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Proposed Childcare Centre and Swimschool
2-12 College Drive
Flagstone

ACOUSTIC REPORT




Client:
Satara Investments Australia Pty Ltd
c/- Town Planning Alliance
ATTN: Vu Nguyen

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1. Introduction

This report is in response to a request by Satara Investments Australia for an environmental noise assessment of a proposed childcare centre and swim school to be located at 2-12 College Drive, Flagstone. To facilitate the assessment, previous unattended noise monitoring data was utilised to determine the criteria and assess impacts to sensitive receivers in proximity to the development. Based on the results of the assessment, recommendations for acoustic treatments are specified.

2. Site Description

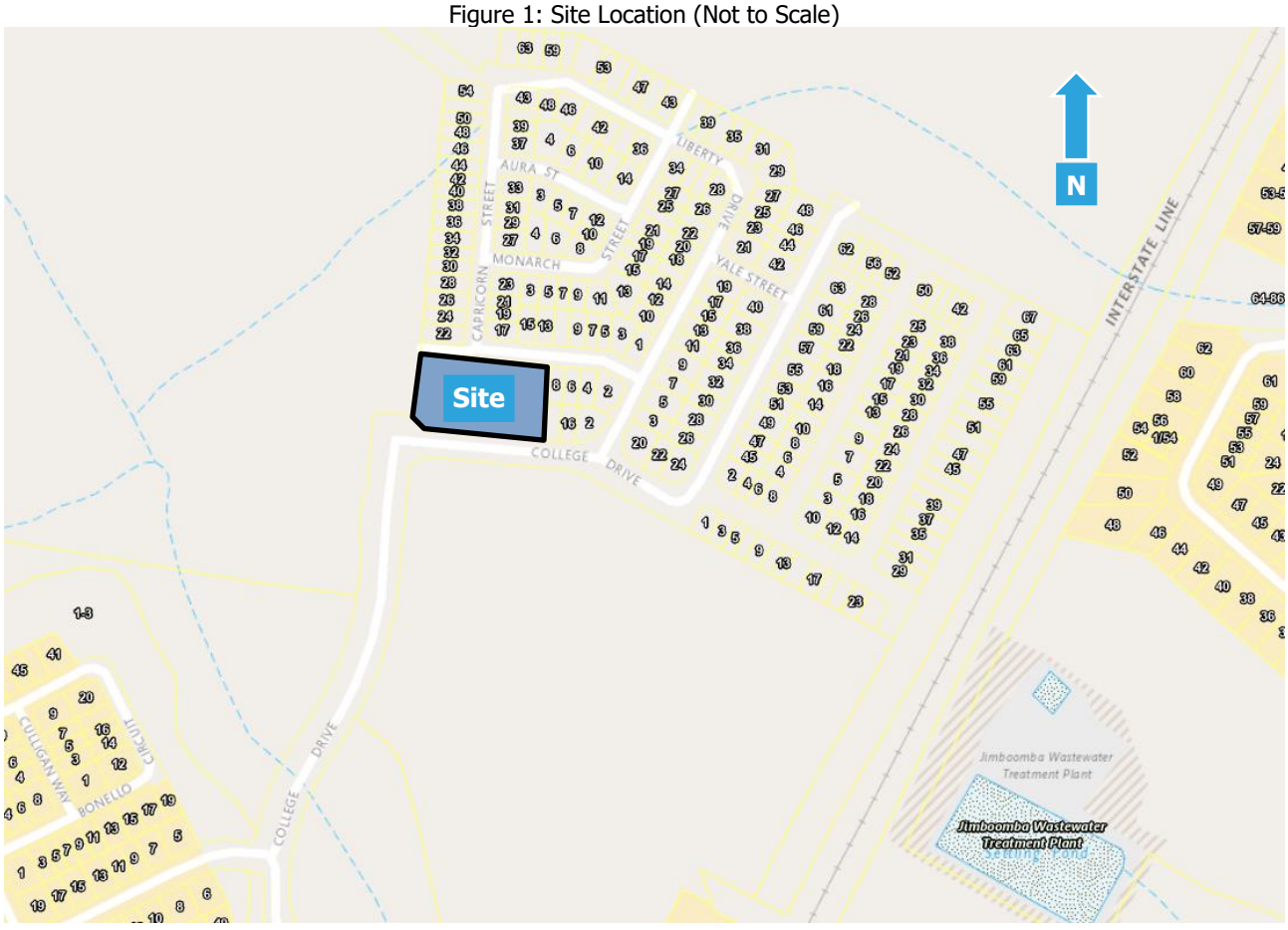
2.1 Site Location

The site is described by the following:

2-12 College Drive, Flagstone
Lot 905 on SP 321076

Refer to Figure 1 for site location.

Figure 1: Site Location (Not to Scale)



A comprehensive site survey was conducted on the 27th April 2022 and identified the following:

a) The site is located in an Urban Living zone in the Greater Flagstone Priority Development Area (PDA) as defined in the *Economic Development Act* (2012).
b) The Greater Flagstone PDA is located within the Logan City Council Local Government Area.
c) The site is currently vacant with residential dwellings proposed adjoining the site.
d) The surrounding area consists of proposed future residential, recreational, community and commercial land uses.
e) The Interstate rail line is located approximately 400 metres to the east of the site.

2.2 Proposal

The proposal is to construct a single storey childcare centre and swim school comprised of the following:

- Total site area of 6,251m^2.

Childcare

- Gross floor area of 1,277m^2.
- Proposed operating hours of:
  - 6:30am-7:00pm Monday to Friday
  - 8:00am-5:00pm Saturday & Sunday
- Childcare with total capacity for 188 children as follows:
  - 66-88 children aged 3-5 years
  - 30-68 children aged 2-3 years
  - 24-40 children aged 0-2 years
  - 30 children aged 5+ in out of hours school care.
- 1,082m^2 outdoor play area for children ages 0-5.
- 213m^2 outdoor play area for out of hours school care
- Office area with reception, meeting rooms, staff room, planning room, kitchen, laundry and dining room.
- 45 car parking spaces including 26 staff parking spaces.
- Access via College Drive.

Swim school

- Gross floor area of 550m^2.
- Proposed operating hours of:
  - 6:30am-7:00pm Monday to Friday
  - 8:00am-5:00pm Saturday & Sunday
- 25 x 10m indoor swimming pool.
- Reception, change rooms, and open seating areas.
- 26 Car parking spaces provided.

Refer to the Appendix for proposed development plans.

2.3 Acoustic Environment

The future area surrounding the site once constructed will is primarily be affected by traffic noise from the surrounding road network and residential/commercial land uses.

3. Equipment

The following equipment was used to record noise levels:

- Rion NL42 Environmental Noise Monitor
- BSWA Technology Co. Ltd Sound Calibrator

The Rion NL42 Environmental Noise Monitor holds current NATA Laboratory Certification and was field calibrated before and after the monitoring period, with no significant drift from the reference signal recorded.

4. Noise Monitoring

4.1 Receiver Locations

The nearest sensitive receiver locations were identified as follows;

1. Proposed or constructed single and two storey residential dwellings are located to the north of the site at 13-17 and 22 Capricorn Street.
2. Proposed or constructed single and two storey residential dwellings are located adjacent the eastern site boundary at 8 Capricorn Street and 14 College Drive.
3. Single and two storey residential dwellings are located to the southwest of the site at 12-20, 19 & 41 Bonello Circuit.

These locations were chosen as being representative of the nearest sensitive receivers to the proposed development. Refer to Figure 2 for these locations.

Figure 2: Noise Monitoring Location

4.2 Unattended Noise Monitoring

Due to excessive construction noise at the receivers closest to the site, data from previous unattended noise monitoring was utilised to determine the criteria. This monitoring location is considered to be representative of the surrounding acoustic environment and the nearest residential receivers.

A Rion NL42 environmental noise monitors was placed onsite to measure ambient noise levels. The logger was placed at the closet boundary to the nearest residential receivers to provide an accurate representation of the surrounding acoustic environment. The monitors were located in a free field position with the microphone approximately 1.4 metres above ground surface level. The noise monitors were set to record noise levels between the 22 and 29 June 2021.

The environmental noise monitors were set to record noise levels in "A" weighting, Fast response using 15 minute statistical intervals. Ambient noise monitoring was conducted in accordance with Australian Standard AS1055:1997 *Acoustics – Description and measurement of environmental noise* and *EPA Noise Measurement Manual 2000*. For the unattended noise monitoring locations refer to Figure 2.

5. Measured Noise Levels

The following tables present the measured background noise levels from the unattended noise survey. Any periods of inclement weather or extraneous noise were omitted from the measured data prior to determining the results.

5.1 Background Noise Levels

The background noise levels measured at the monitoring location are as follows:

Table 1: Measured ambient noise levels – Monday to Saturday

Day	Date	L90 dBA		
		Day	Evening	Night
Tuesday	22/06/21	41	39	30
Wednesday	23/06/21	43	36	31
Thursday	24/06/21	43	39	30
Friday	25/06/21	45	39	30
Saturday	26/06/21	40	34	28
Monday	28/06/21	43	38	34
Tuesday	29/06/21	43	-	32
Overall value		43	38	31

Table 2: Measured ambient noise levels – Sunday

Day	Date	L90 dBA		
		Day	Evening	Night
Sunday	27/06/21	41	38	31
Overall value		41	38	31

Refer to the appendix for graphical representation.

6. Noise Criteria

6.1 Greater Flagstone PDA Development Scheme (2011)

The Greater Flagstone PDA Development Scheme makes the following recommendations regarding noise:

> *The design, siting and layout of the development:*
> - *Manages air quality, noise and hazardous materials according to current standards*

As no specific criteria is nominated, reference was made to the Logan City Council Planning Scheme 2015 v5.1.

6.2 Logan City Council - Environmental Noise Criteria

As receiver 3 is located within the Logan City Council area, the noise criteria for the zone as applied by Logan City Council in SC3.2.1 Planning Scheme Policy 3 of the Logan Planning Scheme 2015 v5.1 are detailed as follows:

6.2.1 Noise Emission Standards

Table 3 details the noise criteria for the protection of residential amenity (Receiver 1).

Table 3: Logan City Council noise criteria – Residential

Noise Type	Time Period	Monday to Saturday	Sunday and Public Holidays
Non-steady sound	Daytime (7am - 6pm)	$L_{Aeq\ adj,T} \leq L_{A90}$ plus 5dB(A)	$L_{Aeq\ adj,T} \leq L_{A90}$ plus 5dB(A)
	Evening (6pm - 10pm)	$L_{Aeq\ adj,T} \leq L_{A90}$ plus 5dB(A)	$L_{Aeq\ adj,T} \leq L_{A90}$ plus 5dB(A)
	Night (10pm - 7am)	$L_{Aeq\ adj,T} \leq L_{A90}$ plus 0dB(A) and $L_{Amax} \leq$ 60dB(A)	$L_{Aeq\ adj,T} \leq L_{A90}$ plus 0dB(A) and $L_{Amax} \leq$ 60dB(A)
Continuous noise	Anytime	$L_{A90,T}$ plus 0dB(A)	$L_{A90,T}$ plus 0dB(A)

6.2.2 Applicable Noise Criteria

Based on the measured ambient noise levels in Section 5.1, Table 4 below details the applicable criteria for noise sensitive uses within low density residential.

