



NOISE ASSESSMENT

PROPOSED CHILDCARE CENTRE

LOT 10 BARINGA VILLAGE

BARINGA

Prepared for:

Griffith Group One Pty Ltd ATF Griffith
Group One Trust

Prepared by:

MWA Environmental

3 July 2026

DOCUMENT CONTROL SHEET

MWA Environmental

Level 8 241 Adelaide Street
GPO Box 3137 Brisbane 4001

Telephone: 07 3002 5500

Email: mail@mwaenviro.com.au

Job Name: Baringa

Job No: 26070

Date of Issue: 3 July 2026

DOCUMENT DETAILS

Title: Noise Assessment – Proposed Childcare Centre – Lot 10 Baringa Village – Baringa

Principal Author: Mr Travis Carberry

Client: Griffith Group One Pty Ltd ATF Griffith Group One Trust

REVISION/CHECKING HISTORY

Version Number	Date	Issued By		Checked By	
1 Report	03.07.26	TC		BH	
2					
3					
4					
5					
6					

DISTRIBUTION RECORD

Destination	Version Number								
	1	2	3	4	5	6	7	8	9
Client (electronic)	1								
File Copy	1								
MWA Library									

CONTENTS	PAGE
1.0 INTRODUCTION.....	1
1.1 STUDY BRIEF.....	1
1.2 SITE DESCRIPTION	1
1.3 PROPOSED DEVELOPMENT	2
2.0 NOISE IMPACT ASSESSMENT.....	3
2.1 RELEVANT NOISE CRITERIA	3
2.2 NOISE MODELLING ASSESSMENT	4
3.0 CONCLUSION.....	8

FIGURES

ATTACHMENTS

1.0 INTRODUCTION

1.1 STUDY BRIEF

MWA Environmental has been engaged to prepare a Noise Assessment for a proposed childcare centre development at Lot 10 Baringa Village, Baringa. The report has been prepared to support a development application to Economic Development Queensland (EDQ).

The Baringa Village development is located within Precinct 4, Stage 22A of the Aura Estate. The Baringa Village is a mixed-use development which includes childcare centre, medical centre and retail uses.

This assessment has considered the noise amenity impact of potential low impact industrial uses located to the west of the site upon the proposed childcare centre. The assessment is based on noise modelling using the SoundPLAN 9.0 software considering typical noise emissions associated with the potential low impact industrial uses.

1.2 SITE DESCRIPTION

The subject site is located at Lot 10 Baringa Village, Baringa. Lot 10 is located within Precinct 4, Stage 22A of the Aura Estate.

The subject site and adjoining land are currently undeveloped, with operational works underway through Precinct 4.

It is noted that Lot 10 is intended for commercial and retail uses with a childcare centre use therefore being consistent with the intended uses for the site.

The Baringa Village development is bounded by access roadways on each side, with Aura Boulevard located further to the east and Graf Drive located further to the north.

Low impact industrial uses are supported on proposed Lots 11, 12 & 13 of Baringa Village that are located to the west of the site, beyond an access roadway. Ultimate uses for Lots 11, 12 & 13 are not yet confirmed and as such this assessment considers typical noise emissions. It is noted that noise impacts from low impact industrial uses typically do not have significant potential to cause an adverse noise impact on adjacent and surrounding sensitive land uses such as a childcare centre.

The site location and surrounding land uses are shown on **Figure 1**.

1.3 PROPOSED DEVELOPMENT

The proposed development is for a 111 place childcare centre with associated outdoor play areas and carparking which is located on the eastern part of the site.

The proposed childcare centre building and adjacent medical centre building are orientated such that the childcare outdoor play areas are located to the east of buildings. As such, the childcare centre outdoor play areas are significantly shielded by the Baringa Village development buildings from the potential low impact industrial use lots that are located to the west. The proposed childcare centre is also separated to the potential low impact industrial uses by an access roadway.

The proposed development plans are included as **Attachment 1**.

2.0 NOISE IMPACT ASSESSMENT

2.1 RELEVANT NOISE CRITERIA

It is considered that potential noise emissions from low impact industrial uses impacting upon the proposed childcare centre are to be managed and minimised generally in accordance with the *Environmental Protection (Noise) Policy 2019*.

The *Environmental Protection (Noise) Policy 2019* specifies Acoustic Quality Objectives for sensitive receptors to enhance or protect acoustic amenity. The applicable Acoustic Quality Objectives from Schedule 1 of the policy are presented in **Table 1**.

