)	

Monitoring location	Figure
Brereton Park	

## APPENDIX C      Additional detailed assessment of annoying characteristics

AIRTRUNK LANE COVE PTY LTD (ACN 635 539 749) AS TRUSTEE  
TN357-07F02 SYD2 DATA CENTRE - NOISE VERIFICATION REPORT

LANE COVE WEST DATA CENTRE (SSD 9741)  
NOISE VERIFICATION REPORT (PHASE 3)

				Leq, 15min																1/3 Octave Band Centre Frequency, Hz																					
Item / Description	dB	dB(C)	dB(A)	dBLReq - dBLAeq		10	12.5	16	20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1k	1.25k	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	LF (Day)	LF (Night)	Total		
NPII Table C2 - LF noise threshold	Note 1	Note 1	Note 1			92	89	86	77	69	61	54	50	48	48	44																									
NCA	Monitoring details		Time																																				Required adjustment		
																	</																								