DAY DESIGN PTY LTD
CONSULTING ACOUSTICAL ENGINEERS

SUITE 17, 808 FOREST ROAD, PEAKHURST 2210 ABN 73 107 291 494
P. 02 9046 3800 ACOUSTICS@DAYDESIGN.COM.AU WWW.DAYDESIGN.COM.AU

Environmental Noise Assessment Report

Co-Living Development
67 Pacific Street, Dee Why, NSW

REPORT NUMBER
7066-1.2R Rev C

DATE ISSUED
10 June 2021

Prepared For:
BL 2093 Pty Ltd
C/- Benson McCormack Architecture
Studio 5, 505 Balmain Road
Lilyfield NSW 2040

Attention: Mr Damien Bechon

Revision History

Status	Date	Prepared	Checked	Comment
Draft	28/10/2020	Adam Shearer	Stephen Gauld	By email, for client review
Draft 2	30/11/2020	Adam Shearer	Stephen Gauld	Updated floor areas
Final	09/12/2020	Adam Shearer	Stephen Gauld	
Rev A	04/06/2021	Adam Shearer		Revised layout
Rev B	10/06/2021	Adam Shearer		Council RFI
Rev C	10/06/2021	Adam Shearer		Revised appendices

Document 7066-1.2R Rev C, 43 pages plus attachments

Disclaimer

The work presented in this document was carried out in accordance with the Day Design Pty Ltd Quality Management System. Day Design is certified to ISO9001.

This report has been prepared for the client identified in Section 2.0 only and cannot be relied or used by any third party. Any representation, statement, opinion or advice, expressed or implied in this report is made in good faith but on the basis that Day Design is not liable (whether by reason of negligence, lack of care or otherwise) to any person for any damage or loss whatsoever which has occurred or may occur in relation to that person taking or not taking (as the case may be) action in any respect of any representation, statement, or advice referred to above.

Recommendations made in this report are intended to resolve acoustical problems only. No claims of expertise in other areas are made and no liability is accepted in respect of design or construction for issues falling outside the specialist field of acoustical engineering including but not limited to structural, fire, thermal, architectural buildability, fit for purpose, waterproofing or other aspects of building construction. Supplementary professional advice should be sought in respect of these issues.

The information in this document should not be reproduced, presented or reviewed except in full. Prior to passing onto a third party, the Client is to fully inform the third party of the specific brief and limitations associated with the commission. The only exception to this is for the Regulatory Authority in its use of this report to make a Determination.

TABLE OF CONTENTS

TABLES

1.0 EXECUTIVE SUMMARY

BL 2093 Pty Ltd has prepared a Development Application (DA) for a new co-living development to be located at 67 Pacific Street, Dee Why, NSW. Following the submission of the DA to Northern Beaches Council, and subsequent to a Section 34 Conciliation Conference (s34), Council requires an amended acoustic report that assesses the environmental noise impact of the revised proposal on the surrounding area, and more specifically Apartment 9, 65 Pacific Parade, Dee Why.

The development site is located on land zoned *R3 – Medium Density Residential* under the Warringah Local Environmental Plan (LEP) 2011. The nearest noise sensitive receivers that could be potentially affected by noise associated with the co-living development are located to the north, east, south, south-west and west of the site.

The new co-living development will consist of a multi-storey building with manager's residence, 25 micro apartments, one internal communal area (ICA), one outdoor communal open space (COS) area, and a lower ground level car park with the provision for 13 vehicles.

The co-living development is likely to be served by mechanical plant including an air conditioning system, kitchen exhaust fans, car park exhaust/supply fans and toilet exhaust fan.

Acceptable noise limits are derived from the NSW Environment Protection Authority's (EPA) *Noise Policy for Industry* and *NSW Road Noise Policy* for mechanical plant, residents and vehicle noise. In addition, noise limits for the use of air conditioning and electrically amplified sound equipment during the night time period are assessed against the provisions of the EPA's *Protection of the Environment Operations (Noise Control) Regulation 2017* (POEO).

This assessment considers the noise impact from the co-living development. Noise emission calculations from the residents are based on the predicted activities within the ICA and COS areas, micro apartments, and the proposed use of the lower ground level car park. Noise emission calculations from the mechanical plant is based on typical units for the size of the development.

All calculations are based on the Benson McCormack Architecture drawings for project numbers 2004A, dated 29 April 2021, attached as Appendix C.

Recommendations are made in Section 6.0 of this report to ensure the level of noise emission is within acceptable limits.

Providing the noise control recommendations presented in Section 6.0 are adhered to, the noise emission from the proposed development will comply with the NSW EPA's noise criteria as outlined in Section 4.3.

2.0 CONSULTING BRIEF

Day Design Pty Ltd has been engaged by Benson McCormack Architecture on behalf of BL 2093 Pty Ltd to assess the potential environmental noise impact of a proposed co-living development at 67 Pacific Parade, Dee Why, NSW.

This commission involves the following:

Scope of Work:

- Inspect the site and environs
- Prepare a site plan identifying the development and nearby noise sensitive locations
- Measure the background noise levels at critical locations and times
- Establish acceptable noise emission criteria
- Quantify noise emissions from the development
- Calculate the level of noise emission, taking into account building envelope transmission loss, screen walls and distance attenuation
- Provide recommendations for noise control
- Prepare an Environmental Noise Assessment Report.

3.0 PROJECT & DEVELOPMENT DESCRIPTION

3.1 Local Area Description

The development site is located at 67 Pacific Parade, Dee Why, NSW on land zoned *R3 – Medium Density Residential* under Warringah Local Environmental Plan (LEP) 2011.

The nearest noise sensitive receivers are located at the residential buildings to the north, east, south, south-west and west of the site, shown in Figure 1 as locations 'R1' to 'R6a'.

The location of the proposed development and surrounding premises, in various directions, are shown in Figure 1 and summarised below in Table 1.

Table 1 Noise Sensitive Receptors

Receptor and Type	Address	Building Height	Direction from site
R1 – Residential	62 Pacific Parade[1] - Ground Floor	Three Storey	North
R1a – Residential	Second Floor		
R2 – Residential	1-5 The Crescent - Ground Floor (front)	Three Storey	East
R2a – Residential	Second Floor (front)		
R2b – Residential	Ground Floor (rear)		
R2c – Residential	Second Floor (rear)		
R3 – Residential	9-11 The Crescent[2] - Ground Floor	Two Storey	South
R3a – Residential	First Floor		
R4 – Residential	63 Pacific Parade - Ground Floor	Three Storey	South-West
R4a – Residential	Second Floor		
R5 – Residential	65 Pacific Parade - Ground Floor (rear)	Four Storey	West
R5a – Residential	Second Floor (rear)		
R5b – Residential	Ground Floor (front)		
R5c – Residential	Second Floor (front)		
R6 – Residential	Apartment 9, 65 Pacific Parade - Fourth Floor **Rear** Balcony	Four Storey	South-West
R6a – Residential	Fourth Floor **Front** Balcony		

[1] *Opposite side of Pacific Parade.*
[2] *Opposite side of The Crescent Reserve.*

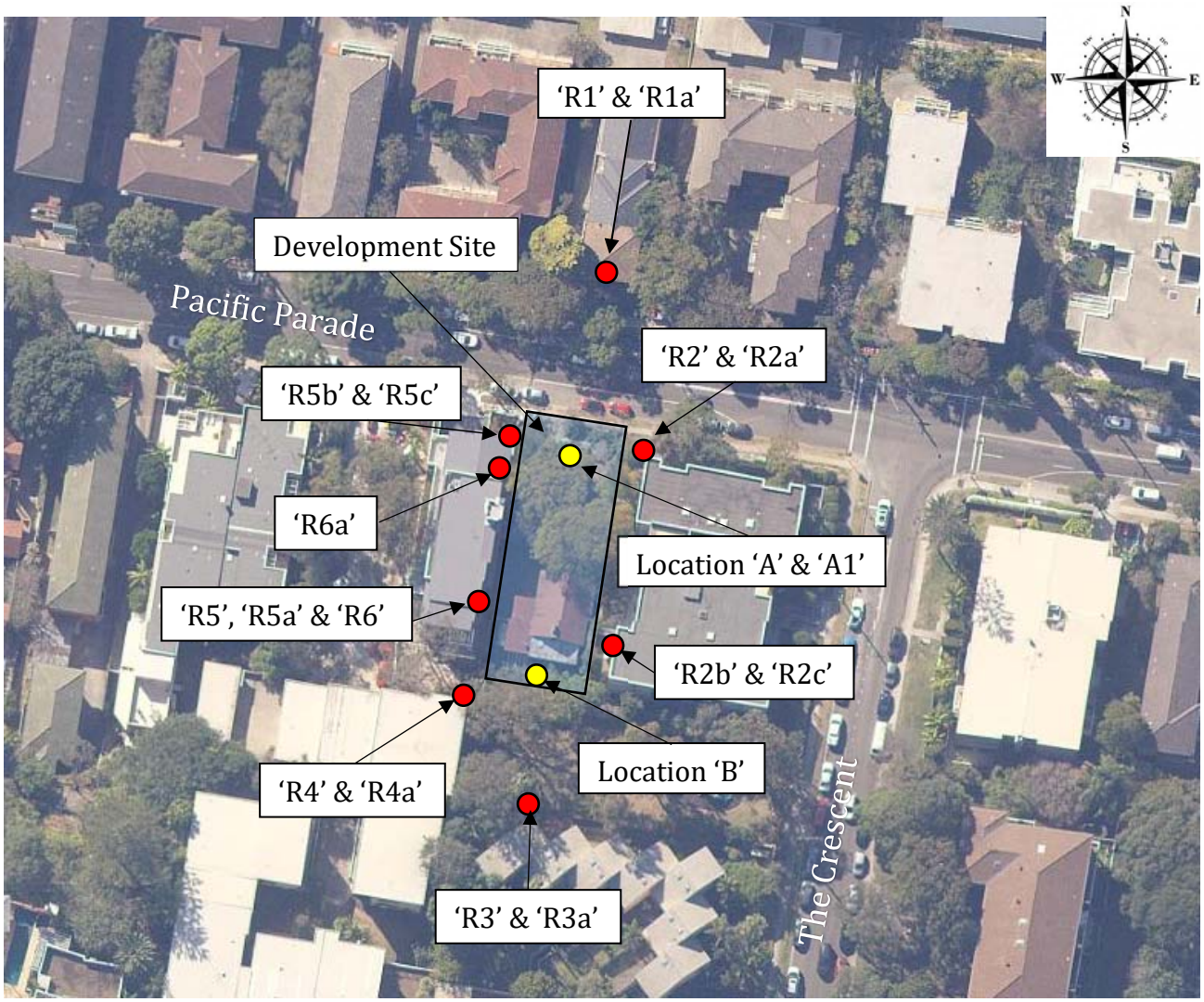


Figure 1. Location Plan – Proposed Co-Living Development, 67 Pacific Parade, Dee Why, NSW.

3.2 Development Description

It is proposed to construct a new co-living development at 67 Pacific Parade, Dee Why, NSW.

The new co-living development will consist of a multi-storey building with manager's residence, 25 micro apartments, one ICA, one outdoor COS area, and a lower ground level car park with the provision for 13 vehicles, with entry and exit from Pacific Parade.

Micro apartments L107, L108 and L109 on Level 1 have been provided with private open space (POS) on the southern side of the building. A review of the Plan of Management (PoM) (attached as Appendix F) provided by SixC, dated June 2021, Section 10.a, paragraph 10, states that the POS of each micro apartment may be used by a maximum of two people at any given time, and Section 10.a, paragraph 7, states that the POS areas cannot be used between the hours of 10 pm and 7 am.

The co-living development will have capacity for up to 52 residents.

We have assumed each micro apartment will have its own associated mechanical plant, which may include bathroom exhaust fan, as well as air conditioning. We have also assumed the level 3 ICA may have a kitchen exhaust fan and the lower ground level car park will be served by a supply and exhaust fan.

4.0 ACOUSTICAL CRITERIA

4.1 Existing Ambient Noise Levels

4.1.1 Measured Ambient Noise Levels

In order to assess the severity of a possible environmental noise problem in a specified area it is necessary to measure the ambient background noise level at the times and locations of worst possible annoyance. The lower the background noise level, the more perceptible the intrusive noise becomes and the more potentially annoying.

The ambient L_{90} background noise level is a statistical measure of the sound pressure level that is exceeded for 90% of the measuring period (typically 15 minutes).

The Rating Background Level (RBL) is defined by the EPA as the median value of the (lower) tenth percentile of L_{90} ambient background noise levels for day, evening or night periods, measured over a number of days during the proposed days and times of operation.

The places of worst possible annoyance are the residential premises located to the north, east, south, south-west and west of the development site. These potentially affected locations can be seen in Figure 1 as 'R1' to 'R6a'. The times of worst annoyance will be during the night when ambient noise is typically at its lowest.

It was not considered feasible for Day Design to gain access and measure the background noise levels at all 16 potentially affected residential receiver locations around the site (*access to all five properties[including individual apartments] to conduct simultaneous measurements would be required*), therefore, equivalent locations on the site were selected. The locations are considered suitable as the background noise level has been measured both in the front (also at first floor height) and rear set back of the site, providing representative background noise levels for all surrounding receptor locations. Day Design notes that the background noise in the area is mainly influenced by local fauna, local residents, and intermittent road traffic noise on Pacific Parade.

Ambient noise levels were measured on site at 67 Pacific Parade, Dee Why in the front at ground and first floor level, Locations 'A' and 'A1', and in the rear at ground level, Location 'B', as shown on Figure 1, from Tuesday 22 to Tuesday 29 September 2020.

The measured noise levels are presented in the attached Appendix B1, B2 and B3 and also in Table 2.

With exception to the above, subsequent to the s34, Day Design was provided permission to measure the background noise levels on the rear and front balconies of Apartment 9, 65 Pacific Parade, 'R6' and 'R6a', respectively, to establish the noise criteria (and RBLs) at these locations (only).

Additional noise levels were measured on the rear and front balconies of Apartment 9, 65 Pacific Parade, 'R6' and 'R6a', respectively, from Wednesday 12 May to Friday 28 May on the rear balcony and Monday 10 May to Friday 28 May on the front balcony.

Day Design had originally intended to retrieve the noise loggers on Thursday 20 May 2021, however following advice from the resident of Apartment 9 that wind speeds had been particularly / unusually high (*assumed to be > 5 m/s*) at their residence during the monitoring period and concerns that the data may be influence by adverse weather, additional noise logging was conducted from Thursday 20 May to Friday 28 May, 2021, to ensure the background noise levels were measured in accordance with the provisions of the *NSW EPA's Noise Policy for Industry.* To ensure a conservative/accurate assessment, a Vantage Pro 2 weather station was placed adjacent to the noise logger at 'R6a' on Thursday 20 May 2021 to simultaneously measure the weather conditions at the logger location. This location ('R6a') was selected as it is more exposed to weather elements than the rear balcony, 'R6'.

The measured noise levels are presented in the attached Appendix D1 and D2.

Following a review of the weather data collected at 'R6a', in accordance with *Section B1.3* of the *NSW EPA's Noise Policy for Industry,* three day periods (Thursday 20 May, Friday 21 May and Wednesday 26 May) and one evening (Thursday 20 May) period of data were required to be excluded from the measurement period. Therefore, in accordance with the directions in *Section B1.3* of the *NSW EPA's Noise Policy for Industry* – '*Where the number of excluded* $L_{AF90,15min}$ *samples exceeds 8, 2 or 4 for day, evening or night, respectively, re-monitor the background noise following steps 1 to 4 in B1.2, but only for the affected assessment period/s in the corresponding day/s of the week*' – the relevant/corresponding noise data (*unaffected by adverse weather, based on weather data collected from the Terry Hills AWS, 066059, circa 6.6 kilometres away*) from the monitoring period between Monday 10 May to Thursday 20 May has been used to determine the existing background noise levels. The following periods have been included in the calculations of the RBLs at 'R6' and 'R6a':

- Day Thursday 13 May;
- Day Friday 14 May;
- Day Wednesday 19 May; and
- Evening Thursday 13 May.

As a result of the above, the monitored data used to establish the RBLs at 'R6' and 'R6a' contains no adverse weather that may be required to be removed.

The measured noise levels are presented in the attached Appendix E1 and E2 and also in Table 2.

Table 2 Measured Ambient Noise Levels – Pacific Parade, Dee Why, NSW

Noise Measurement Location	Time Period	L_{90} Rating Background Level	Existing L_{eq} Noise Levels
22/09 to 29/09/2020			
Location 'A' - 67 Pacific Parade Front – Ground Floor	Day (7 am to 6 pm)	**44 dBA**	**52 dBA**
	Evening (6 pm to 10 pm)	**41 dBA**	**50 dBA**
	Night (10 pm to 7 am)	**37 dBA**	**47 dBA**
Location 'A1' - 67 Pacific Parade Front – First Floor	Day (7 am to 6 pm)	**48 dBA**	**55 dBA**
	Evening (6 pm to 10 pm)	**44 dBA**	**53 dBA**
	Night (10 pm to 7 am)	**39 dBA**	**50 dBA**
Location 'B' - 67 Pacific Parade Rear – Ground Floor	Day (7 am to 6 pm)	**42 dBA**	**51 dBA**
	Evening (6 pm to 10 pm)	**39 dBA**	**45 dBA**
	Night (10 pm to 7 am)	**36 dBA**	**48 dBA**
13/05, 14/05, 19/05, 22/05 to 24/05 and 27/05 to 28/05/2021			
Location 'R6' - Apartment 9, 65 Pacific Parade Rear – Fourth Floor	Day (7 am to 6 pm)	**44 dBA**	**53 dBA**
	Evening (6 pm to 10 pm)	**44 dBA**	**49 dBA**
	Night (10 pm to 7 am)	**39 dBA**	**47 dBA**
Location 'R6a' - Apartment 9, 65 Pacific Parade Front – Fourth Floor	Day (7 am to 6 pm)	**48 dBA**	**54 dBA**
	Evening (6 pm to 10 pm)	**46 dBA**	**53 dBA**
	Night (10 pm to 7 am)	**40 dBA**	**50 dBA**

Meteorological conditions typically consisted of clear skies during the assessment period between 22 September and 29 September 2020 with temperatures ranging from 7 to 26°C. Some periods of rainfall and wind speeds greater than 5 m/s were recorded during the measurement survey period, however, this data has been removed from the RBL noise calculations. Ambient noise measurements were therefore considered reliable and typical for the receptor areas.

Meteorological conditions typically consisted of clear skies during the assessment periods at 'R6' and 'R6a', with temperatures ranging from 7 to 22°C. See above for comment on adverse weather conditions. Ambient noise measurements were considered reliable and typical for the receptor areas.

In addition to the above, short term attended noise level measurements were performed on Tuesday 22 September between 11.50 am – 12.05 pm at the rear of 67 Pacific Parade, adjacent to Location 'B', at ground and first floor level to establish the noise level difference, if any, at varying heights at the rear of the development site. The measured $L_{90,\ 15\ minute}$ existing ambient noise levels were 46 dBA at ground level and 48 dBA at first floor level.

Considering the above, first and second floor receiver locations at the rear of 67 Pacific Parade will be assessed against the long term measured ambient noise levels shown in Table 2 at Location 'B' plus 2 dB – to be referred to as Location 'B1' throughout the remainder of this report.

4.1.2 Description of Existing Acoustic Environment

Site inspections of the residential area surrounding the development site were conducted by Mr Ricky Thom of Day Design during the installation and retrieval of the environmental noise loggers with the following observations made:

- ambient noise in the area is dominated by the natural environment, predominantly local fauna and local residential based noise (such as lawn mowing, music, etc), with occasional local traffic noise;
- through traffic on Pacific Parade is intermittent;
- the nearest commercial zone is located circa 150 metres to the north-west – noise from the commercial zone was not heard on the development site.

4.2 Northern Beaches Council

Northern Beaches Council, in their Warringah Development Control Plan (DCP) 2011, as amended 28 February 2020, Part D3 – Noise, specifies the following requirements in relation to noise emissions:

'D3 Noise

Applies to Land

This control applies to land to which Warringah Local Environmental Plan 2011 applies.

Objectives

- *To encourage innovative design solutions to improve the urban environment.*
- *To ensure that noise emission does not unreasonably diminish the amenity of the area or result in noise intrusion which would be unreasonable for occupants, users or visitors.*

Requirements

1. *Noise from combined operation of all mechanical plant and equipment must not generate noise levels that exceed the ambient background noise by more than 5 dB(A) when measured in accordance with the NSW Industrial Noise Policy at the receiving boundary of residential and other noise sensitive land uses.*

   See also NSW Industrial Noise Policy Appendices

2. *Development near existing noise generating activities, such as industry and roads, is to be designed to mitigate the effect of that noise.*

3. *Waste collection and delivery vehicles are not to operate in the vicinity of residential uses between 10 pm and 6 am.*

4. *Where possible, locate noise sensitive rooms such as bedrooms and private open space away from noise sources. For example, locate kitchens or service areas closer to busy road frontages and bedrooms away from road frontages.*

5. *Where possible, locate noise sources away from the bedroom areas of adjoining dwellings/properties to minimise impact.'*

NOTE: The NSW Environment Protection Authority's *Industrial Noise Policy* 2000 was superseded by the *Noise Policy for Industry* in 2017. Therefore, the *Noise Policy for Industry* will be used to establish the appropriate noise criteria in this assessment.

4.3 NSW Environment Protection Authority

4.3.1 Noise Policy for Industry 2017

The NSW Environment Protection Authority (EPA) published the *Noise Policy for Industry* (NPI) in October 2017. The *NPI* is specifically aimed at assessing noise from industrial noise sources listed in Schedule 1 of the Protection of the Environment Operations Act 1997 (POEO, 1997).

The *NPI* provides a framework to assess noise emission from a premises, and whether that premises produces intrusive or non-intrusive noise.

4.3.1.1 Project Intrusiveness Noise Level

The EPA states in Section 2.3 of its *NPI* (October 2017) that the intrusiveness of an industrial noise source may generally be considered acceptable if the level of noise from the source (represented by the L_{Aeq} descriptor), measured over a 15-minute period, does not exceed the rating background noise level by more than 5 dB when beyond a minimum threshold (EPA *NPI*, 2017, Section 2.3).

The Rating Background Level at Location 'A', 67 Pacific Parade, Dee Why was 44 dBA during the day, 41 dBA in the evening and 37 dBA at night (see Table 2).

