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Proposed Childcare Centre
224 & 226 Appleby Road
Stafford Heights

ACOUSTIC REPORT



Client:
Echelon Property

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1. Introduction

This report is in response to a request by Echelon Property for an environmental noise assessment of a proposed childcare centre located at 224 & 226 Appleby Road, Stafford Heights. This report has been revised in response to the Brisbane City Council Approval Package. To facilitate the assessment, unattended noise monitoring was conducted in the vicinity of the site to establish the criteria for the assessment of onsite activities to sensitive receivers. Based on the outcomes of the assessment, recommendations for acoustic treatments are specified.

2. Site Description

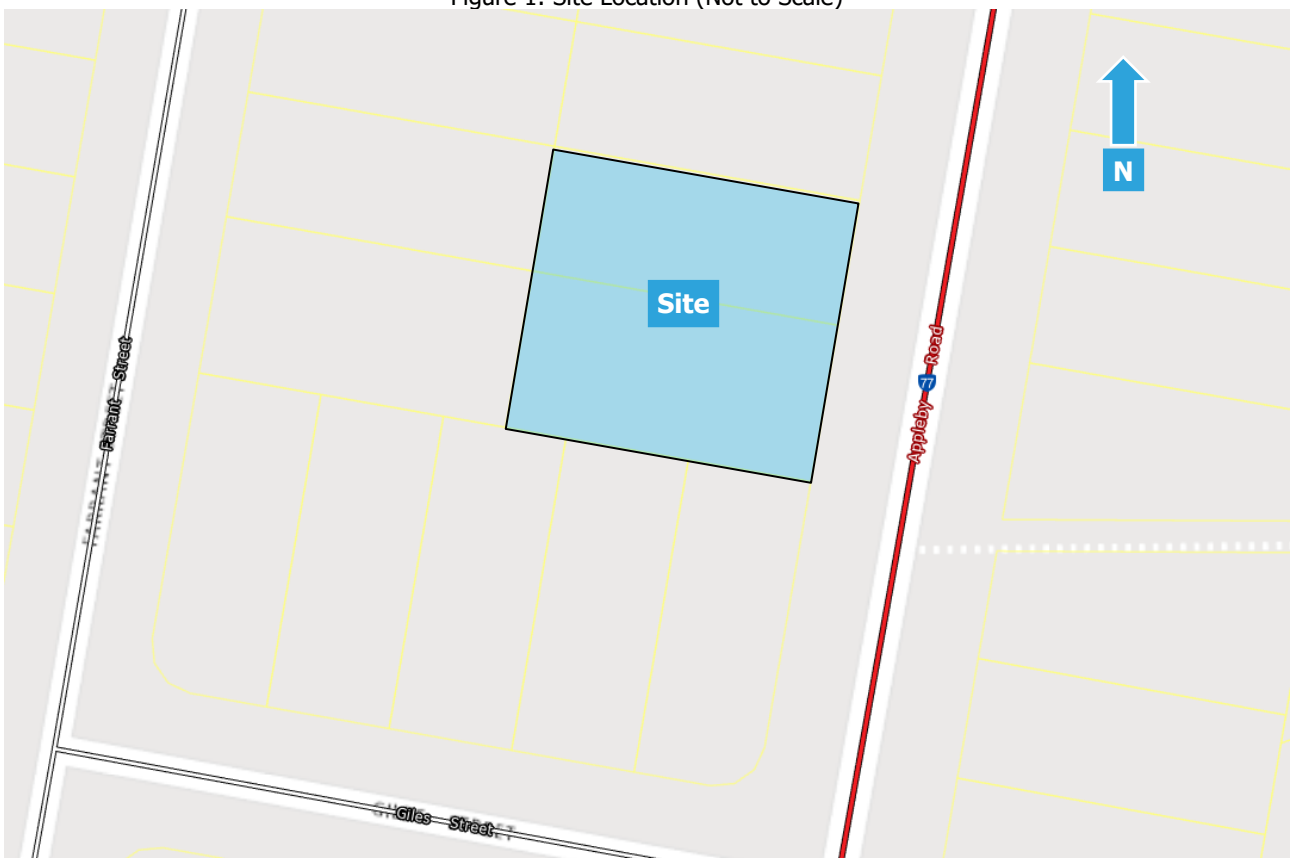
2.1 Site Location

The site is described by the following:

224 & 226 Appleby Road, Stafford Heights
Lot 400 and 401 on RP100247

Refer to Figure 1 for site location.

Figure 1: Site Location (Not to Scale)



A site survey was conducted on 10th February 2023 and identified the following:

- a) Two highset single storey residential dwellings currently occupy the site and will be demolished to make way for the development.
- b) The surrounding area consists of residential land uses.
- c) Appleby Road is located adjacent the eastern site boundary.

2.2 Proposal

The proposal is to construct a two storey childcare centre comprised of the following:

- Total site area of 1,456m².
- Proposed operating hours of 6:30am to 6:30pm, Monday to Friday.
- Capacity for 90 children aged up to 5 years old.
- Ground floor – foyer, 2 indoor play rooms, 2 sleep rooms, recreation area, lounge/office, bathroom, prep room, 2 store spaces, PWD, lift, and outdoor play area.
- First floor – lobby, 4 indoor play rooms, kitchen, laundry, 3 WC rooms, staff room, 2 prep rooms, 6 store areas, prog room, lift, utility space and outdoor play area.
- 18 car parking spaces with site access via Appleby Road.

Refer to the Appendix for proposed development plans.

2.3 Zoning

Review of the Brisbane City Council (BCC) City Plan 2014 interactive mapping indicates that the proposed development is zoned Low Density Residential. The nearest residential receivers are also zoned Low Density Residential. Based on this information, the applicable criteria are specified in Section 6.1.

2.4 Acoustic Environment

The surrounding area is primarily affected by traffic noise from the surrounding road network.

3. Equipment

The following equipment was used to record noise levels:

- Rion NL42 Environmental Noise Monitor
- ARL316 Environmental Noise Monitor

The Environmental Noise Monitors hold current NATA Laboratory Certification and were field calibrated before and after the monitoring period, with no significant drift from the reference signal recorded.

4. Noise Monitoring

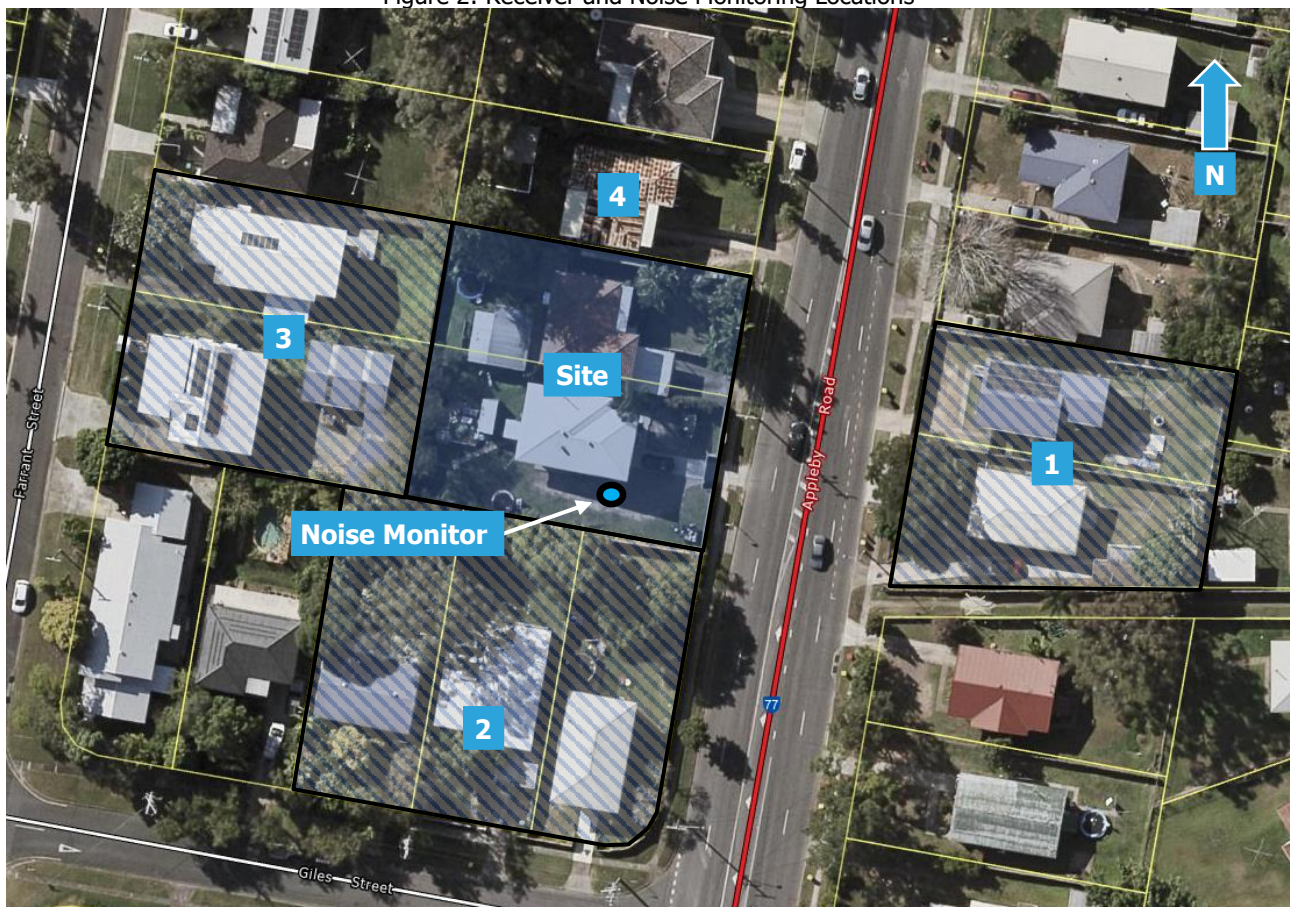
4.1 Receiver Locations

The nearest sensitive receiver locations were identified as follows;

1. Two highset residential dwellings are located to the east at 217 and 219 Appleby Road.
2. Highset residential dwellings are located adjacent the southern site boundary at 1-5 Giles Street.
3. Two highset residential dwellings are located adjacent the western site boundary at 111 and 115 Farrant Street.
4. A highset residential dwelling is located adjacent the northern site boundary at 228 Appleby Road.

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: Receiver and Noise Monitoring Locations



4.2 Ambient Noise Monitoring

A Rion NL42 environmental noise monitor was placed onsite at 224 Appleby Road to measure ambient noise levels. This monitoring location was chosen as it was considered to be representative of the nearest residential receivers. The monitor was located in a free field position with the microphone approximately 1.4 metres above ground surface level. The noise monitor was set to record noise levels between the 11th and 19th February 2023.

The environmental noise monitor was set to record noise levels in "A" Weighting, Fast response using 15-minute statistical intervals. Ambient noise monitoring was conducted generally in accordance with AS1055:2018 *Acoustics – Description and measurement of environmental noise*. Refer to Figure 2 for noise monitoring location.

5. Measured Noise Levels

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

5.1 Meteorological Conditions

Meteorological observations during the unattended noise monitoring survey were obtained from the Bureau of Meteorology website (<http://www.bom.gov.au/climate/data>), shown in Table 1 below.

Table 1: Meteorological Conditions – Brisbane QLD

Day	Date	Rainfall (mm)	Wind			
			9am		3pm	
			Speed (km/h)	Direction	Speed (km/h)	Direction
Saturday	11/02/23	0	6	SSW	9	NE
Sunday	12/02/23	0	4	NNW	9	NNE
Monday	13/02/23	0	6	SW	15	ENE
Tuesday	14/02/23	0	7	SE	11	ENE
Wednesday	15/02/23	56.2	7	SSE	15	ESE
Thursday	16/02/23	0	6	SE	9	ENE
Friday	17/02/23	0	4	SSE	9	NE
Saturday	18/02/23	0	4	SW	11	NE
Sunday	19/02/23	0	2	SW	11	ENE

5.2 Ambient Noise Levels

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

Table 2: Measured Background Noise Levels – All Time Periods

Day	Date	LAeq (9hr)	L90 dB(A) (Rating Background Level)		
			Day	Eve	Night
Saturday	11/02/23	49	43	42	39
Sunday	12/02/23	50	41	44	38
Monday	13/02/23	53	45	44	42
Tuesday	14/02/23	52	46	46	41
Wednesday	15/02/23	52	48*	43	40
Thursday	16/02/23	50	45	43	41
Friday	17/02/23	52	44	41	41
Saturday	18/02/23	49	42	43	38
Sunday	19/02/23	49	41	42	38
Overall value		52	45	44	41

*Note heavy rainfall and extraneous noise recorded on the 15th of February 2023 was found to have affected the measured noise levels, therefore the data was omitted.