Table 1: Acoustic Quality Objectives

SENSITIVE RECEPTOR	TIME OF DAY	ACOUSTIC QUALITY OBJECTIVES DB(A)			ENVIRONMENTAL VALUE
		($L_{Aeq,adj,1-hr}$)	($LA_{10,adj,1-hr}$)	($LA_{1,adj,1-hr}$)	
Childcare centre or kindergarten (for indoors)	When open for business, other than when the children usually sleep	35	-	-	health and wellbeing
Childcare centre or kindergarten (for indoors)	When the children usually sleep	30	-	-	health and wellbeing, in relation to the ability to sleep
School or playground (for outdoors)	When the children usually play outside	55	-	-	health and wellbeing, and community amenity

As such, the following noise limits apply for assessment of noise associated with the potential low impact industrial uses at the proposed childcare centre development:

Internal childcare play spaces:	35 dB(A) $L_{Aeq,1hr}$
Internal childcare sleep rooms:	30 dB(A) $L_{Aeq,1hr}$
At childcare outdoor play areas:	55 dB(A) $L_{Aeq,1hr}$

2.2 NOISE MODELLING ASSESSMENT

Given that the potential industrial uses at proposed Lots 11, 12 & 13 are to be low impact industrial only, it is considered that there will not be significant potential to cause an adverse noise impact on the proposed childcare centre.

Further, the proposed childcare centre building and adjacent medical centre building are orientated such that the childcare outdoor play areas are located to the east of buildings. As such, the childcare centre outdoor play areas are significantly shielded by the development buildings to the potential low impact industrial uses that are located to the west. The proposed childcare centre is also separated to the potential low impact industrial uses by an access roadway.

This notwithstanding, a SoundPLAN 9.0 computer noise modelling assessment is provided below to consider the noise emissions of typical low impact industry uses at Lots 11, 12 & 13 which are located to the west of the site. The location of the potential low impact industrial uses in relation to the proposed childcare centre is shown on **Figure 2**.

Noise emissions from activities within low impact industrial use buildings are generally minimal but have been conservatively considered in the noise modelling assessment.

Based on the allotment layouts for the potential low impact industrial Lots 11, 12 and 13, it is considered likely that the design of future industrial uses will be as follows:

- Industrial buildings located towards the rear of the lots (western part of the lot);
- Carparking and external manoeuvring / loading areas located to the front of the lots (eastern part of the lot); and
- Vehicular access via driveways to the access road located to the east.

The noise model was established to represent simultaneous operation of typical internal and external low impact industrial activities at each of Lots 11, 12 & 13.

The modelled reverberant internal noise levels within the potential low impact industrial buildings are provided in **Table 2** below based upon levels measured at similar facilities.

Table 2: Modelled Internal Noise Levels within Potential Low Impact Industrial Buildings (Lots 11, 12 & 13)

NOISE SOURCE	SOUND PRESSURE LEVEL - dB(A)										dB(A)
	FREQUENCY BAND										
	31.5	63	125	250	500	1	2	4	8	16	
	Hz	Hz	Hz	Hz	Hz	kHz	kHz	kHz	kHz	kHz	
Typical Low Impact Industry	31	47	51	58	61	65	64	63	54	38	70

The Sound Transmission Losses through the walls and open roller doors of the potential low impact industrial building sources were input to the model as per **Table 3** below. The model was conservatively setup to represent sheet metal wall construction and openings for roller doors facing towards the east of each potential low impact industrial building as being open at all times.

Table 3: Modelled Building Component Sound Transmission Loss for Potential Low Impact Industrial Buildings (Lots 11, 12 & 13)

CONSTRUCTION ELEMENT	SOUND TRANSMISSION LOSS - dB(A)								Rw
	FREQUENCY BAND (Hz)								
	63	125	250	500	1	2	4	8	
	Hz	Hz	Hz	Hz	kHz	kHz	kHz	kHz	
Walls (Metal Sheeting)	10	15	20	28	37	43	40	40	32
Roof (Metal Sheeting)	10	15	20	28	37	43	40	40	32
Standard Commercial Glazing	6	12	19	24	28	29	17	14	27
Roller Doors (Open)	0	0	0	0	0	0	0	0	0

It is noted that for the modelled internal noise source levels (**Table 2**) with the typical industrial building design (**Table 3**), the SoundPLAN model calibrated well with the recommended maximum noise level of 65 dB(A) at 1m from the potential low impact industrial use buildings as identified as appropriate within the Stantec acoustic report prepared for Stage 22A¹.

Noise amenity impacts from external noise sources that may be associated with potential low impact industrial uses, such as car parking, vehicle movements, delivery/pickup related loading activities and mechanical plant, have also been considered in the noise modelling.

¹ Aura Business Park – Stage 22A – Acoustic Report (Ref 301050973, 16 December 2024).