Therefore, the acceptable $L_{eq,\ 15\ minute}$ noise intrusiveness criteria in Location 'A':

- (44 + 5 =) 49 dBA $L_{eq,\ 15\ minute}$ during the day;

- (41 + 5 =) 46 dBA $L_{eq,\ 15\ minute}$ in the evening; and
- (37 + 5 =) 42 dBA $L_{eq,\ 15\ minute}$ at night.

The Rating Background Level at Location 'A1', 67 Pacific Parade, Dee Why was 48 dBA during the day, 44 dBA in the evening and 39 dBA at night (see Table 2).

Therefore, the acceptable $L_{eq,\ 15\ minute}$ noise intrusiveness criteria in Location 'A1':

- (48 + 5 =) 53 dBA $L_{eq,\ 15\ minute}$ during the day;
- (44 + 5 =) 49 dBA $L_{eq,\ 15\ minute}$ in the evening; and
- (39 + 5 =) 44 dBA $L_{eq,\ 15\ minute}$ at night.

The Rating Background Level at Location 'B', 67 Pacific Parade, Dee Why was 42 dBA during the day, 39 dBA in the evening and 36 dBA at night (see Table 2).

Therefore, the acceptable $L_{eq,\ 15\ minute}$ noise intrusiveness criteria in Location 'B':

- (42 + 5 =) 47 dBA $L_{eq,\ 15\ minute}$ during the day;
- (39 + 5 =) 44 dBA $L_{eq,\ 15\ minute}$ in the evening; and
- (36 + 5 =) 41 dBA $L_{eq,\ 15\ minute}$ at night.

Based on the Rating Background Level at Location 'B' plus 2 dB, the acceptable $L_{eq,\ 15\ minute}$ noise intrusiveness criteria in Location 'B1' is as follows:

- (44 + 5 =) 49 dBA $L_{eq,\ 15\ minute}$ during the day;
- (41 + 5 =) 46 dBA $L_{eq,\ 15\ minute}$ in the evening; and
- (38 + 5 =) 43 dBA $L_{eq,\ 15\ minute}$ at night.

The Rating Background Level at Location 'R6', 65 Pacific Parade, Dee Why was 44 dBA during the day and in the evening and 39 dBA at night (see Table 2).

Therefore, the acceptable $L_{eq,\ 15\ minute}$ noise intrusiveness criteria in Location 'R6':

- (44 + 5 =) 49 dBA $L_{eq,\ 15\ minute}$ during the day and in the evening;
- (39 + 5 =) 44 dBA $L_{eq,\ 15\ minute}$ at night.

The Rating Background Level at Location 'R6a', 65 Pacific Parade, Dee Why was 48 dBA during the day, 46 dBA in the evening and 40 dBA at night (see Table 2).

Therefore, the acceptable $L_{eq,\ 15\ minute}$ noise intrusiveness criteria in Location 'R6a':

- (48 + 5 =) 53 dBA $L_{eq,\ 15\ minute}$ during the day;
- (46 + 5 =) 51 dBA $L_{eq,\ 15\ minute}$ in the evening; and
- (40 + 5 =) 45 dBA $L_{eq,\ 15\ minute}$ at night.

4.3.1.2 Protect Amenity Noise Level

Depending on the type of area in which the noise is being made, there is a certain reasonable expectancy for noise amenity. The NSW *NPI* provides a schedule of recommended L_{eq} industrial noise levels that under normal circumstances should not be exceeded. If successive developments occur near a residential area, each one allowing a criterion of background noise level plus 5 dB, the ambient noise level will gradually creep higher.

Section 2.4, Table 2.3 of the *NPI* provides guidance on assigning residential receiver noise categories. A site inspection of the residential area surrounding the development site was conducted by Mr Ricky Thom of Day Design during the installation and retrieval of the environmental noise logger, see Sections 4.1.2 for observations.

The observations in Section 4.1.2 indicate the residential area around the development site is considered 'Suburban', as per Table 2.3 of the *NPI*. The 'Suburban' amenity noise levels as per Table 2.3 of the *NPI* will be used to assess residential receivers in the area.

The recommended L_{eq} noise levels below in Table 3 are taken from Section 2.4, Table 2.2 of the NPI. Compliance with the Noise Amenity levels in Table 2.2 will limit ambient noise creep.

Table 3 Amenity Criteria (NPI - Table 2.2)

Receiver	Noise Amenity Area	Time of Day	L_{eq}, dBA, Recommended Amenity Noise Level
Residential	Suburban	Day	55
		Evening	45
		Night	40

The L_{Aeq} is determined over a 15-minute period for the project intrusiveness noise level and over an assessment period (day, evening and night) for the project amenity noise level. This leads to the situation where, because of the different averaging periods, the same numerical value does not necessarily represent the same amount of noise heard by a person for different time periods. To standardise the time periods for the intrusiveness and amenity noise levels, the *NPI* assumes that the **$L_{Aeq,15min}$** will be taken to be equal to the **$L_{Aeq,\ period}$ + 3 decibels (dB)** (Section 2.2, NPI).

Compliance with the amenity criteria will limit ambient noise creep. **Section 2.4** of the *NPI* states the following:

*'To ensure that industrial noise levels (existing plus new) remain within the recommended amenity noise levels for an area, a **project amenity noise level** applies for each new source of industrial noise as follows:*

- ***Project amenity noise level for industrial developments = recommended amenity noise level (Table 2.2) minus 5 dB (A).***

The following exceptions to the above method to derive the project amenity noise level apply:

3. *Where the resultant project amenity noise level is 10 dB or more lower than the existing industrial noise level. In this case the project amenity noise levels can be set at 10 dB below existing industrial noise levels if it can be demonstrated that existing industrial noise levels are unlikely to reduce over time.'*

The existing L_{eq} noise level at Location 'A', 67 Pacific Parade, Dee Why was 52 dBA during the day, 50 dBA in the evening and 47 dBA at night (see Table 2).

Therefore, the acceptable amenity criteria in Location 'A' are:

- (55 – 5 + 3 =) 53 dBA $L_{eq,\ 15\ minute}$ during the day;
- (45 – 5 + 3 =) 43 dBA $L_{eq,\ 15\ minute}$ in the evening; and
- (47 – 10 + 3 =) 40 dBA $L_{eq,\ 15\ minute}$ at night.

The existing L_{eq} noise level at Location 'A1', 67 Pacific Parade, Dee Why was 55 dBA during the day, 53 dBA in the evening and 50 dBA at night (see Table 2).

Therefore, the acceptable amenity criteria in Location 'A1' are:

- (55 – 5 + 3 =) 53 dBA $L_{eq,\ 15\ minute}$ during the day;
- (53 – 10 + 3 =) 46 dBA $L_{eq,\ 15\ minute}$ in the evening; and
- (50 – 10 + 3 =) 43 dBA $L_{eq,\ 15\ minute}$ at night.

The existing L_{eq} noise level at Location 'B', 67 Pacific Parade, Dee Why was 51 dBA during the day, 45 dBA in the evening and 48 dBA at night (see Table 2).

Therefore, the acceptable amenity criteria in Location 'B' are:

- (55 – 5 + 3 =) 53 dBA $L_{eq,\ 15\ minute}$ during the day;
- (45 – 5 + 3 =) 43 dBA $L_{eq,\ 15\ minute}$ in the evening; and
- (48 – 10 + 3 =) 41 dBA $L_{eq,\ 15\ minute}$ at night.

Based on the measured ambient noise level at Location 'B' plus 2 dB, the acceptable $L_{eq,\ 15\ minute}$ amenity criteria in Location 'B1' is as follows:

- (55 – 5 + 3 =) 53 dBA $L_{eq,\ 15\ minute}$ during the day;
- (45 – 5 + 3 =) 43 dBA $L_{eq,\ 15\ minute}$ in the evening; and
- (50 – 10 + 3 =) 43 dBA $L_{eq,\ 15\ minute}$ at night.

The existing L_{eq} noise level at Location 'R6', 65 Pacific Parade, Dee Why was 53 dBA during the day, 49 dBA in the evening and 47 dBA at night (see Table 2).

Therefore, the acceptable amenity criteria in Location 'R6' are:

- (55 – 5 + 3 =) 53 dBA $L_{eq,\ 15\ minute}$ during the day;
- (45 – 5 + 3 =) 43 dBA $L_{eq,\ 15\ minute}$ in the evening; and
- (47 – 10 + 3 =) 40 dBA $L_{eq,\ 15\ minute}$ at night.

The existing L_{eq} noise level at Location 'R6a', 65 Pacific Parade, Dee Why was 54 dBA during the day, 53 dBA in the evening and 50 dBA at night (see Table 2).

Therefore, the acceptable amenity criteria in Location 'R6a' are:

- (55 – 5 + 3 =) 53 dBA $L_{eq,\ 15\ minute}$ during the day;
- (53 – 10 + 3 =) 46 dBA $L_{eq,\ 15\ minute}$ in the evening; and
- (50 – 10 + 3 =) 43 dBA $L_{eq,\ 15\ minute}$ at night.

4.3.1.3 Sleep Disturbance Criteria

The EPA's *NPI* states in Section 2.5 that the potential for sleep disturbance from maximum noise level events from premises during the night-time period needs to be considered. Sleep disturbance is considered to be both awakenings and disturbance to sleep stages.

Sleep may be disturbed if the subject development night-time noise levels at a residential location exceed the following:

- $L_{Aeq,\ 15min}$ 40 dBA or the prevailing RBL plus 5 dB, whichever is greater; and/or
- L_{AFmax} 52 dBA or the prevailing RBL plus 15 dB, whichever is greater.

Where either of the above criteria are triggered, a detailed maximum noise level event assessment should be undertaken.

The RBL at Location 'A', 67 Pacific Parade, Dee Why was 37 dBA at night (see Table 2).

Therefore, the acceptable $L_{eq,\ 15\ minute}$ and L_{AFmax} noise sleep disturbance criteria in Location 'A' are:

- 42 dBA $L_{eq,\ 15\ minute}$ at night; and/or
- 52 dBA L_{AFmax} at night.

The RBL at Location 'A1', 67 Pacific Parade, Dee Why was 39 dBA at night (see Table 2).

Therefore, the acceptable $L_{eq,\ 15\ minute}$ and L_{AFmax} noise sleep disturbance criteria in Location 'A1' are:

- 44 dBA $L_{eq,\ 15\ minute}$ at night; and/or
- 54 dBA L_{AFmax} at night.

The RBL at Location 'B', 67 Pacific Parade, Dee Why was 36 dBA at night (see Table 2).

Therefore, the acceptable $L_{eq,\ 15\ minute}$ and L_{AFmax} noise sleep disturbance criteria in Location 'B' are:

- 41 dBA $L_{eq,\ 15\ minute}$ at night; and/or
- 52 dBA L_{AFmax} at night.

Based on the Rating Background Level at Location 'B' plus 2 dB, the acceptable $L_{eq,\ 15\ minute}$ and L_{AFmax} noise sleep disturbance criteria in Location 'B1' are:

- 43 dBA $L_{eq,\ 15\ minute}$ at night; and/or
- 53 dBA L_{AFmax} at night.

The RBL at Location 'R6', 65 Pacific Parade, Dee Why was 39 dBA at night (see Table 2).

Therefore, the acceptable $L_{eq,\ 15\ minute}$ and L_{AFmax} noise sleep disturbance criteria in Location 'R6' are:

- 44 dBA $L_{eq,\ 15\ minute}$ at night; and/or
- 54 dBA L_{AFmax} at night.

The RBL at Location 'R6a', 65 Pacific Parade, Dee Why was 40 dBA at night (see Table 2).

Therefore, the acceptable $L_{eq,\ 15\ minute}$ and L_{AFmax} noise sleep disturbance criteria in Location 'R6a' are:

- 45 dBA $L_{eq,\ 15\ minute}$ at night; and/or
- 55 dBA L_{AFmax} at night.

4.3.2 NSW Road Noise Policy

The EPA's NSW Road Noise Policy, Table 3 of Section 2.3.1, sets out road traffic noise assessment criteria for residential land uses. The information in the aforementioned table is extracted below in Table 4.

Table 4 Road Traffic Noise Assessment Criteria – Residential

Road Category	Type of project/land use	Assessment Criteria – dBA	
		Day (7 am – 10 pm)	Night (10 pm – 7 am)
Local roads	6. Existing residences affected by **additional traffic** on existing local roads generated by land use developments	$L_{Aeq,\ (1\ hour)}$ 55 (external)	$L_{Aeq,\ (1\ hour)}$ 50 (external)

4.3.3 Protection of the Environment Operations (Noise Control) Regulation 2017

The Protection of the Environment Operations (POEO) (Noise Control) Regulation 2017 provides specific controls for common neighbourhood noise problems such as air conditioners, swimming pool pumps, power tools, alarms and loud music.

The Regulation (clause 45) states the following in relation to the use of air conditioners:

"45 Use of air conditioners on residential premises

A person is guilty of an offence if:

(a) the person causes or permits an air conditioner to be used on residential premises in such a manner that it emits noise that can be heard within any room in any other residential premises (that is not a garage, storage area, bathroom, laundry, toilet or pantry) whether or not any door or window to that room is open:

(i) before 8 am or after 10 pm on any Saturday, Sunday or public holiday, or

(ii) before 7 am or after 10 pm on any other day."

Provided the noise emission from an air conditioner complies with the inaudibility criterion of the Regulation, the air conditioner may operate at any time of day or night. To comply with the inaudibility criterion, we recommend that the $L_{eq\ (15\ min)}$ noise level from domestic air conditioners not exceed a noise level equal to ('external background' –5 dB =) outside the window of the nearest habitable room of an adjacent residence.

The Regulation (clause 58) states the following in relation to the use of amplified music:

"58 Use of electrically amplified sound equipment

(1) A person is guilty of an offence if:

(a) the person causes or permits electrically amplified sound equipment to be used on residential premises in such a manner that it emits noise that can be heard within any room in any other residential premises (that is not a garage, storage area, bathroom, laundry, toilet or pantry) whether or not any door or window to that room is open:

(i) Before 8 am or after midnight on any Friday, Saturday or day immediately before a public holiday, or

(ii) Before 8 am or after 10 pm on any other day, and

(b) within 7 days of doing so, the person is warned by an authorised officer or enforcement officer not to cause or permit electrically amplified sound equipment to be used on residential premises in that manner, and

(c) the person again causes or permits electrically amplified sound equipment to be used on residential premises in a manner referred to in paragraph (a) within 28 days after the warning has been given.

Maximum penalty: 100 penalty units in the case or a corporation or 50 penalty units in the case of an individual.

(2) In this clause:

***electrically amplified sound equipment** means any electrical or battery powered device that can be used to make or amplify sound including television sets and home entertainment systems."*

4.4 Project Specific Noise Criteria

The measured background noise level at Locations 'A', 'A1', 'B', 'R6' and 'R6a', has been used to establish the noise criteria at all receptor locations.

4.4.1 Residential Receptors

The L_{eq} noise emissions from the residents, use of the car park and mechanical plant are assessed against the NSW *NPI* at the residential receptors as follows:

'R1', 'R2' and 'R5b' – Based on measured noise levels in Location 'A'

- **49 dBA** $L_{Aeq,\ 15\ minute}$ during the day;
- **43 dBA** $L_{Aeq,\ 15\ minute}$ in the evening; and
- **40 dBA** $L_{Aeq,\ 15\ minute}$ at night.

'R1A', 'R2A' and 'R5c' – Based on measured noise levels in Location 'A1'

- **53 dBA** $L_{Aeq,\ 15\ minute}$ during the day;
- **46 dBA** $L_{Aeq,\ 15\ minute}$ in the evening; and
- **43 dBA** $L_{Aeq,\ 15\ minute}$ at night.

'R2b', 'R3', 'R4', and 'R5'– Based on measured noise levels in Location 'B'

- **47 dBA** $L_{Aeq,\ 15\ minute}$ during the day;
- **43 dBA** $L_{Aeq,\ 15\ minute}$ in the evening; and
- **41 dBA** $L_{Aeq,\ 15\ minute}$ at night.

'R2c', 'R3a', 'R4a', and 'R5a'– Based on measured noise levels in Location 'B1'

- **49 dBA** $L_{Aeq,\ 15\ minute}$ during the day;
- **43 dBA** $L_{Aeq,\ 15\ minute}$ in the evening; and
- **43 dBA** $L_{Aeq,\ 15\ minute}$ at night.

'R6' – Based on measured noise levels in Location 'R6'

- **49 dBA** $L_{Aeq,\ 15\ minute}$ during the day;
- **43 dBA** $L_{Aeq,\ 15\ minute}$ in the evening; and
- **40 dBA** $L_{Aeq,\ 15\ minute}$ at night.

'R6a' – Based on measured noise levels in Location 'R6a'

- **53 dBA** $L_{Aeq,\ 15\ minute}$ during the day;
- **46 dBA** $L_{Aeq,\ 15\ minute}$ in the evening; and
- **43 dBA** $L_{Aeq,\ 15\ minute}$ at night.

These criteria are to be assessed at the most affected point on or within the property boundary during the day. For upper residential floors, the noise is assessed outside the nearest window.

In addition, for the noise emission from domestic air conditioning units or amplified sound equipment to be inaudible within a habitable room of an adjacent residential dwelling, the level of noise should not exceed the following noise levels:

- Location 'A' - (37 – 5 =) **32 dBA** outside the nearest window during the night;
- Location 'A1' - (39 – 5 =) **34 dBA** outside the nearest window during the night;
- Location 'B' - (36 – 5 =) **31 dBA** outside the nearest window during the night;
- Location 'B1' - (38 – 5 =) **33 dBA** outside the nearest window during the night;
- Location 'R6' - (39 – 5 =) **34 dBA** outside the nearest window during the night; and
- Location 'R6a' - (40 – 5 =) **35 dBA** outside the nearest window during the night.

4.4.2 Sleep Disturbance Criteria

The following criteria will be applied for *sleep disturbance* outside a bedroom window between 10 pm and 7 am at the nearby residential receptors, as follows:

'R1', 'R2' and 'R5b' – Based on measured noise levels in Location 'A'

- **52 dBA** L_{AFmax} between 10 pm and 7 am.

'R1A', 'R2A' and 'R5c' – Based on measured noise levels in Location 'A1'

- **54 dBA** L_{AFmax} between 10 pm and 7 am.

'R2b', 'R3', 'R4', and 'R5'– Based on measured noise levels in Location 'B'

- **52 dBA** L_{AFmax} between 10 pm and 7 am.

'R2c', 'R3a', 'R4a', and 'R5a'– Based on measured noise levels in Location 'B1'

- **53 dBA** L_{AFmax} between 10 pm and 7 am.

'R6' – Based on measured noise levels in Location 'R6'

- **54 dBA** L_{AFmax} between 10 pm and 7 am.

'R6a' – Based on measured noise levels in Location 'R6a'

- **55 dBA** L_{AFmax} between 10 pm and 7 am.

4.4.3 On – Road Traffic Criteria

The following criteria will be applied at 1 metre from the most affected façade of 'R1', 'R1a, 'R2', 'R2a, 'R5b' and 'R5c', for on – road traffic noise:

- **55 dBA** (external) $L_{eq,\ 1\ hour}$ between 7 am and 10 pm; and
- **50 dBA** (external) $L_{eq,\ 1\ hour}$ between 10 pm and 7 am.

5.0 DEVELOPMENT NOISE EMISSION

The main sources of noise from the proposed development will be as follows:

- COS area;
- ICA;
- POS areas;
- Amplified sound equipment in micro apartments or ICA;
- Mechanical plant; and
- Vehicles entering and exiting the car park.

The noise impact from the above potential noise sources has been calculated, and the noise impact established for the most affected residential receptors.

The location of the COS area, ICA, plant area and car park are shown on the drawings provided by Benson McCormack Architecture for project numbers 2004A, dated 29 April 2021, attached as Appendix C.

5.1 Communal Open Space & Indoor Communal Areas

The COS area is located on the northern side of level 3 (area of 28.8 m^2). The ICA is located in the middle of level 3 (area of 59.1 m^2).

Based on the floor areas (one person per 2 m^2), we have been advised that the capacity for people in the COS and ICA at any given time, are as follows:

- Level 3 COS 14 people; and
- Level 3 ICA 30 people.

We have modelled the noise emission from the COS area and ICA as people speaking with a raised voice (10%), a normal voice (40%) and the rest listening or not speaking (50%). For the assessment of sleep disturbance, we have modelled the noise emission from the COS area and ICA and as one person shouting.

We have modelled windows and doors (level 3) to the ICA as being partially open (50% of window or door area).

Based on information in Harris[1] and in our noise level database gathered over many years, we calculate the sound power levels for people talking with a raised voice, a normal voice and shouting as shown below in Tables 5 and 6.

[1] *Handbook of Acoustical Measurements and Noise Control, Third Edition, Cyril M. Harris, McGraw-Hill Inc, New York, (Page 16.2)*

Table 5 **$L_{eq,\ 15\ minute}$ Sound Power Levels – Communal Open Space & Indoor Communal Areas**

Description	$L_{eq,\ 15\ minute}$ Sound Power Levels (dBA) dBA
One man talking with raised voice	**69**
One man talking with normal voice	**63**
Level 3 – Communal Open Space	
14 people talking (10% raised, 40% normal & 50% listening)	**74**
Level 3 - Indoor Communal Area	
30 people talking (10% raised, 40% normal & 50% listening)	**77**

Table 6 **$L_{AF,\ max}$ Sound Power Levels – Person Shouting - Communal Open Space & Indoor Communal Areas**

Description	$L_{AF,\ max}$ Sound Power Level dBA
Female/Male Shout	88 - 98

5.2 Private Open Space

The POS areas are located on the southern side of Level 1, micro apartment L107 to L109.

The attached PoM states that the capacity for people in the POS areas at any given time, is two, and that the permissible use of the POS areas is restricted to the hours of 7 am to 10 pm, on any given day.

We have modelled the noise emission from the POS areas as people speaking with a normal voice (50%) and the rest listening or not speaking (50%). We have assumed, as a worst-case-scenario, that all three POS areas will be occupied at the same time.

Based on information in Harris and in our noise level database gathered over many years, we calculate the sound power levels for people talking with a normal voice as shown below in Tables 7.

