

**PROPOSED CHILD CARE CENTRE
LOTS 243 & 244 (#44 & 46) GRAND OCEAN ENTRANCE
BURNS BEACH**

ENVIRONMENTAL ACOUSTIC ASSESSMENT

NOVEMBER 2023

OUR REFERENCE: 31896-1-23329

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ENVIRONMENTAL ACOUSTIC ASSESSMENT
PROPOSED CHILD CARE CENTRE
GRAND OCEAN ENTRANCE, BURNS BEACH

Job No: 23329

Document Reference: 31896-1-23329

FOR

GERMANO DESIGNS

DOCUMENT INFORMATION

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This report has been prepared in accordance with the scope of services and on the basis of information and documents provided to Herring Storer Acoustics by the client. To the extent that this report relies on data and measurements taken at or under the times and conditions specified within the report and any findings, conclusions or recommendations only apply to those circumstances and no greater reliance should be assumed. The client acknowledges and agrees that the reports or presentations are provided by Herring Storer Acoustics to assist the client to conduct its own independent assessment.

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1. INTRODUCTION

Herring Storer Acoustics were commissioned to undertake an acoustic assessment of noise emissions associated with the proposed day care centre to be located at Lots 243 and 244 (# 44 and 46) Grand Ocean Entrance, Burns Beach.

The report considers noise received at the neighbouring premises from the proposed development for compliance with the requirements of the *Environmental Protection (Noise) Regulations 1997*. This report considers noise emissions from:

- Children playing within the outside play areas of the centre; and
- Mechanical service.

We note that from information received from DWER, the bitumised area would be considered as a road, thus noise relating to motor vehicles is exempt from the *Environmental Protection (Noise) Regulations 1997*. We note that these noise sources are rarely critical in the determination of compliance. However, as requested by council and for completeness, they have been included in the assessment, for information purposes only.

For information, a plan of the proposed development is attached in Appendix A.

2. SUMMARY

Noise received at the neighbouring residences from the outdoor play areas would comply with the requirements of the *Environmental Protection (Noise) Regulations 1997* during the day period. Thus, the outdoor play is limited to the day period (ie after 7am).

The air conditioning condensing units have also been assessed to comply with the requirements of the *Environmental Protection (Noise) Regulations 1997* at all times, with the air conditioning condensing located within the drying court and with the condensing units being installed with "Low Noise" night period modes.

It is noted that noise associated with cars movements and cars starting are exempt from complying with the Regulations. However, noise emissions from car doors are not strictly exempt from the Regulations. Noise received at the neighbouring residences from these noise sources would with the western boundary fence being as shown of Figure 5.1 in Section 5 – Modelling; and the parking restrictions, as shown on Figure 5.2 in Section 5 comply with the Regulatory requirements, at all times.

Thus, noise emissions from the proposed development, would be deemed to comply with the requirements of the *Environmental Protection (Noise) Regulations 1997* for the proposed hours of operation, with the inclusion of the following:

- 1 Although the proposed facility would open before 7 am (ie during the night period), the outdoor play area would not be used until after 7am. Thus, noise received at the neighbouring existing residences from the outdoor play area needs to comply with the assigned day period noise level.
- 2 Boundary fencing be, apart from the western boundary fence, being as shown on Figure 5.1 in Section 5 – Modelling, as shown the drawings attached in Appendix A. We note that for child care centres, colourbond is an acceptable fencing material.
- 3 Parking restrictions to be as indicated on Figure 5.2 in Section 5 – Modelling.
- 4 With regards to the air conditioning condensing units, it is recommended that the air conditioning condensing units be located within the drying court. Additionally, these units are be supplied with "Low Noise" night period modes.

3. CRITERIA

The allowable noise level at the surrounding locales is prescribed by the *Environmental Protection (Noise) Regulations 1997*. Regulations 7 & 8 stipulate maximum allowable external noise levels. For highly sensitive area of a noise sensitive premises this is determined by the calculation of an influencing factor, which is then added to the base levels shown below in Table 3.1. The influencing factor is calculated for the usage of land within two circles, having radii of 100m and 450m from the premises of concern. For other areas within a noise sensitive premises, the assigned noise levels are fixed throughout the day, as listed in Table 3.1.

TABLE 3.1 - BASELINE ASSIGNED OUTDOOR NOISE LEVEL

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L _{A10}	L _{A1}	L _{Amax}
Noise sensitive premises: highly sensitive area	0700 - 1900 hours Monday to Saturday (Day)	45 + IF	55 + IF	65 + IF
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day)	40 + IF	50 + IF	65 + IF
	1900 - 2200 hours all days (Evening)	40 + IF	50 + IF	55 + IF
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	35 + IF	45 + IF	55 + IF

Note: L_{A10} is the noise level exceeded for 10% of the time.
 L_{A1} is the noise level exceeded for 1% of the time.
 L_{Amax} is the maximum noise level.
 IF is the influencing factor.

Under the Regulations, a highly sensitive area means that area (if any) of noise sensitive premises comprising –

- (a) A building, or a part of a building, on the premises that is used for a noise sensitive purpose; and
- (b) Any other part of the premises within 15 m of that building or that part of the building.

It is a requirement that received noise be free of annoying characteristics (tonality, modulation and impulsiveness), defined below as per Regulation 9.

“impulsiveness” means a variation in the emission of a noise where the difference between L_{Apeak} and L_{Amax(Slow)} is more than 15 dB when determined for a single representative event;

“modulation” means a variation in the emission of noise that –

- (a) is more than 3 dB L_{Afast} or is more than 3 dB L_{Afast} in any one-third octave band;
- (b) is present for more at least 10% of the representative assessment period; and
- (c) is regular, cyclic and audible;

“tonality” means the presence in the noise emission of tonal characteristics where the difference between –

- (a) the A-weighted sound pressure level in any one-third octave band; and
- (b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as $L_{Aeq,T}$ levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as L_{ASlow} levels.

Where the noise emission is not music, if the above characteristics exist and cannot be practicably removed, then any measured level is adjusted according to Table 3.2 below.