Table 4: Applicable Noise Criteria (Residential Amenity) – Receiver 1

Noise Type	Time Period	Monday to Saturday LAeq dB(A)	Sunday and Public Holidays LAeq dB(A)
Non-steady sound	Day (7am – 6pm)	48	46
	Evening (6pm – 10pm)	43	43
	Night (10pm - 7am)	31	31
Continuous noise	Anytime	$L_{A90,T}$ plus 0dB(A)	$L_{A90,T}$ plus 0dB(A)

7. Environmental Assessment

7.1 Noise from general sources

Noise associated with the development, such as car park activities etc., has been assessed based on measurements of similar activities for previous projects. The calculations assume that the activities are located at the closest point within the development site to each receiver location. Any relevant shielding or building transmission loss is taken into account for these activities.

7.1.1 Noise levels due to children playing

The noise source levels for childcare centres are based on the *'Technical Guideline Child Care Centre Noise Assessment'* by the Association of Australian Acoustical Consultants, dated September 2020.

As described in the guideline, the noise level of children playing can vary widely depending on the age of the children and the type of activity. Sound power levels of children are presented in the guideline as follows;

Table 5: Sound power levels of children playing

Age group	Number of children	Sound power level dB(A) (Leq 30sec)
0 to 2 years	10	78
2 to 3 years	10	85
3 to 6 years	10	87

Sound pressure levels are taken to be 8dB lower than the sound power levels presented.

The proposed development will cater to the following age groups;

- 8 children 0 to 2 years
- 32 children 2 to 3 years
- 40 children 3 to 5 years

7.2 Onsite Activities (Monday to Saturday)

The average noise source levels and predicted impacts at the receiver locations are shown in Table 8 as follows. L_{Aeq} results are not shown where the calculated total is less than 0dBA.

Table 6: Average noise levels from site activities, children indoors – Monday to Saturday

Receiver	Description	Source Leq@1m dB(A)	Correction dB(A)*	Corrected Leq@1m dB(A)	No. of events per 15min Day	No. of events per 15min Eve	No. of events per 15min Night	Duration per event	Distance (m)	Barrier (height (m)) No	Barrier screening dB	Building TL or shield dB	Topo screening dB	Dist atten. @-6dB/dd	Source L10-Leq dB	Source L1-Leq dB	LAeq adj,T ext. dB(A) Day	LAeq adj,T ext. dB(A) Eve	LAeq adj,T ext. dB(A) Night	LAeq 15 min Compliance Day	Eve	Night
	Criteria																			46	43	31
	Voice conversation	70		70	1	1	1	900	63			-29		-36	3	5	5	5	5	Yes	Yes	Yes
1	Car passby	69		69	5	5	5	15	63					-36	3	5	22	22	22	Yes	Yes	Yes
	Car start	74	2	76	5	5	5	2	63					-36	4	6	20	20	20	Yes	Yes	Yes
	Car door closure	75	2	77	5	5	5	2	63					-36	3	6	21	21	21	Yes	Yes	Yes
	Room 1 (22 children 3-5 yrs)	82	2	84	1	1	1	900	22	3.2	-14	-29		-27	3	5	14	14	14	Yes	Yes	Yes
	Room 2 (22 children 3-5 yrs)	82	2	84	1	1	1	900	31	3.2	-8	-29		-30	3	5	17	17	17	Yes	Yes	Yes
	Room 3 (22 children 3-5 yrs)	82	2	84	1	1	1	900	36	3.2	-6	-29		-32	3	5	17	17	17	Yes	Yes	Yes
	Room 4 (22 children 3-5 yrs)	82	2	84	1	1	1	900	43	3.2	-5	-29		-33	3	5	17	17	17	Yes	Yes	Yes
	Room 5 (15 children 2-3 yrs)	79	2	81	1	1	1	900	48	3.2	-5	-29		-34	3	5	13	13	13	Yes	Yes	Yes
	Room 6 (15 children 2-3 yrs)	79	2	81	1	1	1	900	55	3.2	-4	-29		-35	3	5	13	13	13	Yes	Yes	Yes
	Room 7 (16 children 2-3 yrs)	79	2	81	1	1	1	900	39	3.2	-6	-29		-32	3	5	14	14	14	Yes	Yes	Yes
	Room 8 (12 children 1-2 yrs)	71	2	73	1	1	1	900	39	3.2	-6	-29		-32	3	5	6	6	6	Yes	Yes	Yes
	Room 9 (12 children 0-1 yrs)	71	2	73	1	1	1	900	42	3.2	-5	-29		-33	3	5	6	6	6	Yes	Yes	Yes
	Out of hours School Care (30 children 5+ yrs)	84	2	86	1	1	1	900	44	3.2	-5	-29		-33	3	5	19	19	19	Yes	Yes	Yes
	Swimschool (30 children 5+ yrs)	84	2	86	1	1	1	900	70			-29	-20	-37	3	5				Yes	Yes	Yes
	Total																29	29	29	**Yes**	**Yes**	**Yes**
	Criteria																			46	43	31
	Voice conversation	70		70	1	1	1	900	53			-29		-35	3	5	6	6	6	Yes	Yes	Yes
2	Car passby	69		69	5	5	5	15	26	1.8	-17			-29	3	5	12	12	12	Yes	Yes	Yes
	Car start	74	2	76	5	5	5	2	26	1.8	-17			-29	4	6	10	10	10	Yes	Yes	Yes
	Car door closure	75	2	77	5	5	5	2	26	1.8	-17			-29	3	6	11	11	11	Yes	Yes	Yes
	Room 1 (22 children 3-5 yrs)	82	2	84	1	1	1	900	88			-29		-39	3	5	16	16	16	Yes	Yes	Yes
	Room 2 (22 children 3-5 yrs)	82	2	84	1	1	1	900	88			-29		-39	3	5	16	16	16	Yes	Yes	Yes
	Room 3 (22 children 3-5 yrs)	82	2	84	1	1	1	900	88			-29		-39	3	5	16	16	16	Yes	Yes	Yes
	Room 4 (22 children 3-5 yrs)	82	2	84	1	1	1	900	88			-29		-39	3	5	16	16	16	Yes	Yes	Yes
	Room 5 (15 children 2-3 yrs)	79	2	81	1	1	1	900	88			-29		-39	3	5	13	13	13	Yes	Yes	Yes
	Room 6 (15 children 2-3 yrs)	79	2	81	1	1	1	900	88			-29		-39	3	5	13	13	13	Yes	Yes	Yes
	Room 7 (16 children 2-3 yrs)	79	2	81	1	1	1	900	76			-29		-38	3	5	14	14	14	Yes	Yes	Yes
	Room 8 (12 children 1-2 yrs)	71	2	73	1	1	1	900	70			-29		-37	3	5	7	7	7	Yes	Yes	Yes
	Room 9 (12 children 0-1 yrs)	71	2	73	1	1	1	900	60			-29		-36	3	5	8	8	8	Yes	Yes	Yes
	Out of hours School Care (30 children 5+ yrs)	84	2	86	1	1	1	900	50			-29		-34	3	5	23	23	23	Yes	Yes	Yes
	Swimschool (30 children 5+ yrs)	84	2	86	1	1	1	900	7	1.8	-20	-29		-17	3	5	20	20	20	Yes	Yes	Yes
	Total																28	28	28	**Yes**	**Yes**	**Yes**
	Criteria																			46	43	31
	Voice conversation	70		70	1	1	1	900	370					-52	3	5	18	18	18	Yes	Yes	Yes
3	Car passby	69		69	5	5	5	15	370					-52	3	5	6	6	6	Yes	Yes	Yes
	Car start	74	2	76	5	5	5	2	370					-52	4	6	4	4	4	Yes	Yes	Yes
	Car door closure	75	2	77	5	5	5	2	370					-52	3	6	5	5	5	Yes	Yes	Yes
	Room 1 (22 children 3-5 yrs)	82	2	84	1	1	1	900	362			-29		-52	3	5	3	3	3	Yes	Yes	Yes
	Room 2 (22 children 3-5 yrs)	82	2	84	1	1	1	900	358			-29		-52	3	5	3	3	3	Yes	Yes	Yes
	Room 3 (22 children 3-5 yrs)	82	2	84	1	1	1	900	353			-29		-51	3	5	4	4	4	Yes	Yes	Yes
	Room 4 (22 children 3-5 yrs)	82	2	84	1	1	1	900	346			-29		-51	3	5	4	4	4	Yes	Yes	Yes
	Room 5 (15 children 2-3 yrs)	79	2	81	1	1	1	900	344			-29		-51	3	5	1	1	1	Yes	Yes	Yes
	Room 6 (15 children 2-3 yrs)	79	2	81	1	1	1	900	339			-29		-51	3	5	1	1	1	Yes	Yes	Yes
	Room 7 (16 children 2-3 yrs)	79	2	81	1	1	1	900	362			-29		-52	3	5				Yes	Yes	Yes
	Room 8 (12 children 1-2 yrs)	71	2	73	1	1	1	900	367			-29		-52	3	5				Yes	Yes	Yes
	Room 9 (12 children 0-1 yrs)	71	2	73	1	1	1	900	372			-29		-52	3	5				Yes	Yes	Yes
	Out of hours School Care (30 children 5+ yrs)	84	2	86	1	1	1	900	378			-29		-52	3	5	5	5	5	Yes	Yes	Yes
	Swimschool (30 children 5+ yrs)	84	2	86	1	1	1	900	390			-29		-52	3	5	5	5	5	Yes	Yes	Yes
	Total																20	20	20	**Yes**	**Yes**	**Yes**
	Criteria																			46	43	31
	Voice conversation	70		70	1	1	1	900	770					-58	3	5	12	12	12	Yes	Yes	Yes
4	Car passby	69		69	5	5	5	15	770					-58	3	5				Yes	Yes	Yes
	Car start	74	2	76	5	5	5	2	770					-58	4	6				Yes	Yes	Yes
	Car door closure	75	2	77	5	5	5	2	770					-58	3	6				Yes	Yes	Yes
	Room 1 (22 children 3-5 yrs)	82	2	84	1	1	1	900	823			-29		-59	3	5				Yes	Yes	Yes
	Room 2 (22 children 3-5 yrs)	82	2	84	1	1	1	900	816			-29		-59	3	5				Yes	Yes	Yes
	Room 3 (22 children 3-5 yrs)	82	2	84	1	1	1	900	812			-29		-59	3	5				Yes	Yes	Yes
	Room 4 (22 children 3-5 yrs)	82	2	84	1	1	1	900	804			-29		-59	3	5				Yes	Yes	Yes
	Room 5 (15 children 2-3 yrs)	79	2	81	1	1	1	900	802			-29		-59	3	5				Yes	Yes	Yes
	Room 6 (15 children 2-3 yrs)	79	2	81	1	1	1	900	798			-29		-59	3	5				Yes	Yes	Yes
	Room 7 (16 children 2-3 yrs)	79	2	81	1	1	1	900	793			-29		-58	3	5				Yes	Yes	Yes
	Room 8 (12 children 1-2 yrs)	71	2	73	1	1	1	900	789			-29		-58	3	5				Yes	Yes	Yes
	Room 9 (12 children 0-1 yrs)	71	2	73	1	1	1	900	785			-29		-58	3	5				Yes	Yes	Yes
	Out of hours School Care (30 children 5+ yrs)	84	2	86	1	1	1	900	775			-29		-58	3	5				Yes	Yes	Yes
	Swimschool (30 children 5+ yrs)	84	2	86	1	1	1	900	740			-29		-57	3	5				Yes	Yes	Yes
	Total																15	15	15	**Yes**	**Yes**	**Yes**

Table 7: Average noise levels from site activities, outdoor play – Monday to Saturday