Table 7 **$L_{eq,\ 15\ minute}$ Sound Power Levels – Private Open Space**

Description	$L_{eq,\ 15\ minute}$ Sound Power Levels (dBA) dBA
One man talking with normal voice	**63**
Level 1 – Private Open Space	
2 people talking (50% normal & 50% listening)	**63**

5.3 Amplified Sound Equipment In Micro Apartments

We have been advised that there will be no connection point for a traditional television antennae or high speed internet cabling in the building. All services to the building will be via broadband/fibre supported Wi-Fi.

We have also been advised that as part of the lodging agreement, future tenants are advised that they are bound by a strict policy of no amplified music or entertainment that could adversely affect the acoustic amenity of fellow residents or neighbours, failure to comply with this can lead to grounds for, at the discretion of the on-site manager, termination of the lodging agreement.

All micro apartments are air-conditioned and have at least one openable window.

Notwithstanding the above, the noise level from amplified sound equipment can vary depending on each person's personal preference. A test was carried out by Day Design staff to determine the noise level created when listening to a YouTube video. The sound was set to be loud enough to fill a small room at a medium volume.

The measured $L_{eq,15minute}$ reverberant sound pressure level of 61 dBA has been used to calculate the noise impact of residents' amplified sound equipment on neighbours.

We have modelled windows to the micro apartments as being partially open (50% of the window areas).

5.4 Car Park Noise Emission

Traffic movement has been calculated using the '*Traffic & Parking Impact Assessment, Proposed Co-Living Development, 67 Pacific Parade, Dee Why*' prepared by Stanbury Traffic Planning dated November 2020 (Reference: 20-176-2).

The abovementioned report calculates the number of vehicle trips during the peak usage hour to be 10, equivalent to 3 vehicle trips/15 minutes.

We have assumed that during the night time period (10 pm to 7 am) the number of vehicle trips will halve. Therefore, number of vehicle trips during the night time period is equivalent to 1.5 vehicle trips/15 minutes.

For the assessment of sleep disturbance we have assumed a vehicle may leave/arrive at the car park between 10 pm and 7 am.

The Sound Exposure Level[1] (SEL) and $L_{AF.max}$ sound power level and spectra of vehicle noise is shown below in Table 8 and is based on previous measurements by Day Design.

Table 8 SEL & $L_{AF, max}$ Sound Power Levels - Car Park

Description	Sound Power Levels (dB) at Octave Band Centre Frequencies (Hz)								
	dBA	**63**	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**
SEL level of car drive by at approximately 10 km/h	**82**	90	87	80	78	77	72	70	64
SEL level of car drive by at approximately 20 km/h	**86**	101	94	85	81	81	76	75	68
$L_{AF, max}$ level of car entering -exiting the car park	**92**	98	92	90	88	88	83	80	76

[1] *SEL is the total sound energy of a single noise event condensed into a one second duration.*

5.5 Mechanical Plant Noise Emission

The mechanical plant, including kitchen exhaust fans, car park exhaust/supply fans, and lift motor, have not been selected at this stage. Details of the proposed air conditioning condensers and bathroom exhaust fans have been provided by the client.

A preliminary noise assessment will be based on typical kitchen exhaust fans, car park exhaust/supply fans, and lift motor for the size of the development, with sound power levels from typical units being used. Sound level data has been provided by the client for the proposed air conditioning condensers and bathroom exhaust fans.

The architectural drawings show that the air conditioning condenser units will be located in a designated plant area in the middle of the eastern façade on each level (3 x units for each floor) with the services risers located adjacent to the south. We have assumed that the bathroom exhaust fans will penetrate the external wall of the micro apartment it services, the level 3 kitchen exhaust fan, car park exhaust fan and car park supply fan will exhaust/intake at roof level between grid lines 3 and 4 and C and D, and the lift motor will be located in the basement level in close proximity to the lift shaft.

Sound power levels used in the calculation of noise emission from the mechanical plant are shown below in Table 9.

Table 9 $L_{eq,\ 15\ minute}$ Sound Power Levels – Mechanical Plant

Description	Sound Power Levels (dB) at Octave Band Centre Frequencies (Hz)								
	dBA	**63**	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**
Outdoor Condenser Unit[1]	**61**	66	64	64	60	54	48	40	34
Bathroom Exhaust Fan[2]	**55**	53	52	57	55	48	43	36	27
Kitchen Exhaust Fan[3]	**60**	66	60	59	57	54	52	49	46
Car Park Exhaust Fan[4]	**85**	87	86	85	83	79	77	75	67
Car Park Supply Fan[5]	**79**	77	77	80	79	73	70	63	54
Hydraulic Lift Motor[6]	**63**	59	61	55	59	58	56	52	48

We recommend a detailed analysis be carried out once the mechanical plant is selected and locations are finalised, prior to the issue of a Construction Certificate.

[1] *Spectral sound power level based on Daiken 5MXM100RVMA, outdoor condenser unit.*
[2] *Spectral Sound power level based on Chico 125 – Thru-Wall Wall Mounted Exhaust*
[3] *Spectral sound power level based on a domestic kitchen exhaust fan previously assessed by Day Design.*
[4] *Spectral Sound power level based on Fantech AP0714BA7/30.*
[5] *Spectral Sound power level based on Fantech AP0564LP12/17.*
[6] *Spectral sound power level based on a residential lift system previously measured by Day Design.*

5.6 Predicted Noise Levels

Knowing the sound power level (see Table 5 to Table 9) and sound pressure level (see Section 5.2) of a noise source, the sound pressure level (as measured with a sound level meter) can be calculated at a remote location using suitable formulae to account for distance losses and sound barriers.

The most stringent noise criteria have been used to assess the noise impact from the COS area, ICA, POS areas, amplified sound equipment in micro apartments and ICA, the use of the car park and the mechanical plant, as outlined below. The noise impact from these sources has been assessed against either the *NPI* evening or night time and / or the night time sleep disturbance criteria, as stated within Section 4.4. Compliance with the most stringent noise criteria will ensure compliance during all other time periods.

The noise impact from the use of air conditioners and amplified sound equipment has also been assessed against the provisions of the *POEO*, as stated in Section 4.4.1.

The noise impact from additional on road traffic associated with the development has been assessed against the NSW *RNP*, as stated in Section 4.4.3.

The following boundary fence heights have been assumed, to account for the attenuation of noise produced by the proposed co-living development:

- Proposed 1.6 metre high solid balustrade bounding the eastern and western sides of the level 3 COS area – see drawings *DA-0105 Rev 02, DA-0200 Rev 02, DA-0202 Rev 02, DA-0203 Rev 02* and *DA-1041 Rev 01*;and
- Proposed 0.6 metre high solid planter box on the northern side of the level 3 COS area – see drawing *DA-0105 Rev 02, DA-0200* and *DA-1041 Rev 01*.

Where applicable, calculations also include reductions for the acoustic screening provided by the co-living development building.

All predictions in Table 10 to Table 15 are based on the assumptions outlined above and the proposed construction detailed in the architectural drawings, attached as Appendix C.

5.6.1 Resident & Guest Noise – Communal Open Space, Indoor Communal Areas & Private Open Space

The predicted $L_{eq,\ 15\ minute}$ level of noise from residents and their guests using the COS and ICA, and residents using their POS (evening only) assessed at the nearest affected residential premises during the evening and night time period, is shown below in Table 10.

A sample calculation showing the predicted noise levels from the use of the Level 3 COS to the potentially most affected receiver location 'R6a' is provided in Appendix G.

Table 10 Predicted $L_{eq,\ 15\ min}$ Noise Levels – Resident & Guest Noise – Evening (6 pm to 10 pm) & Night (10 pm – 7 am)

Description	Predicted Noise Level $L_{eq,\ 15\ minute}$ (dBA) at Receptor Locations					
	L3 COS	L3 ICA	L1 POS	Cumulative Noise Level	Acceptable Noise Limit	Compliance Yes/No
Evening Period – 6 pm to 10 pm						
R1	28	26	<10	30	43	Yes
R1a	30	32	<10	34	46	Yes
R2	29	22	<10	30	43	Yes
R2a	38	32	<10	39	46	Yes
R2b	23	12	37	37	43	Yes
R2c	32	14	35	37	43	Yes
R3	14	<10	19	20	43	Yes
R3a	16	<10	23	24	43	Yes
R4	15	25	30	32	43	Yes
R4a	21	25	37	37	43	Yes
R5	19	40	29	41	43	Yes
R5a	22	40	40	43	43	Yes
R5b	26	40	<10	40	43	Yes
R5c	32	40	<10	41	46	Yes
R6	23	39	37	41	43	Yes
R6a	37	40	<10	42	46	Yes

Table 10 Predicted $L_{eq,\ 15\ min}$ Noise Levels – Resident & Guest Noise – Evening (6 pm to 10 pm) & Night (10 pm – 7 am) - Continued

Description	Predicted Noise Level $L_{eq,\ 15\ minute}$ (dBA) at Receptor Locations					
	L3 COS	L3 ICA	L1 POS	Cumulative Noise Level	Acceptable Noise Limit	Compliance Yes/No
Night Period – 10 pm to 7 am						
R1	28	26	-	30	40	Yes
R1a	30	32	-	34	43	Yes
R2	29	22	-	30	40	Yes
R2a	38	32	-	39	43	Yes
R2b	23	12	-	24	41	Yes
R2c	32	14	-	32	43	Yes
R3	14	<10	-	15	41	Yes
R3a	16	<10	-	17	43	Yes
R4	15	25	-	25	41	Yes
R4a	21	25	-	26	43	Yes
R5	19	40	-	40	41	Yes
R5a	22	40	-	40	43	Yes
R5b	26	40	-	40	40	Yes
R5c	32	40	-	41	43	Yes
R6	23	39	-	39	40	Yes
R6a	37	40	-	42	43	Yes

The predicted $L_{eq,\ 15\ minute}$ noise levels from residents and their guests within the COS area, ICA and POS areas at the residential receptors are below the evening and night time noise criteria established in Section 4.4 of this report for receptor locations 'R1' to 'R6a', and are therefore considered acceptable.

5.6.2 Car Park Noise

The predicted $L_{eq,\ 15\ minute}$ level of noise from the use of the car park driveway, assessed at the nearest affected residential premises during the night time period, is shown in Table 11.

Table 11 Predicted $L_{eq,\ 15\ min}$ Noise Levels – Use of the Car Park – Night (10 pm – 7 am)

Description	Predicted Noise Level $L_{eq,\ 15\ minute}$ (dBA) at Receptor Locations		
	Use of Car Park Driveway	Acceptable Noise Limit	Compliance - Yes/No
R1	32	40	Yes
R1a	34	43	Yes
R2	30	40	Yes
R2a	36	43	Yes
R2b	10	41	Yes
R2c	11	43	Yes
R3	11	41	Yes
R3a	< 10	43	Yes
R4	< 10	41	Yes
R4a	< 10	43	Yes
R5	10	41	Yes
R5a	11	43	Yes
R5b	36	40	Yes
R5c	37	43	Yes
R6	11	40	Yes
R6a	24	43	Yes

The predicted $L_{eq,\ 15\ minute}$ noise levels from the use of the car park driveway at the residential receptors are below the night time noise criteria in Section 4.4 of this report, and are therefore acceptable.

5.6.3 Mechanical Plant Noise

The predicted $L_{eq,\ 15\ minute}$ level of noise from the operation of mechanical plant, assessed at the nearest affected residential premises during the night time period, is shown in Table 12.

Table 12 Predicted $L_{eq,\ 15\ min}$ Noise Levels – Mechanical Plant – Night (10 pm – 7 am)

Description	Predicted Noise Level $L_{eq,\ 15\ minute}$ (dBA) at Receptor Locations		
	Mechanical Plant	Acceptable Noise Limit	Compliance - Yes/No
R1	32	40	Yes
R1a	36	43	Yes
R2	**50**	40	**No (+ 10 dB)**
R2a	**54**	43	**No (+ 11 dB)**
R2b	**48**	41	**No (+ 7 dB)**
R2c	**52**	43	**No (+ 11 dB)**
R3	30	41	Yes
R3a	33	43	Yes
R4	30	41	Yes
R4a	36	43	Yes
R5	28	41	Yes
R5a	31	43	Yes
R5b	40	40	Yes
R5c	**45**	43	**No (+ 2 dB)**
R6	40	40	Yes
R6a	**46**	43	**No (+ 3 dB)**

The predicted $L_{eq,\ 15\ minute}$ noise levels from the use of mechanical plant are below the night time noise criteria established in Section 4.4 of this report for receptor locations 'R1' to 'R1a', 'R3' to 'R5b' and 'R6', but exceed the night time noise criteria for receptor location 'R2' to 'R2c', 'R5c' and 'R6a'. Therefore, noise controls will be required, as recommended within Section 6.0.

5.6.4 Air Conditioning Unit & Amplified Sound Equipment – Inaudibility Criterion (POEO)

The predicted $L_{Aeq,\ 15\ minute}$ levels of noise from the air conditioning condenser units and amplified sound equipment within the micro apartments, at the residential receptors, are shown below in Table 13.

Table 13 Predicted $L_{Aeq,\ 15\ min}$ Noise Levels – Inaudibility Criterion – Night (10 pm – 7 am)

Description	Predicted Noise Level $L_{eq,\ 15\ minute}$ (dBA) at Receptor Locations			
	Air Conditioning Operating (ACO)	Amplified Sound Equipment (ASE)	Acceptable Noise Limit	Compliance - Yes/No (ACO/ASE)
R1	15	21	32	Yes/Yes
R1a	17	21	34	Yes/Yes
R2	**39**	27	32	**No**/Yes
R2a	**39**	27	34	**No**/Yes
R2b	**40**	27	31	**No**/Yes
R2c	**38**	27	33	**No**/Yes
R3	22	19	31	Yes/Yes
R3a	26	24	33	Yes/Yes
R4	< 10	28	31	Yes/Yes
R4a	< 10	28	33	Yes/Yes
R5	< 10	31	31	Yes/Yes
R5a	< 10	31	33	Yes/Yes
R5b	< 10	27	32	Yes/Yes
R5c	< 10	27	34	Yes/Yes
R6	< 10	33	34	Yes/Yes
R6a	< 10	22	35	Yes/Yes

The predicted L_{Aeq} levels of noise from the amplified sound equipment within the micro apartments at the residential receptors comply with the inaudibility criteria outlined in Section 4.4.1 for all receptor locations, and are therefore acceptable.

However, the predicted L_{Aeq} levels of noise from the air conditioning units at residential receptors 'R2' to 'R2c' exceed the inaudibility criteria outlined in Section 4.4.1, and will therefore require noise controls, as recommended within Section 6.0.

5.6.5 Sleep Disturbance

The predicted $L_{AF,\,max}$ levels of noise from residents shouting in the COS or ICA or a car entering the car park are shown in Table 14.

Table 14 Predicted $L_{AF,\,max}$ Noise Levels – Sleep Disturbance – Night (10 pm – 7 am)

Description	Predicted Noise Level $L_{eq,\,15\ minute}$ (dBA) at Receptor Locations				
	Resident Shouting (RS) COS	Resident Shouting (RS) ICA	Car Entering Car Park (CECP)	Acceptable Noise Limit	Compliance - Yes/No (RS/CECP)
R1	51	45	**53**	52	Yes/**No**
R1a	**55**	51	54	54	**No**/Yes
R2	51	40	52	52	Yes/Yes
R2a	**63**	51	**58**	54	**No/No**
R2b	45	30	29	52	Yes/Yes
R2c	**56**	32	29	53	**No**/Yes
R3	36	26	24	52	Yes/Yes
R3a	38	26	24	53	Yes/Yes
R4	37	44	27	52	Yes/Yes
R4a	43	44	27	53	Yes/Yes
R5	42	**59**	30	52	**No**/Yes
R5a	45	**59**	30	53	**No**/Yes
R5b	48	**59**	**64**	52	**No/No**
R5c	54	**59**	**62**	54	**No/No**
R6	45	**59**	30	54	**No**/Yes
R6a	**60**	**60**	47	55	**No**/Yes

The predicted maximum $L_{AF,\,max}$ level of noise from residents shouting within the COS or ICA area or a car entering the car park, outside the nearest potentially affected residences, is shown above in Table 14. The predicted noise levels at residential receptors 'R1', 'R1a', 'R2a', 'R2c' and 'R5' to 'R6a' are in excess of the night time sleep disturbance criteria, as established in Section 4.4.2 of this report, and will require a maximum noise level event assessment, as shown in Section 6.0.

5.6.6 On – Road Traffic

The external $L_{eq,\ 1\ hour}$ noise levels at the most affected receptor locations, from noise associated with on – road traffic travelling on Pacific Parade throughout day and night, are calculated to be as shown below in Table 15.

We have assumed that on-road traffic associated with the co-living development will halve during the night time period.

Table 15 Predicted $L_{eq,\ 1\ hour}$ Noise Levels – On – Road Traffic

Receptor Location	Predicted Noise Level (dBA)	Noise Criterion (dBA)	Compliance - Yes/No
Day – 7 am to 10 pm			
R1	40	55	Yes
R1a	41	55	Yes
R2	41	55	Yes
R2a	41	55	Yes
R5b	40	55	Yes
R5c	40	55	Yes
Night – 10 pm to 7 am			
R1	37	50	Yes
R1a	38	50	Yes
R2	38	50	Yes
R2a	38	50	Yes
R5b	37	50	Yes
R5c	37	50	Yes

The predicted external levels of noise from on-road traffic are within the day and night time noise criteria as established in Section 4.4.3, and are therefore acceptable.

6.0 NOISE CONTROL RECOMMENDATIONS

6.1 Noise Management Plan

The noise management plan below has been incorporated into the co-living development's PoM.

The following recommended administrative noise controls must be implemented and adhered to by the management of the co-living development at all times:

- The COS area and ICA should not be used at any time for organised social events (including parties, BBQs, etc) where amplified music or people speaking with loud voices may be expected.
- Amplified sound equipment should not be used / played in the COS area, i.e. small portable speakers, boomboxes, etc.
- The noise output from any amplified sound equipment used in the ICA should be kept at a reasonable noise level, i.e. a reverberant $L_{eq,\ 15\ minute}$ sound pressure level of no more than 63 dBA in the centre of the room.
- Normal conversation within the COS, ICA and POS areas will be acceptable, however shouting would not, and should be subject to management by the co-living development management.
- The Level 3 COS area should not be used between 10.00 pm and 7.00 am.
- All operable external doors and windows to the Level 3 ICA should be closed between 10.00 pm and 7.00 am.
- The Level 1 POS areas should not be used between 10.00 pm and 7.00 am.
- The maximum amount of people to be permitted in the COS at any given time is 14.
- The maximum amount of people to be permitted in the ICA at any given time is 30.
- The maximum amount of people to be permitted in the POS areas at any given time is 2.
- Residents should be instructed to keep the noise output from individual amplified sound equipment to a reasonable level, i.e. a reverberant $L_{eq,\ 15\ minute}$ sound pressure level of no more than 61 dBA.
- Signs should be posted around the car park, COS area and ICA, in clearly visible locations, reminding residents to be mindful of the neighbouring residential properties and the importance of respecting their amenity.
- A complaint resolution process for residents and nearby neighbours should be documented in the Plan of Management to address any issues of unwelcomed loud noise from residents.
- The Manager shall be available 24 hours a day by phone.
- The noise management plan is to be abided and enforced by management at all times.

6.2 Mechanical Plant & Equipment– Construction Certificate

The specifications for the mechanical plant have not yet been selected for this development. For typical mechanical plant equipment with sound power levels not exceeding those listed in Table 9, it is reasonable and feasible to acoustically treat the associated ducting, plant area or equipment itself so that noise will not impact the neighbouring properties.

Once mechanical plant and its location has been selected, a detailed acoustic assessment should be made, prior to the issue of a Construction Certificate (or during the detailed design stage) which ensures the use of the mechanical plant will comply with the project specific noise criteria in Section 4.4 of this report. We recommend that the mechanical services engineers select mechanical plant equipment with the lowest sound power levels to reduce the amount of acoustic treatment necessary to achieve the noise criteria at nearby residential receivers.

We offer to provide detailed noise controls when specifications of the mechanical plant equipment have been finalised.

In the following Sections we have provided examples of reasonable noise controls that may be implemented if necessary:

6.2.1 General Specifications

All mechanical plant including pumps and fans should be vibration isolated from the building structure.

The vibration isolators should achieve a minimum static deflection of 25 mm. We recommend that fans mounted on the roof are not located directly above living areas or bedrooms.

6.2.2 Carbon Monoxide Monitoring System

A carbon monoxide monitoring system may be installed in the car park to activate the exhaust and supply fans only when necessary.

6.2.3 Air Conditioning Systems

If required to operate during the night, the air conditioning systems may be set to run in silent mode between 10 pm and 7 am.

6.2.4 Lined Ductwork

Ductwork may be internally lined on the intake or discharge side of the fans with 25 to 50 mm thick insulation (min density 32 kg/m^3), faced with a minimum of 20% open area perforated steel or foil.

6.2.5 Silencers

Silencers may be installed on the intake and discharge side of the fans

6.2.6 Basement Roller Door

The basement roller door (if required) motor shall be resiliently mounted to the building structure to prevent excessive noise and vibration.

6.3 Sleep Disturbance - Maximum Noise Level Event Assessment

There is potential for the sleep disturbance criteria to be exceeded at several neighbouring residential receivers from the use of the COS area and the car park driveway.

6.3.1 Communal Outdoor Space - Sleep Disturbance Noise Controls

Recommendations in Section 6.1 above limit the use of the COS area to the day and evening time only, therefore eliminating noise emissions from the COS area that could cause sleep disturbance at the neighbouring residential receivers, particularly 'R2' to 'R2c', 'R5c' and 'R6a'.

6.3.2 Indoor Communal Area - Sleep Disturbance Noise Controls

Recommendations in Section 6.1 above require all windows and doors to the ICA be closed between 10 pm and 7 am each night. The resultant predicted noise levels at the neighbouring residential receivers 'R5' to 'R6a' (where exceedances were calculated) are shown in Section 7.0.

6.3.3 Car Park - Sleep Disturbance Noise Controls

Day Design has conducted a detailed maximum noise level event assessment of the existing ambient noise levels – particularly the L_{max} events - at Location 'A' to determine the likelihood of noise associated with the use of the car park drive way causing sleep disturbance at the most affected nearby residential receiver 'R5b' (see Table 14). Compliance at the most affected nearby residential receiver will ensure compliance at all other receiver locations.