Measured noise levels for various noise generating activities associated with typical low impact industrial uses have been recorded by MWA Environmental and others and are summarised in **Table 4**.

Table 4: Sound Power Level of Typical External Noise Sources for Potential Low Impact Industrial Uses (Lots 11, 12 & 13)

NOISE SOURCE	SWL – dB(A)
	$L_{eq,1hr}$
Slow moving car ²	49/m per trip
Slow moving MRV or RCV (truck) ³	59/m per trip
Loading / refuse collection noise ⁴	76 per event
Reversing beeper noise ⁵	82 per event
Car Parking (includes Car starts / door slams) ⁶	67 per event
Mechanical Plant (AC Unit) ⁷	75 per unit

The SoundPLAN model has been setup to represent typical noise emissions from the three potential low impact industrial lots located to the west of the childcare centre site. The locations of the potential low impact industrial lots in relation to the childcare centre are shown on **Figure 2** with the modelled noise sources presented in **Tables 2** and **4** above.

For the purposes of this assessment, noise predictions have been made across the proposed childcare centre development site for ground floor receptor heights (ground level +1.5m). It is noted that the proposed childcare centre building and adjacent medical use buildings provide significant shielding of potential low impact industry noise at the childcare centre outdoor play areas. The noise model predictions are shown as a grid noise map across the model domain and included as **Attachment 2**.

² A conservative peak of 10 light vehicle trips per hour have been modelled per low impact industrial lot.

³ A conservative peak of 4 heavy vehicle (truck) trips per hour have been modelled per low impact industrial lot.

⁴ As 1 hour L_{Aeq} per truck movement. Represented external to industrial buildings.

⁵ As 1 hour L_{Aeq} per truck movement. Represented external to industrial buildings.

⁶ Per carpark turnover event per hour. Includes car starts and doors slams based on the SoundPLAN carparking noise emissions module. Number of turnover events based on modelled peak traffic volumes.

⁷ One AC unit modelled per low impact industrial lot.

The noise predictions indicate that the 55 dB(A) $L_{Aeq,1hr}$ outdoor play area noise criterion will be comfortably achieved at all proposed childcare centre outdoor play areas without any specific noise control measures considering typical low impact industrial noise emissions from Lots 11, 12 & 13 located to the west of the site.

The noise predictions also indicate that the highest noise levels from potential low impact industrial uses at a proposed childcare centre external building façade are 49 dB(A) $L_{Aeq,1hr}$. Thus, the maximum noise reduction required to achieve the 35 dB(A) $L_{Aeq,1hr}$ internal noise criterion for childcare internal play areas is **14 dB(A)** (49 – 35) and the maximum noise reduction required to achieve the 30 dB(A) $L_{Aeq,1hr}$ internal noise criterion for childcare sleep rooms is **19 dB(A)** (49 – 30).

With regard to our experience and AS3671⁸, it is considered that the required noise reductions of up to 19 dB(A) for the proposed childcare centre building facades will be readily achieved with standard construction materials and the provision of mechanical ventilation and/or air-conditioning allowing doors and windows to be shut as deemed appropriate by staff.

As such, the assessment demonstrates that the relevant ‘Acoustic Quality Objectives’ will be achieved at the proposed childcare centre development and that noise from potential low impact industrial uses on Lots 11, 12 & 13 will not cause an adverse impact upon future occupants at the development.

⁸ Australian Standard AS3671-1989 – Acoustics – Road traffic noise intrusion – Building siting and construction

3.0 CONCLUSION

MWA Environmental has been engaged to prepare a Noise Assessment for a proposed childcare centre development at Lot 10 Baringa Village, Baringa. The report has been prepared to support a development application to Economic Development Queensland.

This assessment has considered the noise amenity impact of potential low impact industrial uses located to the west of the site upon the proposed childcare centre. The assessment is based on noise modelling using the SoundPLAN 9.0 software considering typical noise emissions associated with the potential low impact industrial uses.

Low impact industrial uses typically do not have significant potential to cause an adverse noise impact on adjacent and surrounding sensitive land uses such as a childcare centre.

The noise modelling predictions indicated that the relevant outdoor play area noise criterion will be comfortably achieved at all proposed childcare centre outdoor play areas without any specific noise control measures considering typical low impact industrial noise emissions from Lots 11, 12 & 13 located to the west of the site.

Based on the noise modelling predictions, standard construction materials will be appropriate for the proposed childcare centre building facades with the provision of mechanical ventilation and/or air-conditioning allowing doors and windows to be shut as deemed appropriate by staff.