Receiver	Description	Source Leq@1m dB(A)	Correction dB(A)*	Corrected Leq@1m dB(A)	No. of events per 15min Day	No. of events per 15min Eve	No. of events per 15min Night	Duration per event	Distance (m)	Barrier (height (m)) No	Barrier screening dB	Building TL or shield dB	Topo screening dB	Dist atten. @-6dB/dd	Source L10-Leq dB	Source L1-Leq dB	LAeq adj,T ext. dB(A) Day	LAeq adj,T ext. dB(A) Eve	LAeq adj,T ext. dB(A) Night	LAeq 15 min Compliance Day	Eve	Night
	Receivers 1. 13-17 & 22 Capricorn Street (N) 2. 8 Capricorn Street & 14 College Drive (E) 3. 12-20, 19 & 41 Bonello Circuit (SW) 4. 15-25 Highwood Court (SE)																					
	Criteria																			48	43	31
	Voice conversation	70		70	1	1	1	900	63			-15		-36	3	5	19	19	19	Yes	Yes	Yes
1	Car passby	69		69	5	5	5	15	63					-36	3	5	22	22	22	Yes	Yes	Yes
	Car start	74	2	76	5	5	5	2	63					-36	4	6	20	20	20	Yes	Yes	Yes
	Car door closure	75	2	77	5	5	5	2	63					-36	3	6	21	21	21	Yes	Yes	Yes
	Childcare Outdoor Play (88 children 3-5 years)	88	2	90	1			900	36	3.2	-15			-32	3	8	43			Yes	n/a	n/a
	Childcare Outdoor Play (46 children 2-3 years)	84	2	86	1			900	36	3.2	-15			-32	3	8	39			Yes	n/a	n/a
	Childcare Outdoor Play (24 children 0-2 years)	74	2	76	1			900	37	3.2	-15			-32	3	8	29			Yes	n/a	n/a
	OHSC Outdoor Play (30 children 5+ yrs)	84	2	86	1			900	38	3.2	-15			-32	3	5	39			Yes	n/a	n/a
	Swimschool (30 children 5+ yrs)	84	2	86	1	1	1	900	70			-21		-37	3	5	28	28	28	Yes	Yes	Yes
	Total																46	31	31	**Yes**	**Yes**	**Yes**
	Criteria																			48	43	31
	Voice conversation	70		70	1	1	1	900	53			-29		-35	3	5	6	6	6	Yes	Yes	Yes
2	Car passby	69		69	5	5	5	15	26	1.8	-17			-29	3	5	12	12	12	Yes	Yes	Yes
	Car start	74	2	76	5	5	5	2	26	1.8	-17			-29	4	6	10	10	10	Yes	Yes	Yes
	Car door closure	75	2	77	5	5	5	2	26	1.8	-17			-29	3	6	11	11	11	Yes	Yes	Yes
	Childcare Outdoor Play (88 children 3-5 years)	88	2	90	1			900	79	2.2	-10			-38	3	8	42			Yes	n/a	n/a
	Childcare Outdoor Play (46 children 2-3 years)	84	2	86	1			900	81	2.2	-10			-39	3	8	37			Yes	n/a	n/a
	Childcare Outdoor Play (24 children 0-2 years)	74	2	76	1			900	61	2.2	-10			-36	3	8	30			Yes	n/a	n/a
	OHSC Outdoor Play (30 children 5+ yrs)	84	2	86	1			900	53	2.2	-10			-35	3	5	41			Yes	n/a	n/a
	Swimschool (30 children 5+ yrs)	84	2	86	1	1	1	900	7	1.8	-20	-29		-17	3	5	20	20	20	Yes	Yes	Yes
	Total																45	22	22	**Yes**	**Yes**	**Yes**
	Criteria																			48	43	31
	Voice conversation	70		70	1	1	1	900	370					-52	3	5	18	18	18	Yes	Yes	Yes
3	Car passby	69		69	5	5	5	15	370					-52	3	5	6	6	6	Yes	Yes	Yes
	Car start	74	2	76	5	5	5	2	370					-52	4	6	4	4	4	Yes	Yes	Yes
	Car door closure	75	2	77	5	5	5	2	370					-52	3	6	5	5	5	Yes	Yes	Yes
	Childcare Outdoor Play (88 children 3-5 years)	88	2	90	1			900	378					-52	3	8	38			Yes	n/a	n/a
	Childcare Outdoor Play (46 children 2-3 years)	84	2	86	1			900	378					-52	3	8	34			Yes	n/a	n/a
	Childcare Outdoor Play (24 children 0-2 years)	74	2	76	1			900	378					-52	3	8	24			Yes	n/a	n/a
	OHSC Outdoor Play (30 children 5+ yrs)	84	2	86	1			900	399					-53	3	5	33			Yes	n/a	n/a
	Swimschool (30 children 5+ yrs)	84	2	86	1	1	1	900	390			-29		-52	3	5	5	5	5	Yes	Yes	Yes
	Total																40	19	19	**Yes**	**Yes**	**Yes**
	Criteria																			48	43	31
	Voice conversation	70		70	1	1	1	900	770					-58	3	5	12	12	12	Yes	Yes	Yes
4	Car passby	69		69	5	5	5	15	770					-58	3	5				Yes	Yes	Yes
	Car start	74	2	76	5	5	5	2	770					-58	4	6				Yes	Yes	Yes
	Car door closure	75	2	77	5	5	5	2	770					-58	3	6				Yes	Yes	Yes
	Childcare Outdoor Play (88 children 3-5 years)	88	2	90	1			900	840					-59	3	8	31			Yes	n/a	n/a
	Childcare Outdoor Play (46 children 2-3 years)	84	2	86	1			900	840					-59	3	8	27			Yes	n/a	n/a
	Childcare Outdoor Play (24 children 0-2 years)	74	2	76	1			900	840					-59	3	8	17			Yes	n/a	n/a
	OHSC Outdoor Play (30 children 5+ yrs)	84	2	86	1			900	827					-59	3	5	27			Yes	n/a	n/a
	Swimschool (30 children 5+ yrs)	84	2	86	1	1	1	900	740			-29		-58	3	5				Yes	Yes	Yes
	Total																34	15	15	**Yes**	**Yes**	**Yes**

Compliance is predicted for onsite activities on the condition the recommendations in Section 8 are implemented.

7.2.1 Onsite Activities (Sundays & Public Holidays)

The average noise source levels and predicted impacts at the receiver locations are shown in Table 8 as follows. L_{Aeq} results are not shown where the calculated total is less than 0dBA.

Table 8: Average noise levels from site activities, children indoors – Sundays & Public Holidays

Receivers 1. 13-17 & 22 Capricorn Street (N) 2. 8 Capricorn Street & 14 College Drive (E) 3. 12-20, 19 & 41 Bonello Circuit (SW) 4. 15-25 Highwood Court (SE)																LAeq 15 min Compliance
Receiver	Description	Source Leq@1m dB(A)	Correction dB(A)*	Corrected Leq@1m dB(A)	No. of events per 15min Day	Duration per event	Distance (m)	Barrier (height (m)) No	Barrier screening dB	Building TL or shield dB	Topo screening dB	Dist atten. @-6dB/dd	Source L10-Leq dB	Source L1-Leq dB	LAeq adj,T ext. dB(A) Day	Day
	Criteria															46
	Voice conversation	70		70	1	900	63					-36	3	5	34	Yes
1	Car passby	69		69	5	15	63					-36	3	5	22	Yes
	Car start	74	2	76	5	2	63					-36	4	6	20	Yes
	Car door closure	75	2	77	5	2	63					-36	3	6	21	Yes
	Room 1 (22 children 3-5 yrs)	82	2	84	1	900	22	3.2	-14	-29		-27	3	5	14	Yes
	Room 2 (22 children 3-5 yrs)	82	2	84	1	900	31	3.2	-8	-29		-30	3	5	17	Yes
	Room 3 (22 children 3-5 yrs)	82	2	84	1	900	36	3.2	-6	-29		-32	3	5	17	Yes
	Room 4 (22 children 3-5 yrs)	82	2	84	1	900	43	3.2	-5	-29		-33	3	5	17	Yes
	Room 5 (15 children 2-3 yrs)	79	2	81	1	900	48	3.2	-5	-29		-34	3	5	13	Yes
	Room 6 (15 children 2-3 yrs)	79	2	81	1	900	55	3.2	-4	-29		-35	3	5	13	Yes
	Room 7 (16 children 2-3 yrs)	79	2	81	1	900	39	3.2	-6	-29		-32	3	5	14	Yes
	Room 8 (12 children 1-2 yrs)	71	2	73	1	900	39	3.2	-6	-29		-32	3	5	6	Yes
	Room 9 (12 children 0-1 yrs)	71	2	73	1	900	42	3.2	-5	-29		-33	3	5	6	Yes
	Out of hours School Care (30 children 5+ yrs)	84	2	86	1	900	44	3.2	-5	-29		-33	3	5	19	Yes
	Swimschool (30 children 5+ yrs)	84	2	86	1	900	70			-29	-20	-37	3	5		Yes
	Total														35	**Yes**
	Criteria															46
	Voice conversation	70		70	1	900	53					-35	3	5	35	Yes
2	Car passby	69		69	5	15	26	1.8	-17			-29	3	5	12	Yes
	Car start	74	2	76	5	2	26	1.8	-17			-29	4	6	10	Yes
	Car door closure	75	2	77	5	2	26	1.8	-17			-29	3	6	11	Yes
	Room 1 (22 children 3-5 yrs)	82	2	84	1	900	88			-29		-39	3	5	16	Yes
	Room 2 (22 children 3-5 yrs)	82	2	84	1	900	88			-29		-39	3	5	16	Yes
	Room 3 (22 children 3-5 yrs)	82	2	84	1	900	88			-29		-39	3	5	16	Yes
	Room 4 (22 children 3-5 yrs)	82	2	84	1	900	88			-29		-39	3	5	16	Yes
	Room 5 (15 children 2-3 yrs)	79	2	81	1	900	88			-29		-39	3	5	13	Yes
	Room 6 (15 children 2-3 yrs)	79	2	81	1	900	88			-29		-39	3	5	13	Yes
	Room 7 (16 children 2-3 yrs)	79	2	81	1	900	76			-29		-38	3	5	14	Yes
	Room 8 (12 children 1-2 yrs)	71	2	73	1	900	70			-29		-37	3	5	7	Yes
	Room 9 (12 children 0-1 yrs)	71	2	73	1	900	60			-29		-36	3	5	8	Yes
	Out of hours School Care (30 children 5+ yrs)	84	2	86	1	900	50			-29		-34	3	5	23	Yes
	Swimschool (30 children 5+ yrs)	84	2	86	1	900	7	1.8	-20	-29		-17	3	5	20	Yes
	Total														36	**Yes**
	Criteria															46
	Voice conversation	70		70	1	900	370					-52	3	5	18	Yes
3	Car passby	69		69	5	15	370					-52	3	5	6	Yes
	Car start	74	2	76	5	2	370					-52	4	6	4	Yes
	Car door closure	75	2	77	5	2	370					-52	3	6	5	Yes
	Room 1 (22 children 3-5 yrs)	82	2	84	1	900	362			-29		-52	3	5	3	Yes
	Room 2 (22 children 3-5 yrs)	82	2	84	1	900	358			-29		-52	3	5	3	Yes
	Room 3 (22 children 3-5 yrs)	82	2	84	1	900	353			-29		-51	3	5	4	Yes
	Room 4 (22 children 3-5 yrs)	82	2	84	1	900	346			-29		-51	3	5	4	Yes
	Room 5 (15 children 2-3 yrs)	79	2	81	1	900	344			-29		-51	3	5	1	Yes
	Room 6 (15 children 2-3 yrs)	79	2	81	1	900	339			-29		-51	3	5	1	Yes
	Room 7 (16 children 2-3 yrs)	79	2	81	1	900	362			-29		-52	3	5		Yes
	Room 8 (12 children 1-2 yrs)	71	2	73	1	900	367			-29		-52	3	5		Yes
	Room 9 (12 children 0-1 yrs)	71	2	73	1	900	372			-29		-52	3	5		Yes
	Out of hours School Care (30 children 5+ yrs)	84	2	86	1	900	378			-29		-52	3	5	5	Yes
	Swimschool (30 children 5+ yrs)	84	2	86	1	900	390			-29		-52	3	5	5	Yes
	Total														20	**Yes**
	Criteria															46
	Voice conversation	70		70	1	900	770					-58	3	5	12	Yes
4	Car passby	69		69	5	15	770					-58	3	5		Yes
	Car start	74	2	76	5	2	770					-58	4	6		Yes
	Car door closure	75	2	77	5	2	770					-58	3	6		Yes
	Room 1 (22 children 3-5 yrs)	82	2	84	1	900	823			-29		-59	3	5		Yes
	Room 2 (22 children 3-5 yrs)	82	2	84	1	900	816			-29		-59	3	5		Yes
	Room 3 (22 children 3-5 yrs)	82	2	84	1	900	812			-29		-59	3	5		Yes
	Room 4 (22 children 3-5 yrs)	82	2	84	1	900	804			-29		-59	3	5		Yes
	Room 5 (15 children 2-3 yrs)	79	2	81	1	900	802			-29		-59	3	5		Yes
	Room 6 (15 children 2-3 yrs)	79	2	81	1	900	798			-29		-59	3	5		Yes
	Room 7 (16 children 2-3 yrs)	79	2	81	1	900	793			-29		-58	3	5		Yes
	Room 8 (12 children 1-2 yrs)	71	2	73	1	900	789			-29		-58	3	5		Yes
	Room 9 (12 children 0-1 yrs)	71	2	73	1	900	785			-29		-58	3	5		Yes
	Out of hours School Care (30 children 5+ yrs)	84	2	86	1	900	775			-29		-58	3	5		Yes
	Swimschool (30 children 5+ yrs)	84	2	86	1	900	740			-29		-57	3	5		Yes
	Total														15	**Yes**

