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28 September 2023

Taylor

Level 13, 157 Walker Street

North Sydney NSW 2060

Attention: M. Xuereb

Dear Maureece,

**RE: National Construction Code (NCC) 2022 Volume One Section J
Part J4 Building Fabric Statement of Compliance**

JOB NO.: 230339

REV. NO.: REV A

SUBJECT PREMISE: Castlecove Redevelopment (Clubhouse) | 68 Deepwater Road, Castle Cove NSW 2069

This NCC Section J Part J4 statement has been prepared to demonstrate design compliance for the proposed development of Castlecove Redevelopment (clubhouse) located at 68 Deepwater Road, Castle Cove NSW 2069.

The proposed development is located in Climate **Zone [5]** as defined by the NCC.

The table below shows the areas assessed, the NCC building classification and the method of compliance.

Building Area Description	NCC Classification	Method of Compliance
Clubhouse	Class 7a, Class 9b	DTS

The assessment is based on the architectural drawings listed below.

Architectural Drawings

Antoniades Architects

Project: CC Country Club | Project No.: 22015DA

Building	Title	Drawing No	Revision	Rev Date
Castlecove Redevelopment (Clubhouse)	Site Plan	DA 3.08	K	01/09/2023
	Club – Car Parking	DA 3.09	M	21/09/2023
	Club – Car Parking Lobby	DA 3.10	L	21/09/2023
	Club - Ground	DA 3.11	K	01/09/2023
	Club - Sections	DA 4.01	J	01/09/2023
	Club – South & East Elevations	DA 5.01	I	01/09/2023
	Club – North & West Elevations	DA 5.02	I	01/09/2023

As per the Deemed-to-Satisfy Provisions of **NCC 2022 Volume One**, design compliance with Part J4 can be met subject to the following specifications:

Part J4 Building Fabric

Required **Total R-value** including allowance for **thermal bridging**:

Elements	Total Construction R-value	Notes
Roof / Ceiling Envelope	R3.7 (Downward, SA < 0.45)	- It is a total system performance value and NOT the insulation. - The impact of Thermal Bridging must be included in the building envelope total system R-value calculations.
Envelope Walls	R1.4	
Envelope Floors – Type A (Slab-on-Ground)	R2.0 (Downward)*	
Envelope Floors – Type B (Suspended)	R2.0 (Downward)	

Note: The impacts of the thermal bridge must be included in the total construction R-value calculations. The contractors must provide Total R-value Breakdown Calculations following AS/NZS 4859.2:2018 or Specification 38 for spandrel panels, with thermal bridging allowance using NZS 4214:2006, confirming the as-built has met Section J requirements.

*According to clause 2 of Section J4D7, a slab-on-ground that does not have in-slab heating or cooling system is considered to achieve a Total R-Value of R2.0. No additional insulation is required for Envelope Floors - Type A (Slab-on-Ground).

Required **Total System U-value** and **Total System U-value SHGC**:

Location	Window Assembly (Glass & Frame)		Description
	Total U-value	Total SHGC	
All external vertical glazing	3.5	0.39	DGU Neutral/Clear or the like

Note: contractor must also provide the Compliance Certificate or Performance Label in accordance with AS 2047:2014 from the glazing supplier confirming the thermal performance (Total U-value and Total SHGC) of all installed glazing has met Section J requirements.

No Skylights are proposed.

Please refer to Attachment A for the facade calculator demonstrating compliance, and Attachment B for the mark-ups of the building fabric's thermal construction requirements.

Additional Section J Compliance Notes

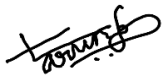
Note project needs to adhere to the following NCC 2022 Volume One Section J construction requirements as applicable:

- J4D3 (1-4) Thermal Construction – general installation requirements for insulations
- J4D3 (5) – The required total R-value and total system U-value, including thermal bridging calculation.

Any modifications should be coordinated with JHA to confirm compliance.

Full Name of Designer: Tarun Sebastian Thottungal
Qualifications: B.Arch, M.Arch Sci.
Address of Designer: JHA
Level 20, 2 Market Street,
SYDNEY NSW 2000
Business Telephone No: (02) 9437 1000
Name of Employer: JHA

Yours sincerely,



Tarun Sebastian Thottungal
Sustainability Consultant

Disclaimer

This statement is prepared for the nominated recipient only and relates to the specific scope of work and agreement between JHA and the client (the recipient). It is not to be used or relied upon by any third party for any purpose.