Data for weekends were not utilised as it is not considered relevant to the assessment.

Refer to the appendix for graphical representation of the measured noise levels.

6. Noise Criteria

6.1 BCC - Environmental Noise Criteria

To ensure a reasonable acoustic amenity is maintained, Brisbane City Council (BCC) requires environmental noise be assessed in accordance with Noise Impact Assessment PSP (2014). To accurately assess environmental noise, the noise must first be classified as to the type and its duration. Section 6.1.1 of the policy outlines the noise criteria based on the applicable zoning and overlay codes for the site.

6.1.1 Childcare Centre Code

To ensure a reasonable amenity is maintained, the following criteria shall be applied for the assessment of onsite activities to surrounding sensitive receivers. The noise criteria as applied by Brisbane City Council in accordance with the Childcare Centre Code in Brisbane City Plan 2014 is as follows;

Table 3: Performance Outcomes and Acceptable Outcomes

Performance Outcome	Acceptable Outcome
<p>PO10 Development is of a nature and scale which does not result in noise emissions that exceed the following criteria:</p> <p>a) $L_{Aeq,adj,T}$ emitted from the development is not greater than the rating background level plus 3 at a sensitive use not associated with the development.</p> <p>Where T is:</p> <p>a) (7am to 6pm): 11hr b) (6pm to 10pm): 4hr c) (10pm to 7am): 9hr</p> <p>Where $L_{Aeq,adj,T}$ is the A-weighted equivalent continuous sound pressure level during measurement time T, adjusted for tonal and impulsive noise characteristics, determined in accordance with the methodology described in the Noise impact assessment planning scheme policy.</p>	<p>AO10.1 Development provides a 2m high acoustic fence and a minimum 2m wide landscaped buffer along any boundary adjoining land in a zone in the Residential zones category.</p>
	<p>AO10.2 Development ensures mechanical plant or equipment is acoustically screened from adjoining sensitive uses.</p> <p>Note—Mechanical plant includes generators, motors, compressors and pumps, for example air-conditioning, refrigeration or coldroom motors.</p>
	<p>AO10.3 Development does not operate before 7am or after 7pm.</p>

6.1.2 Community Facilities Code

To ensure a reasonable amenity is maintained, the following criteria shall be applied for the assessment of onsite activities to surrounding sensitive receivers. The noise criteria as applied by Brisbane City Council in accordance with the Childcare Centre Code in Brisbane City Plan 2014 as follows;

Table 4: Performance Outcomes and Acceptable Outcomes

Performance Outcome	Acceptable Outcome
<p>PO1</p> <p>Development ensures that the hours of operation are:</p> <ul style="list-style-type: none"> a) consistent with reasonable community expectations for the use and are consistent with the purpose of the zone precinct. b) Controlled so that the community facility does not impact on the amenity of: <ul style="list-style-type: none"> i) A residence within the building where the use is located. ii) Nearby sensitive uses. 	<p>AO1.1</p> <p>Development for a non-residential use has hours of operation including the use of indoor activity areas and private open space which are limited to 7am to 6pm.</p>
	<p>AO1.2</p> <p>Development has hours of operation for delivery vehicles which are limited to 7am to 6pm Monday to Saturday, excluding public holidays.</p>
<p>PO2</p> <p>Development ensures that noise generated does not exceed the noise (planning) criteria in Table 9.3.5.3.B and night-time noise criteria in Table 9.3.5.3.C at a sensitive zone or sensitive use.</p> <p>Note—A noise impact assessment report prepared in accordance with the Noise impact assessment planning scheme policy can assist in demonstrating achievement of this performance outcome.</p> <p>Note—Where the development involves an activity regulated by the Entertainment Venues and Events Local Law, the operating noise levels and requirements may be specified on a permit or approval issued under that law.</p>	<p>AO2.1</p> <p>Development:</p> <ul style="list-style-type: none"> a) does not involve amplified music entertainment; b) is conducted wholly within an enclosed building and does not involve external activity, dining or entertainment areas; c) provides a 2m high acoustic fence along any boundary with land in a residential zone; d) ensures mechanical plant or equipment is acoustically screened from adjoining sensitive uses. <p>Note—Mechanical plant includes generators, motors, compressors and pumps such as air-conditioning, refrigeration or coldroom motors.</p>
	<p>AO2.2</p> <p>Development does not generate noise that is clearly audible and creates a disturbance within a dwelling or its associated balcony or patio.</p>

Based on the zoning of the site area the noise criteria in Table 5 would be applicable to the new development.

Table 5: Applicable Noise Criteria (Table 9.3.5.3.B) - Intrusive noise and Acoustic Amenity

Criteria location	Intrusive Noise Criteria	Acoustic Amenity Criteria		
	Day, evening and night $L_{Aeq,adj,T}$ are not greater than the RBL plus the value in this column for the relevant criteria location, where T equals: <ul style="list-style-type: none"> Day - 11hr Evening - 4hr Night - 9hr 	Day, evening and night $L_{Aeq,adj,T}$ are not greater than the values in the column below for the relevant criteria location, where T equals: <ul style="list-style-type: none"> Day - 11hr Evening - 4hr Night - 9hr 		
		Day	Evening	Night
Low density residential zone boundary	3 dB(A)	55dB(A)	45dB(A)	40dB(A)

Table 6: Night-time Noise Criteria (Community Facilities Code Table 9.3.5.3.C)

Criteria Location	Where the existing $L_{Aeq,9hr\ night}$ at the criteria location is:	Average of the highest 15 single L_{Amax} events over a given night (10pm-7pm) period is not greater than the following values at the relevant criteria location	The absolute highest single L_{Amax} event over a given night (10pm-7am) period is not greater than the following values at the relevant criteria location
At the zone boundary of: <ul style="list-style-type: none"> Low density residential zone 	<45 dB(A)	50 dB(A)	55 dB(A)
	45 to 60dB(A)	$L_{Aeq,9hr\ night} + 5dB(A)$	$L_{Aeq,9hr\ night} + 10dB(A)$
	> 60dB(A)	65dB(A)	70dB(A)

Based on the measured noise levels presented in Section 5, the intrusive and night time noise criteria applicable to the new development is provided in Table 7.

Table 7: Applicable Intrusive Noise Criteria

Time Period	Measured RBL $L_{A90,T}$	All Receivers
		Criteria dB(A) (RBL $L_{90} + 3\ dB(A)$)
Day (7am-6pm)	45	48
Evening (6pm-10pm)	44	47
Night (10pm-7am)	41	44

Table 8: Applicable Night time Noise Criteria

Criteria Location	Measured $L_{Aeq,9hr\ night}$ dB(A)	Average 15 events Criteria L_{Amax} dB(A)	Absolute highest single event Criteria L_{Amax} dB(A)
At the zone boundary of: <ul style="list-style-type: none"> Receivers 1-4: Low density residential zone 	52	57	62

6.1.3 Mechanical Plant

Development that included mechanical plant (including air-conditioning plant, heat pumps and swimming pool pumps) ensures it is located, designed and attenuated to achieve the following criteria:

$L_{Aeq,adj,T}$ emitted from mechanical plant is not greater than the rating background level plus 3 at a sensitive use not associated with the development.

Where T is:

- (7am to 6pm): 11hr
- (6pm to 10pm): 4hr
- (10pm to 7am): 9hr

Where $L_{Aeq,adj,T}$ is the A-weighted equivalent continuous sound pressure level during measurement time T , adjusted for tonal and impulsive noise characteristics, determined in accordance with the methodology described in the Noise impact assessment planning scheme policy.

The noise criteria applicable to this development are as follows:

Table 9: Applicable Noise Criteria

Time Period	All receivers (RBL L_{90} + 3 dB(A))
	Day 7am – 6pm
Evening 6pm – 10pm	47
Night 10pm – 7am	44

7. Environmental Assessment

7.1 Noise from General Sources

Noise associated with the development was assessed based on previous assessments of similar activities. The calculations assume that the nominated activities are located at the closest representative point within the development site to the 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 10: 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 5 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;

- 16 children 0 to 2 years
- 30 children 2 to 3 years
- 44 children 3 to 5 years

Based on the number of children proposed for the centre, the noise levels detailed in the table below would apply for sound power levels and sound pressure levels measured at 1 metre:

Table 11: Noise Levels of Children Playing used for the Assessment

Age group	Number of children	Adjusted Sound power level dB(A) (Leq,15m)	Adjusted Sound Pressure Level at 1m dB(A) (Leq,15m)
Indoor Playrooms			
0 to 2 years (Room 1 only)	8	77	69
0 to 2 years (Room 2 only)	8	77	69
2 to 3 years (Room 3 only)	15	87	79
2 to 3 years (Room 4 only)	15	87	79
3 to 5 years (Room 5 only)	22	90	82
3 to 5 years (Room 6 only)	22	90	82
Outdoor Play Area 1 (Ground Floor)			
0 to 2 years (Total)	16	80	72
Outdoor Play Area 2 (First Floor)			
2 to 3 years (total)	30	90	82
3 to 5 years (total)	44	93	85
Total	74	95	87

7.2 Onsite Activities – Outdoor Play Areas – Childcare Centre Code

The average noise source levels and predicted impacts at the receiver locations are shown in Table 12 as follows. LAeq results are not shown where the calculated total is less than 0dBA.

Table 12: Average Noise Levels from Site Activities, All Time Periods – Childcare Centre Code

Receiver	Receivers															Intrusive Compliance LAeq			Amenity Compliance LAeq																		
	Description															Day	Eve	Night	Day	Eve	Night																
	Source @1m dB(A)	Correction dB(A)*	Corrected dB(A)	Number of events day	Number of events eve	Number of events night	Duration per event	Distance (m)	No Barrier (height (m))	Barrier screening dB	Building TL or shield dB	Building screening dB	Dist atten. @:fcfB/dd	LAeqadj,T ext. dB(A) Day	LAeqadj,T ext. dB(A) Eve	LAeqadj,T ext. dB(A) Night																					
1	1. 217-219 Appleby Road (E) 2. 1-5 Giles Street (S) 3. 111 & 115 Farrant Street (W) 4. 228 Appleby Road (N)																																				
	Criteria																48	47	44	55	45	40															
	Outdoor Play Area 1 (Ground Floor) - 16 children, 0-2 years	72		72	7	0.5	0.5	3600	37								-31	38	32	28	Yes	Yes	Yes	Yes	Yes	Yes											
	Outdoor Play Area 2 (First Floor) - 74 children, 2-5 years	87		87	7	0.5	0.5	3600	50	1.8	-12						-34	39	32	28	Yes	Yes	Yes	Yes	Yes	Yes											
	Car passby	69		69	80	30	20	15	35								-31	23	23	18	Yes	Yes	Yes	Yes	Yes	Yes											
	Car start	74	2	76	80	30	20	2	52			-5					-34	18	18	13	Yes	Yes	Yes	Yes	Yes	Yes											
	Car door closure	75	2	77	80	30	20	2	52			-5					-34	14	14	9	Yes	Yes	Yes	Yes	Yes	Yes											
	Deliveries	78		78	1				60								-31	19	n/a	n/a	Yes	n/a	n/a	Yes	Yes	Yes											
	Total																42	35	32	Yes	Yes	Yes	Yes	Yes	Yes	Yes											
	Criteria																48	47	44	55	45	40															
	Outdoor Play Area 1 (Ground Floor) - 16 children, 0-2 years	72		72	7	0.5	0.5	3600	25								-28	42	35	31	Yes	Yes	Yes	Yes	Yes	Yes											
	Outdoor Play Area 2 (First Floor) - 74 children, 2-5 years	87		87	7	0.5	0.5	3600	21	2	-16						-26	42	36	32	Yes	Yes	Yes	Yes	Yes	Yes											
	Car passby	69		69	80	30	20	15	17								-25	29	29	24	Yes	Yes	Yes	Yes	Yes	Yes											
	Car start	74	2	76	80	30	20	2	17			-5					-25	22	23	17	Yes	Yes	Yes	Yes	Yes	Yes											
	Car door closure	75	2	77	80	30	20	2	17			-5					-25	23	24	18	Yes	Yes	Yes	Yes	Yes	Yes											
	Deliveries	78		78	1				60								-25	25	n/a	n/a	Yes	n/a	n/a	Yes	Yes	Yes											
	Total																45	39	35	Yes	Yes	Yes	Yes	Yes	Yes	Yes											
	Criteria																48	47	44	55	45	40															
	Outdoor Play Area 1 (Ground Floor) - 16 children, 0-2 years	72		72	7	0.5	0.5	3600	38								-20	-32	18	11	8	Yes	Yes	Yes	Yes	Yes	Yes										
	Outdoor Play Area 2 (First Floor) - 74 children, 2-5 years	87		87	7	0.5	0.5	3600	14	3.2	-13						-23	48	41	38	No	Yes	Yes	Yes	Yes	Yes											
	Car passby	69		69	80	30	20	15	9								-19	25	25	20	Yes	Yes	Yes	Yes	Yes	Yes											
	Car start	74	2	76	80	30	20	2	9			-5					-19	28	28	23	Yes	Yes	Yes	Yes	Yes	Yes											
	Car door closure	75	2	77	80	30	20	2	9			-5					-19	29	29	24	Yes	Yes	Yes	Yes	Yes	Yes											
	Deliveries	78		78	1				60								-19	31	n/a	n/a	Yes	n/a	n/a	Yes	Yes	Yes											
	Total																48	42	38	Yes	Yes	Yes	Yes	Yes	Yes	Yes											
	Criteria																48	47	44	55	45	40															
	Outdoor Play Area 1 (Ground Floor) - 16 children, 0-2 years	72		72	7	0.5	0.5	3600	27								-15	-29	26	19	15	Yes	Yes	Yes	Yes	Yes	Yes										
	Outdoor Play Area 2 (First Floor) - 74 children, 2-5 years	87		87	7	0.5	0.5	3600	15	2.2	-17						-24	44	37	34	Yes	Yes	Yes	Yes	Yes	Yes											
	Car passby	69		69	80	30	20	15	6								-16	38	38	33	Yes	Yes	Yes	Yes	Yes	Yes											
	Car start	74	2	76	80	30	20	2	6			-5					-16	32	32	26	Yes	Yes	Yes	Yes	Yes	Yes											
	Car door closure	75	2	77	80	30	20	2	6			-5					-16	33	33	27	Yes	Yes	Yes	Yes	Yes	Yes											
	Deliveries	78		78	1				60								-15	-16	19	n/a	Yes	n/a	n/a	Yes	Yes	Yes											
	Total																46	42	37	Yes	Yes	Yes	Yes	Yes	Yes	Yes											

