



ABN 48 612 666 172

Sydney | Brisbane | Melbourne

Level 20, 2 Market St
Sydney NSW 2000

PO Box Q453
Queen Victoria Building
NSW 1230

Ph (02) 9437 1000

23 February 2026

TSA Riley

Level 2, 26 Honeysuckle Drive

Newcastle NSW 2300

Attention: E. Lind

Dear Emma,

**RE: National Construction Code (NCC) 2022 Volume One Section J
Part J4 & Part J8 Statement of Compliance**

JOB NO.: 250009

REVISION NO.: [B]

**SUBJECT PREMISE: UNITING CHARLESTOWN – BUILDING B SWIMMING POOL | 27 TIRAL STREET, CHARLESTOWN
NSW 2290**

This NCC Section J Part J4 and Part J8 statement has been prepared to demonstrate design compliance for the proposed development for the **Uniting Charlestown - Building B Swimming Pool** located at **27 Tiral Street, Charlestown NSW 2290**.

The proposed development is located in climate **Zone 5** as defined by the NCC 2022 Building Code of Australia – Volume One Amendment 2.

In accordance with A2G1, compliance with the NCC is achieved by complying with the Governing Requirements of the NCC and the Performance Requirements. The Performance Requirements are satisfied by Performance Solution, Deemed-to-Satisfy Solution or a combination of both.

The table below shows the areas assessed, NCC 2022 Building Classification the Performance Requirements, the Method of Compliance, and the DTS Provisions subjected to Performance Solution.

Building Area Description	NCC Classification	Performance Requirements	Method of Compliance	DTS Provisions subjected to Performance Solution
Swimming Pool	9b	J1P1	J1V3	J1.3 – J1.6 and J8D4(2)(a)

Compliance with Performance Requirement J1P1 will be achieved subject to this report (which includes the verification of J8D4(2)(a) via the J1V3 Method) and compliance with J4D3 (1-5), J3, J5, J6, J7, J8 (excluding J8D4(2)(a)) & J9 being met by the relevant designers / contractors.

The assessment is based on the architectural drawings listed below.

Architectural Drawings Plus Architecture Pty. Ltd.
Project no. 20456
Issued 22/12/2025

Building	Drawing Title	Drawing No	Revision
Building B – Swimming Pool	BUILDING B - LEVEL 01 FLOOR PLAN	PLA-AR-B-1001	14
	BUILDING B - ELEVATIONS SHEET 01	PLA-AR-B-2001	08
	BUILDING B - ELEVATIONS SHEET 02	PLA-AR-B-2002	08
	BUILDING B - ELEVATIONS SHEET 03	PLA-AR-B-2003	08
	BUILDING B - ELEVATIONS SHEET 04	PLA-AR-B-2004	08
	BUILDING B - ELEVATIONS SHEET 05	PLA-AR-B-2005	08
	BUILDING B - ELEVATIONS SHEET 06	PLA-AR-B-2006	08

A JV Verification Method can be used to show compliance in areas where the proposed building fabric and glazing is departure from the minimum DTS requirements.

The J1V3 energy modelling simulation results were obtained using energy modelling software, IESVE. The results demonstrating design compliance are attached in Attachment A for J1V3 (1)(a)(ii) and Attachment B for J1V3 (1)(b).

As per J1V3 Verification Method Provisions of **NCC 2022 Volume One Amendment 2**, 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
Roofs & Ceilings	R3.7 (Downwards, SA < 0.45)	1. It is a total system performance value and NOT the insulation. 2. The impact of Thermal Bridging must be included in the building envelope total system R-value calculations.
Envelope Walls	R1.4	
Envelope Floors	R2.0	

Note: Mark-ups of above construction thermal requirements are attached in Attachment C.

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

Location/Type	Window Assembly (Glass & Frame)		Description
	U-value (W/m ² .K)	SHGC (0-1)	
External glazing	4.6	0.58	Single Glazed Low-E tinted or the like

Part J8D4(2)(a) — Pool Cover

This J1V3 Statement of Compliance addresses a Deemed-to-Satisfy (DTS) departure under Part J8D4(2)(a) of NCC 2022 Volume One.