Table 9: Average noise levels from site activities, outdoor play - Sundays & Public Holidays

Receiver	Description	Source Leq@1m dB(A)	Correction dB(A)*	Corrected Leq@1m dB(A)	No. of events per 15min Day	Duration per event	Distance (m)	Barrier (height (m)) No	Barrier screening dB	Building TL or shield dB	Topo screening dB	Dist atten. @-6dB/dd	Source L10-Leq dB	Source L1-Leq dB	LAeq adj,T ext. dB(A) Day	LAeq 15 min Compliance Day
	Receivers 1. 13-17 & 22 Capricorn Street (N) 2. 8 Capricorn Street & 14 College Drive (E) 3. 12-20, 19 & 41 Bonello Circuit (SW) 4. 15-25 Highwood Court (SE)															
	Criteria															46
	Voice conversation	70		70	1	900	63			-15		-36	3	5	19	Yes
1	Car passby	69		69	5	15	63					-36	3	5	22	Yes
	Car start	74	2	76	5	2	63					-36	4	6	20	Yes
	Car door closure	75	2	77	5	2	63					-36	3	6	21	Yes
	Childcare Outdoor Play (88 children 3-5 years)	88	2	90	1	900	36	3.2	-15			-32	3	8	43	Yes
	Childcare Outdoor Play (46 children 2-3 years)	84	2	86	1	900	36	3.2	-15			-32	3	8	39	Yes
	Childcare Outdoor Play (24 children 0-2 years)	74	2	76	1	900	37	3.2	-15			-32	3	8	29	Yes
	OHSC Outdoor Play (30 children 5+ yrs)	84	2	86	1	900	38	3.2	-15			-32	3	5	39	Yes
	Swimschool (30 children 5+ yrs)	84	2	86	1	900	70			-21		-37	3	5	28	Yes
	Total														46	**Yes**
	Criteria															46
	Voice conversation	70		70	1	900	53			-15		-35	3	5	20	Yes
2	Car passby	69		69	5	15	26	1.8	-17			-29	3	5	12	Yes
	Car start	74	2	76	5	2	26	1.8	-17			-29	4	6	10	Yes
	Car door closure	75	2	77	5	2	26	1.8	-17			-29	3	6	11	Yes
	Childcare Outdoor Play (88 children 3-5 years)	88	2	90	1	900	79	2.2	-10			-38	3	8	42	Yes
	Childcare Outdoor Play (46 children 2-3 years)	84	2	86	1	900	81	2.2	-10			-39	3	8	37	Yes
	Childcare Outdoor Play (24 children 0-2 years)	74	2	76	1	900	61	2.2	-10			-36	3	8	30	Yes
	OHSC Outdoor Play (30 children 5+ yrs)	84	2	86	1	900	53	2.2	-10			-35	3	5	41	Yes
	Swimschool (30 children 5+ yrs)	84	2	86	1	900	7	1.8	-20	-29		-17	3	5	20	Yes
	Total														45	**Yes**
	Criteria															46
	Voice conversation	70		70	1	900	370					-52	3	5	18	Yes
3	Car passby	69		69	5	15	370					-52	3	5	6	Yes
	Car start	74	2	76	5	2	370					-52	4	6	4	Yes
	Car door closure	75	2	77	5	2	370					-52	3	6	5	Yes
	Childcare Outdoor Play (88 children 3-5 years)	88	2	90	1	900	378					-52	3	8	38	Yes
	Childcare Outdoor Play (46 children 2-3 years)	84	2	86	1	900	378					-52	3	8	34	Yes
	Childcare Outdoor Play (24 children 0-2 years)	74	2	76	1	900	378					-52	3	8	24	Yes
	OHSC Outdoor Play (30 children 5+ yrs)	84	2	86	1	900	399					-53	3	5	33	Yes
	Swimschool (30 children 5+ yrs)	84	2	86	1	900	390					-52	3	5	34	Yes
	Total														41	**Yes**
	Criteria															46
	Voice conversation	70		70	1	900	770					-58	3	5	12	Yes
4	Car passby	69		69	5	15	770					-58	3	5		Yes
	Car start	74	2	76	5	2	770					-58	4	6		Yes
	Car door closure	75	2	77	5	2	770					-58	3	6		Yes
	Childcare Outdoor Play (88 children 3-5 years)	88	2	90	1	900	840					-59	3	8	31	Yes
	Childcare Outdoor Play (46 children 2-3 years)	84	2	86	1	900	840					-59	3	8	27	Yes
	Childcare Outdoor Play (24 children 0-2 years)	74	2	76	1	900	840					-59	3	8	17	Yes
	OHSC Outdoor Play (30 children 5+ yrs)	84	2	86	1	900	827					-59	3	5	27	Yes
	Swimschool (30 children 5+ yrs)	84	2	86	1	900	740					-58	3	5	28	Yes
	Total														35	**Yes**

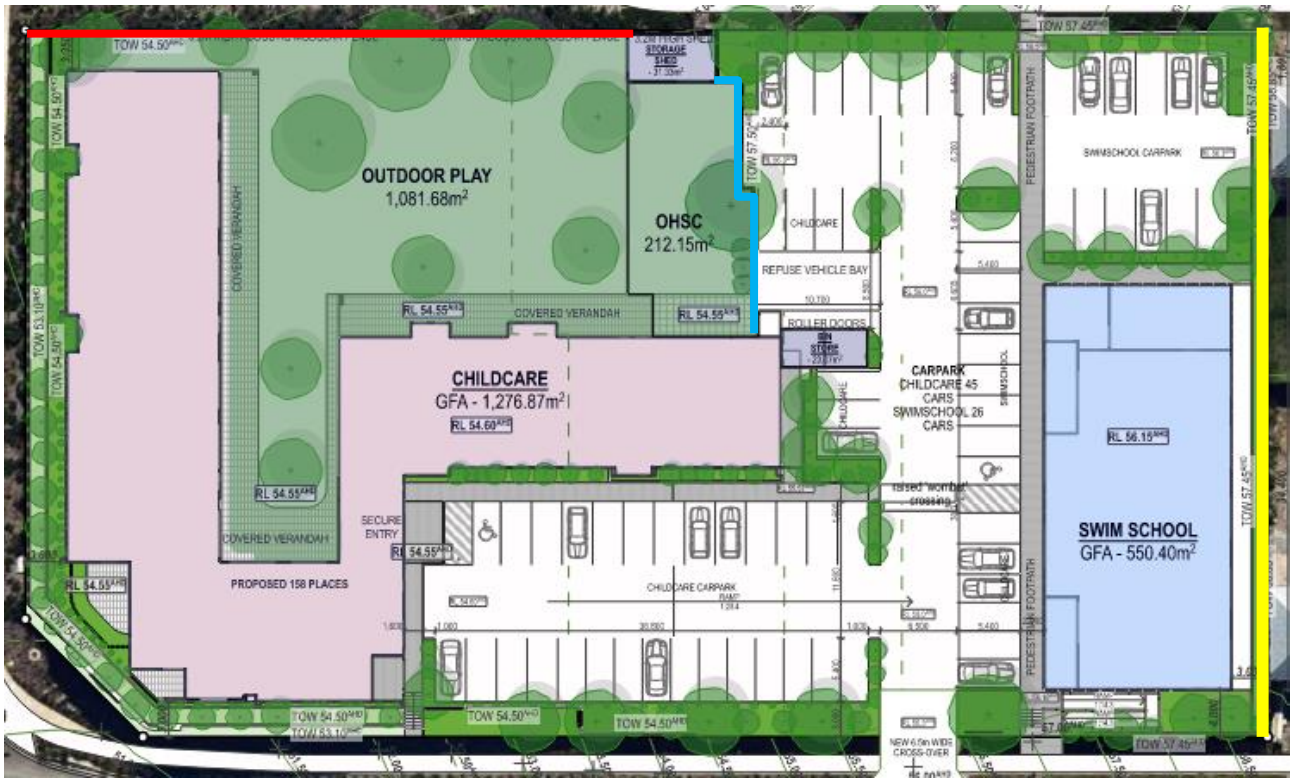
Compliance is predicted for onsite activities on the condition the recommendations in Section 8 are implemented.

8. Recommendations

8.1 Acoustic Barriers

Acoustic barriers are recommended to be constructed along the play areas as nominated in Figure 3. The barriers shall be constructed using materials that achieve a minimum surface density of 9kg/m^2. Suitable materials may include 19mm thick lapped timber (minimum 40% overlap), 10.38mm laminate glazing, masonry, 9mm fibre cement sheeting, Hebel, Perspex, plywood, or other material which satisfy the minimum surface density requirement. The barriers shall be free of gaps and holes.