*Correction due to tonality and impulsiveness as per AS1055:2018.

Compliance is predicted with all relevant criteria on the condition the recommendations in Section 8 are implemented.

7.3 Onsite Activities – Indoor Play Areas – Childcare Centre Code

The average noise source levels and predicted impacts at the receiver locations are shown in Table 13 as follows. LAeq results are not shown where the calculated total is less than 0dBA.

Table 13: Average Noise Levels from Site Activities, All Time Periods – Childcare Centre Code

Receiver	Receivers													Intrusive Compliance LAeq						Amenity Compliance LAeq		
	Description													Day	Eve	Night	Day	Eve	Night			
	Source @1m dB(A)	Correction dB(A)*	Corrected dB(A)	Number of events day	Number of events eve	Number of events night	Duration per event	Distance (m)	No	Top of Barrier RL (height (m))	Barrier screening dB	Building TL or shield dB	Building screening dB	Dist atten. @-6dB/d	LAeq adj, T ext. dB(A) Day	LAeq adj, T ext. dB(A) Eve	LAeq adj, T ext. dB(A) Night					
	1. 217-219 Appleby Road (E) 2. 1-3 Giles Street (S) 3. 111 & 115 Farrant Street (W) 4. 228 Appleby Road (N)																					
	Criteria													48	47	44	55	45	40			
	Room 1 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	41		-5		-32	32	23	19	Yes	Yes	Yes	Yes	Yes	Yes
	Room 2 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	41		-5		-32	32	23	19	Yes	Yes	Yes	Yes	Yes	Yes
	Room 3 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	46		-5	-10	-33	31	22	18	Yes	Yes	Yes	Yes	Yes	Yes
	Room 4 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	60		-5	-15	-36	23	14	11	Yes	Yes	Yes	Yes	Yes	Yes
	Room 5 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	40		-5		-32	45	36	32	Yes	Yes	Yes	Yes	Yes	Yes
	Room 6 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	54		-5		-35	42	33	29	Yes	Yes	Yes	Yes	Yes	Yes
	Car passby	69		69	80	30	20	15	35				-31	23	23	18	Yes	Yes	Yes	Yes	Yes	Yes
	Car start	74	2	76	80	30	20	2	52		-5		-34	13	13	8	Yes	Yes	Yes	Yes	Yes	Yes
	Car door closure	75	2	77	80	30	20	2	52		-5		-34	14	14	9	Yes	Yes	Yes	Yes	Yes	Yes
	Deliveries	78		78	1			60	35				-31	19			Yes	n/a	n/a	Yes	n/a	n/a
	Total													47	38	35	Yes	Yes	Yes	Yes	Yes	Yes
	Criteria													48	47	44	55	45	40			
	Room 1 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	22		-5		-27	37	28	25	Yes	Yes	Yes	Yes	Yes	Yes
	Room 2 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	27		-5	-5	-29	30	21	18	Yes	Yes	Yes	Yes	Yes	Yes
	Room 3 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	42		-5	-10	-32	32	23	19	Yes	Yes	Yes	Yes	Yes	Yes
	Room 4 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	35		-5		-31	43	34	31	Yes	Yes	Yes	Yes	Yes	Yes
	Room 5 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	22	2	-15	-5	-27	35	26	23	Yes	Yes	Yes	Yes	Yes	Yes
	Room 6 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	22	2	-15	-5	-27	35	26	22	Yes	Yes	Yes	Yes	Yes	Yes
	Car passby	69		69	80	30	20	15	17				-25	29	29	24	Yes	Yes	Yes	Yes	Yes	Yes
	Car start	74	2	76	80	30	20	2	17		-5		-25	22	23	17	Yes	Yes	Yes	Yes	Yes	Yes
	Car door closure	75	2	77	80	30	20	2	17		-5		-25	23	24	18	Yes	Yes	Yes	Yes	Yes	Yes
	Deliveries	78		78	1			60	17				-25	25			Yes	n/a	n/a	Yes	Yes	Yes
	Total													46	37	34	Yes	Yes	Yes	Yes	Yes	Yes
	Criteria													48	47	44	55	45	40			
	Room 1 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	54		-5	-15	-35	14	5	2	Yes	Yes	Yes	Yes	Yes	Yes
	Room 2 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	54		-5	-15	-35	14	5	2	Yes	Yes	Yes	Yes	Yes	Yes
	Room 3 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	28	3.2	-13	-5	-29	32	23	20	Yes	Yes	Yes	Yes	Yes	Yes
	Room 4 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	26	3.2	-15	-5	-28	31	22	18	Yes	Yes	Yes	Yes	Yes	Yes
	Room 5 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	48	3.2	-5	-5	-34	38	29	26	Yes	Yes	Yes	Yes	Yes	Yes
	Room 6 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	33	3.2	-8	-5	-30	39	30	26	Yes	Yes	Yes	Yes	Yes	Yes
	Car passby	69		69	80	30	20	15	9				-10	19	25	20	Yes	Yes	Yes	Yes	Yes	Yes
	Car start	74	2	76	80	30	20	2	9		-5		-19	28	28	23	Yes	Yes	Yes	Yes	Yes	Yes
	Car door closure	75	2	77	80	30	20	2	9		-5		-19	29	29	24	Yes	Yes	Yes	Yes	Yes	Yes
	Deliveries	78		78	1			60	9				-19	31			Yes	n/a	n/a	Yes	Yes	Yes
	Total													43	36	32	Yes	Yes	Yes	Yes	Yes	Yes
	Criteria													48	47	44	55	45	40			
	Room 1 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	31		-5	-10	-30	24	15	11	Yes	Yes	Yes	Yes	Yes	Yes
	Room 2 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	24		-5	-10	-28	26	17	14	Yes	Yes	Yes	Yes	Yes	Yes
	Room 3 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	5		-25		-14	40	31	27	Yes	Yes	Yes	Yes	Yes	Yes
	Room 4 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	12		-5	-10	-22	42	33	30	Yes	Yes	Yes	Yes	Yes	Yes
	Room 5 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	22		-5	-10	-27	40	31	28	Yes	Yes	Yes	Yes	Yes	Yes
	Room 6 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	20		-5	-10	-26	41	32	28	Yes	Yes	Yes	Yes	Yes	Yes
	Car passby	69		69	80	30	20	15	6				-16	38	38	33	Yes	Yes	Yes	Yes	Yes	Yes
	Car start	74	2	76	80	30	20	2	6		-5		-16	32	32	26	Yes	Yes	Yes	Yes	Yes	Yes
	Car door closure	75	2	77	80	30	20	2	6		-5		-16	33	33	27	Yes	Yes	Yes	Yes	Yes	Yes
	Deliveries	78		78	1			60	6				-15	19			Yes	n/a	n/a	Yes	Yes	Yes
	Total													48	42	38	Yes	Yes	Yes	Yes	Yes	Yes

*Correction due to tonality and impulsiveness as per AS1055:2018.

Compliance is predicted with all relevant criteria on the condition the recommendations in Section 8 are implemented.

7.5 Onsite Activities – Indoor Play Areas – Community Facilities Code

The average noise source levels and predicted impacts at the receiver locations are shown in Table 13 as follows. LAeq results are not shown where the calculated total is less than 0dBA.

Table 15: Average Noise Levels from Site Activities, All Time Periods – Community Facilities Code