Attachment A – Facade Calculator:

Climate Zone	CZ 5
Class	Other
Display glazing?	No
Help note	1

Exposure	Wall R-value	Window		Description
		U-Value	SHGC	
N	1.40	3.5	0.39	DGU Neutral/Clear or the like
E	1.40	3.5	0.39	DGU Neutral/Clear or the like
S	1.40	3.5	0.39	DGU Neutral/Clear or the like
W	1.40	3.5	0.39	DGU Neutral/Clear or the like

The total Respective Air-Conditioning energy value of the proposed building is 175.13 (less than 178.89) and total System U-value is 1.97 (less than 2.00). Therefore, the proposed building façade complies with Part J4 via Method 2.

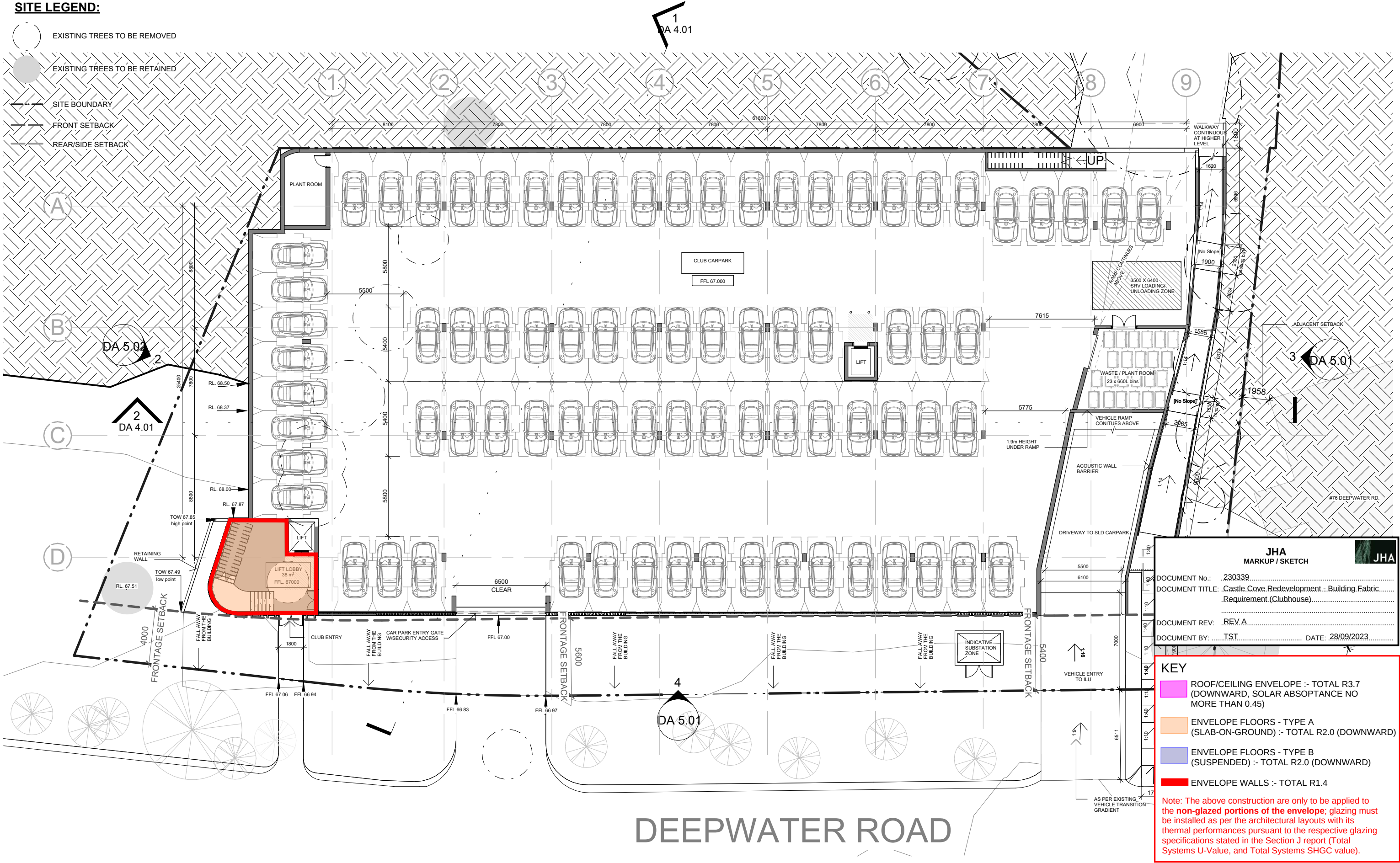
					Method 1		Method 2		U-value		R-value	
Exposure	Façade Area				Solar Admittance				Total System		Total System	
	Total [m²]	Wall [m²]	Window [m²]	Wall Ratio	Max SA	Achieved SA	Max Er	Achieved Er	Max. U-Value	Achieved U-Value	Min. R-Value	Achieved R-Value
N	281.7	86.9	194.8	31%	0.13	0.15	83.50	97.82	2.0	2.64	1.0	1.40
E	182.5	138.8	43.7	76%	0.13	0.06	40.80	20.39	2.0	1.38	1.0	1.40
S	228.6	169.4	59.2	74%	0.13	0.09	29.72	20.87	2.0	1.44	1.0	1.40
W	109.3	46.3	63.1	42%	0.13	0.19	24.87	36.05	2.0	2.32	1.0	1.40
						SUM	178.89	175.13	SUM	1.97		