The noise assessment undertaken demonstrates that the relevant 'Acoustic Quality Objectives' will be achieved at the proposed childcare centre development and that noise from potential low impact industrial uses on Lots 11, 12 & 13 will not cause an adverse impact upon future occupants at the development.

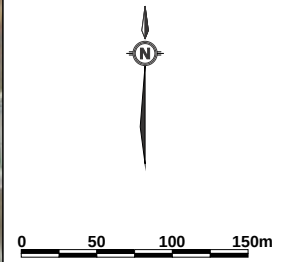
**MWA Environmental
3 July 2026**

FIGURES



LEGEND
CHILDCARE CENTRE SITE
PRECINCT 4 STAGE 22A

DRAWING REFERENCE
© THE STATE OF QUEENSLAND 2026
(DEPARTMENT OF NATURAL RESOURCES
AND MINES, MANUFACTURING AND
REGIONAL AND RURAL DEVELOPMENT)
QLDGLOBE.



CLIENT
GRIFFITH GROUP

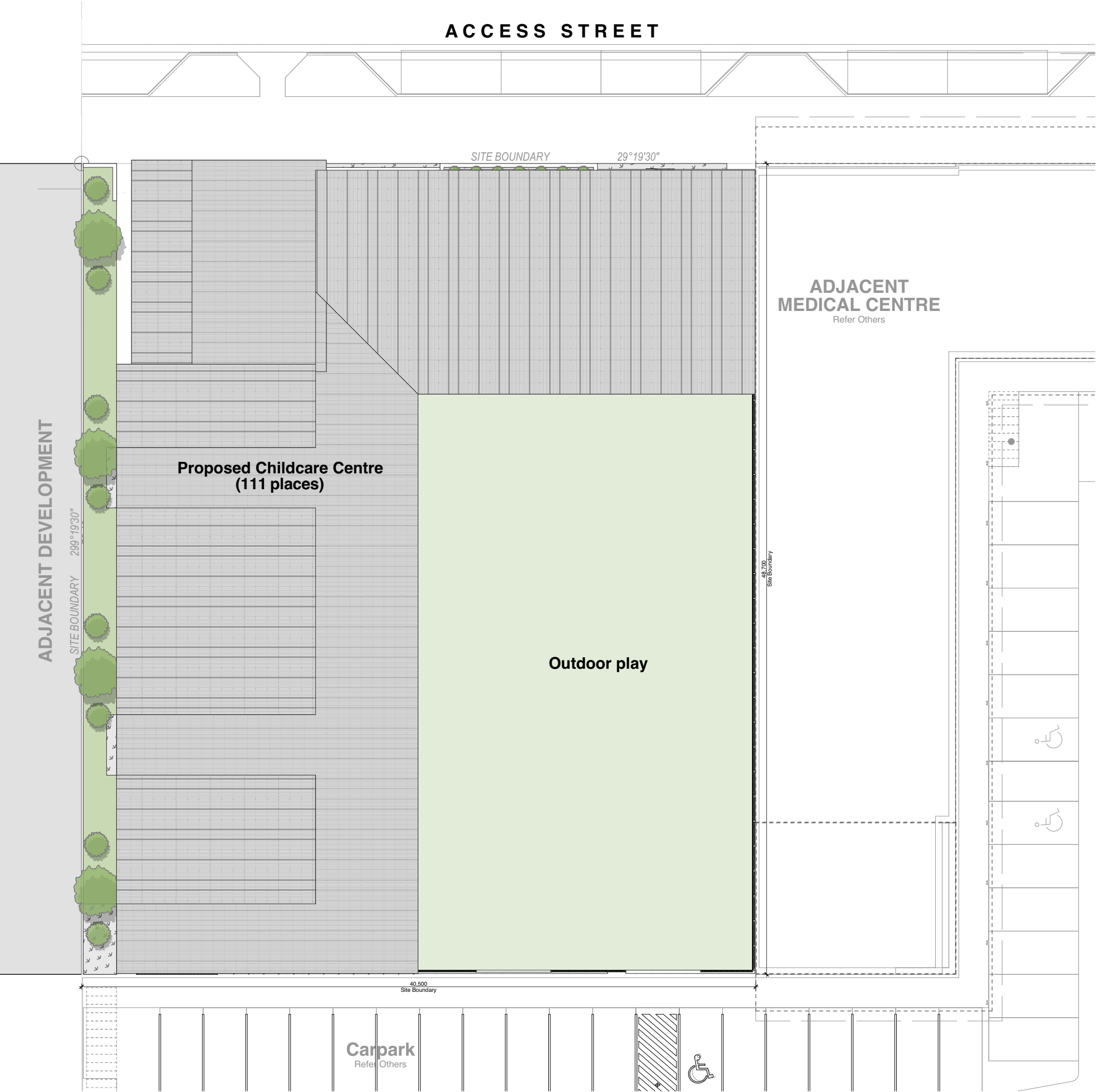
PROJECT
NOISE ASSESSMENT
PROPOSED CHILDCARE
CENTRE DEVELOPMENT
LOT 10 BARINGA QLD

TITLE
SITE LOCATION
AND SURROUNDING
LAND USES

JOB	BARINGA	FIGURE 1
JOB NO.	26070	
DATE	25/06/26	DWG NUMBER
SCALE	1:5000 (A4)	26070-1
REV.		