Table 16 shows the total L_{max} events greater than or equal to the sleep disturbance criteria of 52 dBA or more between 10 pm and 7 am over the assessment period.

Table 16 Total L_{max} Events at Location 'A' During Assessment Period

Receptor Location	Measured L_{max} Noise Level Events ≥ 52 dBA	Measured L_{max} Noise Level (dBA) Range ≥ 52 dBA
Night – 10 pm to 7 am (36 x 15 minute periods each night)		
Night 1 - 22/09/2020	33	53 - 74
Night 2 - 23/09/2020	36	52 - 84
Night 3 - 24/09/2020	34	53 - 76
Night 4 - 25/09/2020	36	59 - 74
Night 5 - 26/09/2020	36	54 - 81
Night 6 - 27/09/2020	30	54 - 78
Night 7 - 28/09/2020	32	54 - 78
Average per night	34	68
Total	237	-

Table 16 above shows that L_{max} noise events greater than or equal to 52 dBA are common at Location 'A' during the night periods. A total of 252 sample 15 – minute periods (night) were analysed, with 237, or 94%, featuring an L_{max} noise event greater than or equal to 52 dBA.

An average of 34 L_{max} noise events (out of 36) greater than or equal to 52 dBA were measured over the assessment period for each night period, with an average L_{max} noise level (greater than or equal to 52 dBA) of 68 dBA. As shown in Table 14, the predicted L_{max} noise level from noise associated with residents using the car park driveway at 'R5b' is 64 dBA – 4 dB lower than the average.

Day Design is of the opinion that due to the existing number and level of the L_{max} noise events greater than or equal to 52 dBA at Location 'A', the L_{max} noise events associated with the development site are not likely to cause sleep disturbance at 'R5b', and will therefore be acceptable at all residential receiver locations.

6.4 Level 3 Communal Open Space Eastern & Western Balustrades

The construction of the Level 3 COS eastern and western (glass) balustrades shall be free of visible air gaps to provide an impervious sound barrier.

7.0 PREDICTED NOISE LEVELS - AFTER NOISE CONTROLS

NOTE: noise controls to address the exceedances shown in Tables 12, 13 and 14, with the exception of L_{AFmax} noise from the Level 3 ICA, have been addressed in Section 6.1, 6.2 and 6.3 of this report.

Once the noise control recommendations in Section 6 are incorporated into the Plan of Management and building design, the calculated sound pressure level at the nearby receptors 'R5' to 'R6a', will be as shown in Table 17.

The predicted L_{AFmax} level of noise from residents and their guests using the COS and ICA after noise controls have been incorporated into the Plan of Management and building design, assessed at the nearest affected residential premises during the evening and night time periods, is shown below in Table 17.

Table 17 Predicted $L_{AF, max}$ Noise Levels – Sleep Disturbance - Resident & Guest Noise – After Noise Controls

Description	Predicted Noise Level $L_{AF, max}$ (dBA) at Receptor Locations			
	L3 COS	L3 ICA	Acceptable Noise Limit	Compliance Yes/No
		Night – 10 pm to 7 am		
R5	-	28	52	Yes
R5a	-	28	53	Yes
R5b	-	36	52	Yes
R5c	-	42	54	Yes
R6	-	28	54	Yes
R6a	-	49	55	Yes

The predicted $L_{eq, 15\ minute}$ noise levels from residents and their guests within the COS and ICA at the residential receptors after noise controls have been incorporated into the Plan of Management and building design comply with the noise criteria established in Section 4.4 of this report at all receptor locations, and are therefore acceptable.

8.0 NOISE IMPACT STATEMENT

Day Design Pty Ltd has been engaged by Benson McCormack Architecture on behalf of BL 2093 Pty Ltd to assess the potential environmental noise impact of a proposed co-living development at 67 Pacific Parade, Dee Why, NSW.

Calculations show that, provided the recommendations in Section 6.0 of this report are implemented, the level of noise emitted by the co-living development at 67 Pacific Parade, Dee Why, NSW, will meet the noise level requirements of the Environment Protection Authority's *Noise Policy for Industry*, *NSW Road Noise Policy* and the *Protection of the Environment Operations (Noise Control) Regulation 2017* as detailed in Section 4.0 of this report, and be considered acceptable.

In addition to the above, Day Design prepared the original Environmental Noise Assessment Report for the Development Application based on the original building design. We advise that due to the reduced area of communal outdoor space on Level 1 and internal communal spaces on Level Upper Ground and Level 1, the revised design will have a lower impact on the acoustic amenity of the local area.

Adam Shearer, BCT (Audio), MDesSc (Audio & Acoustics), MAAS

Senior Acoustical Consultant

for and on behalf of Day Design Pty Ltd

AAAC MEMBERSHIP

Day Design Pty Ltd is a member company of the Association of Australasian Acoustical Consultants, and the work herein reported has been performed in accordance with the terms of membership.

Attachments:

Appendix A – Noise Survey Instrumentation
Appendix B1 – Ambient Noise Survey – Ground Floor, Front 67 Pacific Parade, Dee Why (#107)
Appendix B2 – Ambient Noise Survey – First Floor, Front 67 Pacific Parade, Dee Why (#118)
Appendix B3 – Ambient Noise Survey – Ground Floor, Rear 67 Pacific Parade, Dee Why (#117)
Appendix C – Architectural Drawings
Appendix D1 – Ambient Noise Survey – Rear Balcony, Apt 9, 65 Pacific Parade, Dee Why (#106)
Appendix D2 – Ambient Noise Survey – Front Balcony, Apt 9, 65 Pacific Parade, Dee Why (#115)
Appendix E1 – Adjusted Ambient Noise Survey – Rear Balcony, Apt 9, 65 Pacific Parade, Dee Why (#106)
Appendix E2 – Adjusted Ambient Noise Survey – Front Balcony, Apt 9, 65 Pacific Parade, Dee Why (#115)
Appendix F – *Plan of Management, SixC, dated June 2021*
Appendix G – Sample Calculation – Level 3 COS to 'R6a'
Appendix H – Architectural Drawing, *DA-1041 Rev 01*, *'Level 3 COS Study 1/2'* – Sectional perspective from Level 3 COS to front balcony of Apartment 9, 65 Pacific Parade, Dee Why

NOISE SURVEY INSTRUMENTATION

Noise level measurements and analysis in this report were made with instrumentation as follows:

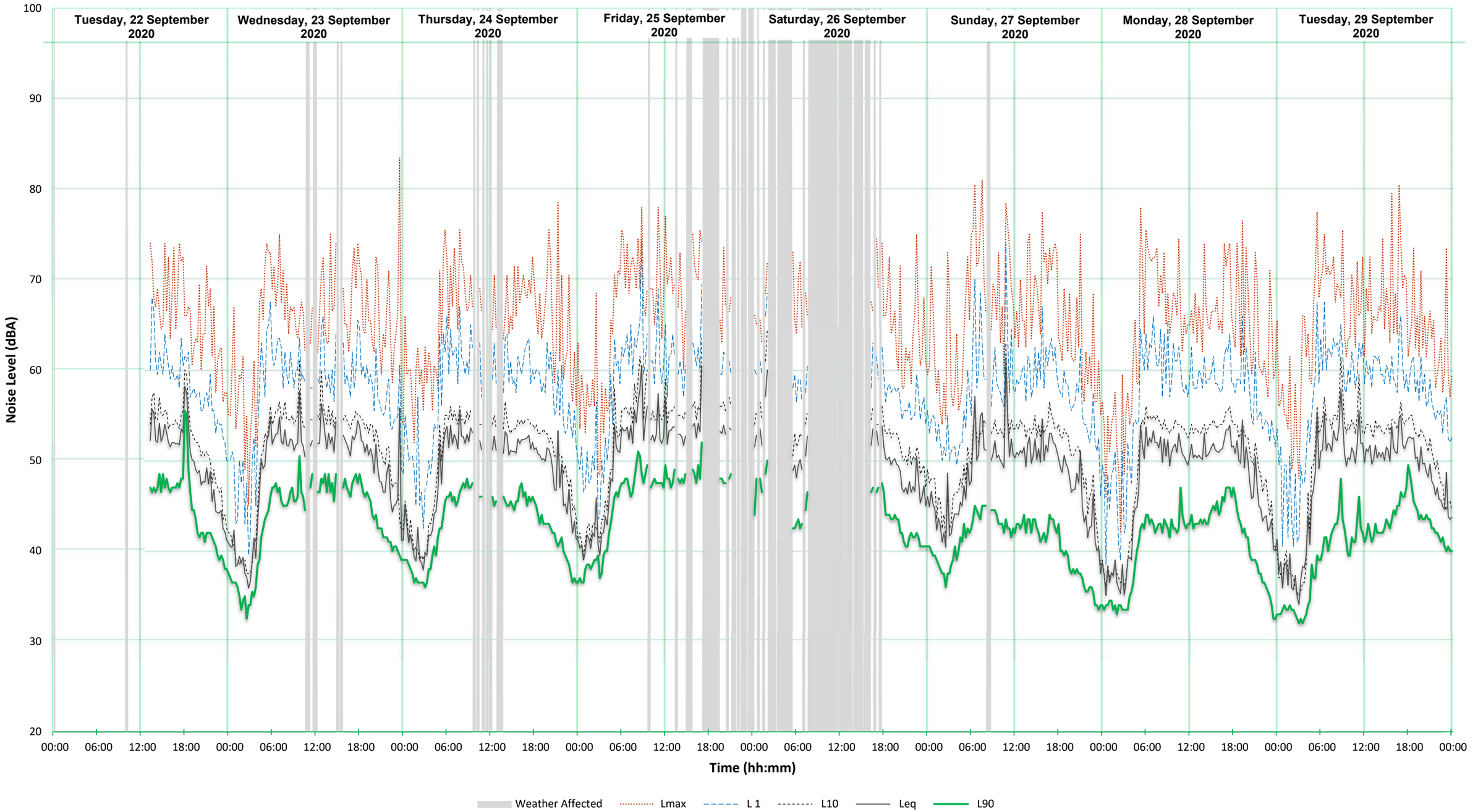
Table A Noise Survey Instrumentation

Description	Model No	Serial No
Infobyte Noise Logger (Type 2) Condenser Microphone 0.5" diameter	iM4 MK 250	106 107
Infobyte Noise Logger (Type 2) Condenser Microphone 0.5" diameter	iM4 MK 250	107 107
Infobyte Noise Logger (Type 2) Condenser Microphone 0.5" diameter	iM4 MK 250	115 10312
Infobyte Noise Logger (Type 2) Condenser Microphone 0.5" diameter	iM4 MK 250	117 117
Infobyte Noise Logger (Type 2) Condenser Microphone 0.5" diameter	iM4 MK 250	118 118
Acoustical Calibrator	B&K 4231	302 1796

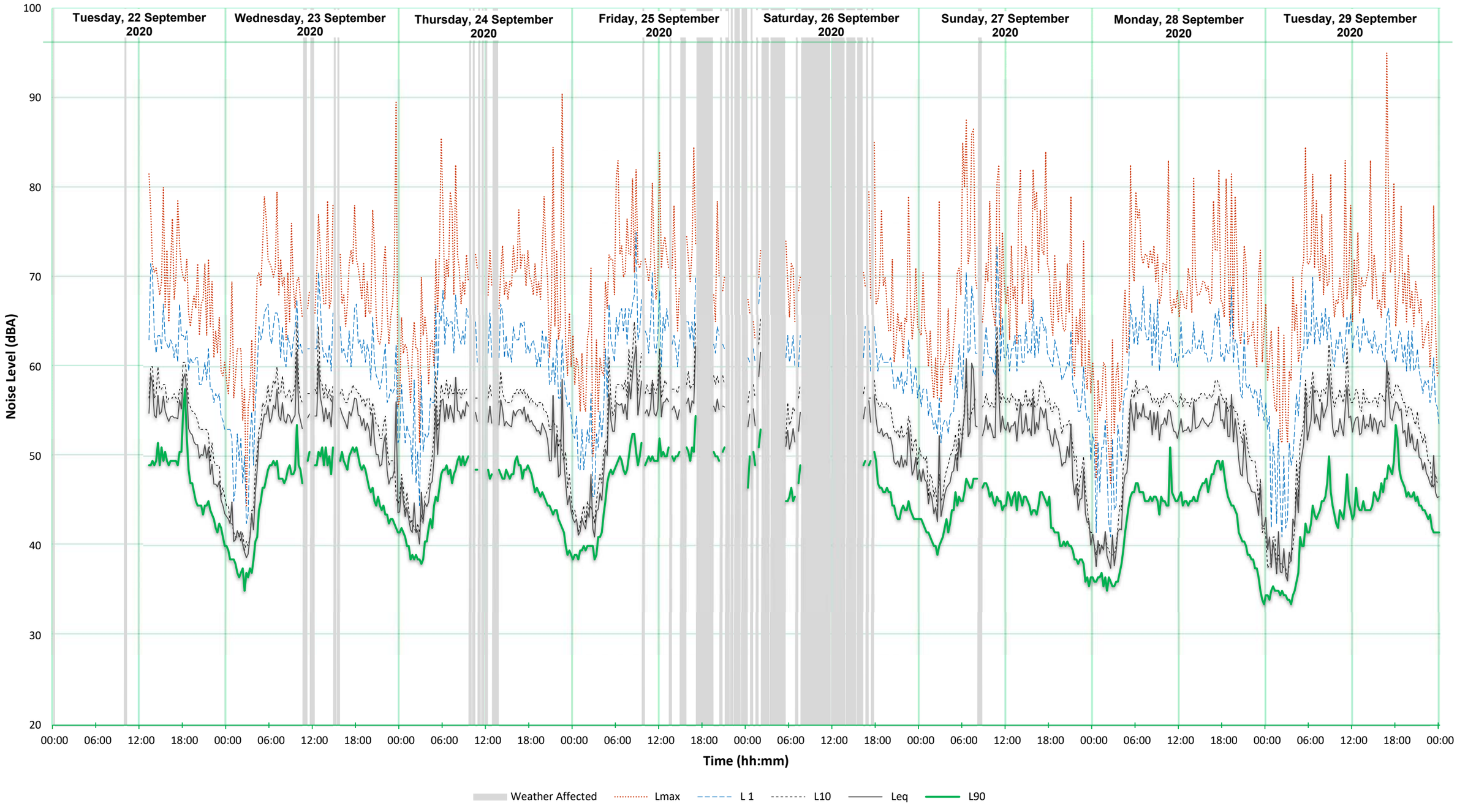
An environmental noise logger is used to continuously monitor ambient noise levels and provide information on the statistical distribution of noise during an extended period of time. The Infobyte Noise Monitor iM4s are Type 1 and Type 2 precision environmental noise monitor meeting all the applicable requirements of AS1259 for an integrating-averaging sound level meter.

All instrument systems had been laboratory calibrated using instrumentation traceable to Australian National Standards and certified within the last two years thus conforming to Australian Standards. The measurement system was also field calibrated prior to and after noise surveys. Calibration drift was found to be less than 1 dB during unattended measurements. No adjustments for instrument drift during the measurement period were warranted.

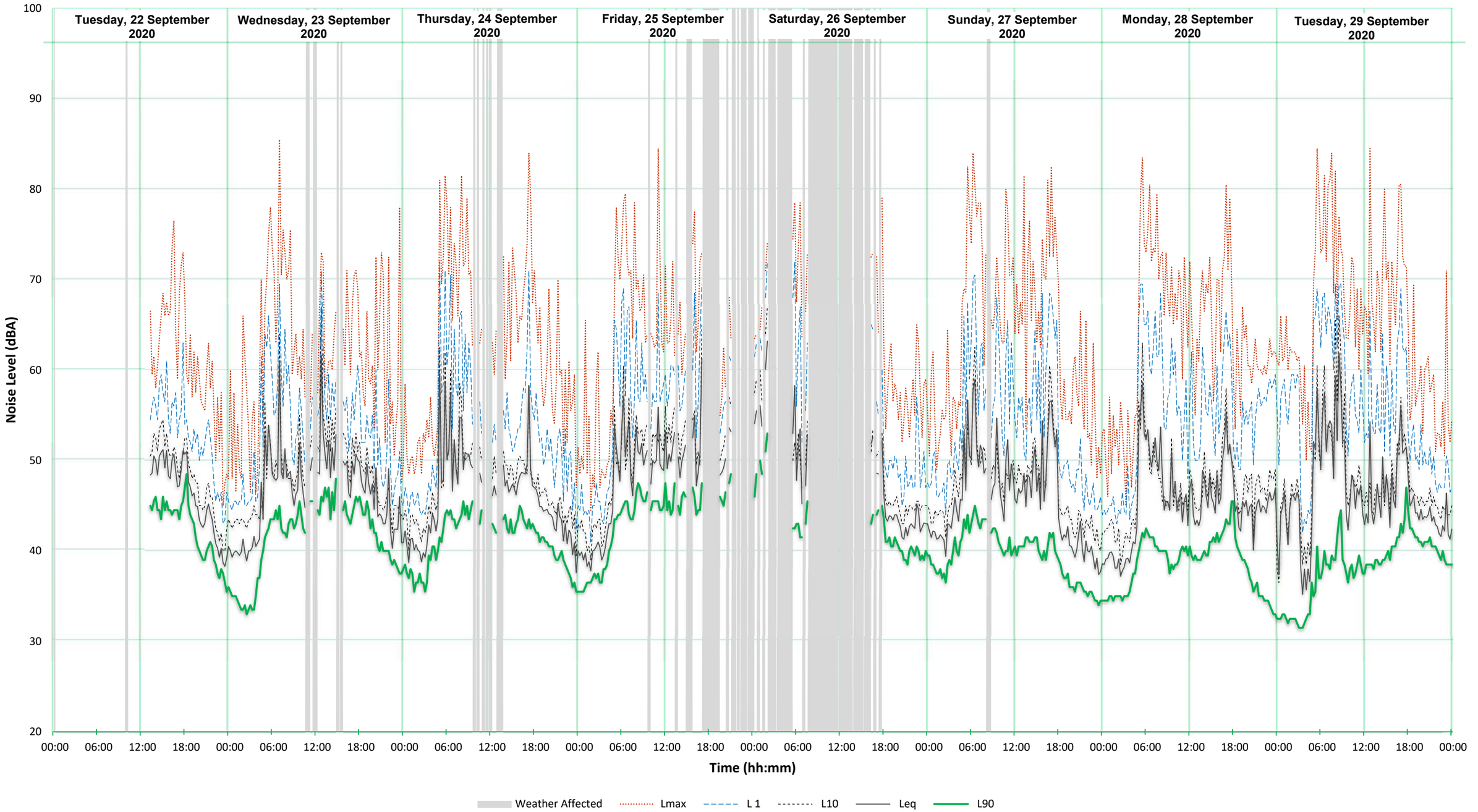
Located at Front Ground Floor, 67 Pacific Parade, Dee Why, NSW



Located at Front First Floor, 67 Pacific Parade, Dee Why, NSW



Located at Rear Ground Floor, 67 Pacific Parade, Dee Why, NSW



67 PP

DA (AMENDED)

CLIENT
BL 2093 PTY LTD
PO BOX 1231 MANLY
NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade DEE WHY NSW 2099

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. +61 2 9818 0777
F. +61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE

THE SITE
67 Pacific Parade DEE WHY NSW 2099

THE CRESCENT RESERVE/PLAYGROUND

LOCATION PLAN 03

THE SITE (CIRCA 1943)
67 Pacific Parade DEE WHY NSW 2099

LOCATION PLAN - CIRCA 1943

REVISION

Rev	Date	Description
01	25/11/2020	DA ISSUE 01
02	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

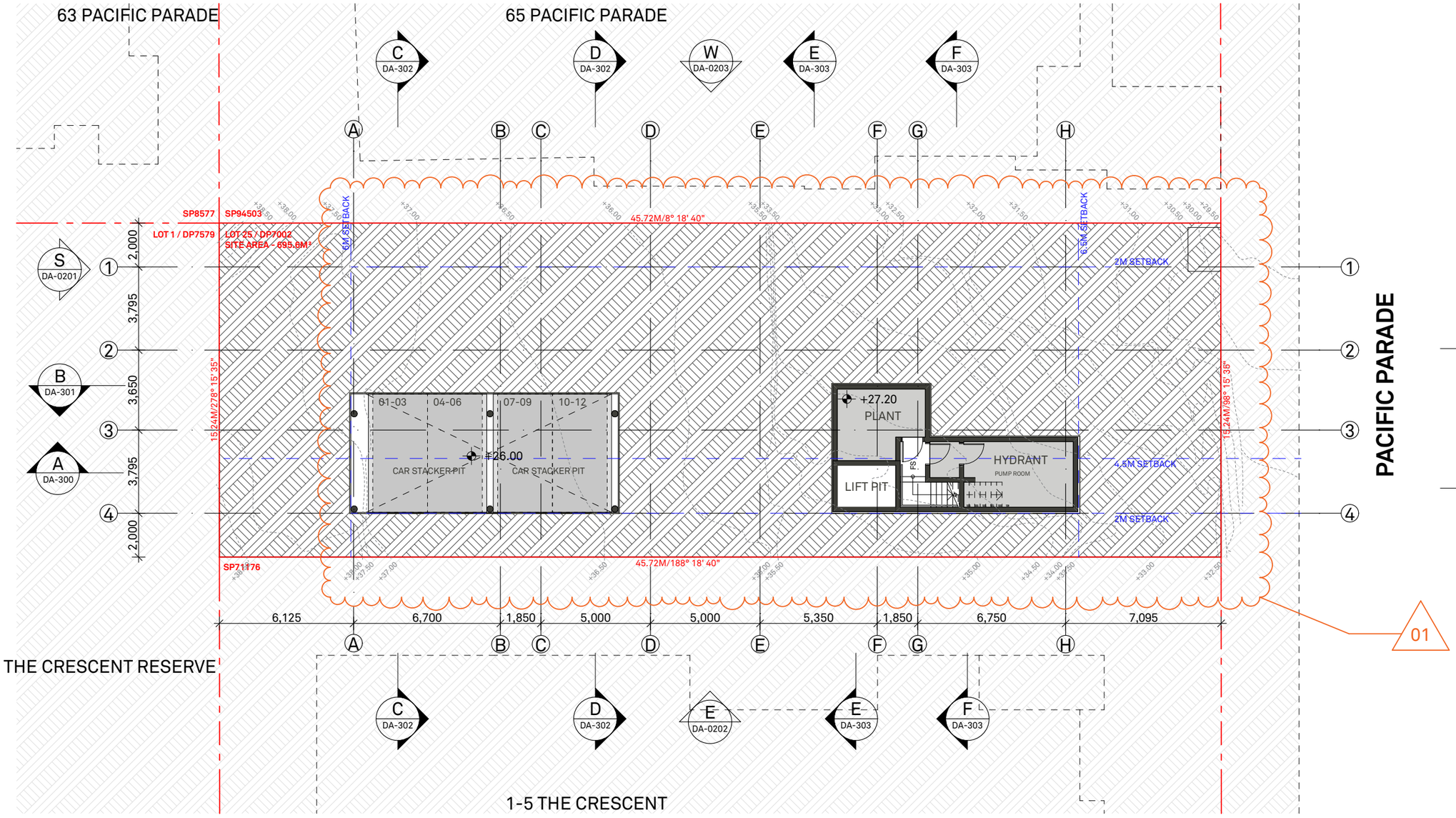
DRAWING TITLE
SITE CONTEXT PLANS

SCALE **@A3**
STATUS **DA**
PROJECT No **2004A**
APPROVED **GM**
DRAWN BY **DB**
DRAWING No **DA-0003**
NORTH
REV **02**

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. + 61 2 9818 0777
F. + 61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE



NORTHERN BEACHES COUNCIL

WARRINGAH LEP 2011

LAND ZONING	R3
MIN. LOT SIZE	NA
FSR	NA
HEIGHT OF BUILDING	11M (ZONE L)
LAND RESERVATION	NA
HERITAGE	NA
FLOOD	NA
ACID SULFATE	NA
KEY SITE	NA
BIODIVERSITY	NA
LANDSLIP RISK	AREA B

ROOM TABLE

	PROPOSED	
	Room	Com. Room
LOWER GROUND	-	-
UPPER GROUND	5	-
LEVEL 01	9	-
LEVEL 02	9	-
LEVEL 03	3	1
LEVEL 04	-	-
TOTAL	26	1

26 (INCLUDING 2 ACCESSIBLE & MANAGER ROOMS)

CAR PARK

PARKING RATE

ARHSEPP RATE APPLIED: BOARDING HOUSI

0.5 SPACE PER MICRO APPARTMENT DWELI

RESIDENTIAL: 25 ROOMS + 1 MANAGER

		REQUIRED	PROPOSED
	Residential	13	13
VEHICLE	Visitor	-	-
MOTORCYCLE		5	5
BICYCLE	Residential	5	6

TOTAL PARKING PROVIDED

13 (INCLUDING 1 ACCESSIBLE SPACE)

SUMMARY OF CHANGES

01 REMOVE VEHICULAR AND PEDESTRIAN ACCESS; RELOCATE 7x CARS, 5x MOTORCYCLE AND 5x BICYCLE SPACES; INSTALL CAR STACKERS ABOVE

REVISION

Rev	Date	Description
01	25/11/2020	DA ISSUE 01
02	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

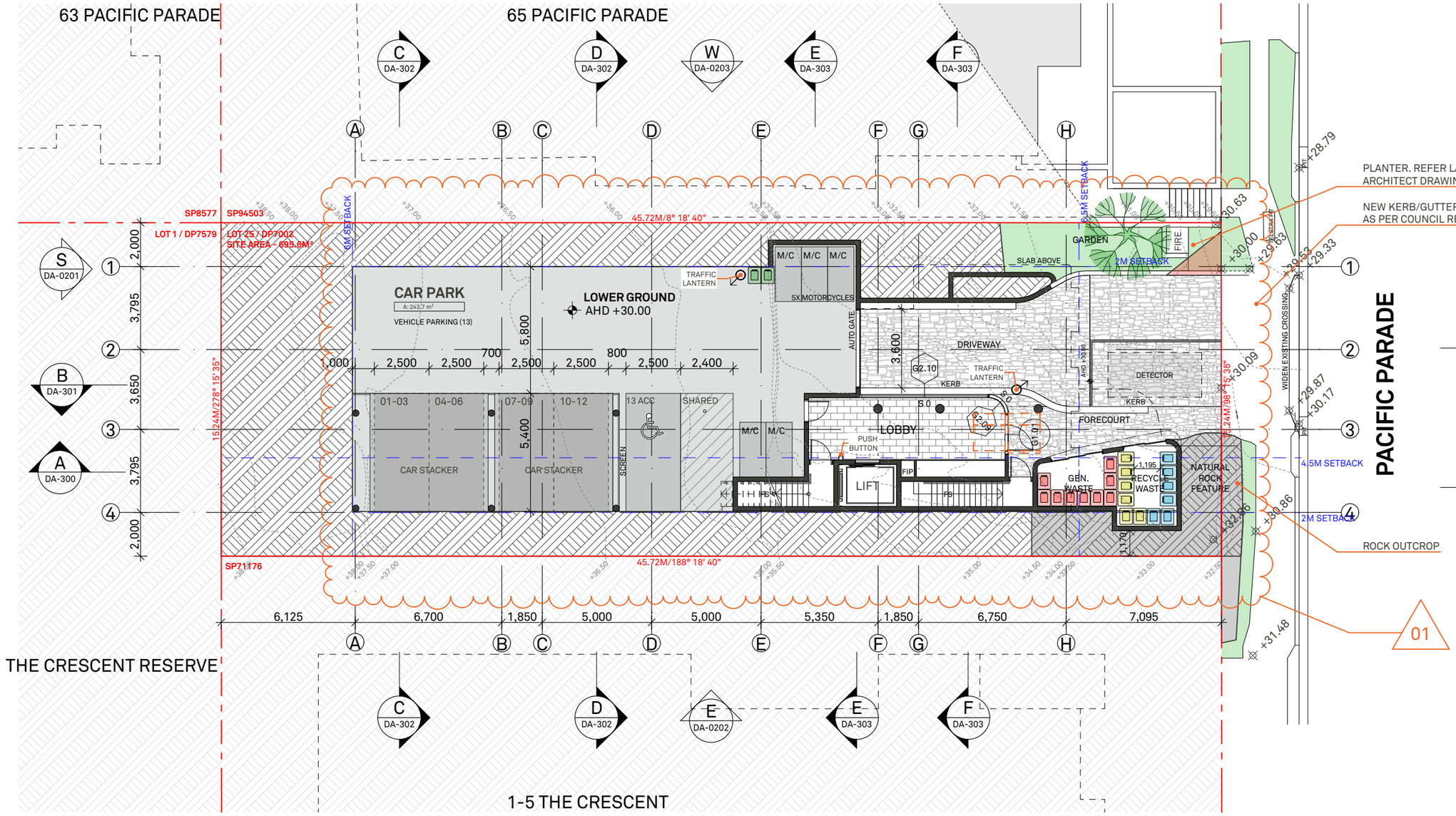
DRAWING TITLE
GENERAL ARRANGEMENT - BASEMENT PLAN

SCALE	APPROVED	NORTH
1:200@A3	GM	
STATUS	DRAWN BY	
DA	DB	
PROJECT No	DRAWING No	REV
2004A	DA-0100	02

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. + 61 2 9818 0777
F. + 61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE



NORTHERN BEACHES COUNCIL

WARRINGAH LEP 2011

LAND ZONING	R3
MIN. LOT SIZE	NA
FSR	NA
HEIGHT OF BUILDING	11M (ZONE L)
LAND RESERVATION	NA
HERITAGE	NA
FLOOD	NA
ACID SULFATE	NA
KEY SITE	NA
BIODIVERSITY	NA
LANDSLIP RISK	AREA B

ROOM TABLE

	PROPOSED	
	Room	Com. Room
LOWER GROUND	-	-
UPPER GROUND	5	-
LEVEL 01	9	-
LEVEL 02	9	-
LEVEL 03	3	1
LEVEL 04	-	-
TOTAL	26	1

26 (INCLUDING 2 ACCESSIBLE & MANAGER ROOMS)

CAR PARK

PARKING RATE

ARHSEPP RATE APPLIED: BOARDING HOUSI

0.5 SPACE PER MICRO APPARTMENT DWELI

RESIDENTIAL: 25 ROOMS + 1 MANAGER

		REQUIRED	PROPOSED
	Residential	13	13
VEHICLE	Visitor	-	-
MOTORCYCLE		5	5
BICYCLE	Residential	5	6

TOTAL PARKING PROVIDED
13 (INCLUDING 1 ACCESSIBLE SPACE)

WASTE MANAGEMENT

25 UNITS + 1 MANAGER

		REQUIRED (Northern Beaches DCP)*	PROVIDED
GENERAL WASTE	Red	9	9
RECYCLING	Yellow	6	7
	Blue	6	7
VEGETATION	Green	2	2
	TOTAL	23	25

* Northern Beaches Waste Management Guidelines (for development in the area of WLEP2011 and WLEP 2000) - Appendix A

COLLECTION:
GENERAL WASTE - 1 x weekly
RECYCLING (YELLOW) - 1 x weekly
RECYCLING (BLUE) - 1 x weekly

SUMMARY OF CHANGES

01 REMOVE VEHICULAR ACCESS TO BASEMENT; INSTALL CAR STACKING MECHANISM (12 CARS); INSTALL INTERNAL TRAFFIC LIGHT SYSTEM; PROVIDE 1x ACCESSIBLE CAR SPACE; 5x MOTOR-CYCLE SPACES; WIDEN VEHICULAR CROSSING; INCREASE LANDSCAPING AREA AND INCREASE SOIL DEPTH IN SOME AREAS; REMOVE GARBAGE STORE AND REPLACE WITH HOLDING AREA

REVISION

Rev	Date	Description
01	25/11/2020	DA ISSUE 01
02	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

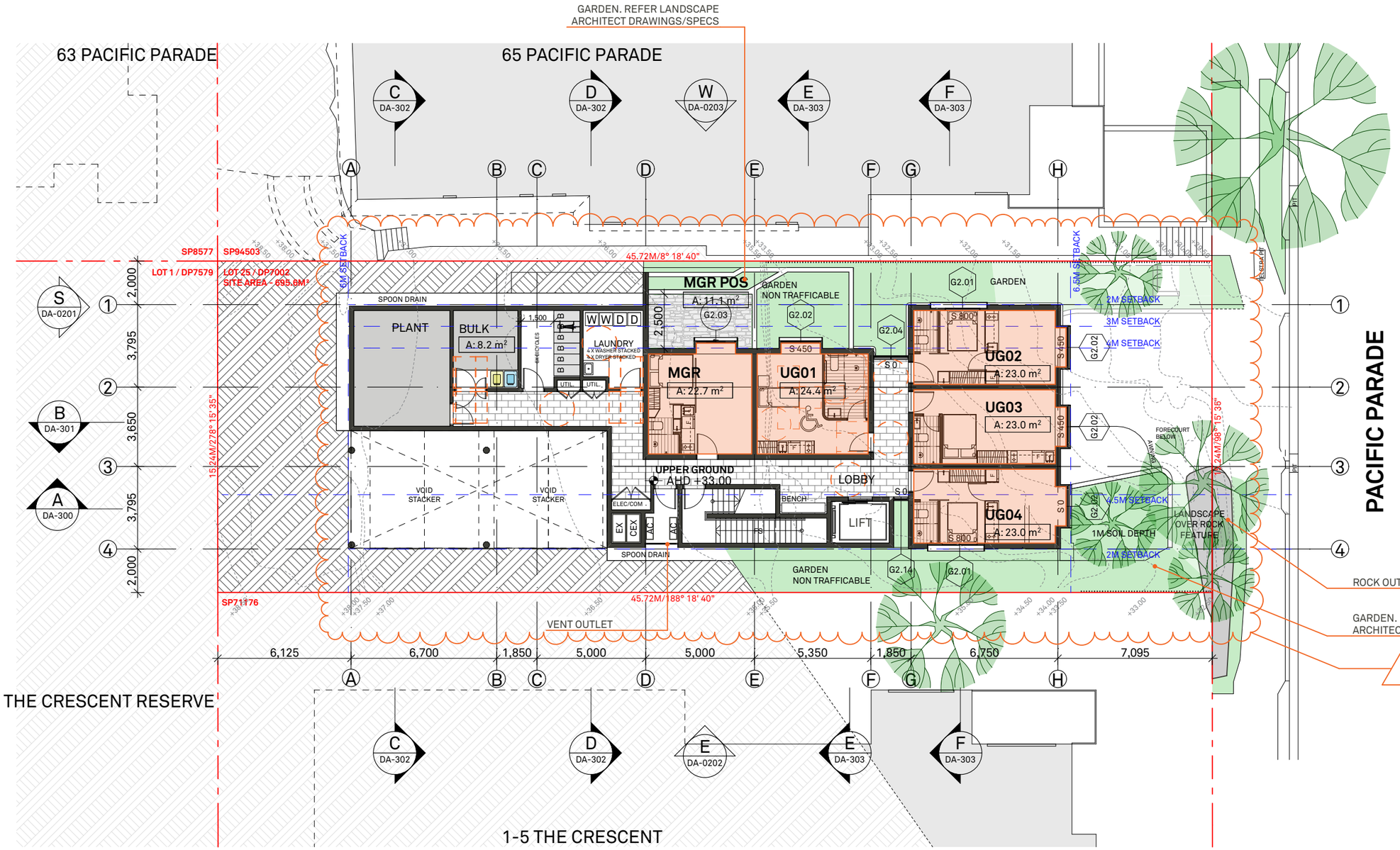
DRAWING TITLE
GENERAL ARRANGEMENT - LOWER GROUND PLAN

SCALE	APPROVED	NORTH
1:200@A3	GM	
STATUS	DRAWN BY	
DA	DB	
PROJECT No	DRAWING No	REV
2004A	DA-0101	02

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. +61 2 9818 0777
F. +61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE



NORTHERN BEACHES COUNCIL

WARRINGAH LEP 2011

LAND ZONING	R3
MIN. LOT SIZE	NA
FSR	NA
HEIGHT OF BUILDING	11M (ZONE L)
LAND RESERVATION	NA
HERITAGE	NA
FLOOD	NA
ACID SULFATE	NA
KEY SITE	NA
BIODIVERSITY	NA
LANDSLIP RISK	AREA B

ROOM TABLE

	PROPOSED	
	Room	Com. Room
LOWER GROUND	-	-
UPPER GROUND	5	-
LEVEL 01	9	-
LEVEL 02	9	-
LEVEL 03	3	1
LEVEL 04	-	-
TOTAL	26	1

26 (INCLUDING 2 ACCESSIBLE & MANAGER ROOMS)

SUMMARY OF CHANGES

01 INSTALL CAR STACKING MECHANISM BELOW (VOID); RELOCATE COMMON ROOM; REMOVE 1x ROOM; INSTALL 6x BICYCLE SPACES; RELOCATE LAUNDRY; INSTALL GARBAGE AND BULK STORE WITH ADDITIONAL RECYCLING BINS; REMOVE TRELLIS AND INCREASE AT-GRADE LANDSCAPING AND SOIL DEPTH IN SOME AREAS; RE-LABEL ROOM NAMES

REVISION

Rev	Date	Description
01	25/11/2020	DA ISSUE 01
02	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

DRAWING TITLE
GENERAL ARRANGEMENT - UPPER GROUND PLAN

SCALE **1:200@A3**
STATUS **DA**
PROJECT No **2004A**

APPROVED **GM**
DRAWN BY **DB**
DRAWING No **DA-0102**

NORTH

REV **02**

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. +61 2 9818 0777
F. +61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE

NORTHERN BEACHES COUNCIL

WARRINGAH LEP 2011

LAND ZONING	R3
MIN. LOT SIZE	NA
FSR	NA
HEIGHT OF BUILDING	11M (ZONE L)
LAND RESERVATION	NA
HERITAGE	NA
FLOOD	NA
ACID SULFATE	NA
KEY SITE	NA
BIODIVERSITY	NA
LANDSLIP RISK	AREA B

ROOM TABLE

	PROPOSED	
	Room	Com. Room
LOWER GROUND	-	-
UPPER GROUND	5	-
LEVEL 01	9	-
LEVEL 02	9	-
LEVEL 03	3	1
LEVEL 04	-	-
TOTAL	26	1

26 (INCLUDING 2 ACCESSIBLE & MANAGER ROOMS)

SUMMARY OF CHANGES

01 RELOCATE COMMON ROOM; INSTALL 3x ADDITIONAL ROOMS; REPLACE COMMUNAL OPEN SPACE WITH PRIVATE OPEN SPACE.

REVISION

Rev	Date	Description
01	25/11/2020	DA ISSUE 01
02	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

DRAWING TITLE
GENERAL ARRANGEMENT - LEVEL 1 PLAN

SCALE	APPROVED	NORTH
1:200@A3	GM	
STATUS	DRAWN BY	
DA	DB	
PROJECT No	DRAWING No	REV
2004A	DA-0103	02

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. +61 2 9818 0777
F. +61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE

NORTHERN BEACHES COUNCIL

WARRINGAH LEP 2011

LAND ZONING	R3
MIN. LOT SIZE	NA
FSR	NA
HEIGHT OF BUILDING	11M (ZONE L)
LAND RESERVATION	NA
HERITAGE	NA
FLOOD	NA
ACID SULFATE	NA
KEY SITE	NA
BIODIVERSITY	NA
LANDSLIP RISK	AREA B

ROOM TABLE

	PROPOSED	
	Room	Com. Room
LOWER GROUND	-	-
UPPER GROUND	5	-
LEVEL 01	9	-
LEVEL 02	9	-
LEVEL 03	3	1
LEVEL 04	-	-
TOTAL	26	1

26 (INCLUDING 2 ACCESSIBLE & MANAGER ROOMS)

SUMMARY OF CHANGES

01 SHOW PRIVATE OPEN SPACE BELOW; SHOW AMENDED LANDSCAPED AREAS BELOW.

REVISION

Rev	Date	Description
01	25/11/2020	DA ISSUE 01
02	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

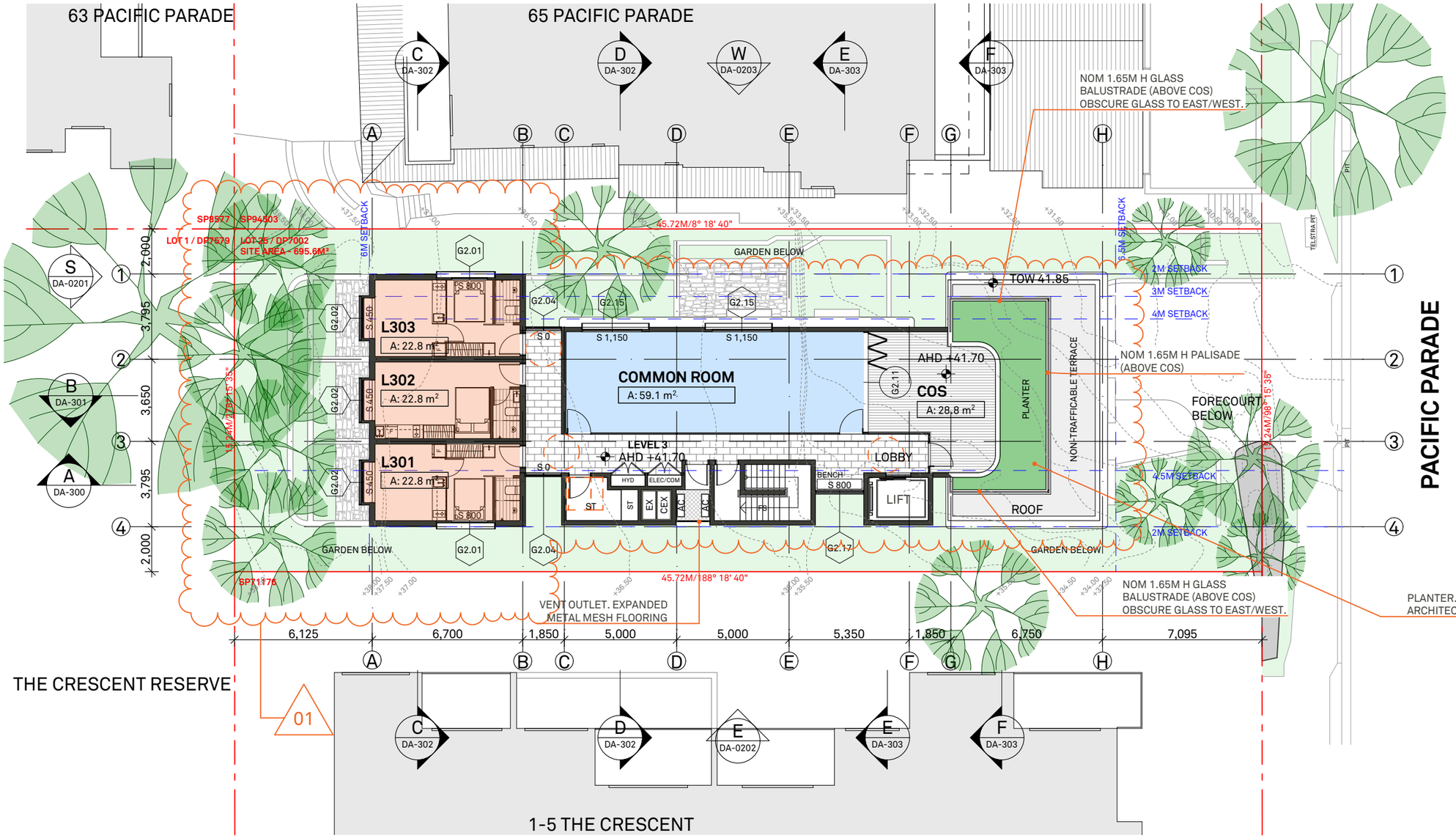
DRAWING TITLE
GENERAL ARRANGEMENT - LEVEL 2 PLAN

SCALE	APPROVED	NORTH
1:200@A3	GM	
STATUS	DRAWN BY	
DA	DB	
PROJECT No	DRAWING No	REV
2004A	DA-0104	02

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. +61 2 9818 0777
F. +61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE



NORTHERN BEACHES COUNCIL

WARRINGAH LEP 2011

LAND ZONING	R3
MIN. LOT SIZE	NA
FSR	NA
HEIGHT OF BUILDING	11M (ZONE L)
LAND RESERVATION	NA
HERITAGE	NA
FLOOD	NA
ACID SULFATE	NA
KEY SITE	NA
BIODIVERSITY	NA
LANDSLIP RISK	AREA B