Receiver	Receivers													Intrusive Compliance LAeq						Amenity Compliance LAeq			
	Description													Day	Eve	Night	Day	Eve	Night				
	Source @1m dB(A)	Correction dB(A)*	Corrected dB(A)	Number of events day	Number of events eve	Number of events night	Duration per event	Distance (m)	No	Top of Barrier RL (height (m))	Barrier screening dB	Building TL or shield dB	Building screening dB	Dist atten. @-6dB/dd	LAeq adj,T ext. dB(A) Day	LAeq adj,T ext. dB(A) Eve	LAeq adj,T ext. dB(A) Night						
	1. 217-219 Appleby Road (E) 2. 1-3 Giles Street (S) 3. 111 & 115 Farrant Street (W) 4. 228 Appleby Road (N)																						
	Criteria																	48	47	44	55	45	40
	Room 1 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	35		-5		-31	33	24	21		Yes	Yes	Yes	Yes	Yes	Yes
	Room 2 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	35		-5		-31	33	24	21		Yes	Yes	Yes	Yes	Yes	Yes
	Room 3 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	44		-5	-10	-33	31	22	19		Yes	Yes	Yes	Yes	Yes	Yes
	Room 4 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	58		-5	-15	-35	24	15	11		Yes	Yes	Yes	Yes	Yes	Yes
	Room 5 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	35		-5		-31	46	37	34		Yes	Yes	Yes	Yes	Yes	Yes
	Room 6 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	50		-5		-34	43	34	30		Yes	Yes	Yes	Yes	Yes	Yes
	Car passby	69		69	80	30	20	15	25				-28	26	26	21		Yes	Yes	Yes	Yes	Yes	Yes
	Car start	74	2	76	80	30	20	2	44		-5		-33	14	14	9		Yes	Yes	Yes	Yes	Yes	Yes
	Car door closure	75	2	77	80	30	20	2	44		-5		-33	15	15	10		Yes	Yes	Yes	Yes	Yes	Yes
	Deliveries	78		78	1			60	25				-28	22	22			Yes	n/a	n/a	Yes	n/a	n/a
	Total													48	39	36		Yes	Yes	Yes	Yes	Yes	Yes
	Criteria																	48	47	44	55	45	40
	Room 1 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	10		-5		-20	44	35	31		Yes	Yes	Yes	Yes	Yes	Yes
	Room 2 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	18		-5	-5	-25	34	25	21		Yes	Yes	Yes	Yes	Yes	Yes
	Room 3 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	35		-5	-10	-31	33	24	21		Yes	Yes	Yes	Yes	Yes	Yes
	Room 4 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	27				-29	45	36	33		Yes	Yes	Yes	Yes	Yes	Yes
	Room 5 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	15	2	-21	-5	-24	32	23	20		Yes	Yes	Yes	Yes	Yes	Yes
	Room 6 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	15	2	-21	-5	-24	32	23	19		Yes	Yes	Yes	Yes	Yes	Yes
	Car passby	69		69	80	30	20	15	9		-5		-19	30	30	25		Yes	Yes	Yes	Yes	Yes	Yes
	Car start	74	2	76	80	30	20	2	9		-5		-19	28	28	23		Yes	Yes	Yes	Yes	Yes	Yes
	Car door closure	75	2	77	80	30	20	2	9		-5		-19	29	29	24		Yes	Yes	Yes	Yes	Yes	Yes
	Deliveries	78		78	1			60	9		-5		-19	26	26			Yes	n/a	n/a	Yes	Yes	Yes
	Total													48	40	37		Yes	Yes	Yes	Yes	Yes	Yes
	Criteria																	48	47	44	55	45	40
	Room 1 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	38		-5	-15	-32	17	8	5		Yes	Yes	Yes	Yes	Yes	Yes
	Room 2 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	38		-5	-15	-32	17	8	5		Yes	Yes	Yes	Yes	Yes	Yes
	Room 3 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	18	3.2	-14	-5	-25	35	26	22		Yes	Yes	Yes	Yes	Yes	Yes
	Room 4 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	16	3.2	-14	-5	-24	36	27	23		Yes	Yes	Yes	Yes	Yes	Yes
	Room 5 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	31	3.2	-13	-5	-30	34	25	22		Yes	Yes	Yes	Yes	Yes	Yes
	Room 6 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	16	3.2	-14	-5	-24	39	30	26		Yes	Yes	Yes	Yes	Yes	Yes
	Car passby	69		69	80	30	20	15	9		-5		-19	30	30	25		Yes	Yes	Yes	Yes	Yes	Yes
	Car start	74	2	76	80	30	20	2	9		-5		-19	28	28	23		Yes	Yes	Yes	Yes	Yes	Yes
	Car door closure	75	2	77	80	30	20	2	9		-5		-19	29	29	24		Yes	Yes	Yes	Yes	Yes	Yes
	Deliveries	78		78	1			60	9		-5		-19	26	26			Yes	n/a	n/a	Yes	Yes	Yes
	Total													43	37	32		Yes	Yes	Yes	Yes	Yes	Yes
	Criteria																	48	47	44	55	45	40
	Room 1 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	33		-5	-10	-31	23	14	10		Yes	Yes	Yes	Yes	Yes	Yes
	Room 2 - 8 children, 0-2 years	69		69	11	0.5	0.5	3600	26		-5	-10	-28	26	17	13		Yes	Yes	Yes	Yes	Yes	Yes
	Room 3 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	5		-25		-14	40	31	27		Yes	Yes	Yes	Yes	Yes	Yes
	Room 4 - 15 children, 2-3 years	79		79	11	0.5	0.5	3600	12		-5	-10	-22	42	33	30		Yes	Yes	Yes	Yes	Yes	Yes
	Room 5 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	19		-5	-10	-26	41	32	29		Yes	Yes	Yes	Yes	Yes	Yes
	Room 6 - 22 children, 3-5 years	82		82	11	0.5	0.5	3600	19		-5	-10	-26	41	32	29		Yes	Yes	Yes	Yes	Yes	Yes
	Car passby	69		69	80	30	20	15	6				-16	38	38	33		Yes	Yes	Yes	Yes	Yes	Yes
	Car start	74	2	76	80	30	20	2	6		-5		-16	32	32	26		Yes	Yes	Yes	Yes	Yes	Yes
	Car door closure	75	2	77	80	30	20	2	6		-5		-16	33	33	27		Yes	Yes	Yes	Yes	Yes	Yes
	Deliveries	78		78	1			60	6				-16	34	34			Yes	n/a	n/a	Yes	Yes	Yes
	Total													48	42	38		Yes	Yes	Yes	Yes	Yes	Yes

*Correction due to tonality and impulsiveness as per AS1055:2018.

Compliance is predicted with all relevant criteria on the condition the recommendations in Section 8 are implemented.

7.6 Night-time Noise – Community Facilities Code

The maximum noise source levels and predicted impacts at the receiver locations are shown in Table 16 as follows.

Table 16: Maximum noise level from site activities (night)

Receiver	Receivers										Average highest 15 events Lmax dB(A)	Absolute highest single event LMax dB(A)	
	Description												
	Source dB(A)	Correction dB(A) *	Corrected dB(A)	Distance (m)	Yes Barrier (height (m)	Barrier screening dB	Building TL or shield dB	Building screening dB	Dist atten. @-6dB/10d	Lmax adj, T ext. dB(A)			
1	1. 217-219 Appleby Road (E) 2. 1-3 Giles Street (S) 3. 111 & 115 Farrant Street (W) 4. 228 Appleby Road (N)												
	Criteria										57	62	
	Car passby	69		69	25				-28	41	Yes	Yes	
	Car start	74	2	76	44			-5	-33	38	Yes	Yes	
	Car door closure	75	2	77	44			-5	-33	39	Yes	Yes	
	Room 1 - 8 children, 0-2 years	73		73	35			-5	-31	37	Yes	Yes	
	Room 2 - 8 children, 0-2 years	73		73	35			-5	-31	37	Yes	Yes	
	Room 3 - 15 children, 2-3 years	83		83	44			-5	-10	-33	35	Yes	Yes
	Room 4 - 15 children, 2-3 years	83		83	58			-5	-15	-35	28	Yes	Yes
	Room 5 - 22 children, 3-5 years	86		86	35			-5	-31	50	Yes	Yes	
	Room 6 - 22 children, 3-5 years	86		86	50			-5	-34	47	Yes	Yes	
	Outdoor Play Area 1 (Ground Floor) - 16 children, 0-2 years	76		76	29					-29	47	Yes	Yes
	Outdoor Play Area 2 (First Floor) - 74 children, 2-5 years	91		91	41	1.8	-12			-32	47	Yes	Yes
	2	Criteria										57	62
Car passby		69		69	9			-5	-19	45	Yes	Yes	
Car start		74	2	76	9			-5	-19	52	Yes	Yes	
Car door closure		75	2	77	9			-5	-19	53	Yes	Yes	
Room 1 - 8 children, 0-2 years		73		73	10			-5	-20	48	Yes	Yes	
Room 2 - 8 children, 0-2 years		73		73	18			-5	-5	-25	38	Yes	Yes
Room 3 - 15 children, 2-3 years		83		83	35			-5	-10	-31	37	Yes	Yes
Room 4 - 15 children, 2-3 years		83		83	27			-5		-29	49	Yes	Yes
Room 5 - 22 children, 3-5 years		86		86	15	2	-21	-5		-24	36	Yes	Yes
Room 6 - 22 children, 3-5 years		86		86	15	2	-21	-5		-24	36	Yes	Yes
Outdoor Play Area 1 (Ground Floor) - 16 children, 0-2 years		76		76	14					-23	53	Yes	Yes
Outdoor Play Area 2 (First Floor) - 74 children, 2-5 years		91		91	11	2	-21			-21	49	Yes	Yes
3		Criteria										57	62
		Car passby	69		69	9			-5	-19	45	Yes	Yes
	Car start	74	2	76	9			-5	-19	52	Yes	Yes	
	Car door closure	75	2	77	9			-5	-19	53	Yes	Yes	
	Room 1 - 8 children, 0-2 years	73		73	38			-5	-15	-32	21	Yes	Yes
	Room 2 - 8 children, 0-2 years	73		73	38			-5	-15	-32	21	Yes	Yes
	Room 3 - 15 children, 2-3 years	83		83	18	3.2	-14	-5		-25	39	Yes	Yes
	Room 4 - 15 children, 2-3 years	83		83	16	3.2	-14	-5		-24	40	Yes	Yes
	Room 5 - 22 children, 3-5 years	86		86	31	3.2	-13	-5		-30	38	Yes	Yes
	Room 6 - 22 children, 3-5 years	86		86	16	3.2	-14	-5		-24	43	Yes	Yes
	Outdoor Play Area 1 (Ground Floor) - 16 children, 0-2 years	76		76	38					-32	44	Yes	Yes
	Outdoor Play Area 2 (First Floor) - 74 children, 2-5 years	91		91	11	3.2	-19			-21	51	Yes	Yes
	4	Criteria										57	62
		Car passby	69		69	6				-16	53	Yes	Yes
Car start		74	2	76	6			-5	-16	55	Yes	Yes	
Car door closure		75	2	77	6			-5	-16	56	Yes	Yes	
Room 1 - 8 children, 0-2 years		73		73	33			-5	-10	-30	28	Yes	Yes
Room 2 - 8 children, 0-2 years		73		73	26			-5	-10	-28	30	Yes	Yes
Room 3 - 15 children, 2-3 years		83		83	5			-25		-14	44	Yes	Yes
Room 4 - 15 children, 2-3 years		83		83	12			-5	-10	-22	46	Yes	Yes
Room 5 - 22 children, 3-5 years		86		86	19			-5	-10	-26	45	Yes	Yes
Room 6 - 22 children, 3-5 years		86		86	19			-5	-10	-26	45	Yes	Yes
Outdoor Play Area 1 (Ground Floor) - 16 children, 0-2 years		76		76	30					-30	46	Yes	Yes
Outdoor Play Area 2 (First Floor) - 74 children, 2-5 years		91		91	18	2.2	-14			-25	52	Yes	Yes

*Correction due to tonality and impulsiveness as per AS1055:2018.

Compliance is predicted for the proposed operation of the site for the night time period on the condition that the recommendations in Section 8 are implemented.

8. Recommendations

8.1 Onsite Activities

Compliance is predicted with Brisbane City Council assessment criteria at the nearest receivers for the proposed hours of operation on the condition the following recommendations are implemented:

- Acoustic barriers shall be constructed to the height and extent shown in Figure 3. The acoustic barriers shall be constructed using 19mm thick lapped timber (minimum 50% overlap), masonry, fibre cement sheet, Hebel, Perspex, plywood, or other material with a minimum surface density of 12.5kg/m². The barrier shall be free of gaps and holes except for drainage purposes. Include absorptive lining to the western acoustic barrier starting 0.2m from the ground to the full height of the barrier, the product requires an NRC of 0.6 and minimum of 60% coverage of the acoustic barrier nominated.
- No limitation on the use of the outdoor play area during the day time period.
- External windows and glazed doors on the northern façade of Playroom 3 shall be constructed using minimum 6.38mm laminated glass (R_w 31) with acoustic seals.
- External windows on the northern façade of Playroom 3 shall remain closed when in use. We recommend the installation of alternative ventilation such as air conditioning to allow windows and doors to remain closed.
- Deliveries shall be limited to the day time period only (7am – 6pm).