The DTS reference building includes a compliant pool cover (R-Value 0.05 m².K/W), while the proposed building excludes the pool cover. The additional pool heating energy resulting from the absence of the cover is fully offset through onsite photovoltaic (PV) generation, in accordance with J1V3(2)(a).

This approach demonstrates that the proposed building without a pool cover achieves equivalent or lower annual greenhouse gas emissions compared to the DTS reference building, thereby satisfying Performance Requirement JP1.

Part J1V3 (2)(a) Renewable Energy Generated and Used Onsite

To offset the energy efficiency departures of the proposed building, an onsite renewable energy system must be installed. This J1V3 assessment has determined that:

- Where a pool cover is installed, a system with a minimum output of **6,000 kWh/year (4 kWp)** is required; or
- Where the pool cover is not installed, a system with a minimum output of **23,000 kWh/year (16 kWp)** is required.

Accordingly, provided the above onsite renewable energy system is installed, the proposed building demonstrates compliance with JP1 by offsetting the additional energy through onsite PV generation, consistent with J1V3(2)(a).

Additional Section J Compliance Notes

Note project needs to adhere to the following NCC 2022 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.

JHA recommend the following general construction requirements from Section J of the NCC 2022 be included in the architectural specification and drawings to ensure compliance.

- *Part J5 – Building Sealing*
 - *J5D3 Chimneys and flues*
 - *J5D4 Roof lights*
 - *J5D5 Windows and doors*
 - *J5D6 Exhaust fans*
 - *J5D7 Construction of ceilings, walls and floors*
 - *J5D8 Evaporative coolers*

Full Name of Designer: Felisa Garcia
Qualifications: B LArch
Address of Designer: JHA
Level 20, 2 Market Street
SYDNEY NSW 2000
Business Telephone No: (02) 9437 1000
Name of Employer: JHA

Yours sincerely,



Felisa Garcia

ESD 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.

Revision History

REV	DATE	Amendment
Draft	13/10/2025	Preliminary J1V3 Assessment
A	05/01/2026	For Tender 85% Issue
B	23/02/2026	DA Mod 2

Attachment A – J1V3 (1)(a)(ii) Modelling Results

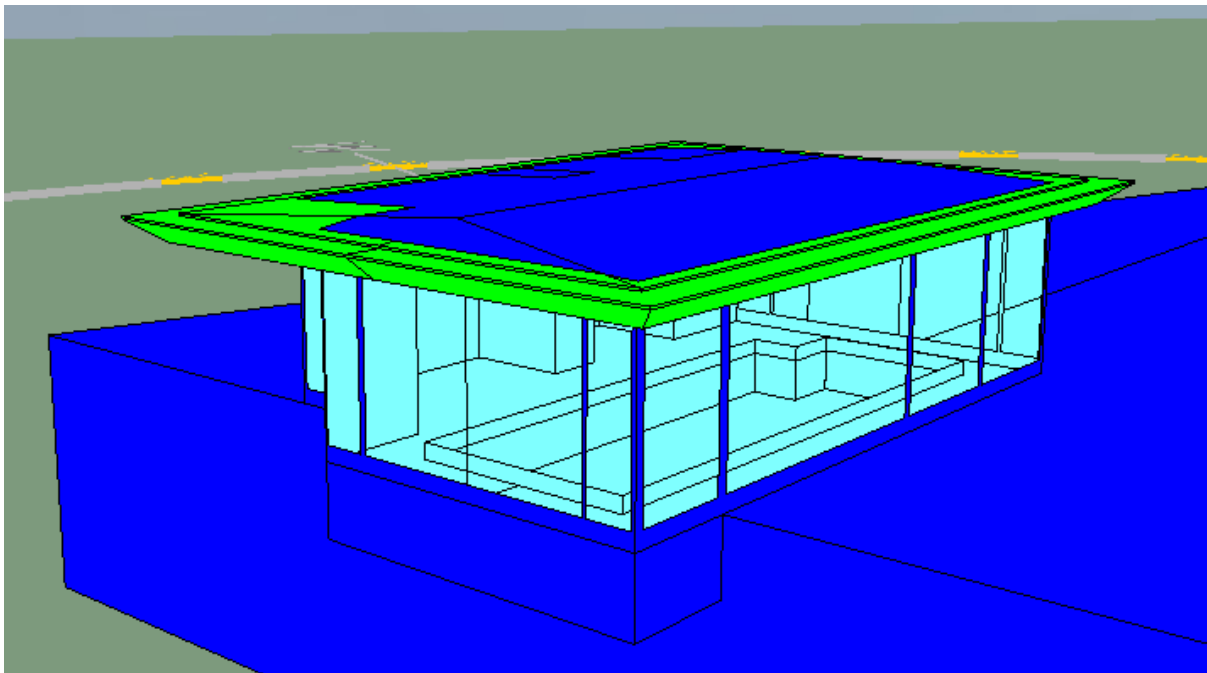
Thermal modelling was undertaken to demonstrate Building Fabric compliance with the Performance Requirement for J1P1 of Section J, NCC 2022, Volume One. Energy simulation was conducted in accordance with NCC 2022, Volume One J1V3 requirements, including *Specification 33 Additional requirements*, *Specification 34 Modelling parameters for J1V3* & *Specification 35 Modelling profiles for J1V3*.