Figure 3: Recommended Acoustic Barriers



Acoustic Barrier 2.2m high above Play Area

Acoustic Barrier 3.2m high above Play Area

Acoustic Barrier 1.8m high above top of proposed 2.7m high retaining wall

8.2 Onsite Activities

Compliance is predicted with both Brisbane and Logan City Council assessment criteria at the nearest receivers for the proposed hours of operation (7am to 7pm) on the condition the following recommendations are implemented:

- Construction of acoustic barriers and covered areas as detailed in Section 8.1.
- Child Care Centre Rooms - All indoor play areas shall be fitted with 10.38 laminate glass with acoustic seals (Rw 35), windows and doors to remain closed during the evening and night periods (6pm-7am). We recommend the installation of mechanical ventilation or similar to allow windows and doors to remain closed or cross ventilation in accordance with AS1668.
- Swim School - the swim school shall be fitted with 10.38 laminate glass and acoustic seals (Rw 35), with windows and doors to remain closed during use. We recommend the installation of mechanical ventilation or similar to allow windows and doors to remain closed in accordance with AS1668.
- Use of the outdoor play areas to be limited to the daytime period only (7am-6pm).
- Waste collection to be conducted in accordance with the surrounding residential properties.

8.2.1 Onsite Mechanical Plant

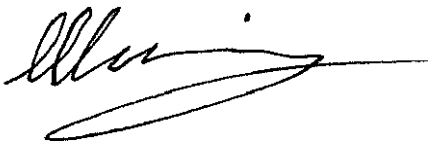
No information regarding mechanical services was available at the time of the assessment. We recommend that any new mechanical plant is designed to comply with the noise criteria stated in Section 6 with an assessment by a qualified acoustic consultant to be conducted prior to installation.

9. Conclusion

An environmental noise assessment was conducted for the proposed childcare centre and swimschool to be located at 2-12 College Drive, Flagstone. On the condition the recommendations detailed in Section 8 are implemented, compliance is predicted with Logan City Council assessment criteria.

If you should have any queries, please do not hesitate to contact us.

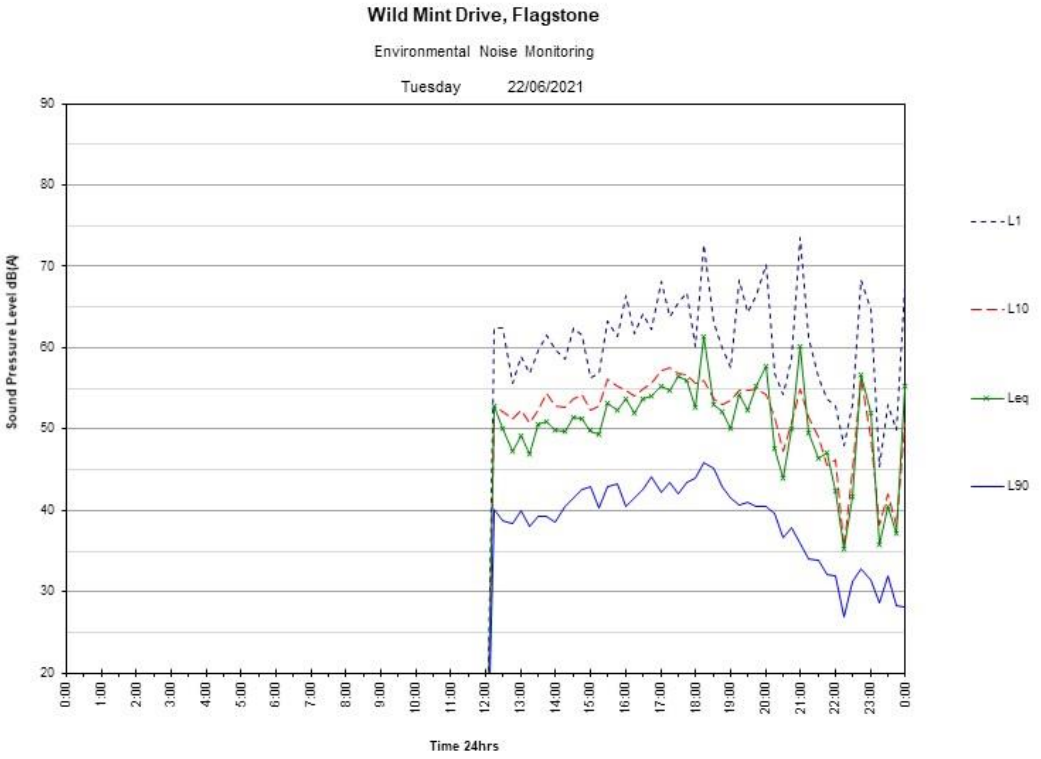
Report Prepared By

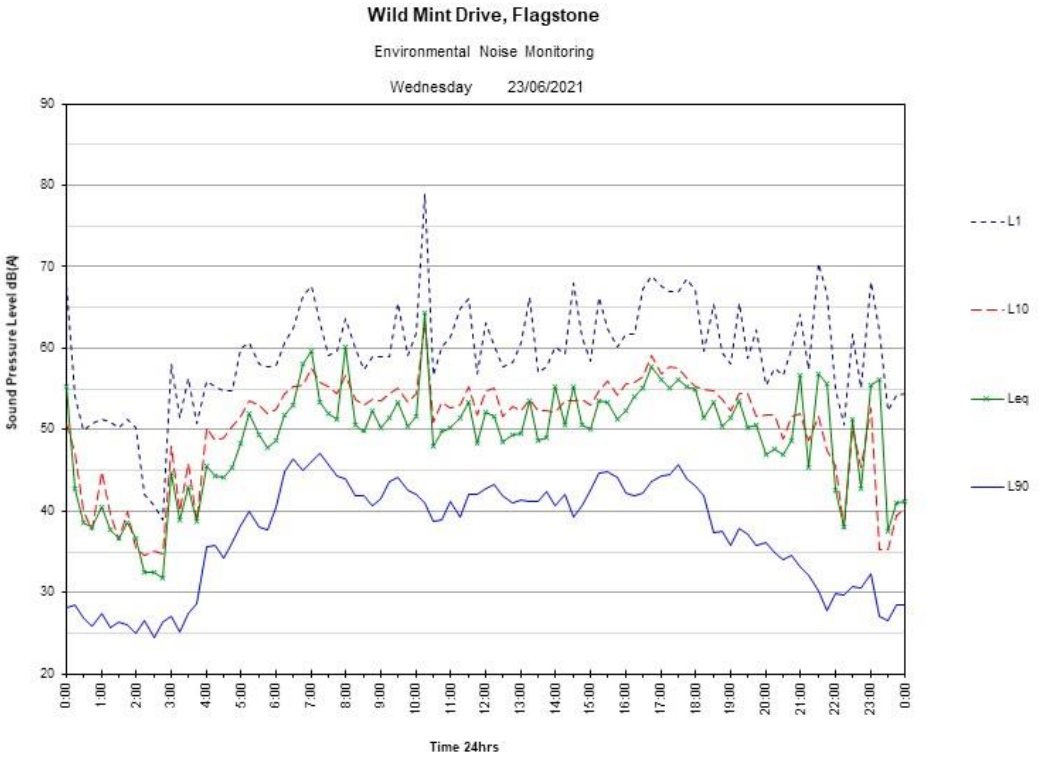


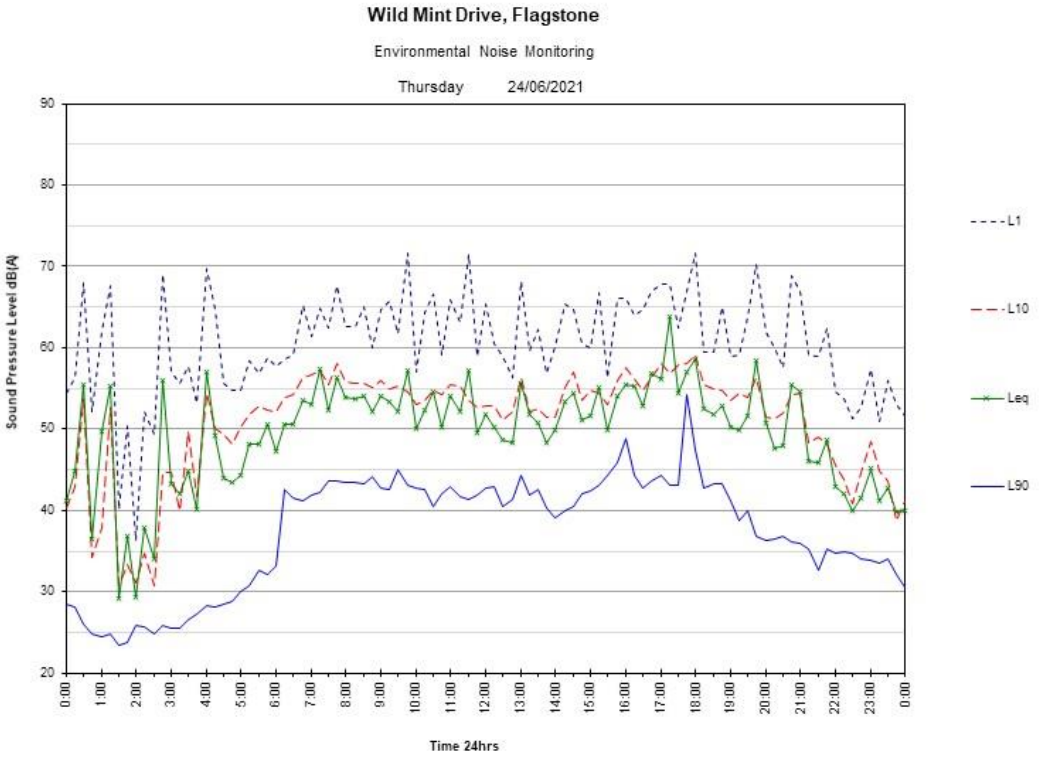
Michael Gunning M.ArchSci
Acoustic Consultant
acousticworks)))