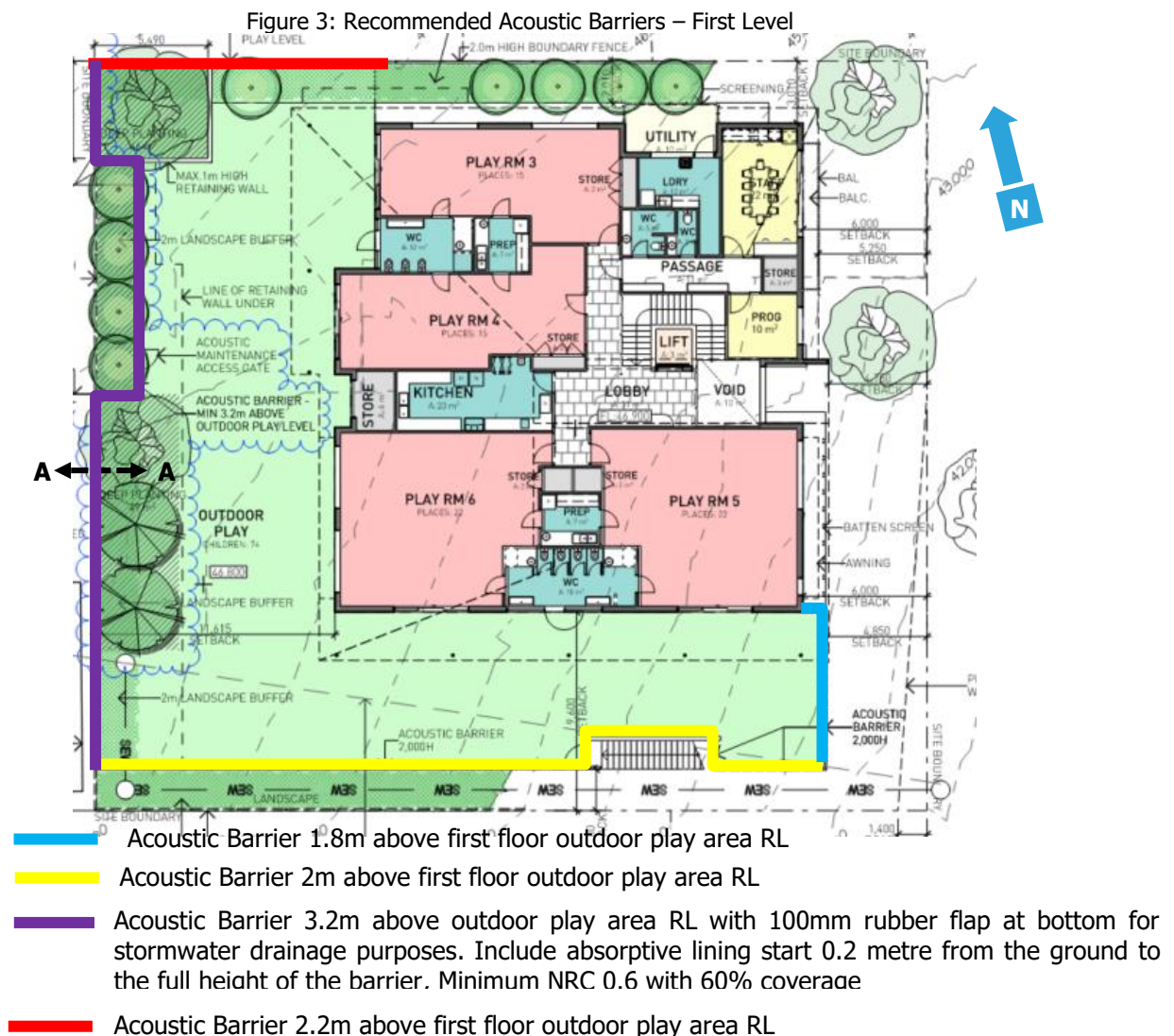
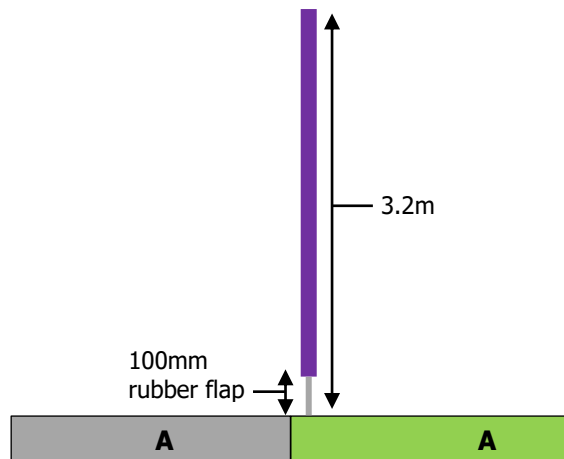


Figure 3: Section A (Lot 4 barrier, not to scale)



8.1.1 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 6.1.3 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 at 224 & 226 Appleby Road, Stafford Heights. On the condition the recommendations detailed in Section 8 are implemented, compliance is predicted with Brisbane City Council assessment criteria.

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

Report Prepared By

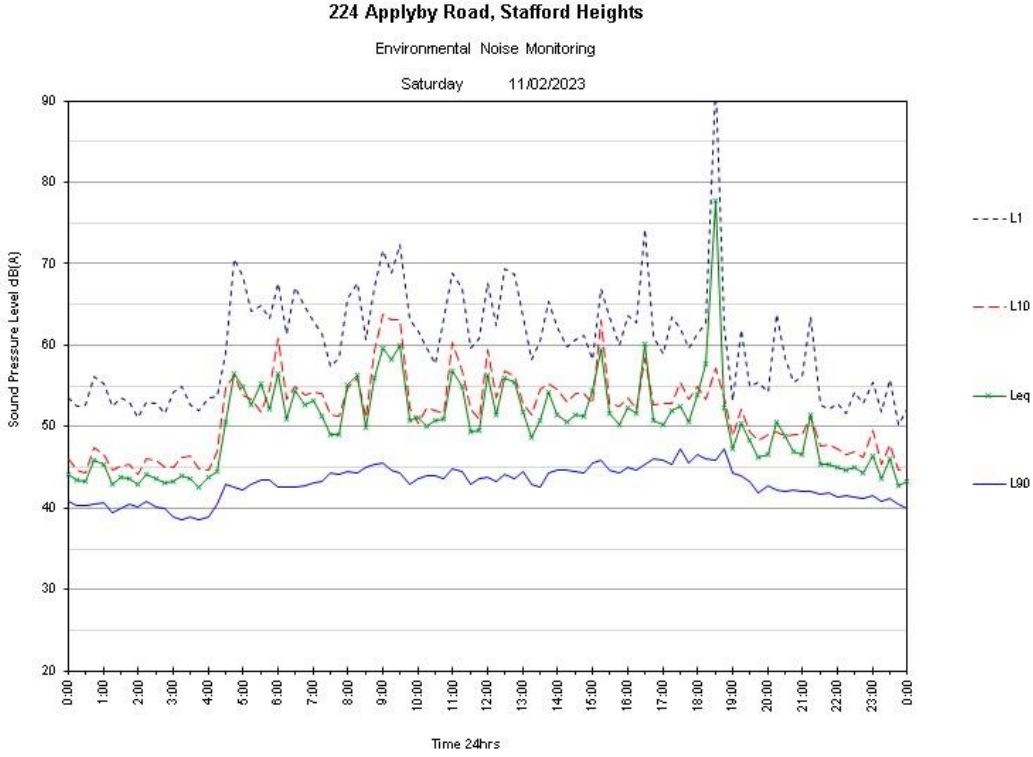
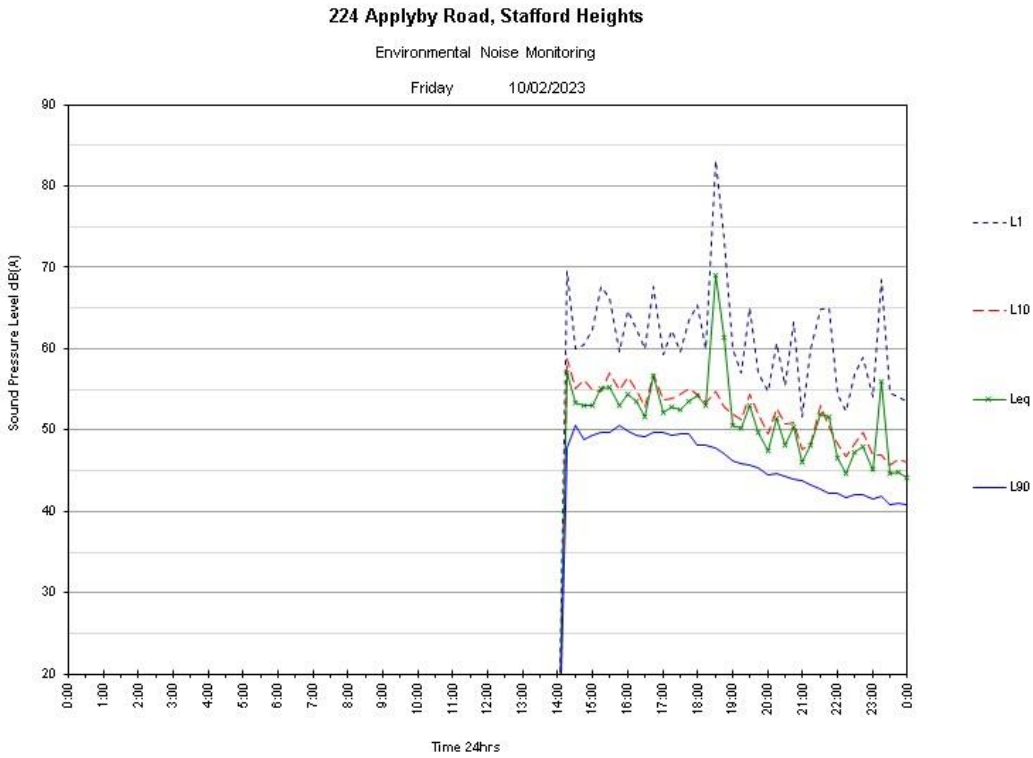
Greg Pearce

Director

acousticworks)))