Description	Level	Exposure	Window							Shading Multiplier	A*S*SHGC
			Height [m]	Width [m]	Area [m]	P [m]	H [m]	P/H	G/H		
N1	GF	N	4.20	4.20	17.6	0.70	4.20	0.17	0.00	0.90	6.19
		Select			-			-	-	1.00	-
N1	L1	N	3.10	1.70	5.3	1.80	3.10	0.58	0.00	0.57	1.17
N2	L1	N	3.10	5.40	16.7	3.70	3.10	1.19	0.00	0.35	2.29
N3	L1	N	3.10	0.60	1.9	3.70	3.10	1.19	0.00	0.35	0.25
N4	L1	N	3.10	1.10	3.4	4.00	3.10	1.29	0.00	0.35	0.47
N5	L1	N	3.10	1.70	5.3	4.80	3.10	1.55	0.00	0.35	0.72
N6	L1	N	3.10	7.90	24.5	5.60	3.10	1.81	0.00	0.35	3.34
N7	L1	N	3.10	7.60	23.6	5.60	3.10	1.81	0.00	0.35	3.22
N8	L1	N	3.10	4.10	12.7	5.60	3.10	1.81	0.00	0.35	1.73
N9	L1	N	1.80	2.00	3.6	5.60	3.10	1.81	0.42	0.68	0.95
N10	L1	N	3.10	1.10	3.4	2.10	3.10	0.68	0.00	0.51	0.68
N11	L1	N	3.10	1.00	3.1	1.80	3.10	0.58	0.00	0.57	0.69
N12	L1	N	3.10	3.60	11.2	1.60	3.10	0.52	0.00	0.57	2.48
N13	L1	N	0.90	25.10	22.6	0.10	0.90	0.11	0.00	0.90	7.93
N14	L1	N	3.10	9.80	30.4	0.70	3.10	0.23	0.00	0.80	9.48
N15	L1	N	3.10	3.10	9.6	8.10	3.10	2.61	0.00	0.35	1.31
		Select			-			-	-	1.00	-
E1	GF	E	2.20	1.60	3.5			-	-	1.00	1.37
		Select			-			-	-	1.00	-
E1	L1	E	3.10	1.10	3.4	1.60	3.10	0.52	0.00	0.57	0.76
E2	L1	E	3.10	1.00	3.1	2.20	3.10	0.71	0.00	0.46	0.56
E3	L1	E	3.10	4.00	12.4	3.10	3.10	1.00	0.00	0.35	1.69
E4	L1	E	0.90	9.20	8.3	0.10	0.90	0.11	0.00	0.90	2.91
E5	L1	E	3.10	4.20	13.0	0.40	3.10	0.13	0.00	0.90	4.57
		Select			-			-	-	1.00	-
S1	GF	S	4.20	2.90	12.2	0.70	4.20	0.17	0.00	0.93	4.42
S2	GF	S	2.20	1.80	4.0	0.70	2.20	0.32	0.00	0.82	1.27
S3	GF	S	4.20	1.10	4.6	0.70	4.20	0.17	0.00	0.93	1.68
		Select			-			-	-	1.00	-
S1	L1	S	3.10	5.80	18.0	0.70	3.10	0.23	0.00	0.87	6.10
S2-S3	L1	S	0.90	22.70	20.4	0.10	0.90	0.11	0.00	0.93	7.41
		Select			-			-	-	1.00	-
W1-W3	GF	W	4.20	3.60	15.1	0.70	4.20	0.17	0.00	0.90	5.31
		Select			-			-	-	1.00	-
W1-W3	L1	W	3.10	3.60	11.2	0.70	3.10	0.23	0.00	0.80	3.48
W4	L1	W	3.10	2.50	7.8	3.10	3.10	1.00	0.00	0.35	1.06
W5	L1	W	0.90	9.20	8.3	0.10	0.90	0.11	0.00	0.90	2.91
W6	L1	W	3.10	2.10	6.5	0.50	3.10	0.16	0.00	0.90	2.29
W7	L1	W	3.10	4.60	14.3			-	-	1.00	5.56
		Select			-			-	-	1.00	-