ROOM TABLE

	PROPOSED	
	Room	Com. Room
LOWER GROUND	-	-
UPPER GROUND	5	-
LEVEL 01	9	-
LEVEL 02	9	-
LEVEL 03	3	1
LEVEL 04	-	-
TOTAL	26	1

26 (INCLUDING 2 ACCESSIBLE & MANAGER ROOMS)

SUMMARY OF CHANGES

01 CONVERT ROOMS L301-303 FROM TYPE E TO TYPE B (REMOVE LOFT BEDROOMS ABOVE); REMOVE 2x ROOMS; REPLACE WITH LARGER COMMON ROOM; REDUCE AREA OF COMMUNAL OPEN SPACE; PROVIDE PRIVACY SCREENS TO COS

REVISION

Rev	Date	Description
01	25/11/2020	DA ISSUE 01
02	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

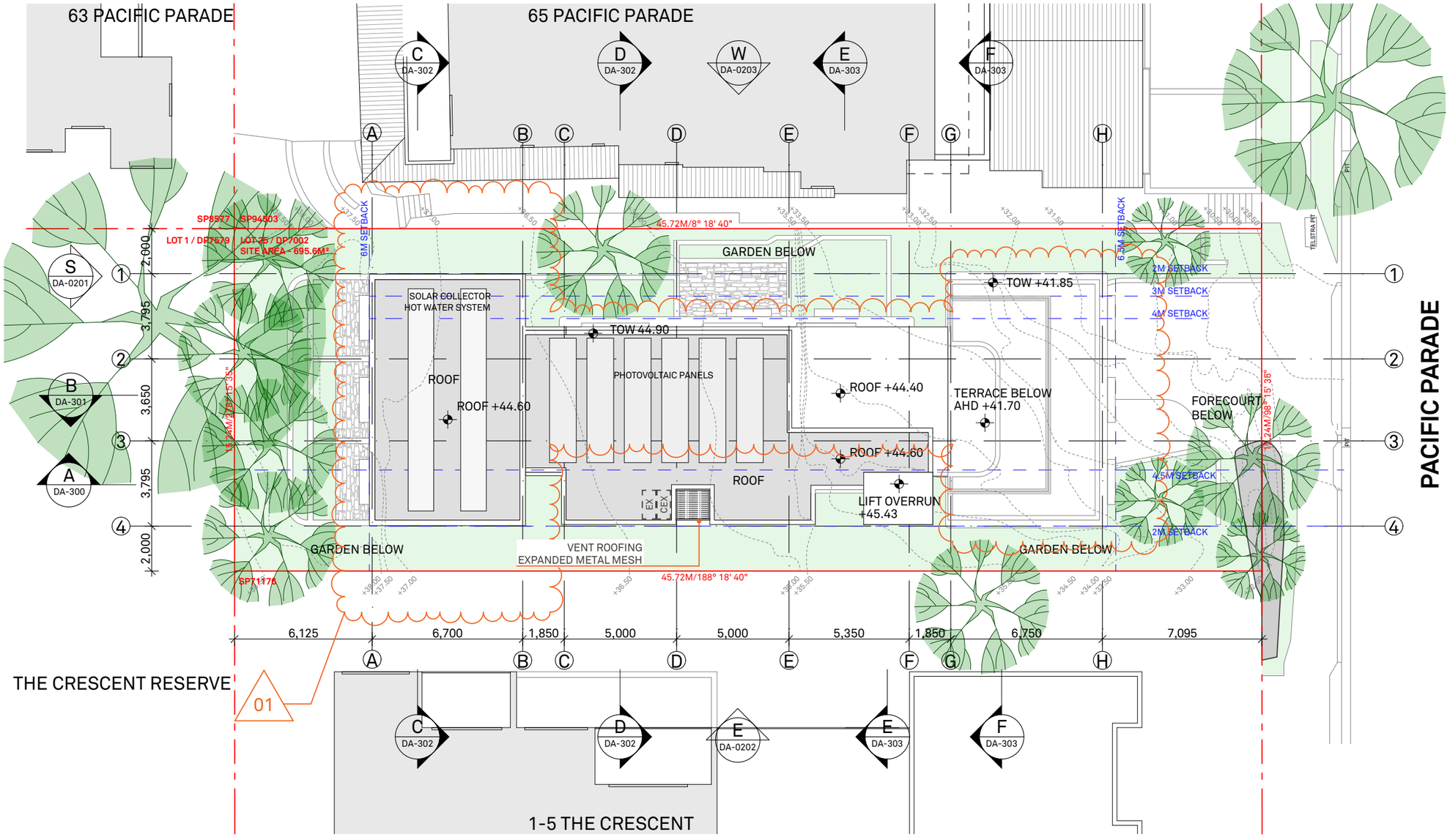
DRAWING TITLE
GENERAL ARRANGEMENT - LEVEL 3 PLAN

SCALE	APPROVED	NORTH
1:200@A3	GM	
STATUS	DRAWN BY	
DA	DB	
PROJECT No	DRAWING No	REV
2004A	DA-0105	02

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. +61 2 9818 0777
F. +61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE



NORTHERN BEACHES COUNCIL

WARRINGAH LEP 2011

LAND ZONING	R3
MIN. LOT SIZE	NA
FSR	NA
HEIGHT OF BUILDING	11M (ZONE L)
LAND RESERVATION	NA
HERITAGE	NA
FLOOD	NA
ACID SULFATE	NA
KEY SITE	NA
BIODIVERSITY	NA
LANDSLIP RISK	AREA B

ROOM TABLE

	PROPOSED	
	Room	Com. Room
LOWER GROUND	-	-
UPPER GROUND	5	-
LEVEL 01	9	-
LEVEL 02	9	-
LEVEL 03	3	1
LEVEL 04	-	-
TOTAL	26	1

26 (INCLUDING 2 ACCESSIBLE & MANAGER ROOMS)

SUMMARY OF CHANGES

01 CONVERT ROOMS L301-303 FROM TYPE E TO TYPE B (REMOVE LOFT BEDROOMS); REDUCE OVERALL BUILDING HEIGHT; RELOCATE PV'S TO LOWER ROOF (SOUTHERN END)

REVISION

Rev	Date	Description
01	25/11/2020	DA ISSUE 01
02	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

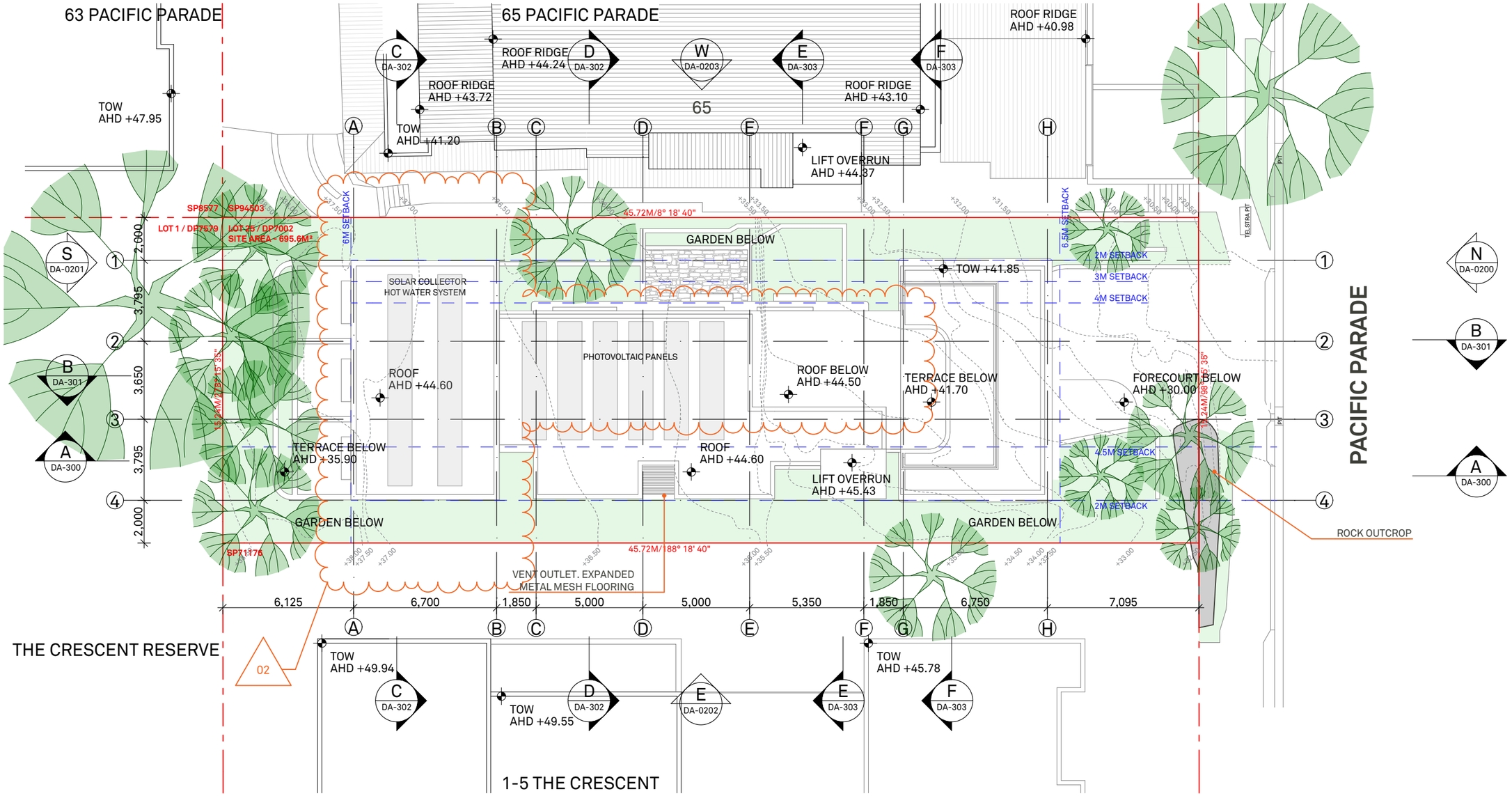
DRAWING TITLE
GENERAL ARRANGEMENT - ROOF PLAN

SCALE	APPROVED	NORTH
1:200@A3	GM	
STATUS	DRAWN BY	
DA	DB	
PROJECT No	DRAWING No	REV
2004A	DA-0106	02

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. + 61 2 9818 0777
F. + 61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE



NORTHERN BEACHES COUNCIL

WARRINGAH LEP 2011

LAND ZONING	R3
MIN. LOT SIZE	NA
FSR	NA
HEIGHT OF BUILDING	11M (ZONE L)
LAND RESERVATION	NA
HERITAGE	NA
FLOOD	NA
ACID SULFATE	NA
KEY SITE	NA
BIODIVERSITY	NA
LANDSLIP RISK	AREA B

REVISION

Rev	Date	Description
01	25/11/2020	DA ISSUE 01
02	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

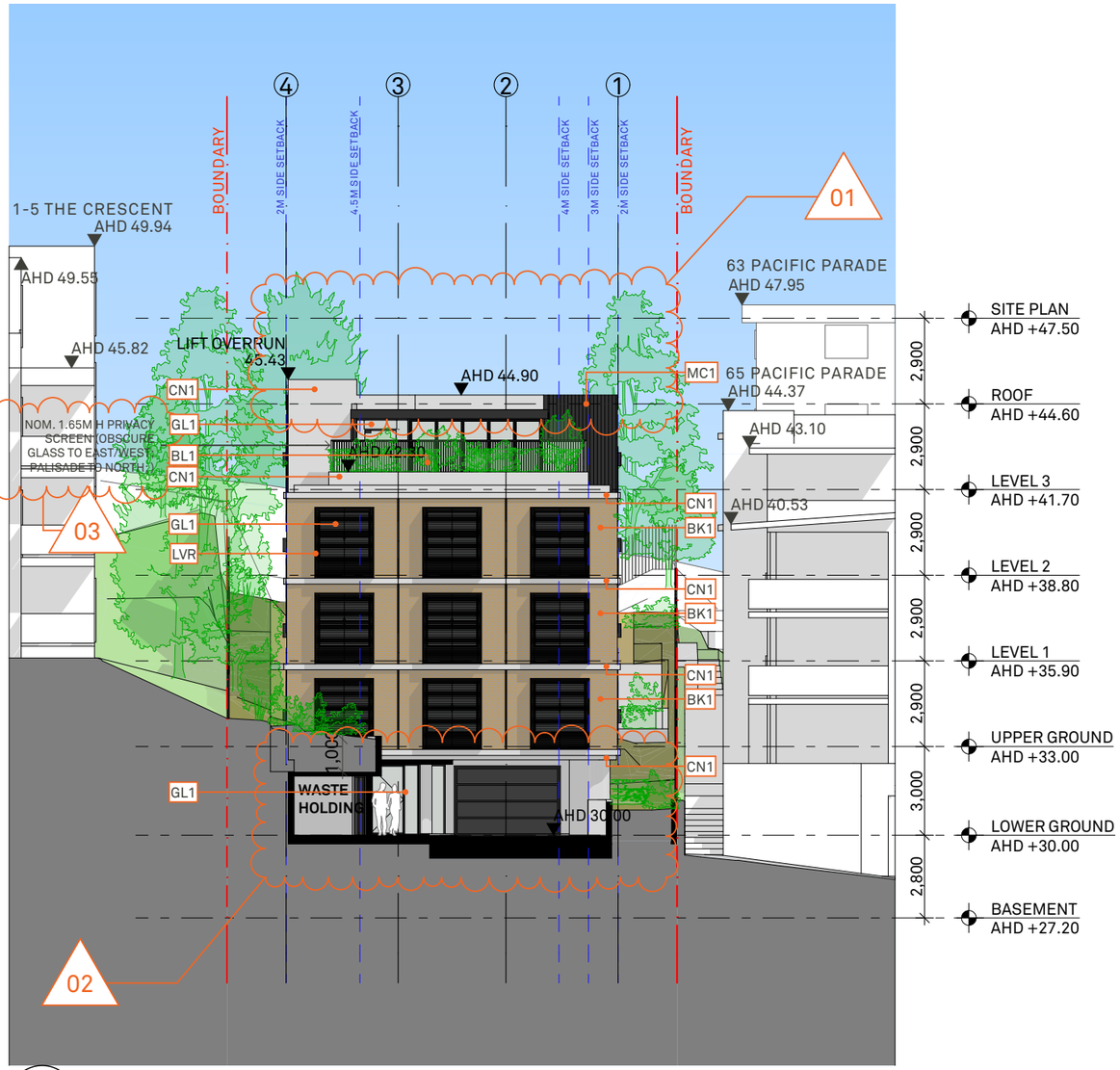
DRAWING TITLE
GENERAL ARRANGEMENT - SITE PLAN

SCALE	APPROVED	NORTH
1:200@A3	GM	
STATUS	DRAWN BY	
DA	DB	
PROJECT No	DRAWING No	REV
2004A	DA-0107	02

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. +61 2 9818 0777
F. +61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE



1 NORTH ELEVATION
1:200

2 3D VIEW - NORTH ELEVATION

FINISHES LEGEND:

CN1 - OFF FORM CONCRETE NATURAL LIGHT COLOUR
BK1 - BRICK VENEER - LIGHT BEIGE COLOUR
MC1 - ANODISED ALUMINIUM CLADDING - DARK COLOUR
LVR - ANODISED ALUMINIUM BLINDS - DARK COLOUR
STN - STONE CLADDING SAND STONE
GL1 - POWDERCOATED ALUM. FRAME & CLEAR GLAZING
GL2 - POWDERCOATED ALUM. FRAME & OBSCURE GLAZING
BL1 - BALUSTRADE: OBSCURE GLASS TO EAST/WEST; PALISADE TO NORTH

SUMMARY OF CHANGES

01 DELETE LOFT BEDROOMS; REPLACE TYPE E ROOM WITH TYPE B

02 REPLACE GARBAGE STORE WITH HOLDING AREA; WIDEN DRIVEWAY; REDUCE GARAGE DOOR WIDTH; INCREASE LANDSCAPED AREA AT THE NW BOUNDARY; INCREASE SOIL DEPTH ABOVE WASTE ROOMS.

03 PRIVACY SCREEN TO COMMUNAL OPEN SPACE

REVISION

Rev	Date	Description
01	25/11/2020	DA ISSUE 01
02	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

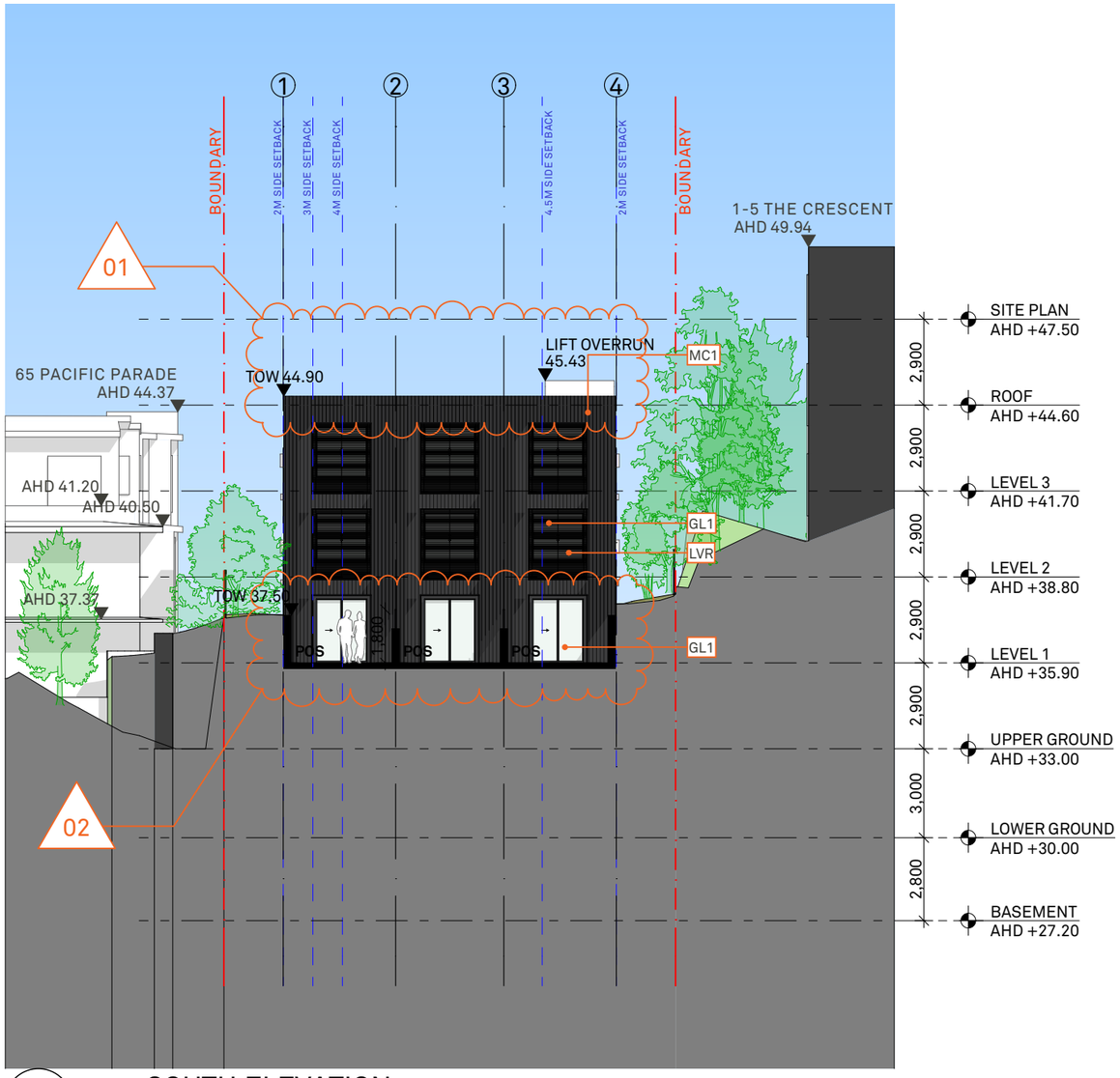
DRAWING TITLE
ELEVATIONS - NORTH ELEVATION

SCALE	APPROVED	NORTH
1:200@A3	GM	
STATUS	DRAWN BY	
DA	DB	
PROJECT No	DRAWING No	REV
2004A	DA-0200	02

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. +61 2 9818 0777
F. +61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE



1 SOUTH ELEVATION
1:200

2 3D VIEW - SOUTH ELEVATION

FINISHES LEGEND:

CN1 - OFF FORM CONCRETE NATURAL LIGHT COLOUR
BK1 - BRICK VENEER - LIGHT BEIGE COLOUR
MC1 - ANODISED ALUMINIUM CLADDING - DARK COLOUR
LVR - ANODISED ALUMINIUM BLINDS - DARK COLOUR
STN - STONE CLADDING SAND STONE
GL1 - POWDERCOATED ALUM. FRAME & CLEAR GLAZING
GL2 - POWDERCOATED ALUM. FRAME & OBSCURE GLAZING
BL1 - BALUSTRADE: OBSCURE GLASS TO EAST/WEST; PALISADE TO NORTH

SUMMARY OF CHANGES

01 DELETE LOFT BEDROOMS; REPLACE TYPE E ROOM WITH TYPE B

02 REPLACE COMMON ROOM AND COMMUNAL OPEN SPACE WITH 3x ROOMS AND PRIVATE OPEN SPACE

REVISION

Rev	Date	Description
01	25/11/2020	DA ISSUE 01
02	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