TABLE 3.2 - ADJUSTMENTS TO MEASURED LEVELS

Where tonality is present	Where modulation is present	Where impulsiveness is present
+5 dB(A)	+5 dB(A)	+10 dB(A)

Note: These adjustments are cumulative to a maximum of 15 dB.

For this development, the closest neighbouring residences neighbouring the child care centre are shown below on Figure 3.1.

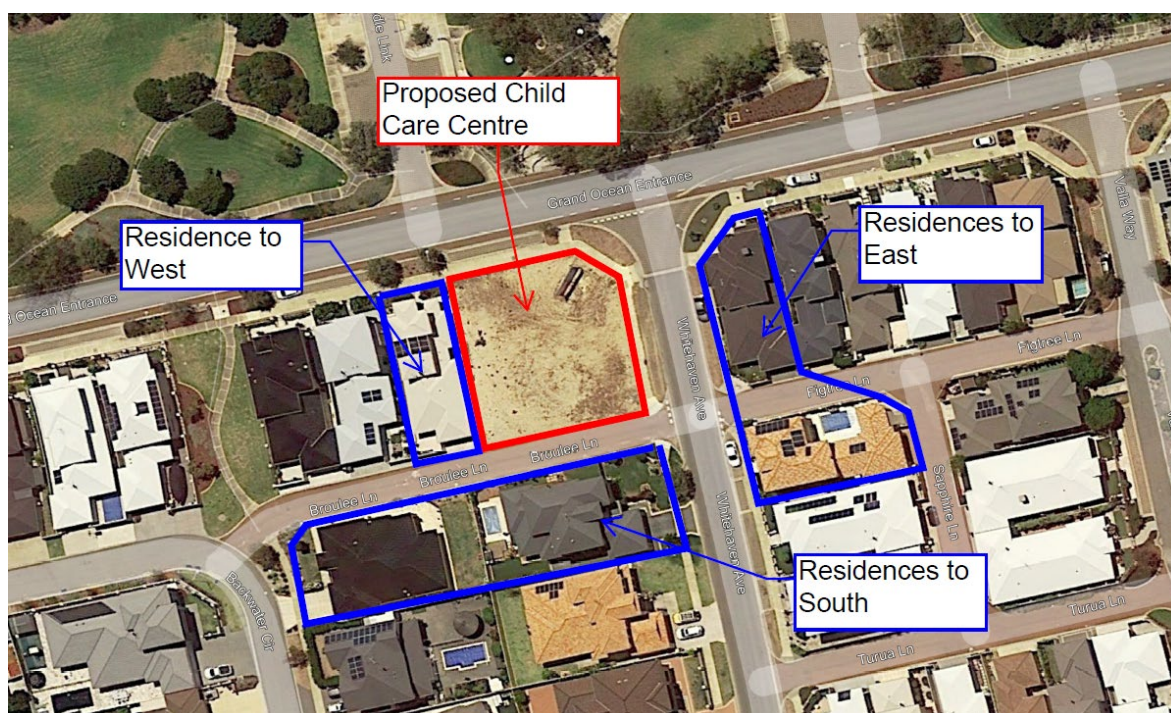


FIGURE 3.1 – NEIGHBOURING LOTS

At the neighbouring residences, the Influencing Factor has been determined to be 0 dB. Thus, the assigned noise levels would be as listed in Table 3.3.

TABLE 3.3 - ASSIGNED OUTDOOR NOISE LEVEL

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: highly sensitive area	0700 - 1900 hours Monday to Saturday (Day)	45	55	65
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day)	40	50	65
	1900 - 2200 hours all days (Evening)	40	50	55
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	35	45	55

Note: L_{A10} is the noise level exceeded for 10% of the time.
 L_{A1} is the noise level exceeded for 1% of the time.
 L_{Amax} is the maximum noise level.

4. PROPOSAL

From information supplied, we understand that the child care centre normal hours of operations would be between 0630 and 1830 hours, Monday to Friday (closed on public holidays). It is understood that the proposed childcare centre will cater for a maximum of 57 children: with the following breakdown:

Activity 1	0 – 2 years	12 places
Activity 2	2 – 3 years	15 places
Activity 3	3+ years	30 places

It is noted that although the proposed child care centre would open before 7 am (ie during the night period), the outdoor play area would not be used until after 7am.

5. MODELLING

To assess the noise received at the neighbouring premises from the proposed development, noise modelling was undertaken using the noise modelling program SoundPlan.

Calculations were carried out using the DWER’s weather conditions, which relate to worst case noise propagation, as stated in the Department of Environment Regulation “*Draft Guidance on Environmental Noise for Prescribed Premises*”. These conditions include winds blowing from sources to the receiver(s).

Calculations were based on the sound power levels used in the calculations are listed in Table 5.1.

TABLE 5.1 – SOUND POWER LEVELS

Item	Sound Power Level, dB(A)
Car Moving in Car Park	79
Car Starting	85
Door Closing	87
Air conditioning condensing Unit	3 @ 73
Kitchen Exhaust Fan	72

Even though, we believe that the sound power levels listed within the AAAC guidelines over predict the noise emissions from outdoor play areas, we have undertaken the noise modelling to reflect the sound power level provided in the AAAC guideline, as listed in the following table.

Table 1 – Effective Sound Power Levels ($L_{Aeq, 15min}$) for Groups of 10 Children Playing

Number and Age of Children	Sound Power Levels [dB] at Octave Band Centre Frequencies [Hz]								
	dB(A)	63	125	250	500	1k	2k	4k	8k
10 Children - 0 to 2 years	78	54	60	66	72	74	71	67	64
10 Children - 2 to 3 years	85	61	67	73	79	81	78	74	70
10 Children - 3 to 5 years	87	64	70	75	81	83	80	76	72

Notes:

- 1 If applicable, an adjustment to the above sound power levels of -6 dB could be applied in each age group for children involved in passive play.