Attachment 1

Development Application Plans



SITE INFORMATION

Site Area:	1,870.1 m ²
Building GFA:	1,008 m ²
Landscape Area:	
- Outdoor Play	793.4m ²
- Landscape Strip	126.5m ²
Total	920 m²

Issue for DA





FLOOR& ROOF PLAN LEGEND

COL Column
EG Eaves Gutter
GB Garden Bed
MRS Metal Roof Sheet

NOTES

1. Refer to consultant's drawing for landscaping and shade sail detail

ADJACENT
MEDICAL CENTRE
Refer Others

Issue for DA





FLOOR& ROOF PLAN LEGEND

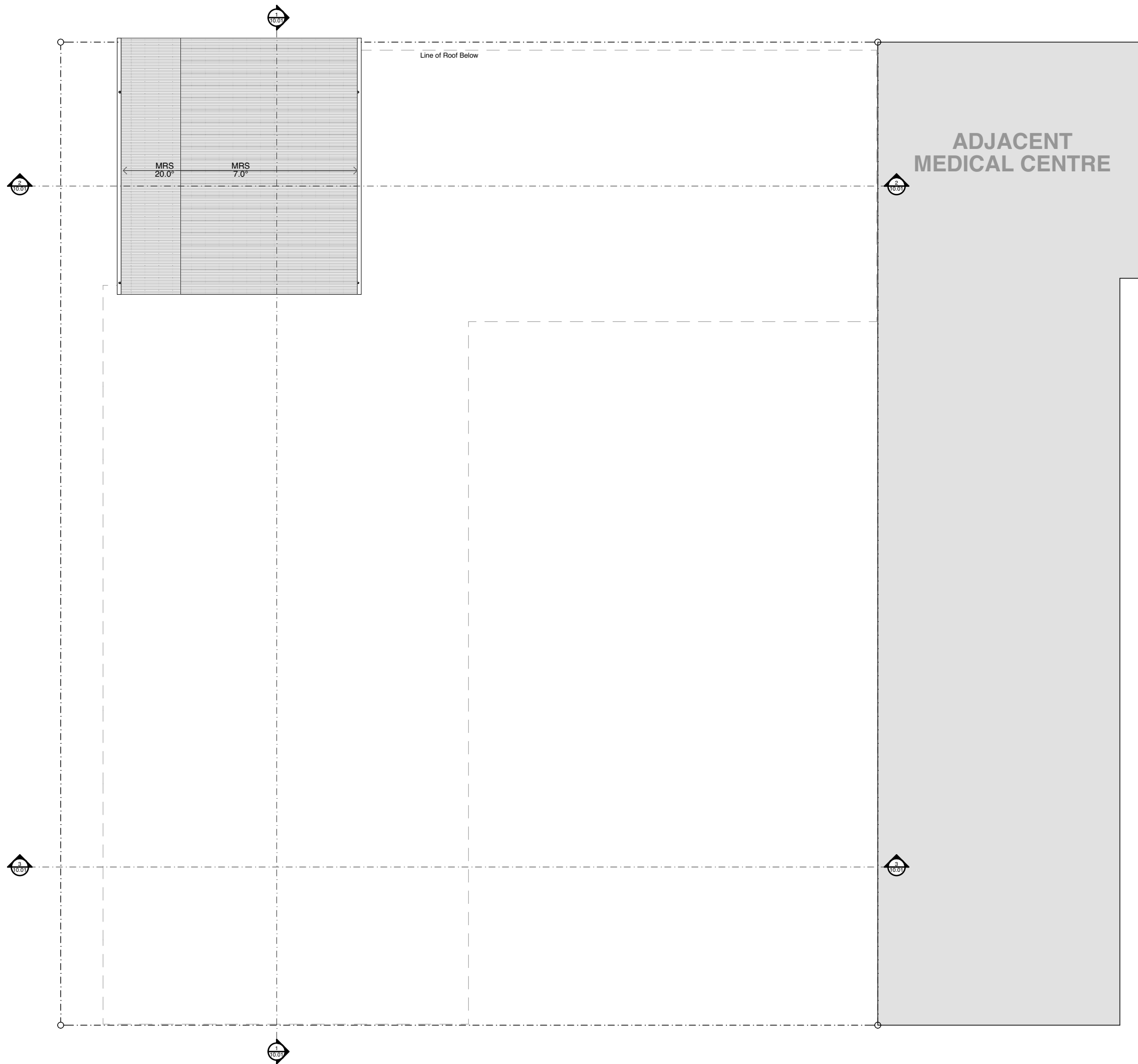
COL Column
EG Eaves Gutter
GB Garden Bed
MRS Metal Roof Sheet