Attachment B – Building Fabric Requirements

SITE LEGEND:

- EXISTING TREES TO BE REMOVED
- EXISTING TREES TO BE RETAINED
- SITE BOUNDARY
- FRONT SETBACK
- REAR/SIDE SETBACK



JHA
MARKUP / SKETCH

DOCUMENT No.: 230339
DOCUMENT TITLE: Castle Cove Redevelopment - Building Fabric Requirement (Clubhouse)
DOCUMENT REV: REV A
DOCUMENT BY: TST DATE: 28/09/2023

KEY

- ROOF/CEILING ENVELOPE :- TOTAL R3.7 (DOWNWARD, SOLAR ABSOPTANCE NO MORE THAN 0.45)
- ENVELOPE FLOORS - TYPE A (SLAB-ON-GROUND) :- TOTAL R2.0 (DOWNWARD)
- ENVELOPE FLOORS - TYPE B (SUSPENDED) :- TOTAL R2.0 (DOWNWARD)
- ENVELOPE WALLS :- TOTAL R1.4

Note: The above construction are only to be applied to the non-glazed portions of the envelope; glazing must be installed as per the architectural layouts with its thermal performances pursuant to the respective glazing specifications stated in the Section J report (Total Systems U-Value, and Total Systems SHGC value).

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- Check all dimensions on site prior to construction.
- To be read in conjunction with all other documents.
- Report any discrepancies to Antoniades Architects Pty Ltd.
- All boundary dimensions and bearings to be verified by licensed surveyor prior to proceeding with work.

REV	DESCRIPTION	BY	DATE
E	PRELIMINARY	PV	2023.06.15
F	PRELIMINARY - 76 Deepwater checked	PV	2023.06.23
G	PRELIMINARY - Updates	MS	2023.06.28
H	PRELIMINARY	MS	2023.07.19
I	PRELIMINARY	MS	2023.07.25
J	PRELIMINARY - Pre-DA Issue	MS	2023.08.08
K	PRELIMINARY-UPDATES	MS	2023.09.01
L	FOR INFORMATION	MS	2023.09.14
M	FOR INFORMATION	MS	2023.09.21

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ARCHITECTS

www.antoniades.com.au
ACN 129 731 559

Nominated Architect: Andreas Antoniades
NSW Registration 7954

PROJECT PHASE

DA

STATUS

PRELIMINARY

PROJECT NO.

22015DA

PROJECT

CC Country Club

ADDRESS

Castle Cove Country Club

CLIENT

Taylor

DRAWING SERIES

PLANS

DRAWING TITLE

CLUB - CAR PARKING

DRAWING NO.