The additional, noise modelling was undertaken for the following groups of children:

GROUND FLOOR

0 – 24 months 12 of at 79 dB(A);

FIRST FLOOR

2 – 3 years 15 of at 87 dB(A); and

3+ years 3 groups of 10 of at 87 dB(A).

We note that as stated in the above note to the AAAC sound power level, an adjustment of -6 dB(A) would be applicable to each group of children involved in passive play. Thus, some children would be engaged in passive play. However, no adjustment has been made for passive play and the results using the AAAC sound power level, we believe would be an unrealistic worst case scenario, that we believe would not occur.

Notes:

- 1 The noise level for the air conditioning has been based on the sound power levels used for previous assessment of child care centres. From other studies, we understand that the noise associated with the condensing units would be conservative.
- 2 We believe that the air conditioning condensing units would be located within the drying court. Additionally, these condensing units are to be installed with "Low Noise" night period modes.
- 3 The kitchen exhaust fan would only operate during the day period. For this assessment, the fan has been located on the roof above the kitchen.
- 4 The noise modelling has been based on the fencing, apart from the western boundary fence as shown below on Figure 5.1, as shown on the drawings attached in Appendix A.
- 5 Modelling shows that noise received at the neighbouring residences from car doors closing would comply with the assigned noise level for the day period. However, to achieve compliance during the night period (ie before 7am), for staff arriving, the parking needs to be restricted, as shown on Figure 5.2.
- 6 Noise modelling was undertaken to a number of different receiver locations for each of the neighbouring residences. However, to simplify the assessment, only the noise level in the worst case location (ie highest noise level), have been listed.
- 7 It is noted that most of the neighbouring residences are 2 storey, as shown of the following photos. However, we note that the first floor windows facing the child care centre are small highlight windows and as such are not assessable locations. However, modelling has been undertaken to the balconies of the neighbouring residences, as applicable.

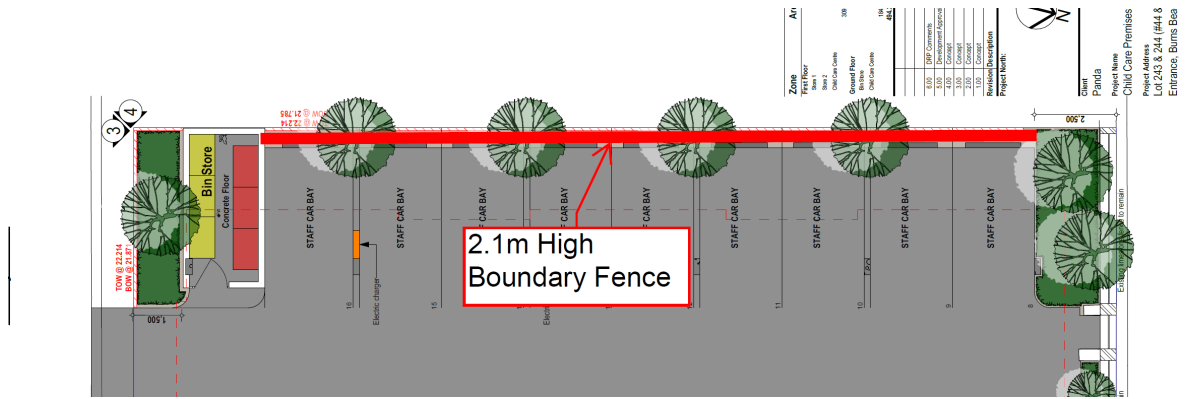


FIGURE 5.1 – WESTERN BOUNDARY FENCE



FIGURE 5.2 – PARKING RESTRICTIONS

6. ASSESSMENT

The resultant noise levels at the neighbouring residence from children playing outdoors and the mechanical services are tabulated in Table 6.1.

From previous measurements, noise emissions from children playing does not contain any annoying characteristics. Noise emissions from the mechanical services could be tonal and a +5 dB(A) penalty would be applicable, as shown in Table 6.1. Noise emissions from both outdoor play and the mechanical services needs to comply with the assigned L_{A10} noise levels.

**TABLE 6.1 - ACOUSTIC MODELLING RESULTS FOR L_{A10} CRITERIA
OUTDOOR PLAY AREAS**

Neighbouring Premises	Calculated Noise Level (dB(A))		
	Children Playing	Mechanical	
		Day Period	Night Period
West			
Ground Floor	44	22 (27)	14 (19)
First Floor	43	27 (32)	13 (18)
South	43	24 (29)	17 (22)
East			
Ground Floor	42	34 (39)	24 (29)
First Floor	42	38 (43)	30 (35)

() Includes +5 dB(A) penalty for tonality

With regards to noise associated with cars within the parking area, resultant noise levels are tabulated in Tables 6.2 and 6.3. It is noted that noise emissions from a moving car being an L_{A1} noise level, with noise emissions from cars starting and doors closing being an L_{Amax} noise level.

Based on the definitions of tonality, noise emissions from car movements and car starts, being an L_{A1} and L_{Amax} respectively, being present for less than 10% of the time, would not be considered tonal. Thus, no penalties would be applicable, and the assessment would be as listed in Table 6.2 (Car Moving) and Table 6.3 (Car Starting). However, noise emissions from car doors closing could be impulsive, hence the +10dB penalty has been included in the assessment.

**TABLE 6.2 - ACOUSTIC MODELLING RESULTS L_{A1} CRITERIA
CAR MOVEMENT**

Neighbouring Premises	Calculated Noise Level (dB(A))
West	
Ground Floor	40
First Floor	45
South	40
East	
Ground Floor	34
First Floor	23

**TABLE 6.3 - ACOUSTIC MODELLING RESULTS L_{Amax} CRITERIA
CAR STARTING / DOOR CLOSING**

Neighbouring Premises	Calculated Noise Level (dB(A))			
	Car Starting		Door Closing	
	Day Period	Night Period	Day Period	Night Period
West				
Ground Floor	44	40	50 [60]	45 [55]
First Floor	46	36	49 [59]	39 [49]
South	44	44	47 [57]	44 [54]
East				
Ground Floor	42	38	46 [56]	43 [53]
First Floor	28	26	30 [40]	30 [40]

[] Includes +10 dB(A) penalty for impulsiveness.