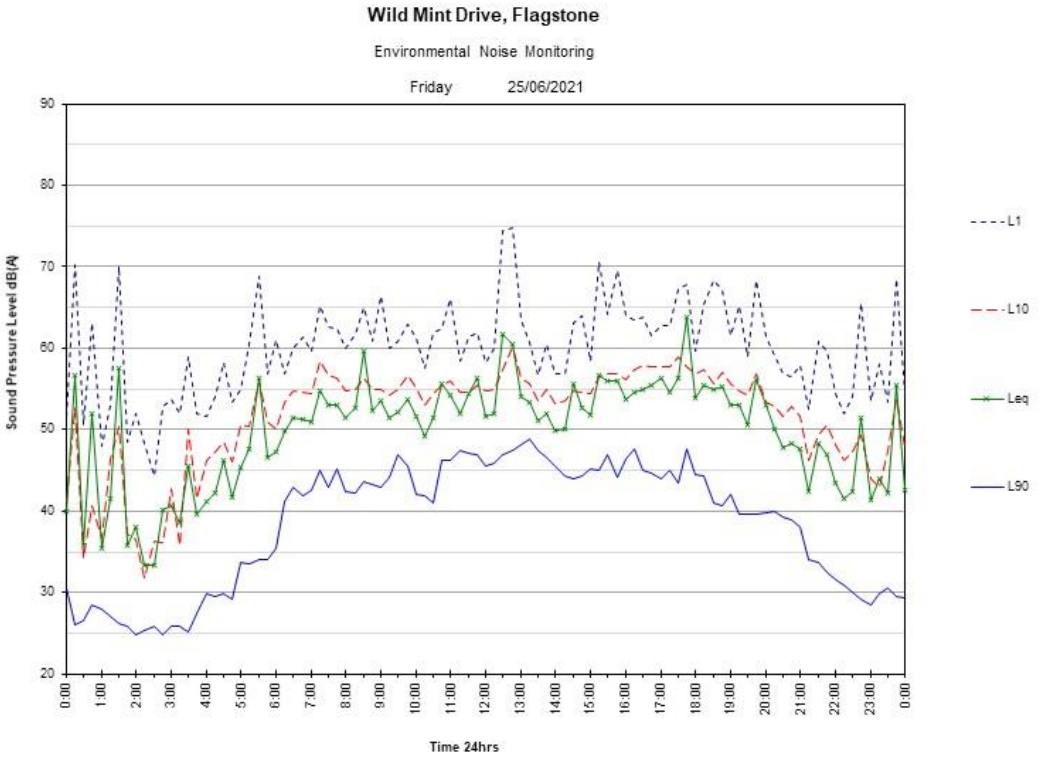
10. Appendices

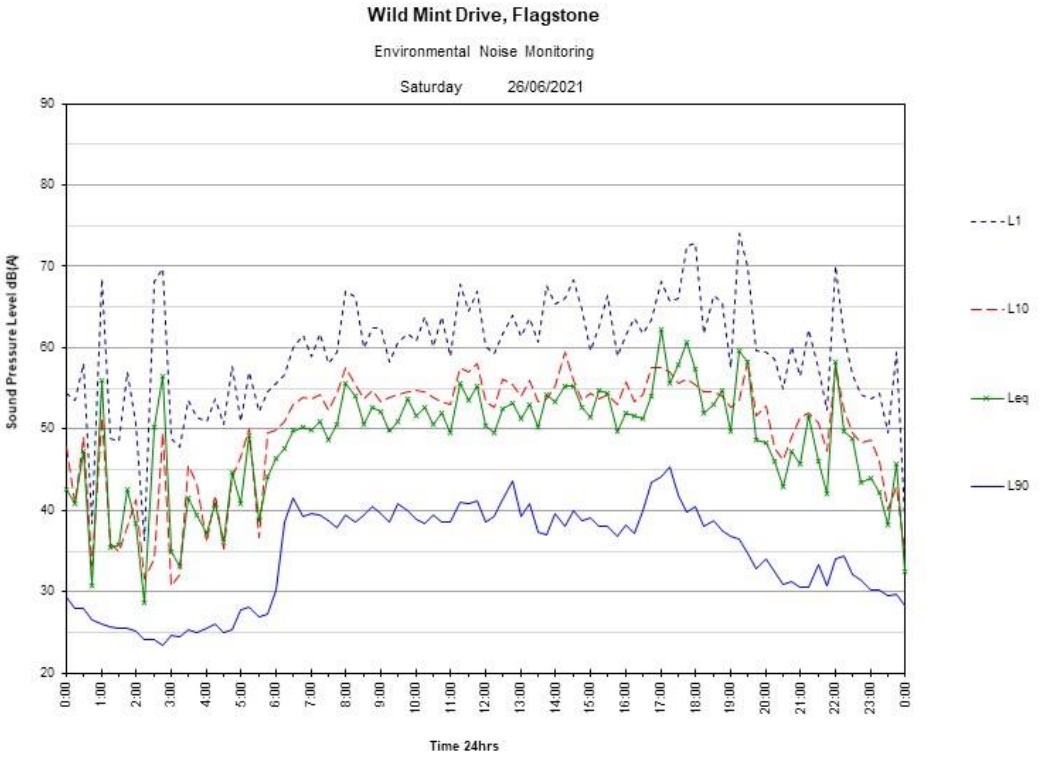
10.1 Noise Monitoring Charts

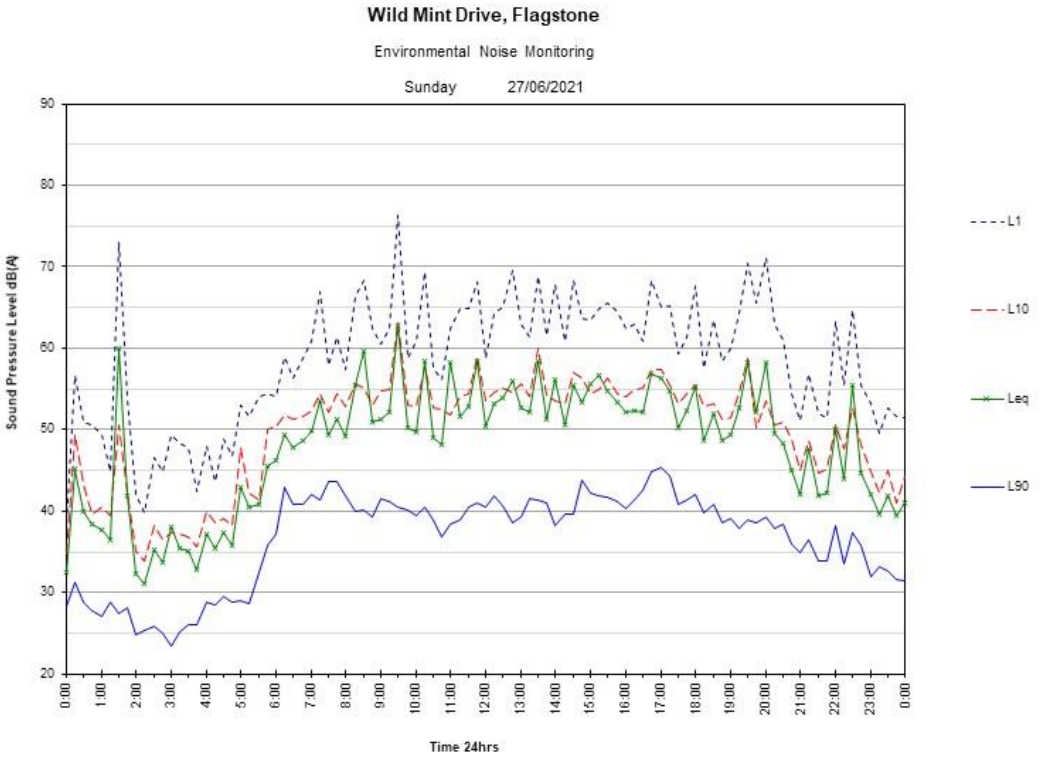


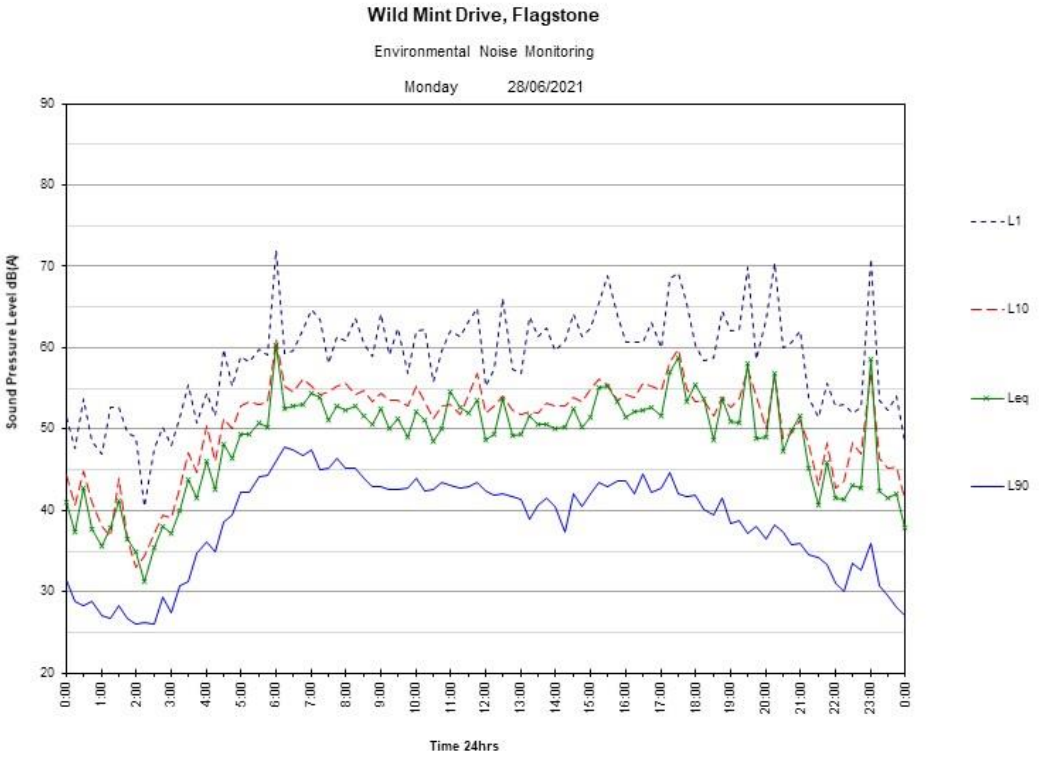


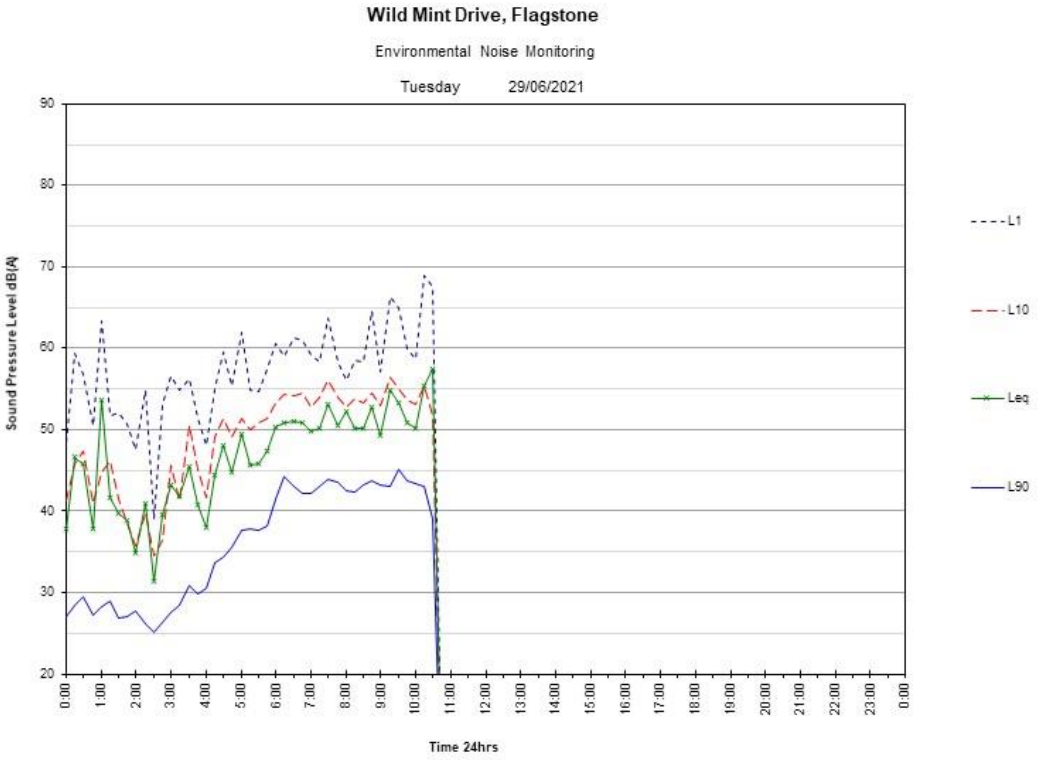

Wild Mint Drive, Flagstone
Environmental Noise Monitoring
Thursday 24/06/2021
Sound Pressure Level dB(A)
Time 24hrs
L1
L10
Leq
L90


Wild Mint Drive, Flagstone
Environmental Noise Monitoring
Friday 25/06/2021
Sound Pressure Level dB(A)
Time 24hrs
L1
L10
Leq
L90