DA 3.09

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REVISION

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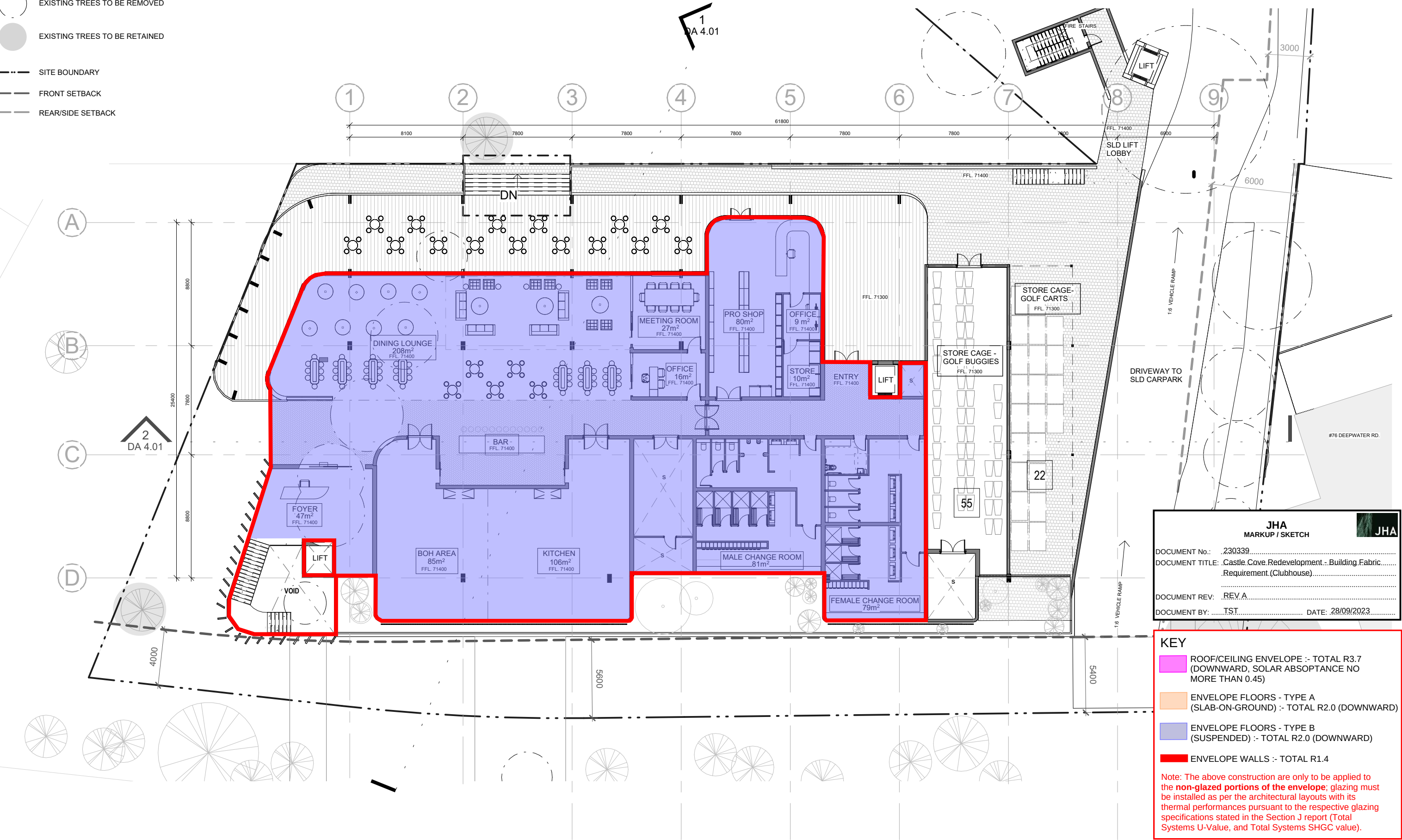
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NORTH

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ENVELOPE FLOORS - TYPE B (SUSPENDED) :- TOTAL R2.0 (DOWNWARD)

ENVELOPE WALLS :- TOTAL R1.4

Note: The above construction are only to be applied to the non-glazed portions of the envelope; glazing must be installed as per the architectural layouts with its thermal performances pursuant to the respective glazing specifications stated in the Section J report (Total Systems U-Value, and Total Systems SHGC value).