Tables 6.4 to 6.11 summarise the applicable Assigned Noise Levels, and assessable noise level emissions for each identified noise.

**TABLE 6.4 – ASSESSMENT OF L_{A10} NOISE LEVEL EMISSIONS
OUTDOOR PLAY (DAY PERIOD)**

Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
West			
Ground Floor	44	45	Complies
First Floor	43		Complies
South	43	45	Complies
East			
Ground Floor	42	45	Complies
First Floor	42		Complies

**TABLE 6.5 – ASSESSMENT OF L_{A10} NOISE LEVEL EMISSIONS
MECHANICAL (DAY PERIOD)**

Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
West			
Ground Floor	27	45	Complies
First Floor	32		Complies
South	29	45	Complies
East			
Ground Floor	39	45	Complies
First Floor	43		Complies

**TABLE 6.6 – ASSESSMENT OF L_{A10} NOISE LEVEL EMISSIONS
MECHANICAL (NIGHT PERIOD)**

Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
West			
Ground Floor	19	35	Complies
First Floor	18		Complies
South	22	35	Complies
East			
Ground Floor	29	35	Complies
First Floor	35		Complies

**TABLE 6.7 – ASSESSMENT OF L_{A1} NIGHT PERIOD NOISE LEVEL EMISSIONS
CAR MOVEMENTS**

Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
West			
Ground Floor	40	45	Complies
First Floor	45		Complies
South	40	45	Complies
East			
Ground Floor	34	45	Complies
First Floor	23		Complies

**TABLE 6.8 – ASSESSMENT OF L_{Amax} DAY PERIOD NOISE LEVEL EMISSIONS
CAR START**

Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
West			
Ground Floor	44	65	Complies
First Floor	46		Complies
South	44	65	Complies
East			
Ground Floor	42	65	Complies
First Floor	28		Complies

TABLE 6.9 – ASSESSMENT OF L_{Amax} NIGHT PERIOD NOISE LEVEL EMISSIONS

CAR START			
Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
West			
Ground Floor	40	55	Complies
First Floor	36		Complies
South	44	55	Complies
East			
Ground Floor	38	55	Complies
First Floor	26		Complies

TABLE 6.10 – ASSESSMENT OF L_{Amax} DAY PERIOD NOISE LEVEL EMISSIONS

CAR DOOR			
Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
West			
Ground Floor	60	65	Complies
First Floor	59		Complies
South	57	65	Complies
East			
Ground Floor	56	65	Complies
First Floor	40		Complies

TABLE 6.11 – ASSESSMENT OF L_{Amax} NIGHT PERIOD NOISE LEVEL EMISSIONS

CAR DOOR			
Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
West			
Ground Floor	55	55	Complies
First Floor	49		Complies
South	54	55	Complies
East			
Ground Floor	53	55	Complies
First Floor	40		Complies

7. CONCLUSION

Noise received at the neighbouring residences from the outdoor play area would comply with day period assigned noise level.

The air conditioning condensing units have also been assessed to comply with the requirements of the *Environmental Protection (Noise) Regulations 1997* at all times, with the air conditioning condensing located within the drying court and with the condensing units being installed with “Low Noise” night period modes.

It is noted that noise associated with cars movements and cars starting are exempt from complying with the Regulations. However, noise emissions from car doors are not strictly exempt from the Regulations. Noise received at the neighbouring residences from these noise sources would with the western boundary fence being as shown of Figure 5.1 in Section 5 – Modelling; and the parking restrictions, as shown on Figure 5.2 in Section 5 comply with the Regulatory requirements, at all times.

Thus, noise emissions from the proposed development, would be deemed to comply with the requirements of the *Environmental Protection (Noise) Regulations 1997* for the proposed hours of operation, with the inclusion of the following:

- 1 Although the proposed facility would open before 7 am (ie during the night period), the outdoor play area would not be used until after 7am. Thus, noise received at the neighbouring existing residences from the outdoor play area needs to comply with the assigned day period noise level.
- 2 Boundary fencing be, apart from the western boundary fence, being as shown on Figure 5.1 in Section 5 – Modelling, as shown the drawings attached in Appendix A. We note that for child care centres, colourbond is an acceptable fencing material.
- 3 Parking restrictions to be as indicated on Figure 5.2 in Section 5 – Modelling.
- 4 With regards to the air conditioning condensing units, it is recommended that the air conditioning condensing units be located within the drying court. Additionally, these units are be supplied with “Low Noise” night period modes.

APPENDIX A

PLANS

Panda

Address: Lot 243 & 244 (#44 & 46) Grand Ocean Entrance, Burns Beach

Child Care Premises

Job Number: 23003

Drawing Index

01	Cover Sheet
02	3D
03	Existing Site Survey
04	Site Plan
05	Context Plan
06	Ground Floor Plan
07	First Floor Plan
08	Breeze Path Plan
09	Roof Plan
10	Elevations
11	Elevations
12	Design Analysis



TBM deck spike and plate in bitumen equals RL 21.97 AHD Based on sewer manhole AB7596 RL 21.83 AHD (Water Corp e-plan) Contractor to check datum before adopting levels

Survey Date: 6 May 2019		Scale 1:200@A3		
Client: Rajai Wahhab				
Rev	Date	Description	Surv	Drawn
0	09/05/19	Feature Survey Drafted	JD	TF

FEATURE AND CONTOUR SURVEY OF LOTS 243 & 244 ON DEPOSITED PLAN 47367
 44 & 46 Grand Ocean Entrance, Burns Beach
 C/T #44 Vol: 2625 Fol: 619
 #46 Vol: 2625 Fol: 620
 our ref. 19-8426