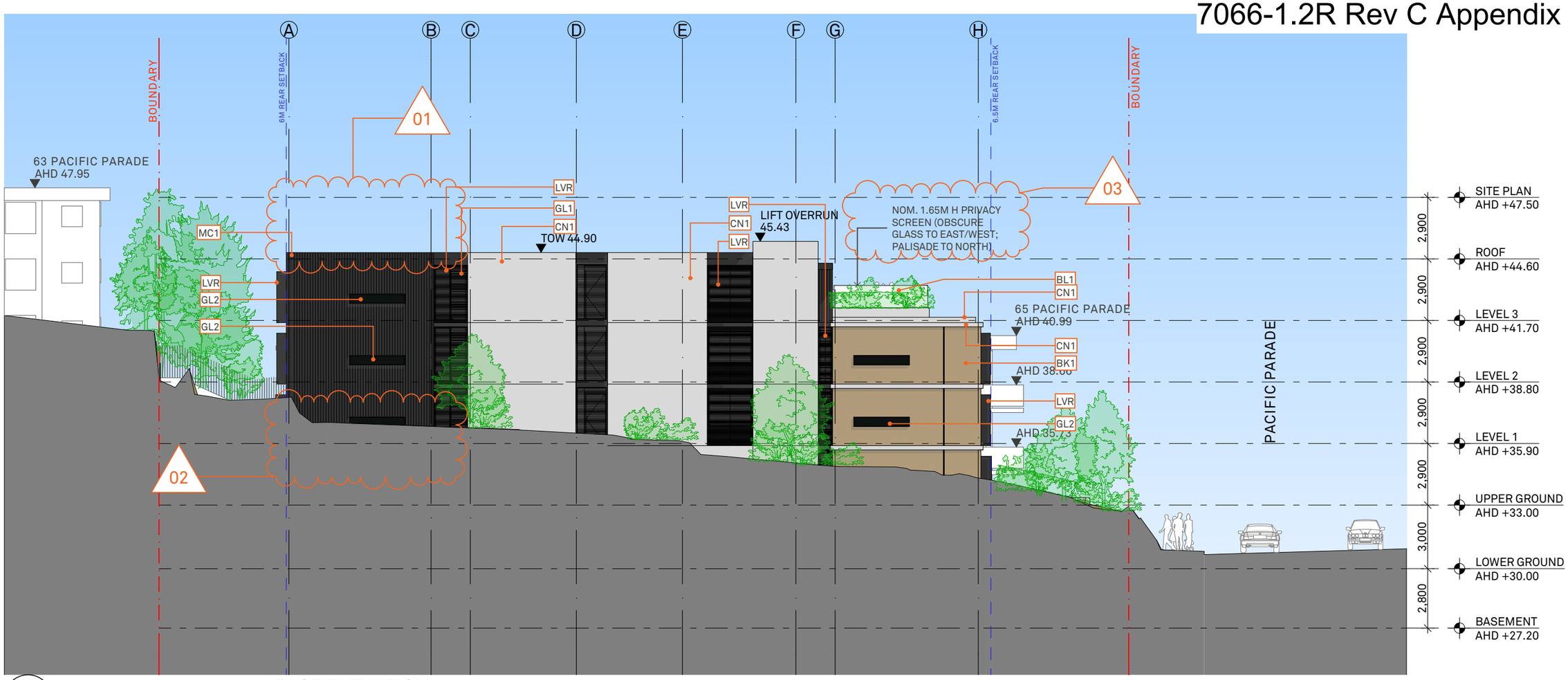
DRAWING TITLE
ELEVATIONS - SOUTH ELEVATION

SCALE	APPROVED	NORTH
1:200@A3	**GM**	
STATUS	DRAWN BY	
DA	**DB**	
PROJECT No	DRAWING No	REV
2004A	**DA-0201**	**02**

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. + 61 2 9818 0777
F. + 61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE



1 EAST ELEVATION
1:200

2 3D VIEW - EAST ELEVATION

SUMMARY OF CHANGES

01 DELETE LOFT BEDROOMS; REPLACE TYPE E ROOM WITH TYPE B

02 REPLACE COMMON ROOM AND COMMUNAL OPEN SPACE WITH 3x ROOMS AND PRIVATE OPEN SPACE

03 REDUCE AREA OF COMMUNAL OPEN SPACE; PRIVACY SCREEN TO COMMUNAL OPEN SPACE

FINISHES LEGEND:

CN1 - OFF FORM CONCRETE NATURAL LIGHT COLOUR
BK1 - BRICK VENEER - LIGHT BEIGE COLOUR
MC1 - ANODISED ALUMINIUM CLADDING - DARK COLOUR
LVR - ANODISED ALUMINIUM BLINDS - DARK COLOUR
STN - STONE CLADDING SAND STONE
GL1 - POWDERCOATED ALUM. FRAME & CLEAR GLAZING
GL2 - POWDERCOATED ALUM. FRAME & OBSCURE GLAZING
BL1 - BALUSTRADE: OBSCURE GLASS TO EAST/WEST; PALISADE TO NORTH

REVISION

Rev	Date	Description
01	25/11/2020	DA ISSUE 01
02	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

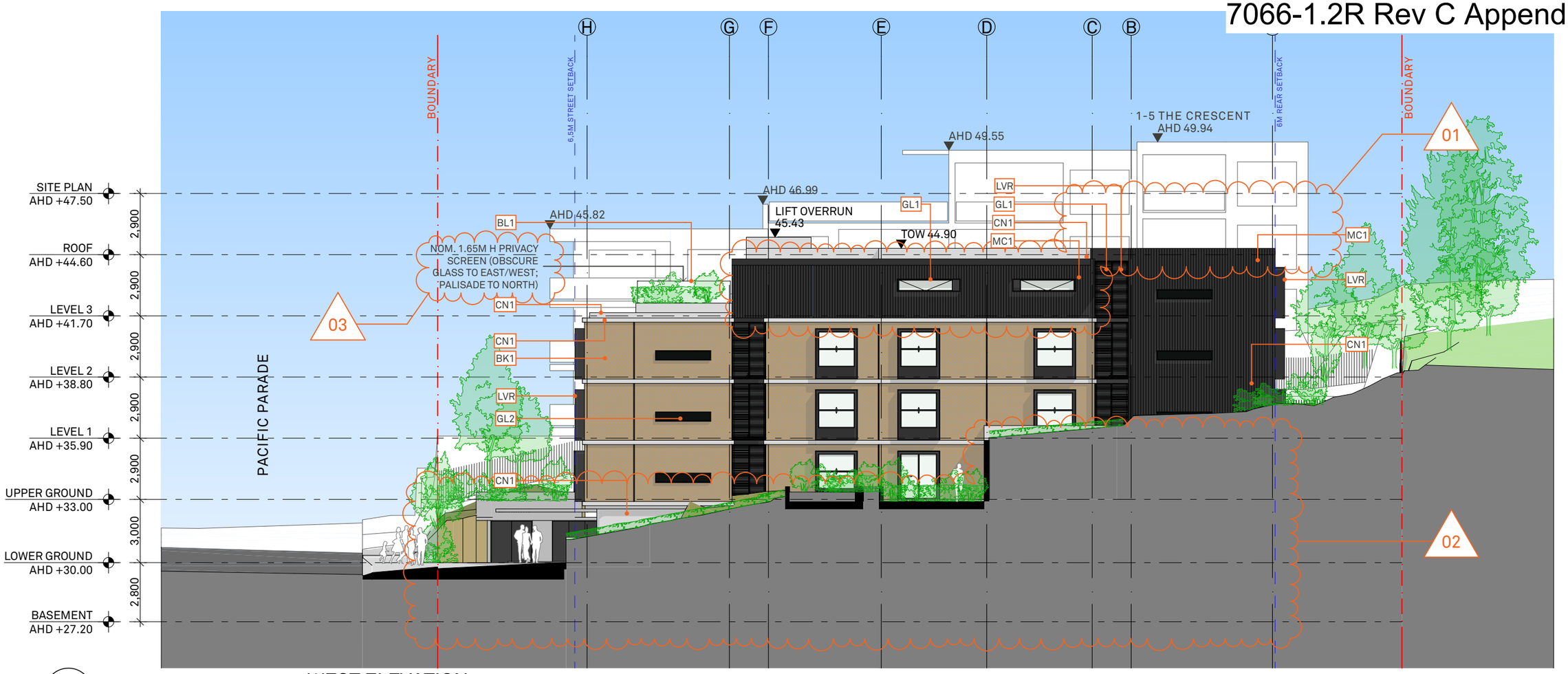
DRAWING TITLE
ELEVATION - EAST ELEVATION

SCALE	APPROVED	NORTH
1:200@A3	GM	
STATUS	DRAWN BY	
DA	DB	
PROJECT No	DRAWING No	REV
2004A	DA-0202	02

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. + 61 2 9818 0777
F. + 61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE



1 WEST ELEVATION
1:200

2 3D VIEW - WEST ELEVATION

SUMMARY OF CHANGES

01 DELETE LOFT BEDROOMS; REPLACE TYPE E ROOM WITH TYPE B; REMOVE 2x ROOMS IN FAVOUR OF ENLARGED COMMON ROOM AND COMMUNAL OPEN SPACE

02 REMOVE BASEMENT FLOOR, LOWER LEVEL COMMON ROOM (LWR GRD); INSTALL CAR STACKERS

03 REDUCE AREA OF COMMUNAL OPEN SPACE; PRIVACY SCREEN TO COMMUNAL OPEN SPACE

FINISHES LEGEND:

CN1 - OFF FORM CONCRETE NATURAL LIGHT COLOUR
BK1 - BRICK VENEER - LIGHT BEIGE COLOUR
MC1 - ANODISED ALUMINIUM CLADDING - DARK COLOUR
LVR - ANODISED ALUMINIUM BLINDS - DARK COLOUR
STN - STONE CLADDING SAND STONE
GL1 - POWDERCOATED ALUM. FRAME & CLEAR GLAZING
GL2 - POWDERCOATED ALUM. FRAME & OBSCURE GLAZING
BL1 - BALUSTRADE: OBSCURE GLASS TO EAST/WEST; PALISADE TO NORTH

REVISION

Rev	Date	Description
01	25/11/2020	DA ISSUE 01
02	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

DRAWING TITLE
ELEVATION - WEST
ELEVATION

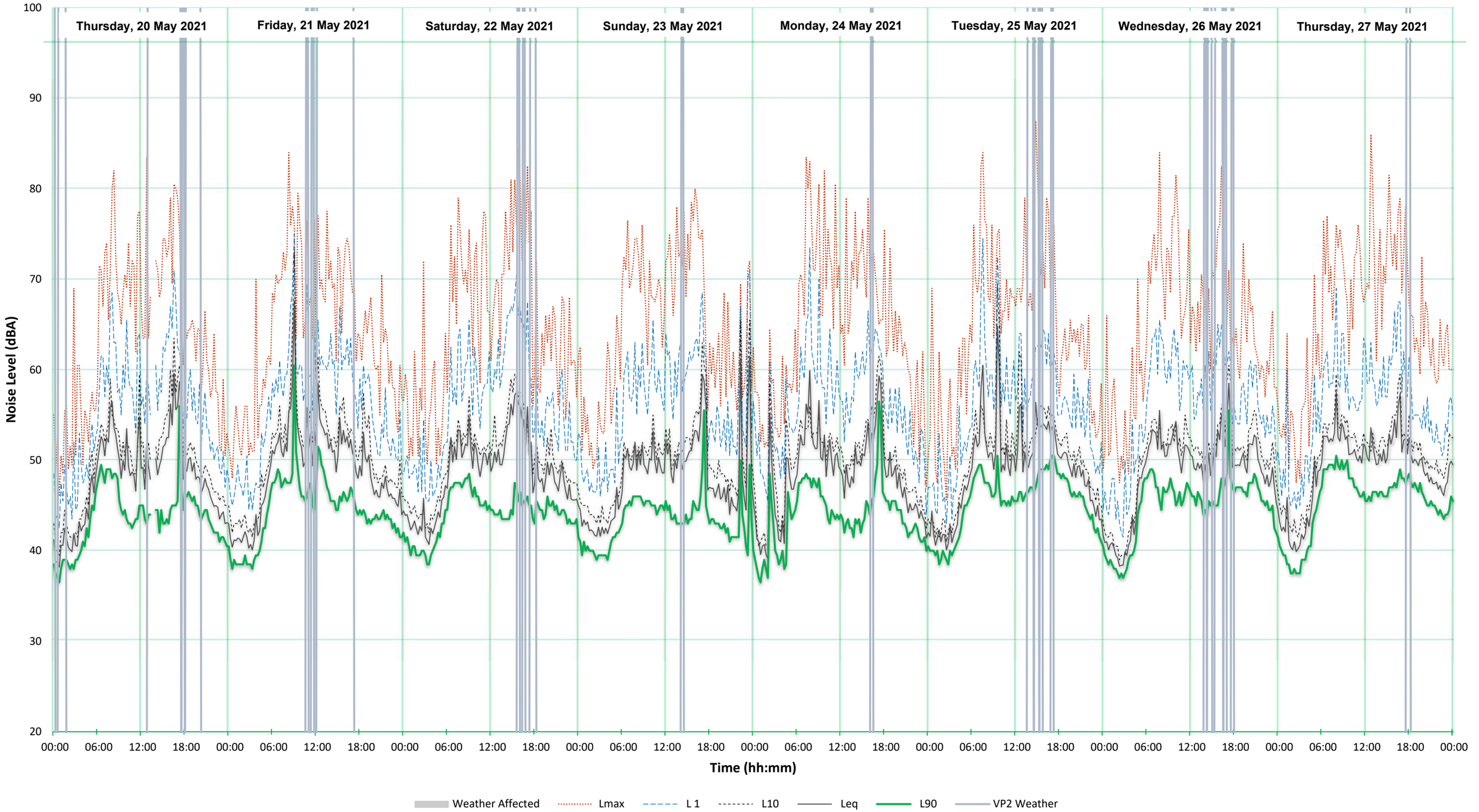
SCALE	APPROVED	NORTH
1:200@A3	GM	
STATUS	DRAWN BY	
DA	DB	
PROJECT No	DRAWING No	REV
2004A	DA-0203	02

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

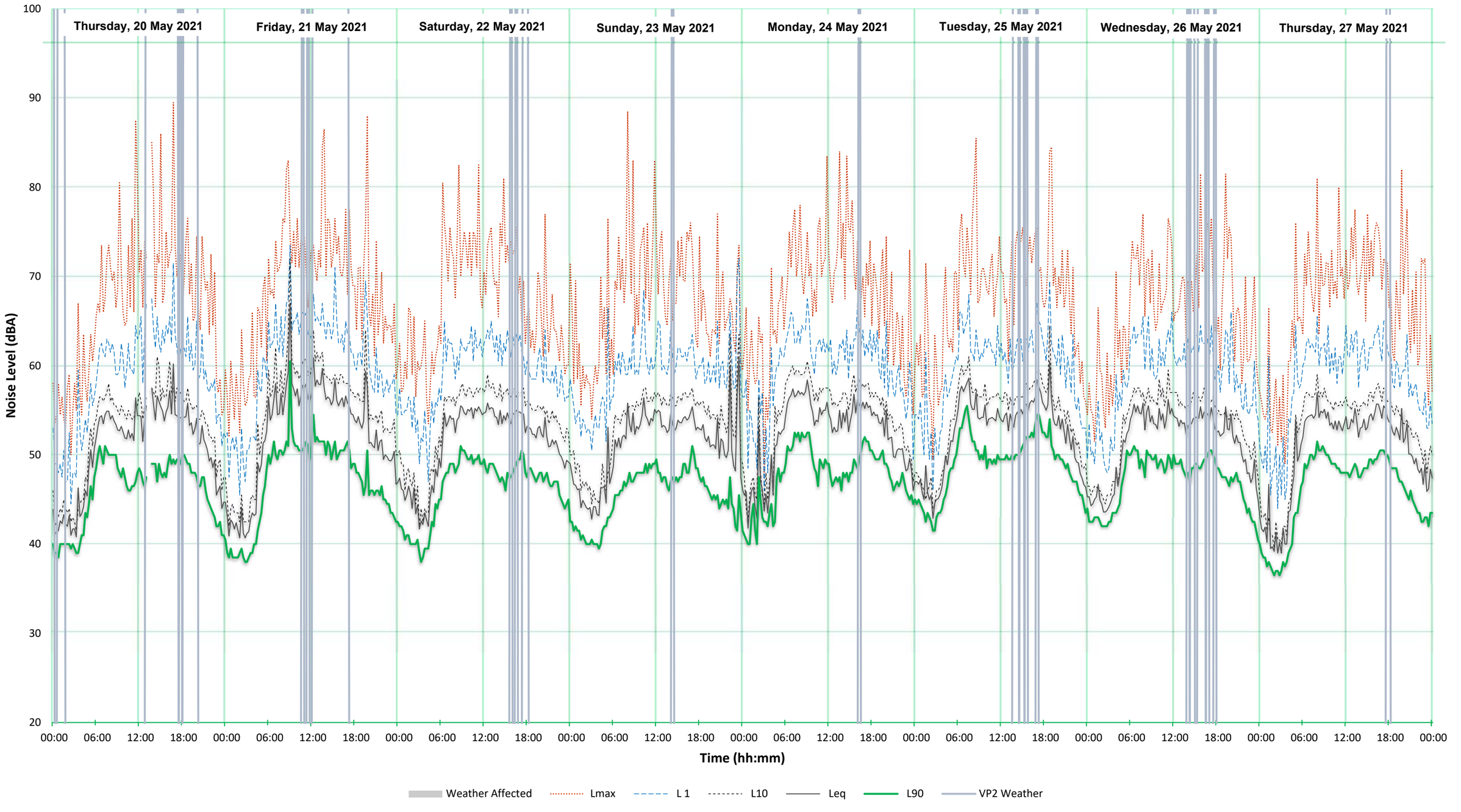
P. + 61 2 9818 0777
F. + 61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON McCORMACK ARCHITECTURE

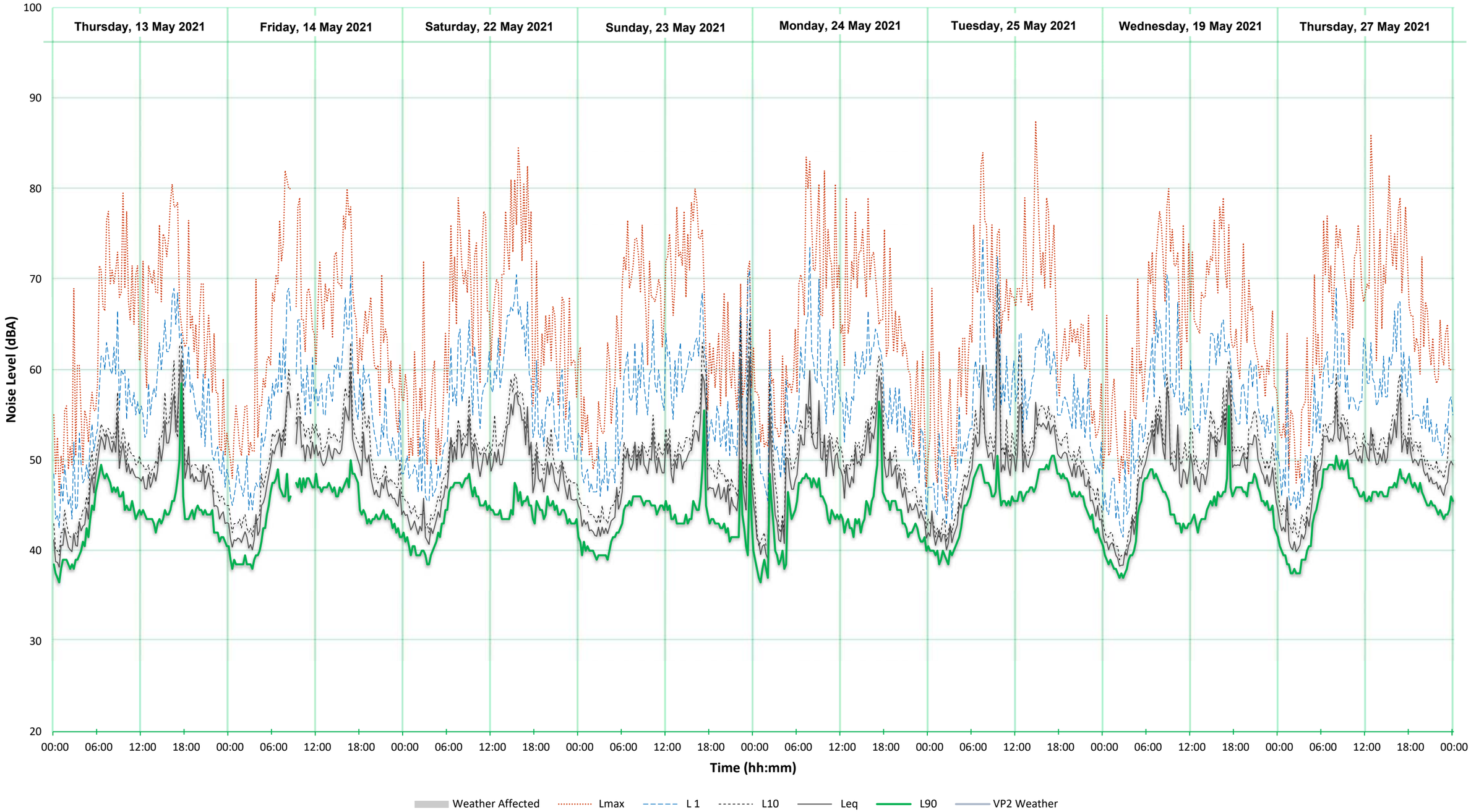
Located at Rear Balcony, Unit 9, 65 Pacific Parade, Dee Why, NSW



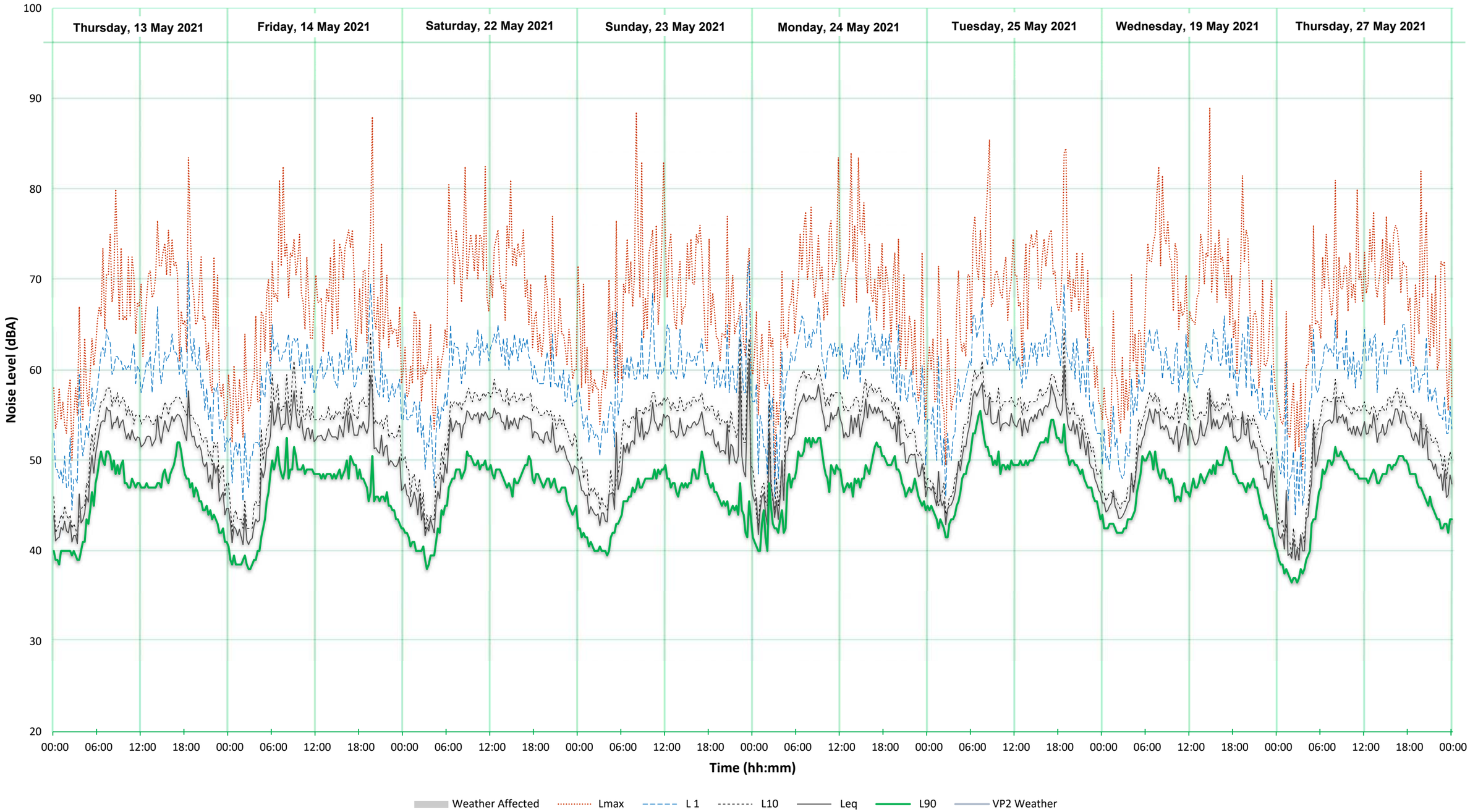
Located at Front Balcony, Unit 9, 65 Pacific Parade, Dee Why, NSW



Located at Rear Balcony, Unit 9, 65 Pacific Parade, Dee Why, NSW



Located at Front Balcony, Unit 9, 65 Pacific Parade, Dee Why, NSW



SixC

Plan of Management
Incorporating the Boarding House Rules
For
26 Room (Including on Site Manager Room) Boarding House
at
67 Pacific Parade Dee Why

JUNE 2021

Plan of Management

1. Objectives

The primary objective of this Plan of Management is to ensure the amenity of neighbours and residents is maintained. The Plan of Management incorporates and is to be accompanied by the “Rules of the Boarding House”. Matters taken into account include:

Provision of active and accountable management of the property with a ready contact and a procedure to receive and resolve complaints.