NOTES

1. Refer to consultant's drawing for landscaping and shade sail detail

Issue for DA





FLOOR& ROOF PLAN LEGEND

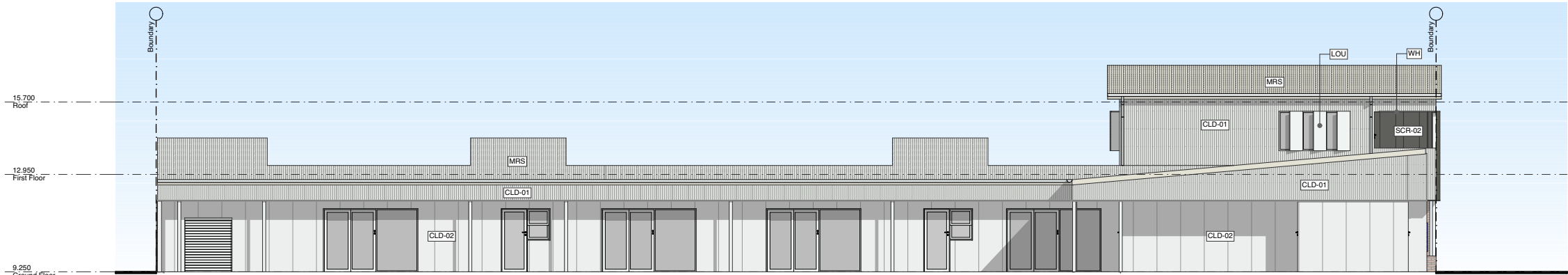
COL Column
EG Eaves Gutter
GB Garden Bed
MRS Metal Roof Sheet

NOTES

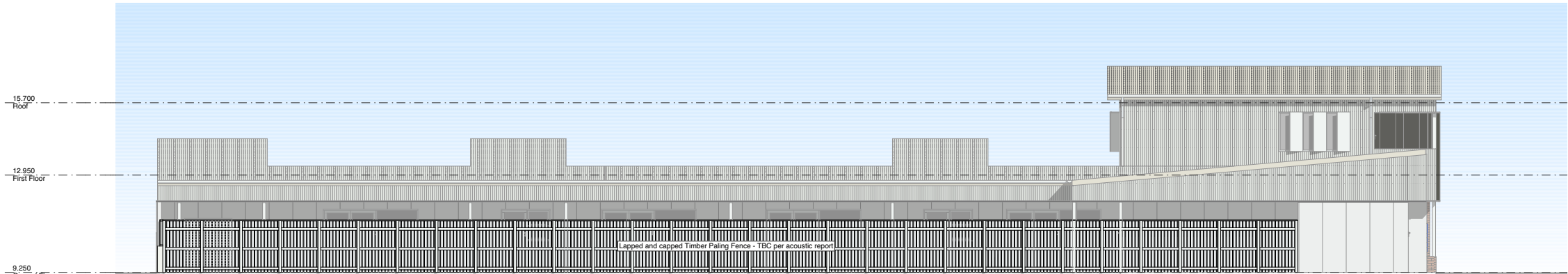
1. Refer to consultant's drawing for landscaping and shade sail detail