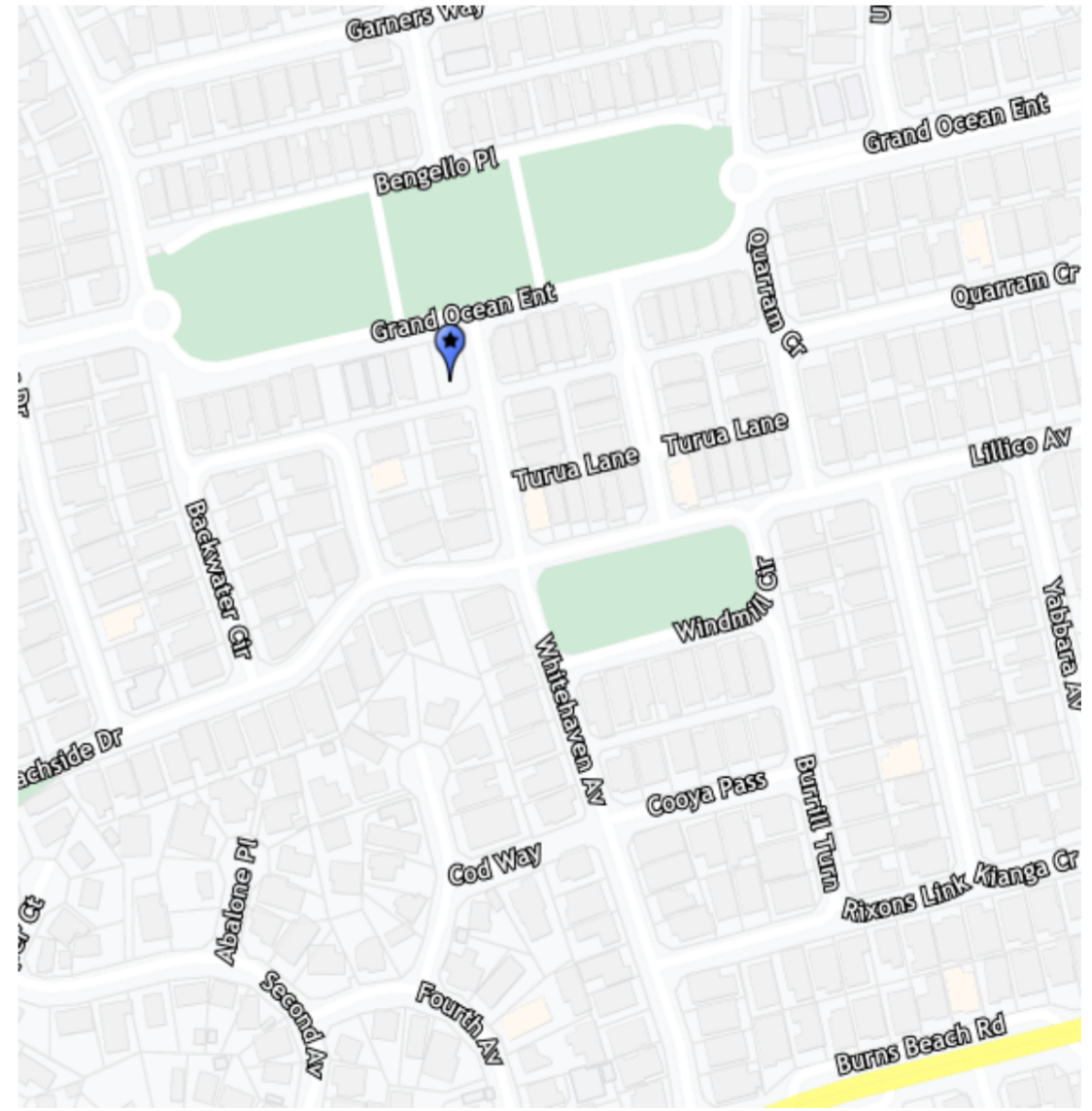
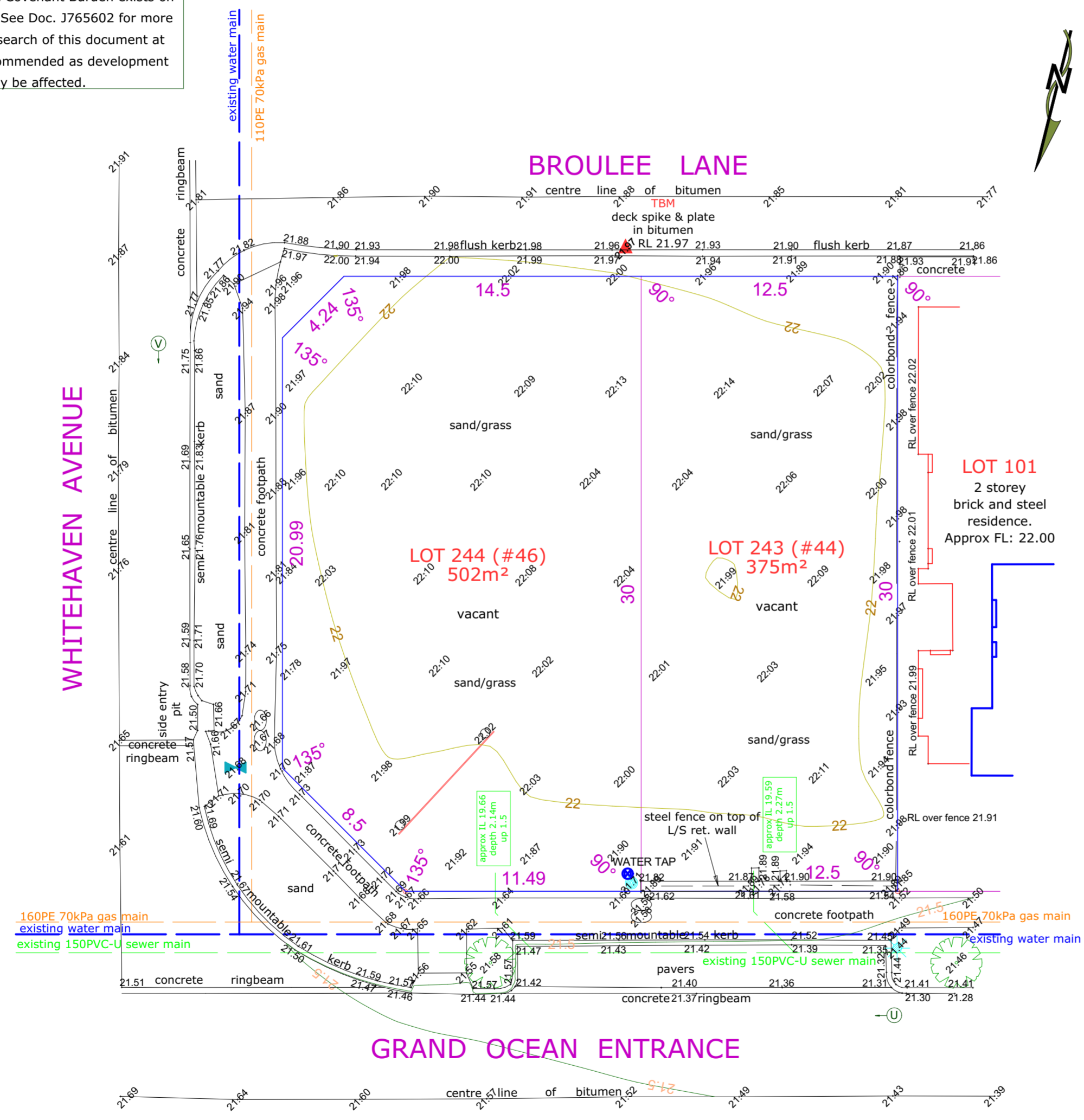
Feature Survey by
THE LAND DIVISION
 PLANNING | SURVEYING | DESIGN
 PO Box 2444,
 Malaga, WA 6090
 Tel 08 9209 3232
 Fax 08 9249 2551