Wild Mint Drive, Flagstone
Environmental Noise Monitoring
Saturday 26/06/2021
Sound Pressure Level dB(A)
Time 24hrs
L1
L10
Leq
L90


Wild Mint Drive, Flagstone
Environmental Noise Monitoring
Sunday 27/06/2021
Sound Pressure Level dB(A)
Time 24hrs
L1
L10
Leq
L90


Wild Mint Drive, Flagstone
Environmental Noise Monitoring
Monday 28/06/2021
Sound Pressure Level dB(A)
90
80
70
60
50
40
30
20
0:00
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
0:00
Time 24hrs
L1
L10
Leq
L90


Wild Mint Drive, Flagstone
Environmental Noise Monitoring
Tuesday 29/06/2021
Sound Pressure Level dB(A)
90
80
70
60
50
40
30
20
0:00
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
0:00
Time 24hrs
L1
L10
Leq
L90

10.2 Development Plans

Perspective View from the corner of Flagstonian Drive & 'Road One'

Flagstonian Drive Flagstone QLD 4280 AUSTRALIA
Stage 2Di Lot 905

TOWN PLANNING SUBMISSION

PROJECT SUMMARY

Site Area	6,282m²
Proposed Development	Childcare Centre & Swimschool
Carparking	Childcare: Drop-off 19 car spaces Staff: 26 car spaces Swimschool: 26 car spaces
New GFA	Childcare Centre 1,277m² Swimschool 550m²
Proposed Site Cover	2,210m² (35%) includes covered verandahs, entry awning & bin store
Road Frontage	159.7m
Cross-over Width	6.5m
Impervious Area	4,374m²

ALTO ARCHITECTS PTY LTD

DATE ISSUE DETAILS
16/05/22 A Town Planning Lodgement
12/08/22 B Town Planning RFI Response

PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-000 | LAYOUT NAME Cover Page | ISSUE NO. B
Scale @ A3 - | 200908FLA
200908FLA-Master 21.pln | Printed : 17/5/22

LOCALITY KEY

1. PROPOSED SITE CHILDCARE & SWIM SCHOOL
2. NEW RESIDENTIAL SUBDIVISIONS
3. SANDY CREEK

ALTO ARCHITECTS PTY LTD

DATE ISSUE DETAILS
16/05/22 A Town Planning Lodgement
12/08/22 B Town Planning RFI Response

PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-001 | LAYOUT NAME Locality Plan | ISSUE NO. B
Scale @ A3 - 00 | 200908FLA
200908FLA-Master 21.pln | Printed : 17/5/22

Project Statistics

Childcare Centre GFA:1,277m²

0-5 yrs: 158 Places
Out of Hours School Care: 30 places
Drop-Off Cars: 19 cars
Staff Cars: 26 cars
Total Carparks: 45 Cars

Swimschool GFA: 550m²

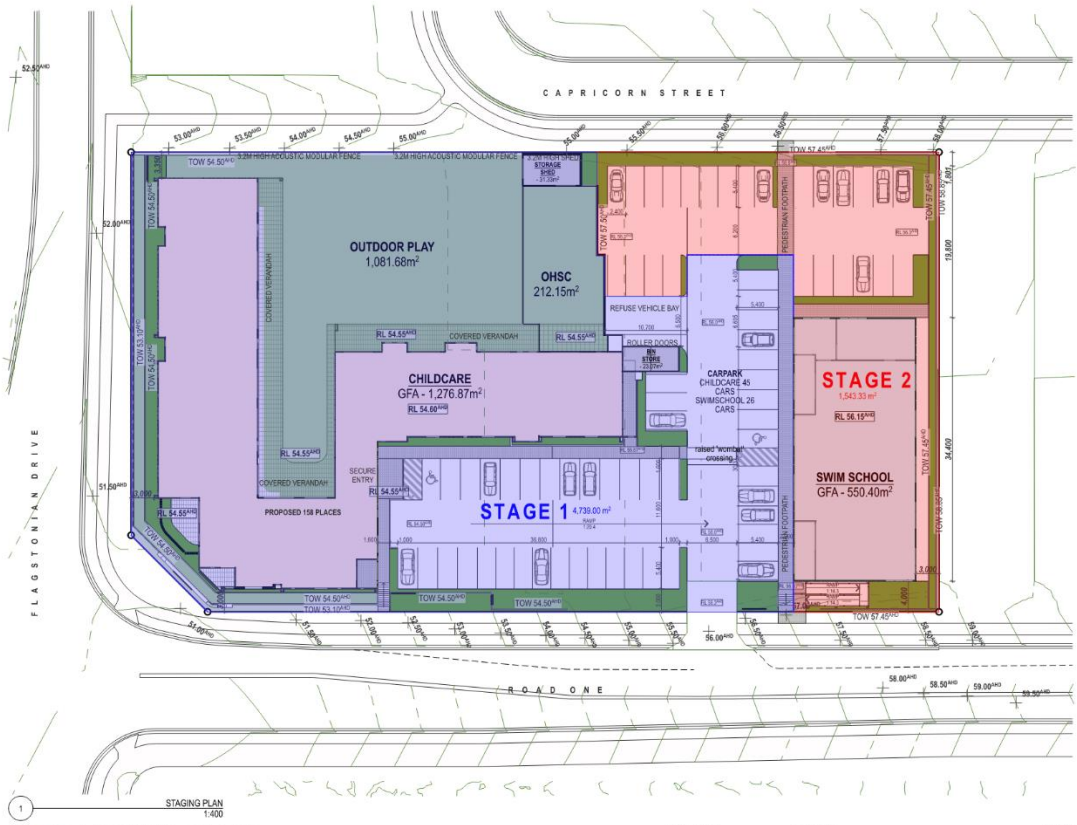
Swimschool Carparks: 26 Cars

1 SITE PLAN DA (1:400) 1:400

ALTO ARCHITECTS PTY LTD

PROJECT NAME: Proposed Childcare Centre & Swimschool
ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-100 | LAYOUT NAME Site Plan | ISSUE NO. B
Scale @ A3 - 0, 1:400, 1:1 | 200908FLA

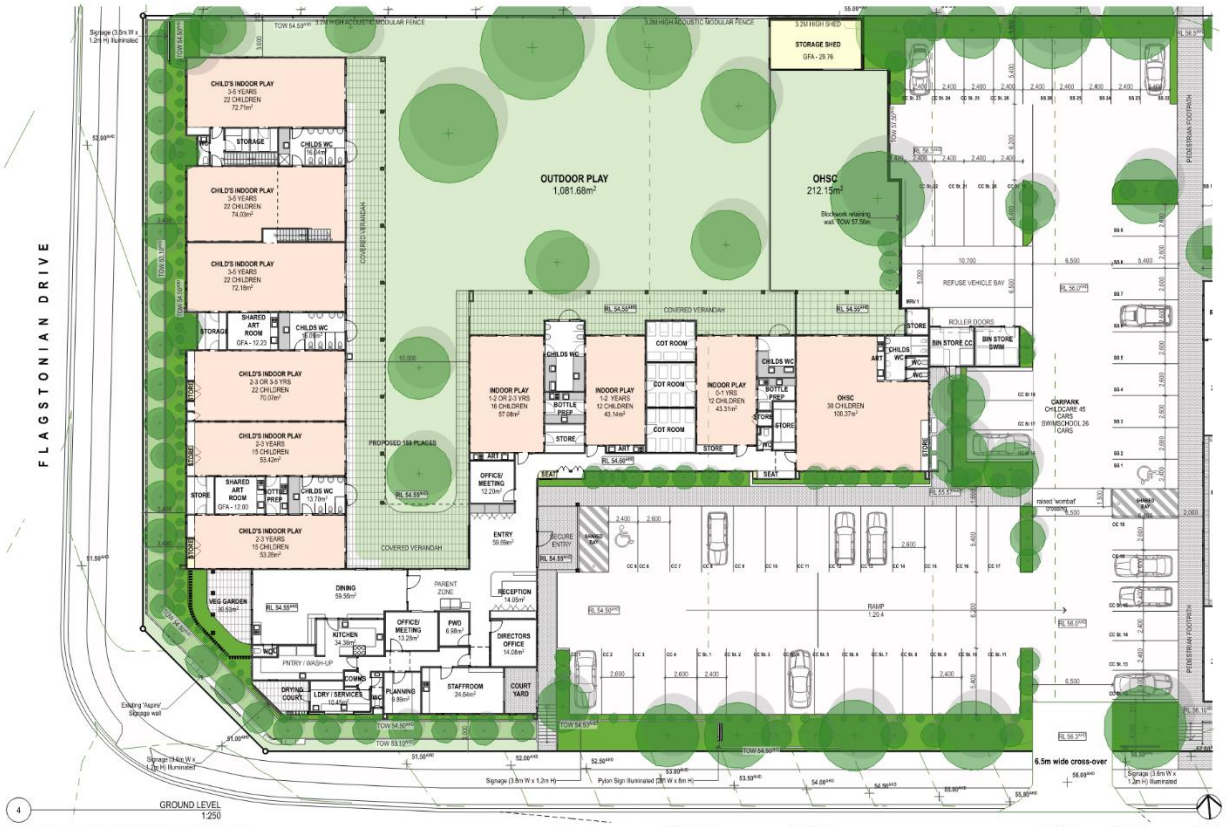


1 STAGING PLAN 1:400

ALTO ARCHITECTS PTY LTD

PROJECT NAME: Proposed Childcare Centre & Swimschool
ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-101 | LAYOUT NAME Staging Plan | ISSUE NO. B
Scale @ A3 - 0 | 200908FLA



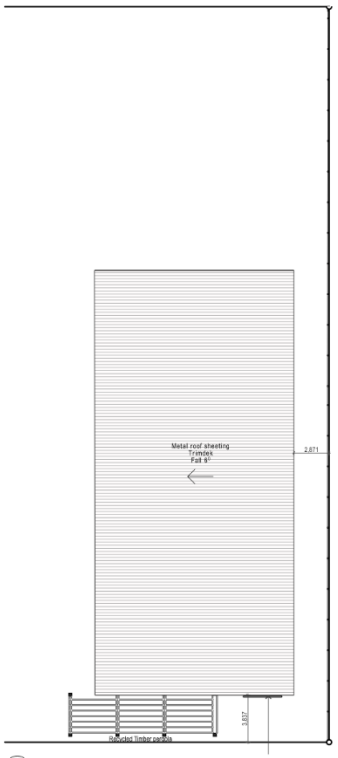
ALTO ARCHITECTS PTY LTD

DATE ISSUE DETAILS 16/05/22 A Town Planning Lodgement 12/08/22 B Town Planning RFI Response	PROJECT NAME: **Proposed Childcare Centre & Swimschool** ADDRESS: Flagstonian Drive , Flagstone, QLD 4280	DRAWING NO. TP-200	LAYOUT NAME Childcare Ground Plan	ISSUE NO. B
		Scale @ **A3 - 0**, 1:1 203908FLA-Master 21.pln		203908FLA Printed : 17/5/22

ALTO ARCHITECTS PTY LTD

DATE ISSUE DETAILS 16/05/22 A Town Planning Lodgement 12/08/22 B Town Planning RFI Response	PROJECT NAME: **Proposed Childcare Centre & Swimschool** ADDRESS: Flagstonian Drive , Flagstone, QLD 4280	DRAWING NO. TP-201	LAYOUT NAME Childcare Roof Plan	ISSUE NO. B
		Scale @ **A3 - 0** 203908FLA-Master 21.pln		203908FLA Printed : 17/5/22