10. Appendices

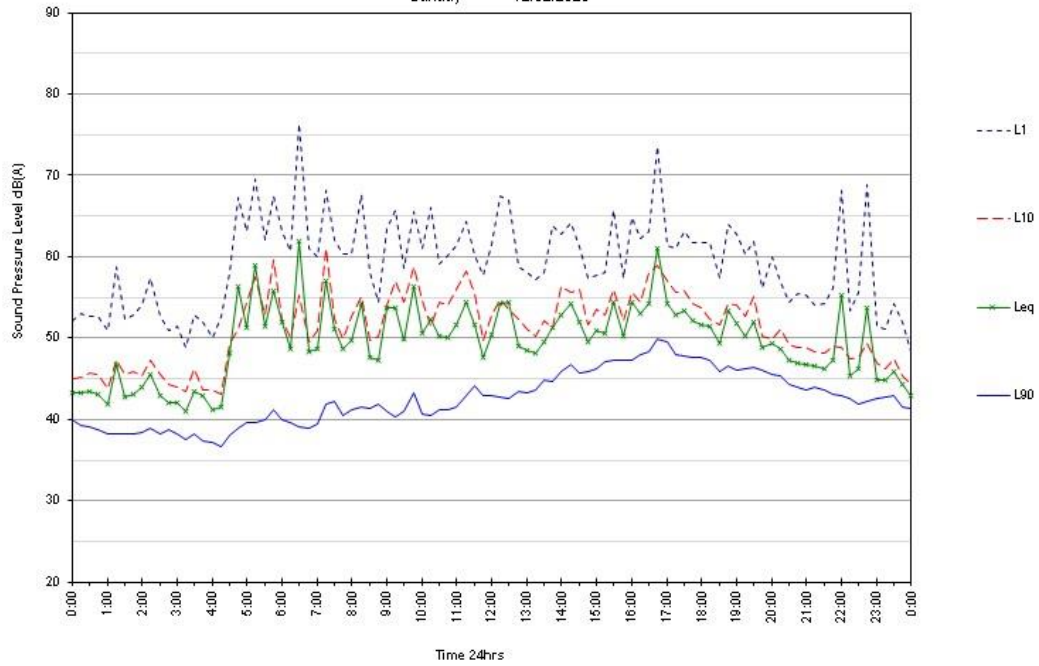
10.1 Noise Monitoring Charts



224 Applyby Road, Stafford Heights

Environmental Noise Monitoring

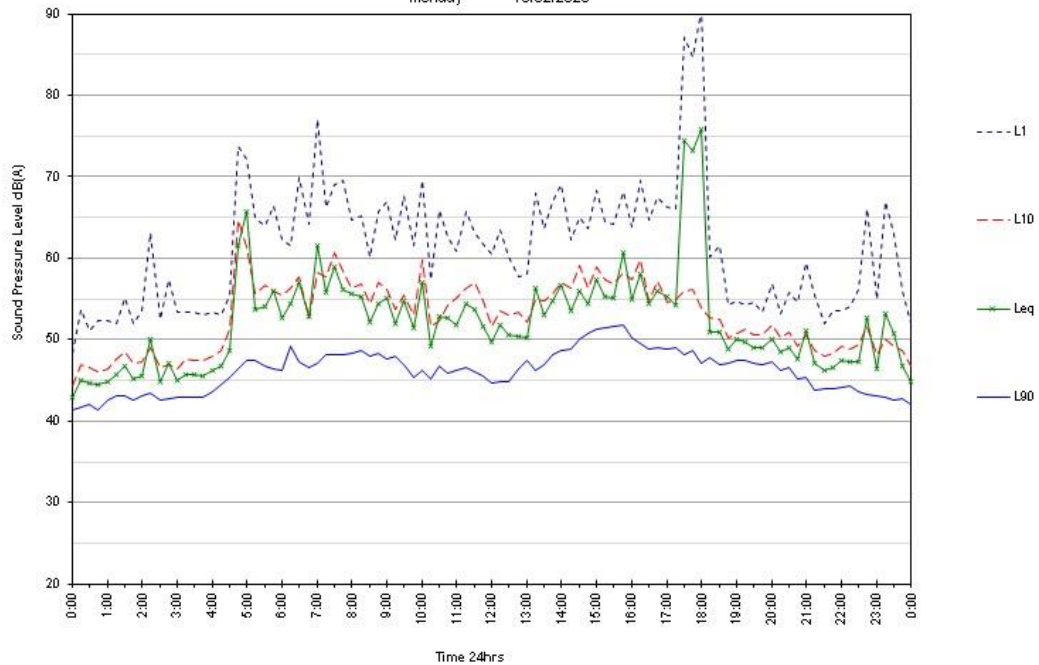
Sunday 12/02/2023



224 Applyby Road, Stafford Heights

Environmental Noise Monitoring

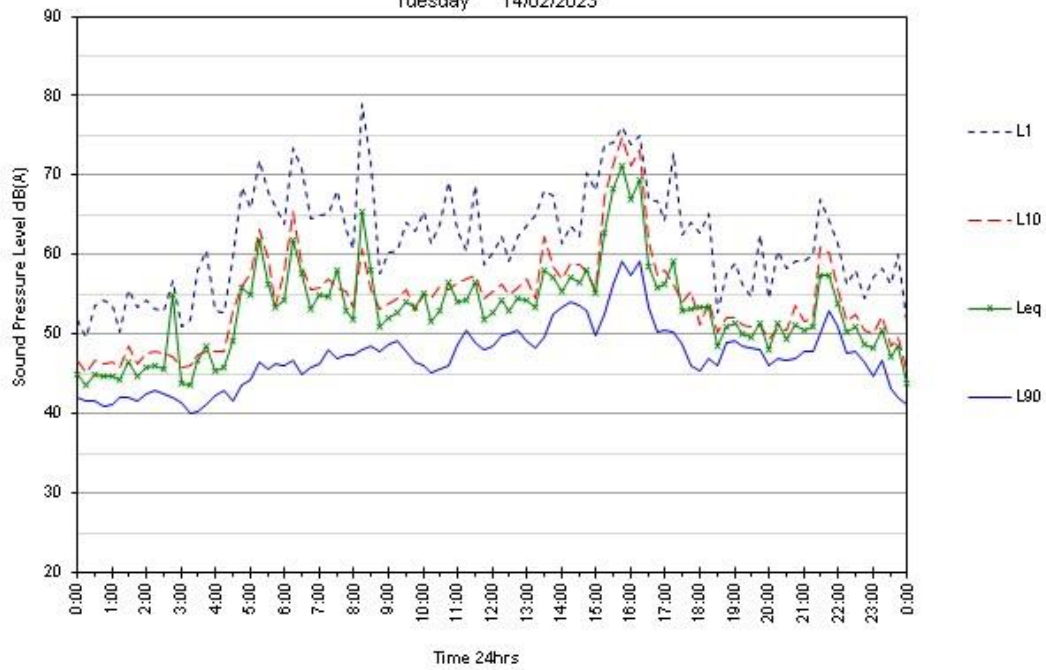
Monday 13/02/2023



224 Applyby Road, Stafford Heights

Environmental Noise Monitoring

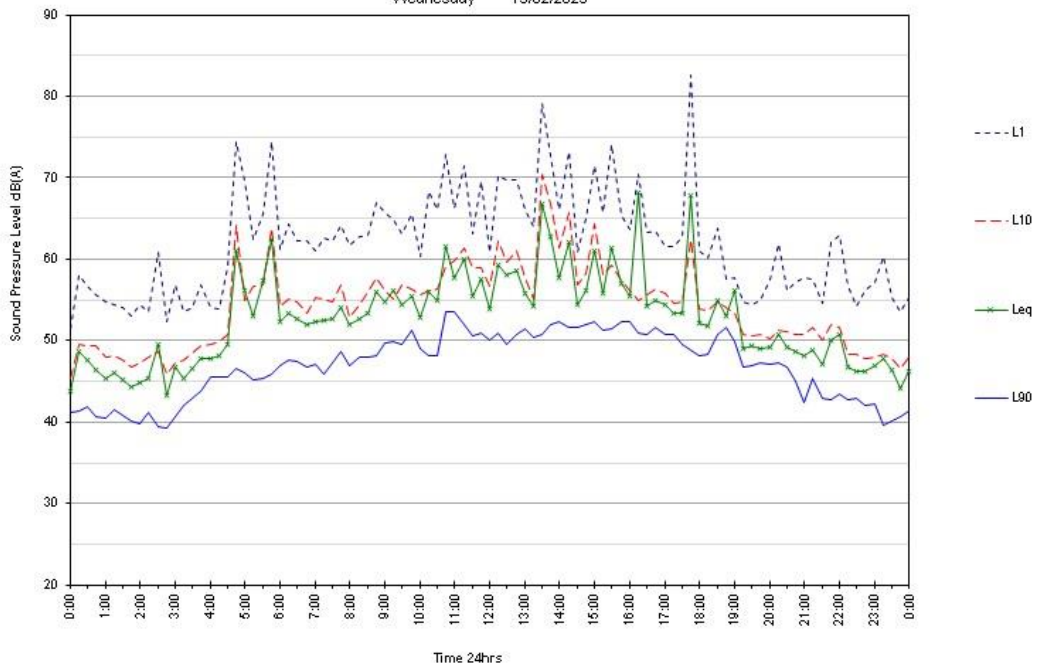
Tuesday 14/02/2023



224 Applyby Road, Stafford Heights

Environmental Noise Monitoring

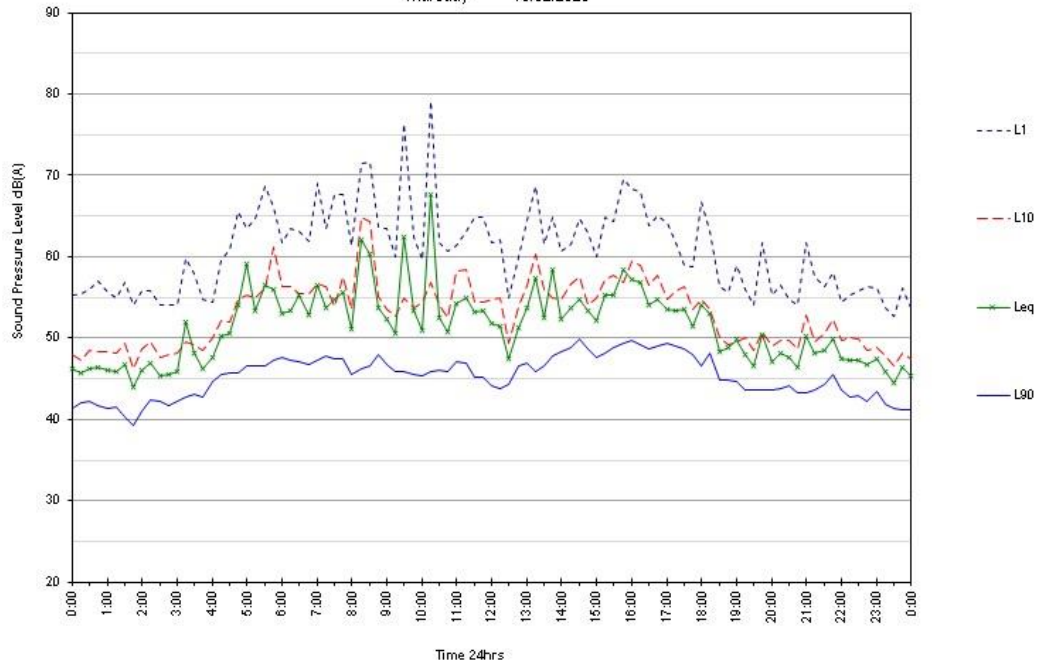
Wednesday 15/02/2023



224 Applyby Road, Stafford Heights

Environmental Noise Monitoring

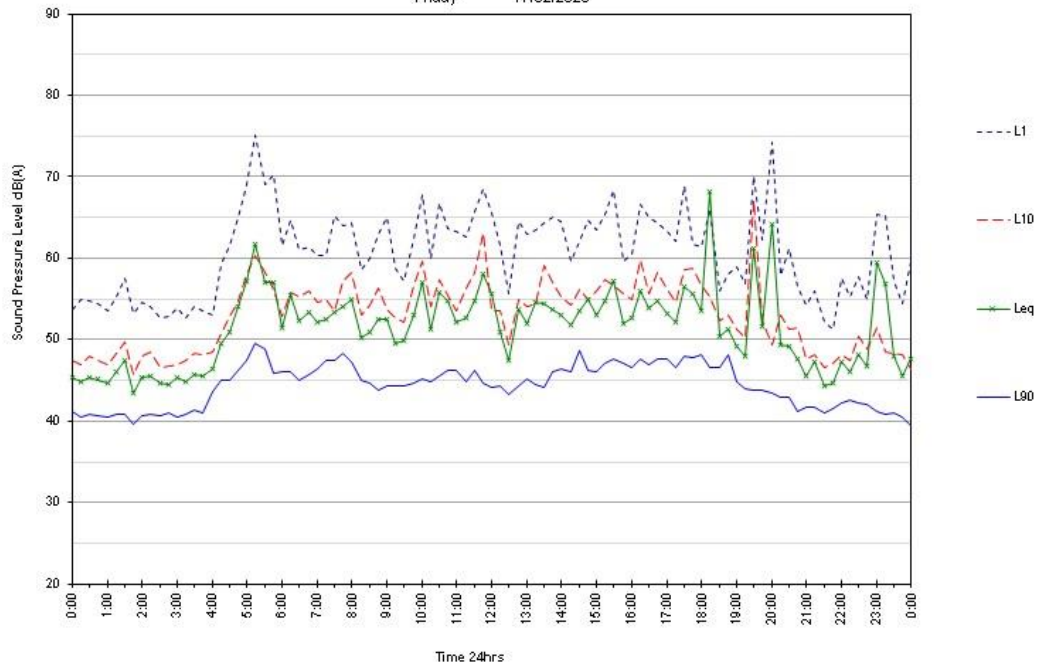
Thursday 16/02/2023



224 Applyby Road, Stafford Heights

Environmental Noise Monitoring

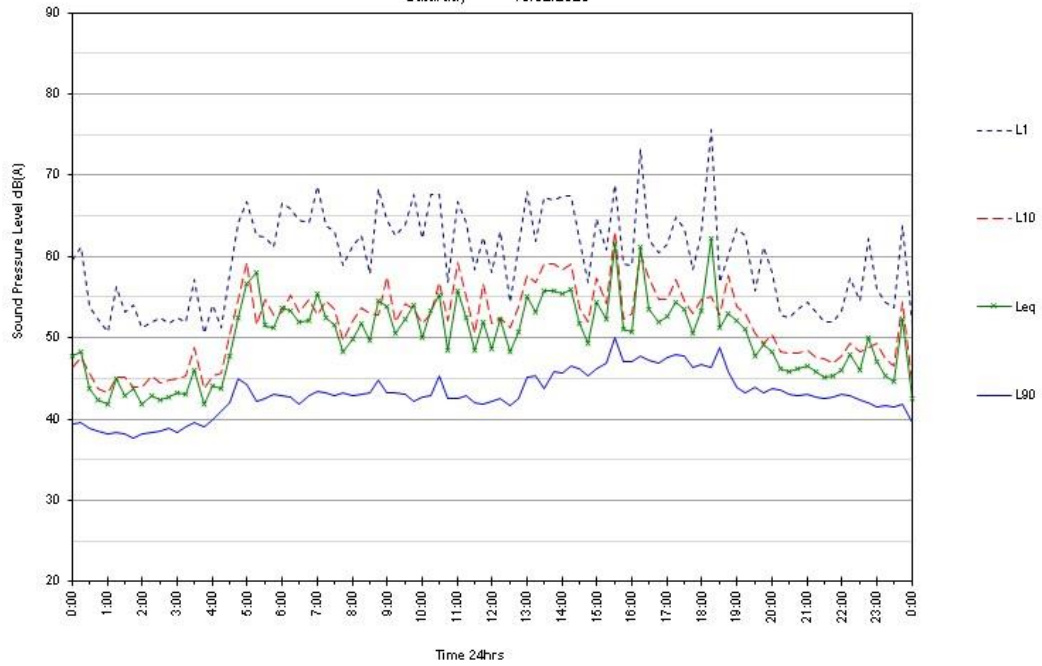
Friday 17/02/2023



224 Applyby Road, Stafford Heights

Environmental Noise Monitoring

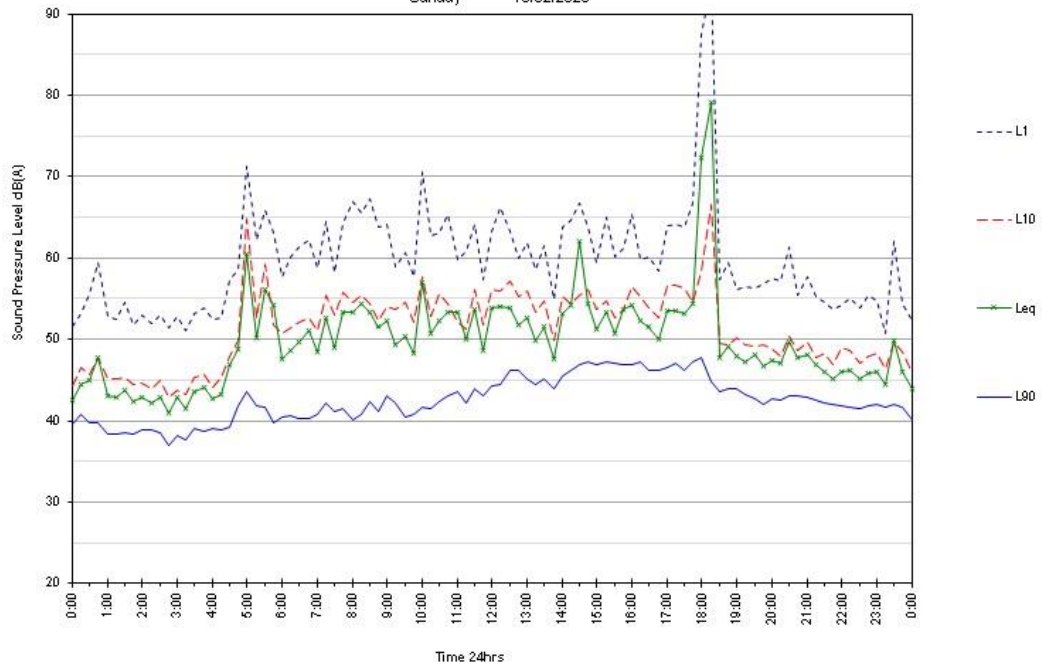
Saturday 18/02/2023



224 Applyby Road, Stafford Heights

Environmental Noise Monitoring

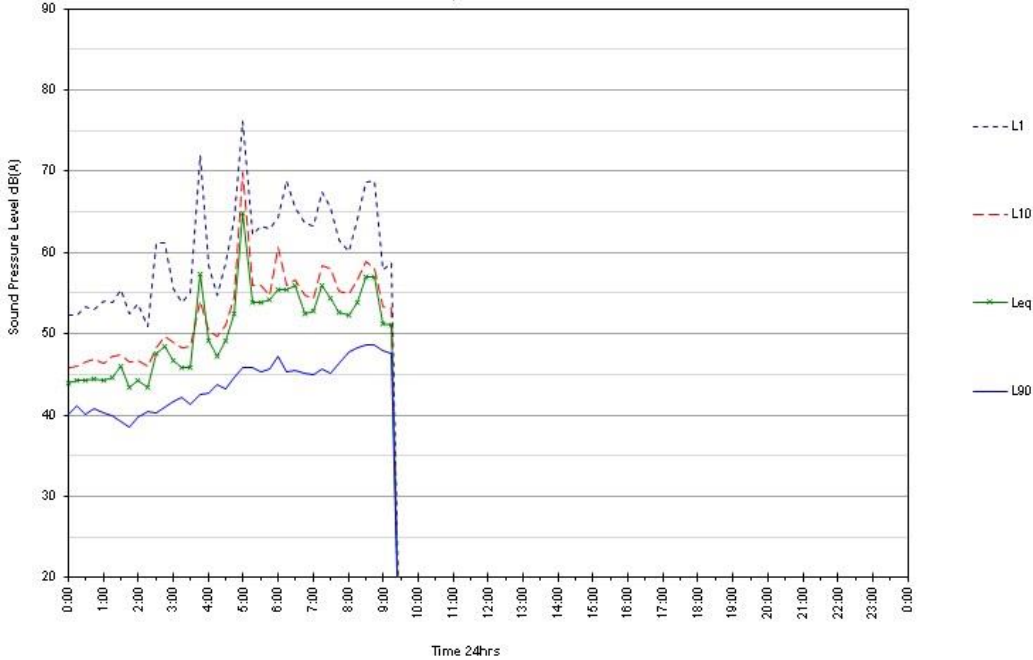
Sunday 19/02/2023



224 Applyby Road, Stafford Heights

Environmental Noise Monitoring

Monday 20/02/2023



10.2 Development Plans

DEVELOPMENT APPLICATION

224-226 APPLEBY ROAD STAFFORD

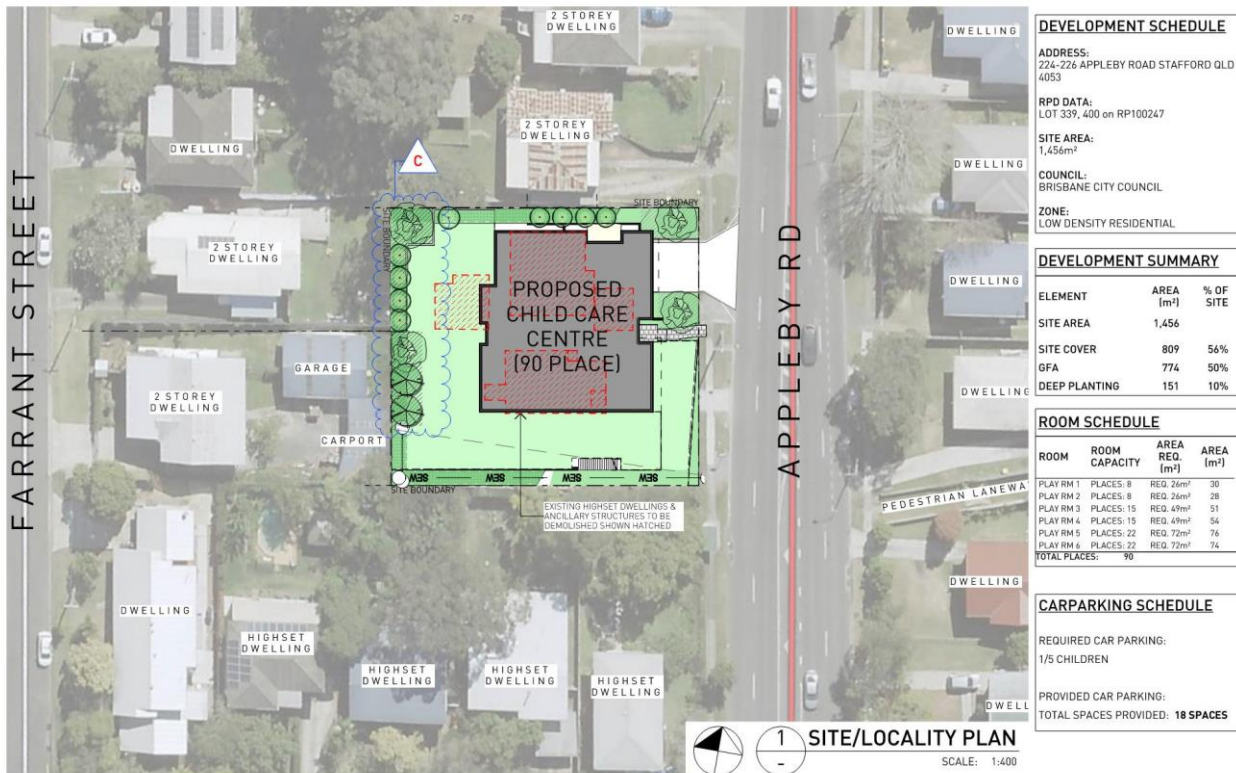


DA DRAWING LIST		
DA01	COVER SHEET	D
DA10	SITE PLAN	C
DA20	GROUND FLOOR PLAN	C
DA21	FIRST FLOOR PLAN	C
DA22	ROOF PLAN	C
DA30	PROPOSED SECTIONS	A
DA40	PROPOSED ELEVATIONS 1	B
DA41	PROPOSED ELEVATIONS 2	C
DA42	PROPOSED ELEVATIONS 3	B

JOB NO. 1825
DATE: 19/09/2023



Shop 4, 34 Park Road, Milton, Qld, 4054
P 417 3642 1888
E info@husbandarchitects.com.au
W www.husbandarchitects.com.au



DEVELOPMENT SCHEDULE	
ADDRESS:	224-226 APPLEBY ROAD STAFFORD QLD 4053
RPD DATA:	LOT 339, 400 on RP100247
SITE AREA:	1,456m ²
COUNCIL:	BRISBANE CITY COUNCIL
ZONE:	LOW DENSITY RESIDENTIAL

DEVELOPMENT SUMMARY		