LEGEND/KEY

	Gas Main
	Water Main
	Sewer Main
	Stop Valve
	Light Pole
	Power Dome
	Water Tap
	Telstra Pit
	Sign
	Tree
	Peg/Boundary Mark

NOTE: No title viewed by The Land Division. A certificate of title check for easements and encumbrances is highly recommended as should they exist, they may affect design.
Note: Restrictive Covenant Burden exists on lot from (U) to (V). See Doc. J765602 for more information. A search of this document at Landgate is recommended as development may be affected.

NOTES: 1) CONSULT LEGAL ADVICE ON EASEMENTS, ENCUMBRANCES AND CAVEATS THAT MAY APPEAR ON THE CERTIFICATE OF TITLE. 2) LEVELS ON ADJOINING PROPERTIES ARE APPROXIMATE DUE TO ACCESS RESTRICTIONS. 3) SERVICES PLOTTED AS VISUALLY SEEN ON SITE AND ARE APPROXIMATE. 4) SEWER POSITION AND LEVELS FROM WATER CORPORATION PLANS. 5) CONSULT DIAL BEFORE YOU DIG TO CHECK LOCATION OF UNDERGROUND SERVICES. 6) BEWARE OF OVERHEAD POWER LINE HAZARDS. 7) CONSULT TLD ON ANY ANOMALY BEFORE DESIGN AND CONSTRUCTION. 8) POSITION AND DEPTH OF SERVICES TO BE CONFIRMED ON SITE BY CONTRACTOR. 9) FEATURES ARE RELATED TO FENCE-LINES ONLY. NO CONNECTION MADE TO BOUNDARIES. **REPEP RECOMMENDED.**



Revision	Description	Date
6.00	DRP Comments	13.11.23
5.00	Development Approval	16.08.23
4.00	Concept	07.08.23
3.00	Concept	04.08.23
2.00	Concept	15.07.23
1.00	Concept	12.07.23



Client: Panda
 Project Name: Child Care Premises
 Project Address: Lot 243 & 244 (#44 & 46) Grand Ocean Entrance, Burns Beach

Drawing Title: Existing Site Survey

Scale: 1:200	Sheet Size: A2
Project No: 23003	Revision Number: 6.00

Drawing No.: 03 of 12



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Child / Room Calculations

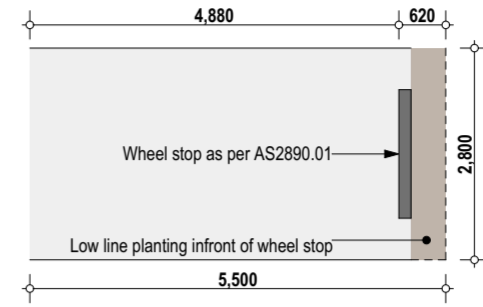
Room	Age (Yrs)	Quant.	Size	Staff Req
Activity 1	0-2	12	39.36m ²	3
Activity 2	2-3	15	48.72m ²	3
Activity 3	3+	30	97.94m ²	3
				+2
Total Internal =		57	186.02m ²	11
(Min 3.25m ² per child)			(Min 185.25m ² req)	
Total External Play Area =		57	405.44m ²	
(Min 7m ² per child)			(Min 399m ² req)	

Landscaping	
Site Area	877m ²
Required	8%
Provided	69.60m ²
	7.93%

Car Parking Calculations

	Required	Provided
1 per employee	11	11
8 per 57 - 64 children	8	5
Bike = 1 per 8 employees	2	

BROULEE LANE



Carbay Detail



Zone	Area	Perimeter
First Floor		
Store 1	3.34	7.74
Store 2	5.67	9.78
Child Care Centre	309.54 m ²	63.87
Ground Floor		
Bin Store	12.40	15.66
Child Care Centre	172.26	71.87
	184.66 m ²	87.53 m
	494.20 m²	188.92 m

Revision	Description	Date
6.00	DRP Comments	13.11.23
5.00	Development Approval	16.08.23
4.00	Concept	07.08.23
3.00	Concept	04.08.23
2.00	Concept	15.07.23
1.00	Concept	12.07.23