Issue for DA





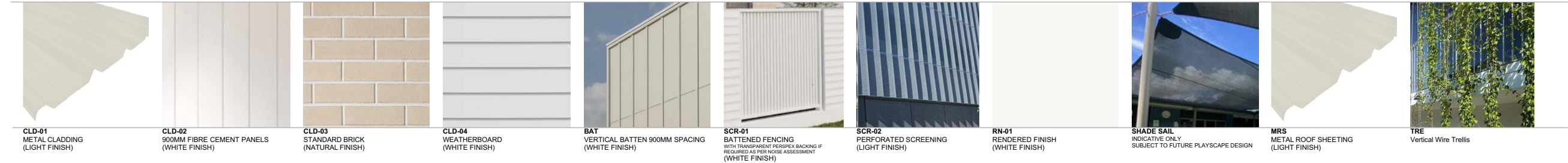
1 North
Scale 1:200



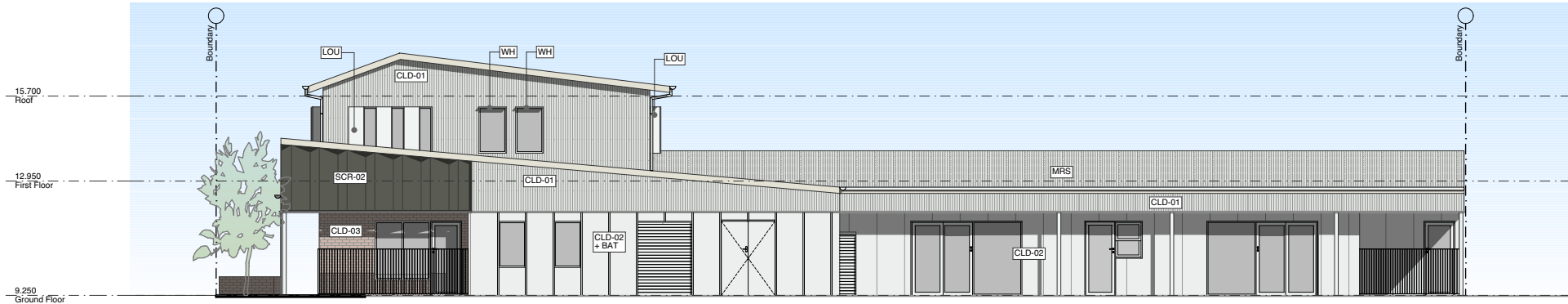
2 North - Fencing
Scale 1:200

ELEVATION & SECTION LEGEND

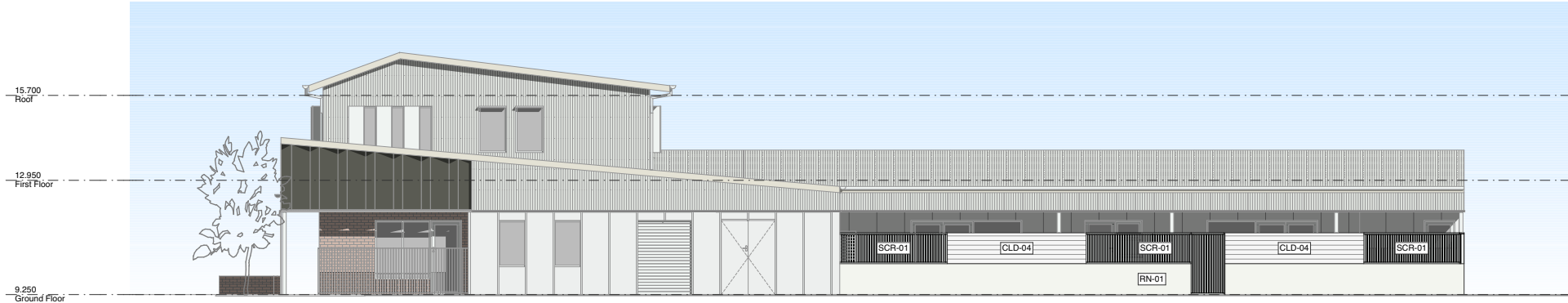
- CLD-# Cladding Type - Refer to Schedule
LOU Louvre
MRS Metal Roof Sheet
SCR-# Screen Type - Refer to Schedule
TRE Trellis
WH Window Hood



Issue for DA



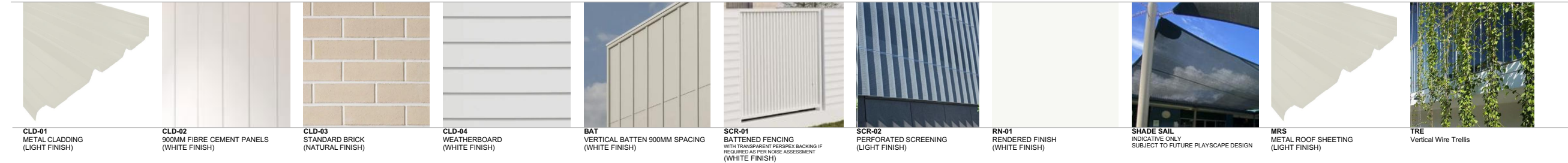
1 East
Scale 1:200



2 East - Fencing
Scale 1:200

ELEVATION & SECTION LEGEND

- CLD-# Cladding Type - Refer to Schedule
LOU Louvre
MRS Metal Roof Sheet
SCR-# Screen Type - Refer to Schedule
TRE Trellis
WH Window Hood