1 SWIMSCHOOL GROUND PLAN
1:250



2 SWIM SCHOOL ROOF PLAN
1:250

ALTO ARCHITECTS PTY LTD

DATE	ISSUE	DETAILS
16/05/22	A	Town Planning Lodgement
12/08/22	B	Town Planning RFI Response

PROJECT NAME: **Proposed Childcare Centre & Swimschool**

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO.	LAYOUT NAME	ISSUE NO.
TP-202	SwimSchool Plan	B

Scale @ A3 - 0 | 200908FLA

200908FLA-Master 21.pln | Printed : 17/5/22

2 CHILDCARE CENTRE NORTH ELEVATION
1:200

1 CHILDCARE CENTRE SOUTH ELEVATION
1:200

ALTO ARCHITECTS PTY LTD

DATE	ISSUE	DETAILS
16/05/22	A	Town Planning Lodgement
12/08/22	B	Town Planning RFI Response

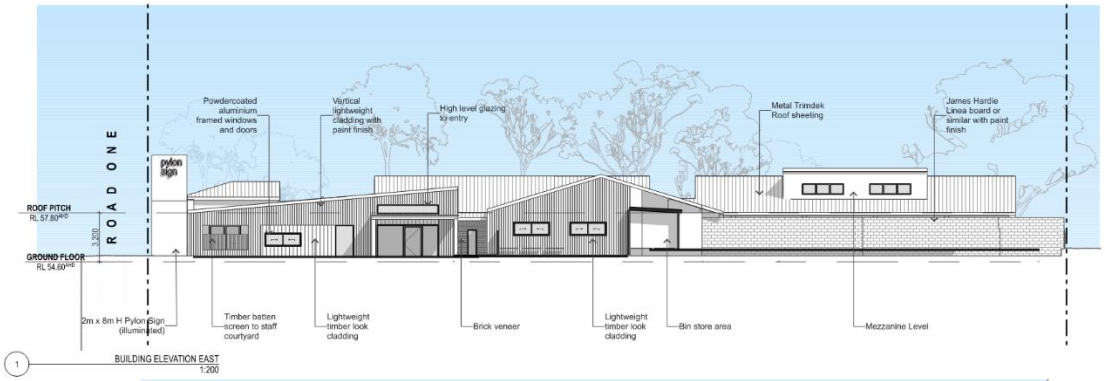
PROJECT NAME: **Proposed Childcare Centre & Swimschool**

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO.	LAYOUT NAME	ISSUE NO.
TP-400	Childcare North & South Elevation	B

Scale @ A3 - 0 | 200908FLA

200908FLA-Master 21.pln | Printed : 17/5/22



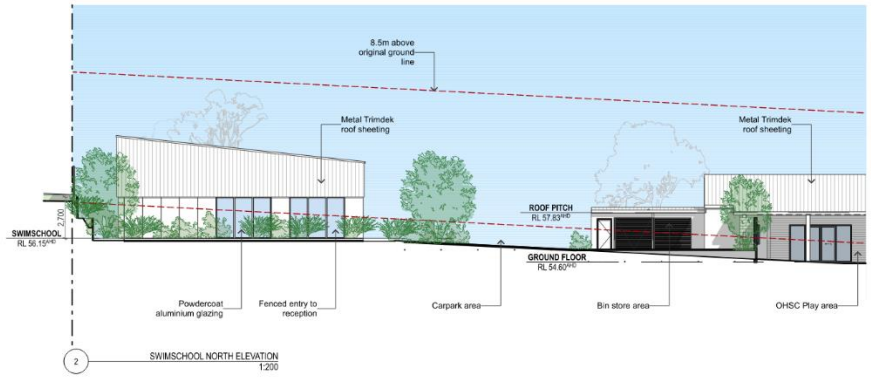
ALTO ARCHITECTS PTY LTD

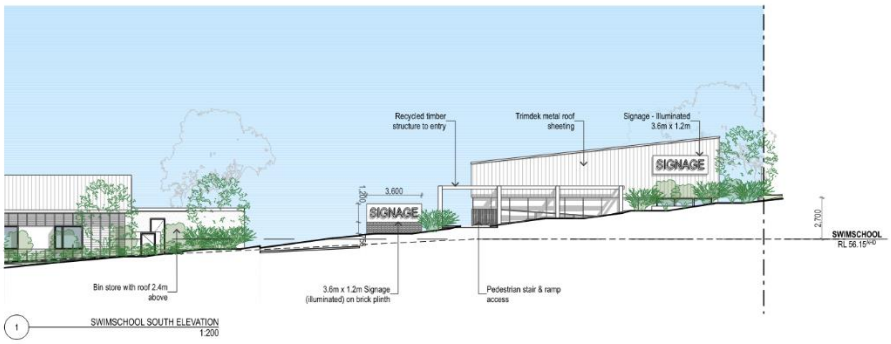
DATE ISSUE DETAILS
16/05/22 A Town Planning Lodgement
12/08/22 B Town Planning RFI Response

PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-401
LAYOUT NAME Childcare East & West Elevation
ISSUE NO. B
Scale @ A3 - 0
200908FLA
200908FLA-Master 21.pln
Printed : 17/5/22





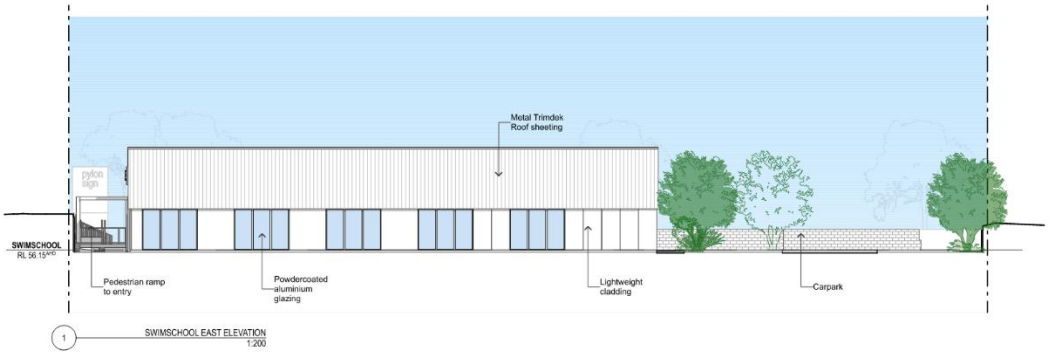
ALTO ARCHITECTS PTY LTD

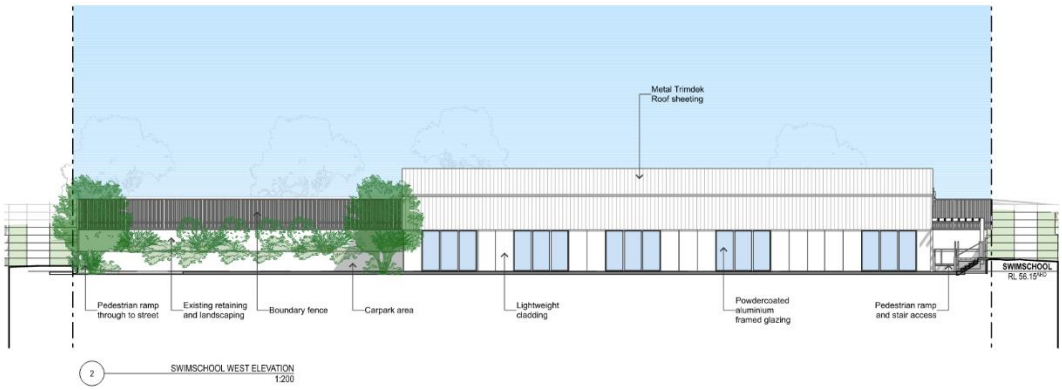
DATE ISSUE DETAILS
16/05/22 A Town Planning Lodgement
12/08/22 B Town Planning RFI Response

PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-402
LAYOUT NAME Swimschool Elevations
ISSUE NO. B
Scale @ A3 - 0
200908FLA
200908FLA-Master 21.pln
Printed : 17/5/22





ALTO ARCHITECTS PTY LTD

DATE	ISSUE DETAILS
16/05/22	A Town Planning Lodgement
12/08/22	B Town Planning RFI Response

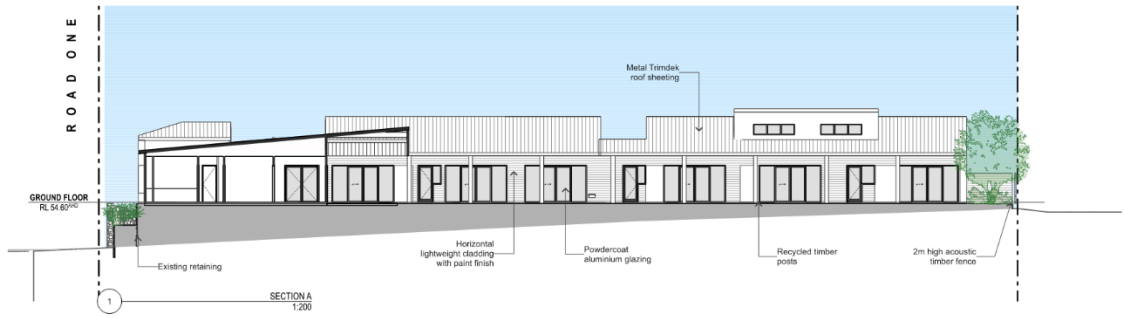
PROJECT NAME: **Proposed Childcare Centre & Swimschool**

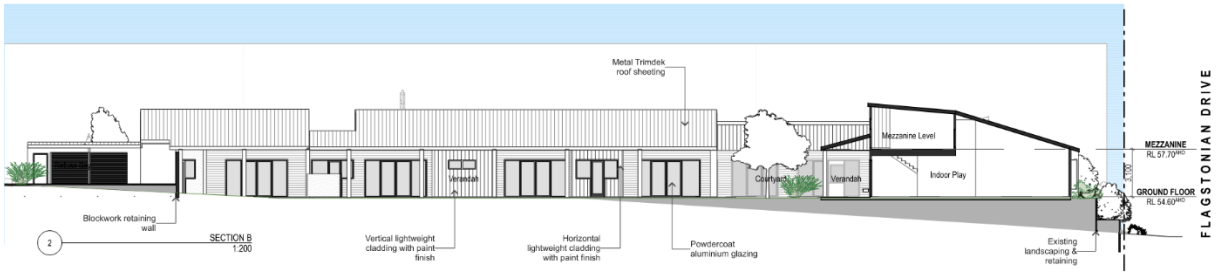
ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO.	LAYOUT NAME	ISSUE NO.
TP-403	Swimschool Elevations	B

Scale @ **A3 - 0** 200908FLA

200908FLA-Master 21.pln Printed : 17/5/22





ALTO ARCHITECTS PTY LTD

DATE	ISSUE DETAILS
16/05/22	A Town Planning Lodgement
12/08/22	B Town Planning RFI Response

PROJECT NAME: **Proposed Childcare Centre & Swimschool**

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO.	LAYOUT NAME	ISSUE NO.
TP-500	Sections A & B	B

Scale @ **A3 - 0** 200908FLA

200908FLA-Master 21.pln Printed : 17/5/22

Perspective View from 'Road One'

ALTO ARCHITECTS PTY LTD

DATE ISSUE DETAILS
16/05/22 A Town Planning Lodgement
12/08/22 B Town Planning RFI Response

PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-901
LAYOUT NAME External 3D View
ISSUE NO. B
Scale @ A3 -
200908FLA
200908FLA-Master 21.pln
Printed : 17/5/22