Client: Panda
 Project Name: Child Care Premises
 Project Address: Lot 243 & 244 (#44 & 46) Grand Ocean Entrance, Burns Beach
 Drawing Title: Ground Floor Plan

Scale: 1:100	Sheet Size: A2
Project No: 23003	Revision Number: 6.00

Drawing No.: 06 of 12



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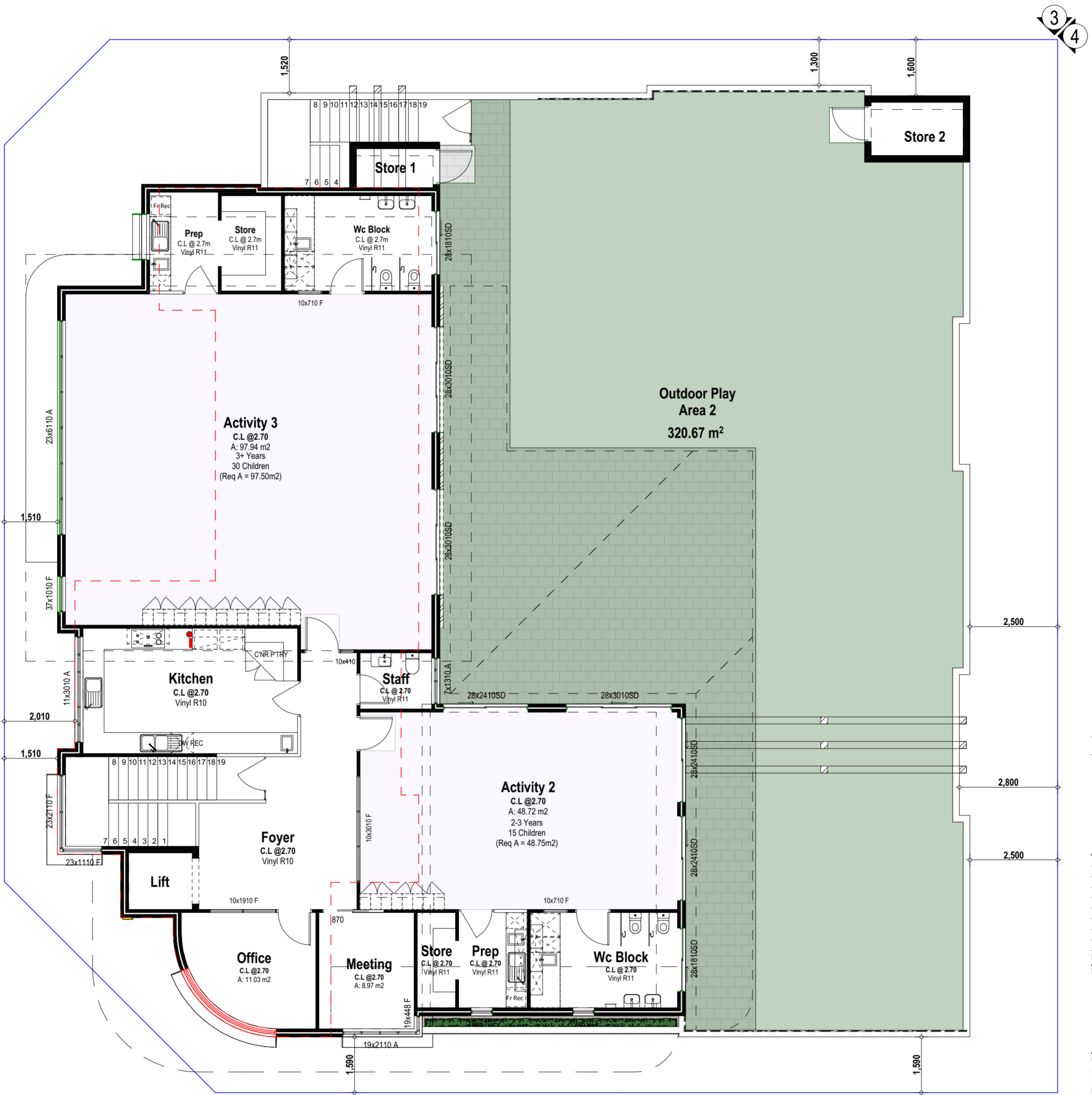
Child / Room Calculations

Room	Age (Yrs)	Quant.	Size	Staff Req
Activity 1	0-2	12	39.36m ²	3
Activity 2	2-3	15	48.72m ²	3
Activity 3	3+	30	97.94m ²	3
				+2
Total Internal = (Min 3.25m ² per child)		57	186.02m² (Min 185.25m ² req)	11
Total External Play Area = (Min 7m ² per child)		57	405.44m² (Min 399m ² req)	

Landscaping	
Site Area	877m ²
Required	8%
Provided	69.60m ² 7.93%

Car Parking Calculations

	Required	Provided
1 per employee	11	11
8 per 57 - 64 children	8	5
Bike = 1 per 8 employees	2	



Zone	Area	Perimeter
First Floor		
Store 1	3.34	7.74
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	184.66 m ²	87.53 m
	494.20 m²	188.92 m

6.00	DRP Comments	13.11.23
5.00	Development Approval	16.08.23
4.00	Concept	07.08.23
3.00	Concept	04.08.23
2.00	Concept	15.07.23
1.00	Concept	12.07.23



Client
Panda

Project Name
Child Care Premises

Project Address
Lot 243 & 244 (#44 & 46) Grand Ocean
Entrance, Burns Beach

First Floor Plan

Scale:	Sheet Size:	A2
1:100	Revision Number:	6.00
Project No:		23003

Drawing No.: 07 of 12



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Revision	Description	Date
6.00	DRP Comments	13.11.23
5.00	Development Approval	16.08.23
4.00	Concept	07.08.23
3.00	Concept	04.08.23
2.00	Concept	15.07.23
1.00	Concept	12.07.23

Project North:



Client
Panda

Project Name
Child Care Premises

Project Address
Lot 243 & 244 (#44 & 46) Grand Ocean
Entrance, Burns Beach

Drawing Title:
Roof Plan

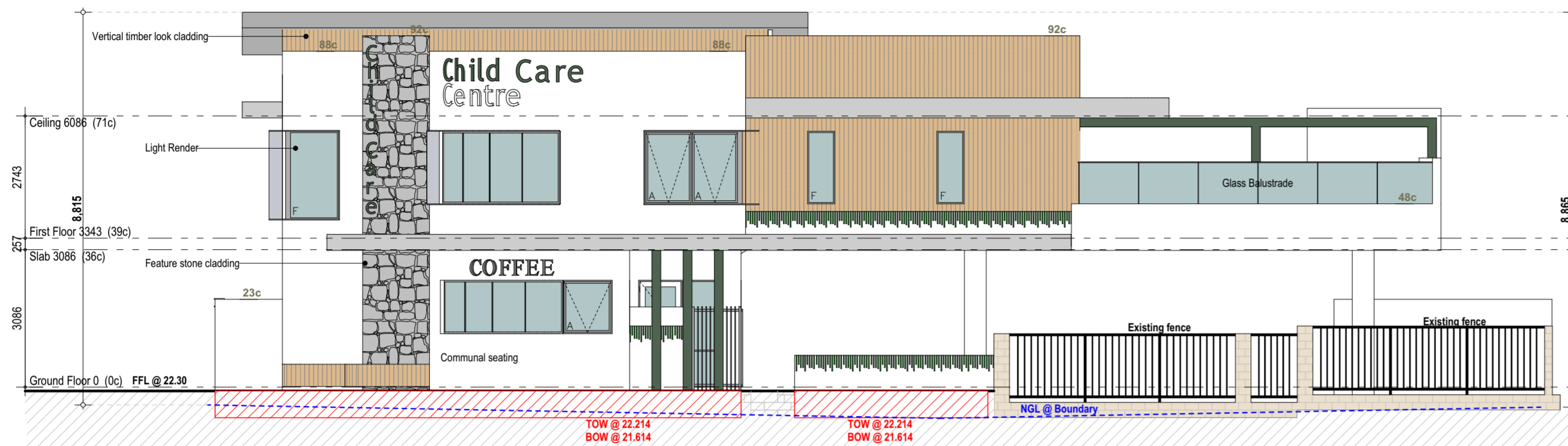
Scale: 1:100	Sheet Size: A2
Project No: 23003	Revision Number: 6.00

Drawing No.:
09 of 12



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Elevation 1
Scale 1:100



Elevation 2
Scale 1:100

Revision	Description	Date
6.00	DRP Comments	13.11.23
5.00	Development Approval	16.08.23
4.00	Concept	07.08.23
3.00	Concept	04.08.23
2.00	Concept	15.07.23
1.00	Concept	12.07.23



Client
Panda
Project Name
Child Care Premises
Project Address
Lot 243 & 244 (#44 & 46) Grand Ocean Entrance, Burns Beach

Drawing Title:
Elevations

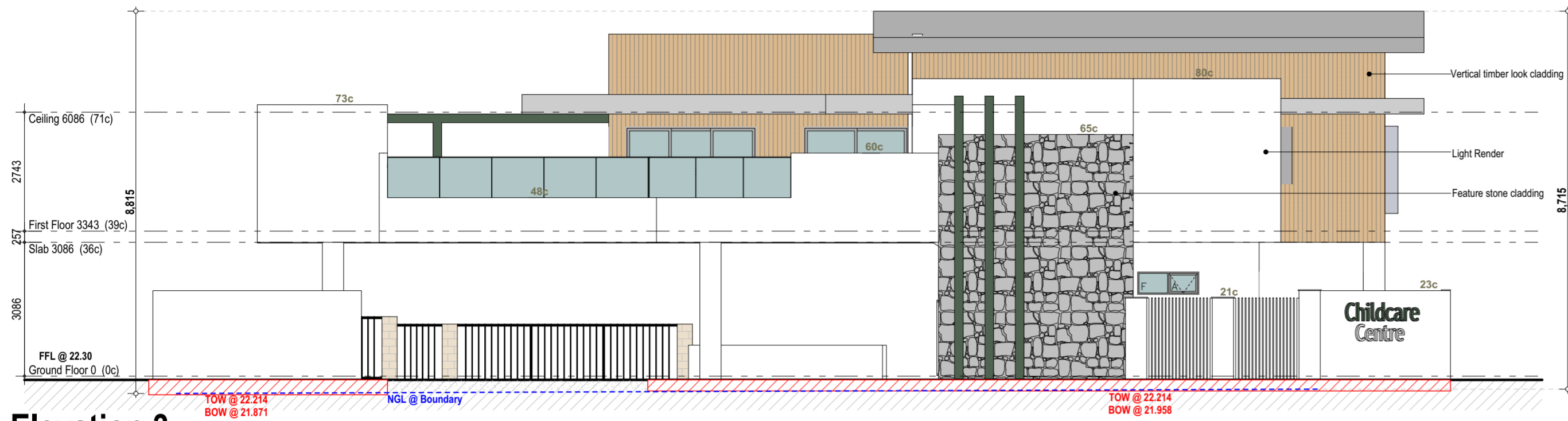
Scale: 1:100	Sheet Size: A2
Project No.: 23003	Revision Number: 6.00

Drawing No.:
10 of 12



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Elevation 3
Scale 1:100



Elevation 4
Scale 1:100

Revision	Description	Date
6.00	DRP Comments	13.11.23
5.00	Development Approval	16.08.23
4.00	Concept	07.08.23
3.00	Concept	04.08.23
2.00	Concept	15.07.23
1.00	Concept	12.07.23



Client
Panda
Project Name
Child Care Premises
Project Address
Lot 243 & 244 (#44 & 46) Grand Ocean
Entrance, Burns Beach

Drawing Title:
Elevations

Scale:	Sheet Size:
1:100	A2
Project No:	Revision Number:
23003	6.00

Drawing No.:
11 of 12



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