ELEMENT	AREA (m ²)	% OF SITE
SITE AREA	1,456	
SITE COVER	809	56%
GFA	774	50%
DEEP PLANTING	151	10%

ROOM SCHEDULE			
ROOM	ROOM CAPACITY	AREA REQ. (m ²)	AREA (m ²)
PLAY RM 1 PLACES: 8	8	REQ. 26m ²	30
PLAY RM 2 PLACES: 8	8	REQ. 26m ²	28
PLAY RM 3 PLACES: 15	15	REQ. 49m ²	51
PLAY RM 4 PLACES: 15	15	REQ. 49m ²	54
PLAY RM 5 PLACES: 22	22	REQ. 72m ²	76
PLAY RM 6 PLACES: 22	22	REQ. 72m ²	74
TOTAL PLACES:	90		

CARPARKING SCHEDULE	
REQUIRED CAR PARKING:	1/5 CHILDREN
PROVIDED CAR PARKING:	TOTAL SPACES PROVIDED: 18 SPACES

PROJECT: PROPOSED CHILD CARE CENTRE
LOCATION: 224-226 APPLEBY ROAD STAFFORD QLD 4053
CLIENT: ECHELON
TITLE: SITE PLAN

C	REV. WEST ACOUSTIC BARRIER ALIGNMENT	SM	12/10/2023
B	ADDED ROAD WIDENING	SM	27/05/2023
A	ISSUE FOR DA	SM	4/05/2023
P2	COORDINATION ISSUE	SM	20/02/2023
P1	PRELIMINARY ISSUE	SM	14/02/2023
REV.	DETAILS	JRT	DATE

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SCALE: 1:400/DA3
JOB No: 1825
ISSUE DATE: 12/10/2023
ISSUE: DA10
ISSUE: C



GROUND FLOOR PLAN
SCALE: 1:200

DEVELOPMENT SCHEDULE

ADDRESS:
224-226 APPLBY ROAD STAFFORD QLD
4053

RPD DATA:
LOT 339, 400 on RP100247

SITE AREA:
1,456m²

COUNCIL:
BRISBANE CITY COUNCIL

ZONE:
LOW DENSITY RESIDENTIAL

DEVELOPMENT SUMMARY

ELEMENT	AREA (m ²)	% OF SITE
SITE AREA	1,456	
SITE COVER	809	56%
GFA	774	50%
DEEP PLANTING	145	10%

ROOM SCHEDULE

ROOM	ROOM CAPACITY	AREA REQ. (m ²)	AREA (m ²)
PLAY RM 1 PLACES: 8	8	REG. 26m ²	30
PLAY RM 2 PLACES: 8	8	REG. 26m ²	28
PLAY RM 3 PLACES: 15	15	REG. 49m ²	51
PLAY RM 4 PLACES: 15	15	REG. 49m ²	54
PLAY RM 5 PLACES: 22	22	REG. 72m ²	76
PLAY RM 6 PLACES: 22	22	REG. 72m ²	74
TOTAL PLACES:	90		

CARPARKING SCHEDULE

REQUIRED CAR PARKING:
1/5 CHILDREN

PROVIDED CAR PARKING:
TOTAL SPACES PROVIDED: **18 SPACES**

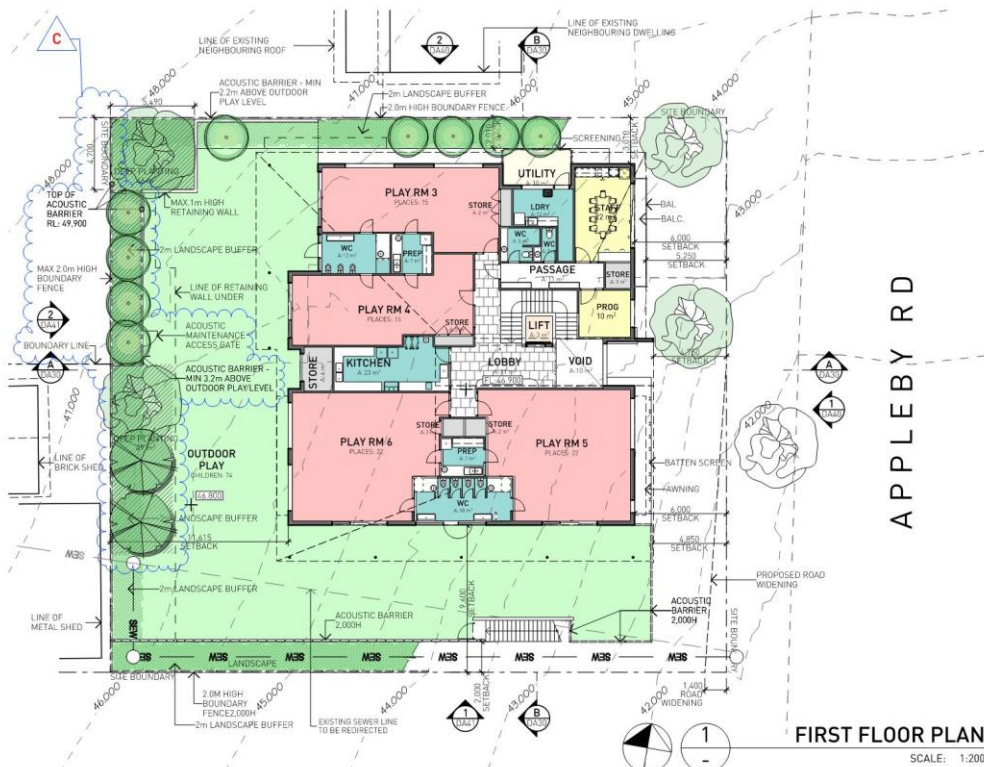
PROJECT: **PROPOSED CHILD CARE CENTRE**
LOCATION: **224-226 APPLBY ROAD STAFFORD QLD 4053**
CLIENT: **ECHOLON**
TITLE: **GROUND FLOOR PLAN**