The need to minimize disturbance to neighbours.

The need to discourage and minimise arrival after 10pm and departure before 6am.

The need to maintain external and internal appearance of the property.

Enforceability of the Plan of Management and provision to modify it in order to facilitate timely operational changes as needed.

The Plan of Management and Rules of the Boarding House are to be consistent and compatible with each other and with the conditions of consent.

2. Primary Person Responsible

The owner of the property is responsible for ensuring that this Plan of Management is properly implemented at all times. This is to be done by the appointed on-site Manager (The Manager).

The Manager is to reside on the property.

The Manager is to ensure all residents are given a copy of the ‘Boarding House Rules’ at the time of signing the rental agreement. The rules are to include guidelines for the conduct of residents to minimize inappropriate behaviour that might reduce the amenity of other residents and neighbours.

All residents are to sign a rental agreement for not less than 90 days on the explicit understanding that accommodation is not to be provided on a temporary basis to persons for recreational pursuits.

All residents, at the time of signing the rental agreement are also to sign an agreement to abide by the “Rules of the Boarding House”.

The Manager is to ensure that the ‘Rules of the Boarding House’ are displayed in the entrance and the common room of the Boarding House.

3. Manager

The Owner will appoint a boarding house manager to manage the property. (The Manager)

The “Rules of the Boarding House” are to be enforced by the Manager. The Manager is to also ensure compliance with the conditions of the development consent. The Manager is to give any person who fails to comply with any of the “Rules of the Boarding House” one

warning. After which, if they continue to breach any of the rules of the Boarding House, they will be reported to the Real Estate Managing Agent with instructions to remove the person. If that person fails or refuses to leave the boarding house the Manager is to contact the police immediately. The Owner (if requested to do so) is to assist the Real Estate Managing Agent to the extent necessary to give effect to this provision. The Real Estate Managing Agent will undertake all evictions.

The Manager is to keep a register of persons evicted from the Boarding House and ensure that those people are prevented from entering the Boarding House in the future.

The Manager is to maintain a sign in the entrance of the Boarding House asking residents and visitors to be mindful of the amenity of neighbours and other residents when entering and or leaving the premises, particularly after 10pm at night and be-fore 7am in the morning.

The Manager shall take all reasonable steps to ensure that residents of the Boarding House do not adversely affect the amenity of other residents and/ or neighbours of the Boarding House. The Real Estate Managing Agent is to evict residents who un-reasonably and adversely affect the amenity of other residents and or neighbours of the Boarding House.

The Manager shall inspect the premises, on a daily basis, to ensure compliance with all provisions of this Plan of Management and any applicable conditions of the development consent.

The Manager shall be responsible for having the Boarding House professionally cleaned and that the grounds are satisfactorily maintained, and in particular ensure that planting and landscaping is maintained in accordance with the landscape plan approved in the development consent.

The Manager shall be available 24 hours a day by phone.

4. Register of Residents

The Manager shall keep a ‘Register of Residents’, which is to include the resident’s name, contact phone numbers, previous address and license/ photo ID details if any and the room occupied.

There is to be a maximum of 52 residents at any one time including the occupants of the Manager’s unit. There are 26 double rooms provided (including the on-site mangers room).

Inspections may be undertaken by Council from time to time to ensure this is the case.

The Manager shall maintain a computer record of all residents with details of their name, date commenced and duration of occupancy.

5. Safety

The Manager and where necessary the Owner are to ensure all safety requirements of the Boarding House are met at all times, including:

Emergency access routes are kept clear.

Smoke detectors/alarms are kept in good working order.

Any item deemed to be a fire hazard is removed from the premises without delay.

Generally maintain the whole property in a fire safe manner.

Vehicular Safety Provisions

The Manager will provide to residents as part of the orientation to the property operating instructions for the remote keyless entry for vehicle access to the garage. A traffic signal system utilising red / green traffic lanterns within the parking area will indicate clearance for vehicles exiting the garage in the event a vehicle is entering the garage simultaneously to ensure safe passage and clear entry onto the property off of the street. The Manager shall be responsible for ensuring the proper functioning of the equipment and for regularly scheduled maintenance to occur per manufacturers recommendations for the traffic signal system. Signage to be placed in the vicinity of the traffic signal system alerting residents to contact the Manager in the event of malfunction. Records of maintenance to the traffic signal system will be maintained by the Manager.

Garage level car stacker

Safe use of the mechanical stacker parking system (MSPS) is to be reviewed with all residents as part of the orientation to the property provided by The Manager. The MSPS controls will be mounted on the inside wall of the garage in an accessible location. Signage to be placed in the vicinity of the traffic signal system alerting residents to contact the Manager (with phone number) in the event of malfunction. The Manager shall be responsible for ensuring the proper functioning of the MSPS and for regular scheduled maintenance to occur per the manufacturer's recommendations. The Manager will have an Emergency 24/7/365 maintenance contract in place to ensure the system is attended to immediately in the event system is not functioning to specification. Records of maintenance to the MSPS will be maintained by the Manager.

6. Cleaning

The Manager is to arrange for the premises to be cleaned professionally on a regular basis.

The Manager is to ensure that the grounds and landscaping is maintained.

Residents are to ensure the grounds are kept in a reasonably clean and tidy manner at all times.

Garbage and recycling bins are to be contained within the dedicated storage rooms situated within the north-eastern corner of the lower ground level. The Manager is responsible for the emptying of all receptacles located throughout the boarding house to the Council garbage and recycling bins in advance of the scheduled Council rubbish collection. The Manager is responsible for ensuring that the Council collection area is clear of any rubbish(outside of the bins) and is accessible at all times.

7. Pets

No Pets are allowed.

8. Public Complaints Resolution Procedure

The Manager to maintain a register of public complaints.

This register is to contain a form for each registered complaint. This form is to be filled in by the Manager and/ or the complainant and must record the name, phone number and address of each person making a complaint, the time and date the complaint is lodged and details of the complaint including nature of the complaint, time and duration. Only complaints where all the above information is given are to be lodged in the register.

The Manager and or the Owner is to respond to a complaint, written or oral (provided a phone number has been given) within 24 hours.

The Manager is to use his best endeavours to arrange a meeting with complainants and the Owner every 3 months. The Manager is to take minutes. These are to be kept in a 'Public Complaints Resolution Procedure Register'. This register is to be made available to Council for inspection on 7 days notice.

If a matter of complaint cannot be resolved the complainant may refer the matter to the Community Justice Centre for resolution.

9. Variations to The Plan of Management and/or the House Rules

The approved Plan of Management (incorporating the 'Boarding House Rules') may be altered by the Council on the application of the Owner without the need to alter the Development Consent.

The objective of this clause is to facilitate timely and responsive alterations to the Plan of Management where all parties feel that this will be beneficial in protecting and /or enhancing the amenity for residents and or the neighbours.

10. Boarding House Rules

Residents are to sign a rental agreement for a period of not less than 3 months (90 days)

Residents are to have a key to the premises, which is not to be given to any other person.

Residents' conduct is to be quiet, orderly and lawful at all times adhering to the Noise Management Plan(NMP – Day Design – 9-6-2021). Special care is to be taken not to make noise in the internal areas, including the entrance, after 10PM and before 7AM

10.a Noise Management Plan

1. The COS area and ICA should not be used at any time for organised social events (including parties, BBQs, etc) where amplified music or people speaking with loud voices may be expected.
2. Amplified sound equipment should not be used / played in the COS area, i.e. small portable speakers, boomboxes, etc.
3. The noise output from any amplified sound equipment used in the ICA should be kept at a reasonable noise level, i.e. a reverberant $L_{eq,\ 15\ minute}$ sound pressure level of no more than 63 dBA in the centre of the room.

4. Normal conversation within the COS, ICA and POS areas will be acceptable, however shouting would not, and should be subject to management by the co-living development management.
5. The Level 3 COS area should not be used between 10.00 pm and 7.00 am.
6. All operable external doors and windows to the Level 3 ICA should be closed between 10.00 pm and 7.00 am.
7. The Level 1 POS areas should not be used between 10.00 pm and 7.00 am.
8. The maximum amount of people to be permitted in the COS at any given time is 14.
9. The maximum amount of people to be permitted in the ICA at any given time is 30.
10. The maximum amount of people to be permitted in the POS areas at any given time is 2.
11. Residents should be instructed to keep the noise output from individual amplified sound equipment to a reasonable level, i.e. a reverberant $L_{eq,\ 15\ minute}$sound pressure level of no more than 61 dBA.
12. Signs should be posted around the car park, COS area and ICA, in clearly visible locations, reminding residents to be mindful of the neighbouring residential properties and the importance of respecting their amenity.
13. A complaint resolution process for residents and nearby neighbours should be documented in the Plan of Management to address any issues of unwelcomed loud noise from residents.
14. The noise management plan is to be abided and enforced by management at all times.

Management has the right to cease any gathering in the outdoor communal area at any time where it deems that the group is of a size that could cause a possible nuisance.

Residents to comply with all reasonable requests from the Manager and or the Owner in relation to the Plan of Management and or the House Rules or they are liable to be evicted.

Residents to keep their room and bathroom clean at all times and make their room available for inspection by the Manager once a month.

Residents are to keep the kitchen and common areas clean and tidy at all times, including washing up and putting away any thing they use immediately after finishing with them.

Residents are to put all rubbish, used containers, bottles etc directly into the correct waste bins provided.

Alcohol may only be consumed in the Communal Outdoor Space (COS) of the premises after 10am and before 10pm.

The holding of parties is prohibited.

Smoking is not permitted on the premises. No candles, incense burners or other devices that may be considered a fire hazard are permitted inside the premises.

Individual rooms are restricted to plug in appliances such as microwave ovens, toasters kettles and the like.

Residents are to be provided with information regarding fire safety in the building including: fire evacuation procedure, details of all fire exits, extinguishers, fire warning devices installed in the building and a 24 hour number on which they can contact the Manager in case of an emergency.

Residents are to immediately report damage to rooms and common areas.

No excessive alcohol usage will be tolerated.

No drug use is permitted.

No furniture is to be removed or altered.

No items are to be screwed or nailed to the walls.

Management is to strictly enforce a no parties policy for individual boarding rooms.

Lodgers are required to clear their letter box on a regular basis.

11. Boarding Room Contents

Each unit is to contain the following:

Bed (including base, a mattress with a minimum dimension of 1300mm x 1900mm and a mattress protector)

Wardrobe

Mirror

Table Chair

A night light or other approved illumination device for each bed

Waste container

An approved latching device on the door

Curtains, blinds or similar privacy device

Front door lock and self-closer

Phone/data connection.

Fridge, microwave.

A sign fixed to the inside of the unit's entrance door with:

- The name and contact number of the boarding house manager
- Emergency contact numbers for essential services
- House rules
- Floor plans to indicate the available emergency egress routes from the unit.

12. Entry/Exit Report

All residents will be required to sign a condition report at the commencement of their accommodation attesting to the condition of the room and the furniture and which will identify any existing damage. A further inspection and report will be completed at the end of the accommodation period with any identified damage being the responsibility of the resident.

7066-1.2R Rev C Appendix G

Outdoor Noise Propagation Computation (Propout.xls) — **DAY DESIGN PTY LTD**

Version 5.1 — Engineer: **AS**

Client . . . . . **BL2093 P/L C/- Benson McCormack Architecture** — Project no: **7066-2**

Project Title. . . . . **67 Pacific Parade, Dee Why** — Date: **9-Jun-21**

Operation . . . . . **Communal Open Space**

patrons — Atmosphere:

Temp **20**

Receptor Location. . . . . **R6a** — RH% **80**

Noise Criterion . . . . . **43** dBA **at residence any time**

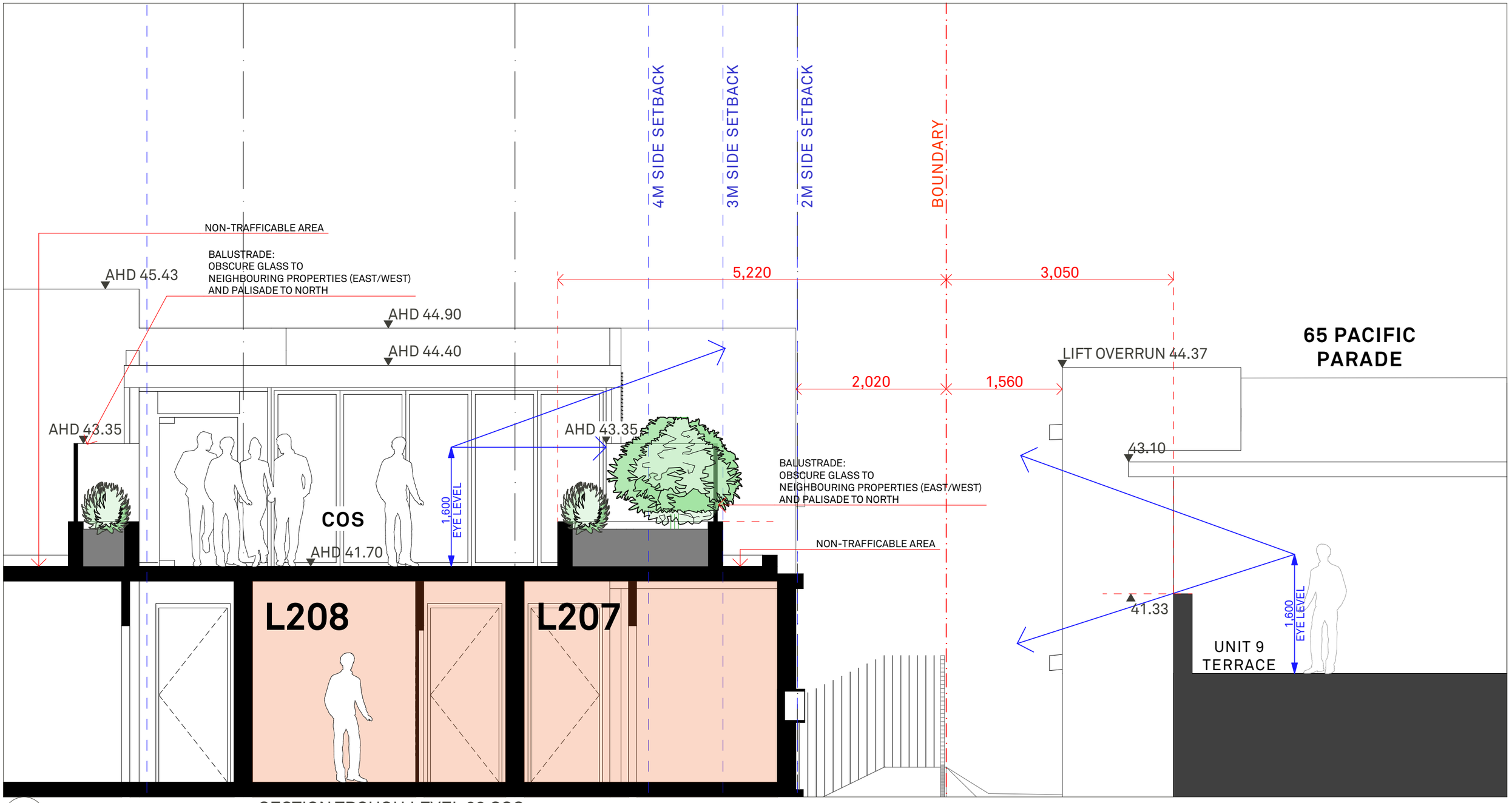
Predicted Lp at Receptor = **37** dBA

Description	Comments	Input	Noise Levels - dB									
14 People in L3 COS			dBA	63	125	250	500	1000	2000	4000	8000	
Sound Power Level...		**Leq**	74	**64**	**64**	**70**	**74**	**68**	**64**	**59**	**53**	dBA
Energy Distribution	Q	**2**		0	0	0	0	0	0	0	0	74
Multiple Units	Number	**1**		0	0	0	0	0	0	0	0	
Distance Loss	Dist (m)	**12**		29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	
Air Absorption =								0.0	0.0	0.2	0.7	
True Height of Barrier	Actual (m)	**1.6**	0.4	5.2	5.5	5.9	6.7	8.0	9.9	12.4	15.3	
Lp Contribution at Receptor:			**36.8**	29.2	29.0	34.5	37.6	30.4	24.5	17.3	7.9	
			dBA	3.0	12.9	25.9	34.4	30.4	25.7	18.3	6.8	

Barrier Loss Calc'n — For Neutral Weather Conditions only

Distances — **Reference Heights** — Compute Path Over Barrier Wall

Source to Barrier	**3.0**	Source		**43.2**		a =	3.0017	d =	0.04			
Barrier to Recep	9	Receptor		**42.03**		b =	8.6933	e =	0.40259			
Eff wall Height	0.4	Barrier Base		**41.7**		c =	11.659					
Screen Wall Loss =	5.2	5.5	5.9	6.7	8.0	9.9	12.4	15.3				
Dist. Comp'n :	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3				
B =	**4**	duct width (metres) normal to direction of interest							4.0			
Strouhal Number	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20				
Directivity Factor	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03				
dBA												
36.8	29.2	29.0	34.5	37.6	30.4	24.5	17.3	7.9				



1 SECTION TROUGH LEVEL 03 COS

REVISION

Rev	Date	Description
01	29/04/2021	DA ISSUE 02

LEGEND

A/C	Air Conditioning Unit	COS	Communal Open Space	GBC	Garbage Chute	POS	Private Open Space
ACC	Accessible	CEX	Carpark Exhaust	GBR	Garbage Room	R	Robe
ADP	Adaptable	D	Dining	GBX	Garbage Exhaust	RWT	Rainwater Tank
AHD	Aust. Height Datum	DRY	Dryer	GFA	Gross Floor Area	SCR	Screen
B	Basement	DP	Down Pipe	GM	Gas Meter	SW	Sewer
BAL	Balustrade	DW	Dishwasher	H	Hydraulic Services	ST	Storage
BALC	Balcony	F	Fridge	LY	Laundry	SD	Study
BED	Bedroom	FEX	Fire Extinguisher	M	Meter Room	STP	Stormwater Pit
BT	Bathroom	FFL	Finish floor level	MC	Motorcycle Parking	STW	Stormwater
COL	Column	FN	Fence	MSB	Main Switch Board	SFL	Structural floor level
COMM	Comms Room	FS	Fire Stairs	NGL	Natural Ground Level	TOF	Top of Fence
		FSR	Floor Space Ratio	OSD	Onsite Detention Tank	TOW	Top of Wall
		GBA	Gross Building Area	P	Pantry	VIS	Visitor Parking

CLIENT
BL 2093 PTY LTD
PO BOX 1231
MANLY NSW 2095

PROJECT DETAILS
67 PP
67 Pacific Parade
DEE WHY NSW 2099

DRAWING TITLE
LEVEL 03 COS STUDY
1/2

SCALE	APPROVED	NORTH
1:50@A3	GM	
STATUS	DRAWN BY	
DA	DB	
PROJECT No	DRAWING No	REV
2004A	DA-1041	01

STUDIO 5, 505 BALMAIN RD
LILYFIELD NSW 2040
ABN: 76 129 130 285
RN: 7536

P. +61 2 9818 0777
F. +61 2 9818 0778
E. enquiries@bensonmccormack.com
W. www.bensonmccack.com

BENSON
McCORMACK
ARCHITECTURE