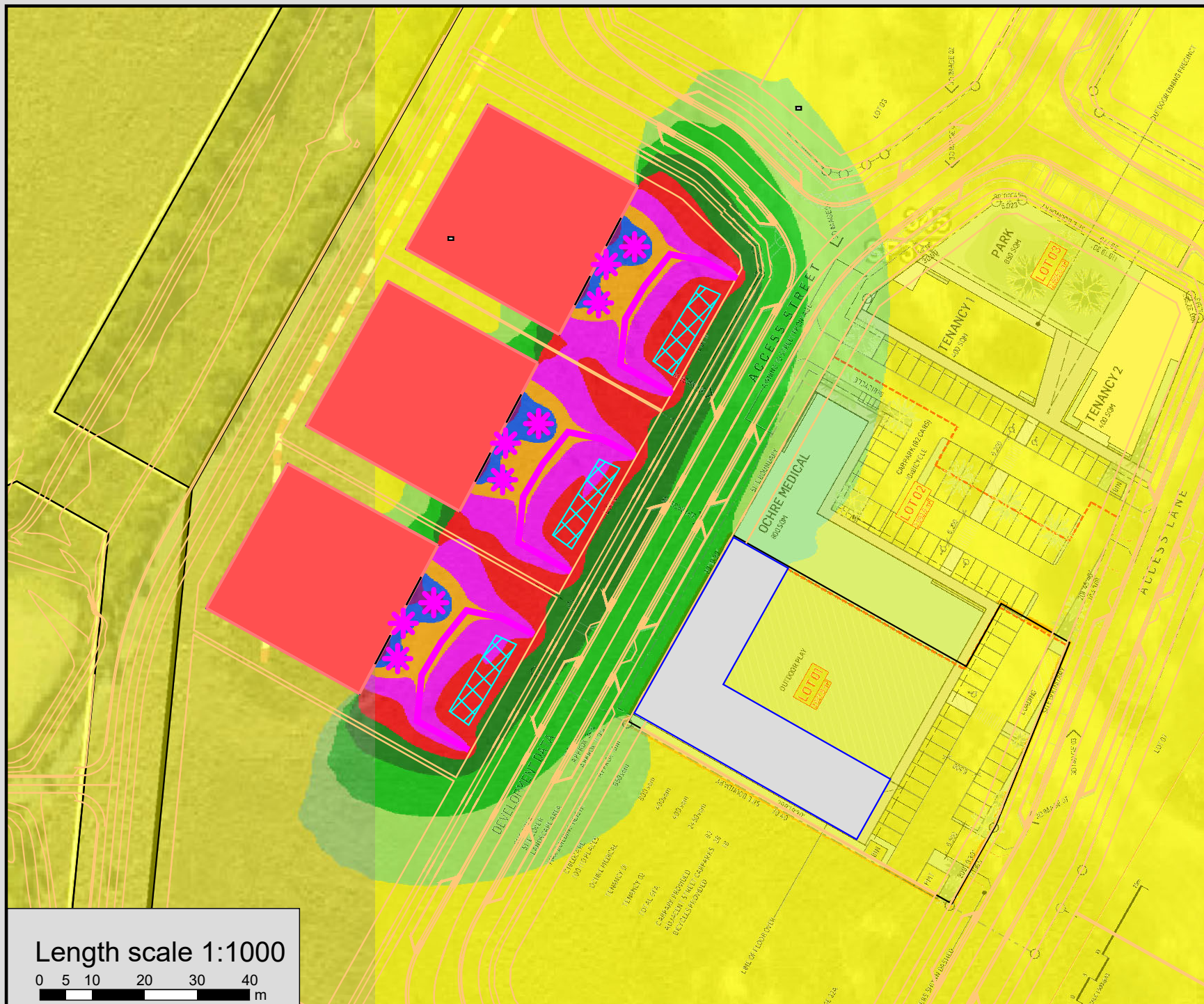
Issue for DA

CLD-#	Cladding Type - Refer to Schedule
LOU	Louvre
MRS	Metal Roof Sheet
SCR-#	Screen Type - Refer to Schedule
TRE	Trellis
WH	Window Hood



Attachment 2

SoundPLAN Noise Impact Assessment Model Results



Noise level
LAeq,T
in dB(A)

<= 46	<= 46
46 <	<= 49
49 <	<= 52
52 <	<= 55
55 <	<= 58
58 <	<= 61
61 <	<= 64
64 <	<= 67
67 <	

Legend

- Point source
- Parking source
- Industrial building source
- Line source
- Elevation line

**Baringa 26070
Proposed Childcare
Centre**

**Leq,1hr Noise Predictions
Ground Floor Level**

June 2026

Length scale 1:1000