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C	REV. REFUSE CAPACITY	SM	16/09/2023
B	REV. FRONT FENCE ALIGNMENT, ROAD CROSSOVER, REV. REFUSE LAYOUT	SM	27/04/2023
A	ISSUE FOR DA	SM	14/02/2023
P	COORDINATION ISSUE	SM	20/02/2023
P1	PRELIMINARY ISSUE	SM	14/02/2023
REV	DETAILS	REV	SITE

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SCALE:	1:200/DA3	ADR No:	1825
DATE:	19/09/2023	DRWG No:	DA21
ISSUE:	C	ISSUE:	C



FIRST FLOOR PLAN
SCALE: 1:200

DEVELOPMENT SCHEDULE

ADDRESS:
224-226 APPLBY ROAD STAFFORD QLD
4053

RPD DATA:
LOT 339, 400 on RP100247

SITE AREA:
1,456m²

COUNCIL:
BRISBANE CITY COUNCIL

ZONE:
LOW DENSITY RESIDENTIAL

DEVELOPMENT SUMMARY

ELEMENT	AREA (m ²)	% OF SITE
SITE AREA	1,456	
SITE COVER	809	56%
GFA	774	50%
DEEP PLANTING	151	10%

ROOM SCHEDULE

ROOM	ROOM CAPACITY	AREA REQ. (m ²)	AREA (m ²)
PLAY RM 1 PLACES: 8	8	REG. 26m ²	30
PLAY RM 2 PLACES: 8	8	REG. 26m ²	28
PLAY RM 3 PLACES: 15	15	REG. 49m ²	51
PLAY RM 4 PLACES: 15	15	REG. 49m ²	54
PLAY RM 5 PLACES: 22	22	REG. 72m ²	76
PLAY RM 6 PLACES: 22	22	REG. 72m ²	74
TOTAL PLACES:	90		

CARPARKING SCHEDULE

REQUIRED CAR PARKING:
1/5 CHILDREN

PROVIDED CAR PARKING:
TOTAL SPACES PROVIDED: **18 SPACES**

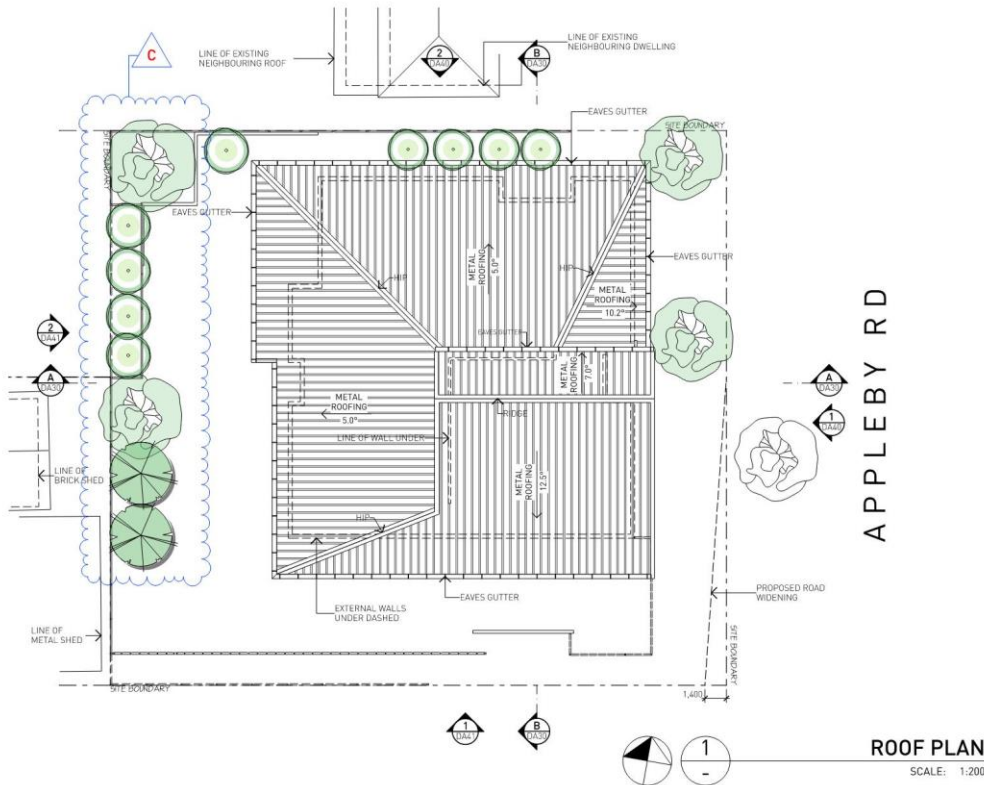
PROJECT: **PROPOSED CHILD CARE CENTRE**
LOCATION: **224-226 APPLBY ROAD STAFFORD QLD 4053**
CLIENT: **ECHOLON**
TITLE: **FIRST FLOOR PLAN**

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C	REV. WEST ACoustic BARRIER ALIGNMENT	SM	12/10/2023
B	ADDED ROAD WIDENING	SM	27/04/2023
A	ISSUE FOR DA	SM	14/02/2023
P	COORDINATION ISSUE	SM	20/02/2023
P1	PRELIMINARY ISSUE	SM	14/02/2023
REV	DETAILS	REV	SITE

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SCALE:	1:200/DA3	ADR No:	1825
DATE:	12/10/2023	DRWG No:	DA21
ISSUE:	C	ISSUE:	C



PROJECT **PROPOSED CHILD CARE CENTRE**
LOCATION **224-226 APPELEY ROAD STAFFORD QLD 4053**
CLIENT **ECHOLON**
TITLE **ROOF PLAN**

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C	REV WEST ACOUSTIC BARRIER ALIGNMENT	SM	12/10/2023
B	ADDED ROAD WIDENING	SM	27/05/2023
A	ISSUE FOR DA	SM	4/03/2023
P2	COORDINATION ISSUE	SM	22/02/2023
P1	PRELIMINARY ISSUE	SM	14/02/2023
REV	DETAILS	WT	DATE



SCALE: 1:200
JOB No: **1825**
DRAWING No: **DA22**
ISSUE DATE: **12/10/2023**
ISSUE: **C**



PROJECT **PROPOSED CHILD CARE CENTRE**
LOCATION **224-226 APPELEY ROAD STAFFORD QLD 4053**
CLIENT **ECHOLON**
TITLE **PROPOSED SECTIONS**

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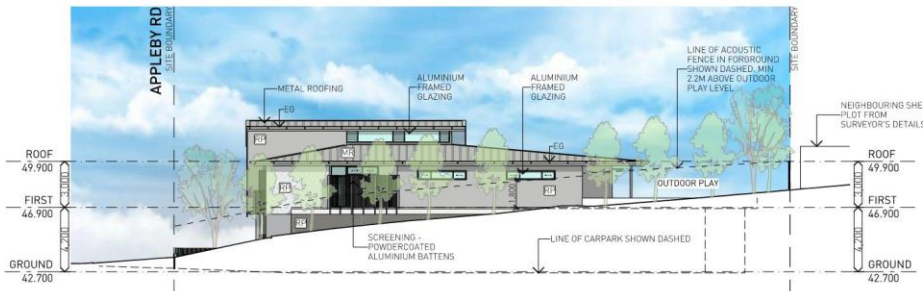
A	ISSUE FOR DA	SM	4/03/2023
P2	COORDINATION ISSUE	SM	22/02/2023
P1	PRELIMINARY ISSUE	SM	14/02/2023
REV	DETAILS	WT	DATE



SCALE: 1:200
JOB No: **1825**
DRAWING No: **DA30**
ISSUE DATE: **4/03/2023**
ISSUE: **A**



APPLEBY ROAD EAST ELEVATION
SCALE: 1:200



NORTH ELEVATION
SCALE: 1:200

MATERIALS SCHEDULE



PROJECT **PROPOSED CHILD CARE CENTRE**
LOCATION **224-226 APPLEBY ROAD STAFFORD OLD 4053**
CLIENT **ECHOLON**
TITLE **PROPOSED ELEVATIONS 1**

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B	ASSED OPERATOR DRAWING, REV 1 FRONT FENCE ALTERNATIVE	SM	27/04/2023
A	ISSUE FOR DA	SM	4/03/2023
PE	COORDINATION ISSUE	SM	23/02/2023
PI	PRELIMINARY ISSUE	SM	14/02/2023
REV	DETAILS	RP	DATE



SCALE: 1:200/8A3
DRAWN BY: SM
ISSUE DATE: 27/04/2023
JOB No: 1825
DWG No: DA40
ISSUE: B



WEST ELEVATION
SCALE: 1:200

MATERIALS SCHEDULE



SOUTH ELEVATION
SCALE: 1:200

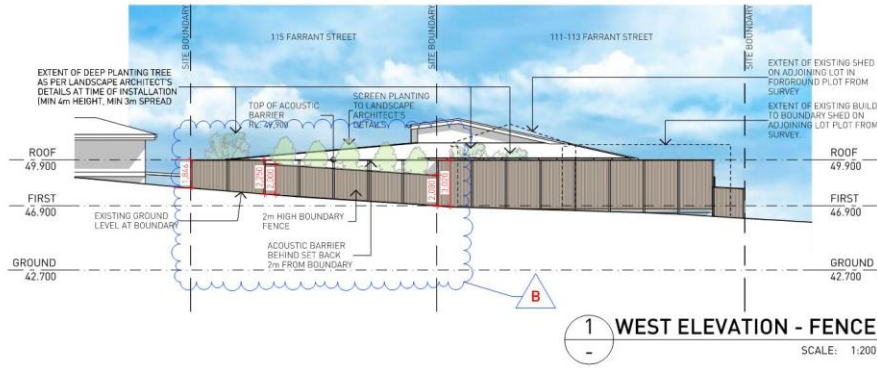
PROJECT **PROPOSED CHILD CARE CENTRE**
LOCATION **224-226 APPLEBY ROAD STAFFORD OLD 4053**
CLIENT **ECHOLON**
TITLE **PROPOSED ELEVATIONS 2**

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C	WEST ELEV UPDATE	SM	4/07/2023
B	REV 1 FRONT FENCE ALTERNATIVE, ASSESS ROAD WIDENING	SM	27/04/2023
A	ISSUE FOR DA	SM	4/03/2023
PE	COORDINATION ISSUE	SM	23/02/2023
REV	DETAILS	RP	DATE



SCALE: 1:200/8A3
DRAWN BY: SM
ISSUE DATE: 4/07/2023
JOB No: 1825
DWG No: DA41
ISSUE: C



PROJECT	PROPOSED CHILD CARE CENTRE			
LOCATION	224-226 APPLEBY ROAD STAFFORD QLD 4053			
CLIENT	ECHELON	REV WEST ACOUSTIC BARRIER	SM	12/10/2023
TITLE	PROPOSED ELEVATIONS 3	ALIGNMENT	SM	INFORMATION ISSUE
		PERFORMANCE ISSUE	SM	4/07/2023
		DETAILS	RM	DRAFT

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SCALE	1:200/8A3	JOB No	1825
DRAWN BY	SM	DWG No	DA42
ISSUE DATE	12/10/2023	ISSUE	B