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C	PRELIMINARY	PV	2023.02.21
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F	PRELIMINARY - 76 Deepwater checked	PV	2023.06.23
G	PRELIMINARY - Updates	MS	2023.06.28
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I	PRELIMINARY	MS	2023.07.25
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K	PRELIMINARY-UPDATES	MS	2023.09.01

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DRAWING SERIES
PLANS

DRAWING TITLE
CLUB - GROUND

DRAWING NO.
DA 3.11

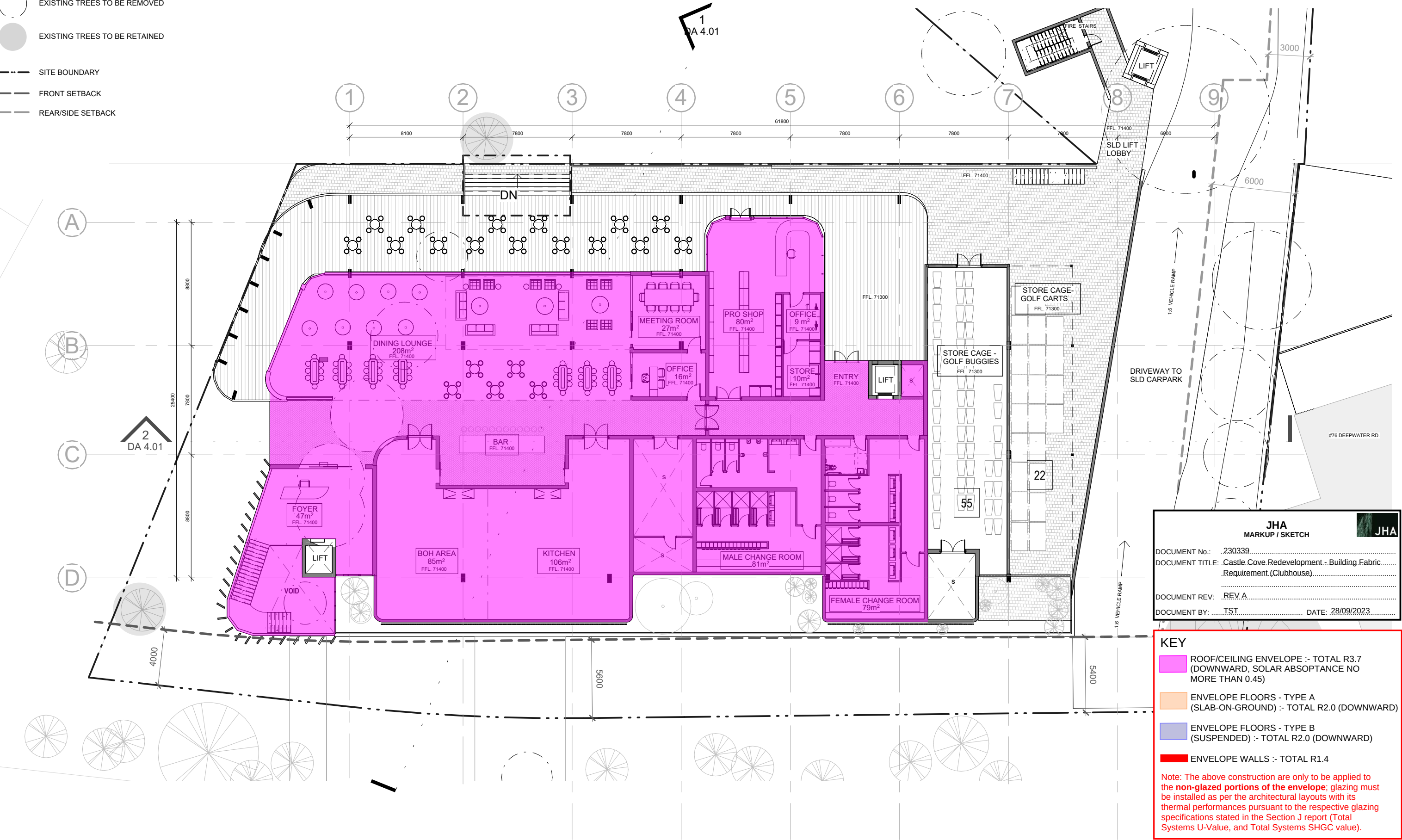
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Scale 1:250

REVISION
K

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PV
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AA
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CLUB - GROUND

DRAWING NO.
DA 3.11
SCALE
As indicated
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Scale 1:250

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