For a Class 3, 5, 6, 7, 8 or 9 building or common area of a Class 2 building, compliance with J1P1 is verified when it is determined that the annual greenhouse gas emissions of the proposed building are not more than the annual greenhouse gas emissions of a reference building.

Results

Building	Modelled Items	Calculated Annual Greenhouse Gas Emission [kgCO ₂ -e/m ² .annum]
Building B – Swimming Pool	Reference Building with pool cover as per Section J8D4(2)(a)	17,574.3
	Proposed Building J1V3(1)(a)(ii) with pool cover as per J8D4(2)(a)	17,549.8

The Annual Greenhouse Gas Emission of the Proposed Buildings is less than Annual Greenhouse Gas Emission of Reference Buildings. Therefore, the proposed Building Fabric including Glazing is **compliant** with Section J1P1 requirements.



IES Energy Simulation Model of the Proposed Building

Model Inputs

Building Fabric Total R-Value.

Building Fabric Parameter Summary		
Elements	DTS Reference Building (m ² .K/W)	Proposed Building (m ² .K/W)
Roofs & Ceilings	R3.7 (Downwards, SA < 0.45)	R3.7 (Downwards, SA < 0.50)
Envelope Walls	R1.4	R1.4
Envelope Floors	R2.0	R2.0
Pool Cover	≥ R0.05	≥ R0.05

Building Fabric Total System (Glass & Frame) U-Value and SHGC

Window Assembly (Glass & Frame)				
Location/Type	DTS Reference Building		Proposed Building	
	U-value (W/m ² .K)	SHGC (0-1)	U-value (W/m ² .K)	SHGC (0-1)
External Glazing	2.4	0.26	4.6	0.58

Modelling Results

Energy Use	DTS Reference Building		Proposed Building	
	Electricity [MWhr]		Electricity [MWhr]	
Interior Lighting	4.4		4.4	
Other Process	2.0		2.0	
Space Heating	22.9		24.0	
Service Water Heating	1894.3		1894.3	
Space Cooling	4.6		6.8	
Interior Central Fans	1.5		1.5	
Pumps	14.8		14.8	
On-site Renewable Energy	-		6.0	
Total [GJ/annum]		6,999.9	6,990.2	
Greenhouse Gas Emissions factor	NSW	236	236	
Greenhouse Gas Emission [tCO ₂ -e/annum]		1,651,987.0	1,649,685.7	
Total Conditioned Areas [m ²]		94.0		
Greenhouse Gas Emission [kgCO ₂ -e/m ² .annum]		17,574.3	17,549.8	

NCC 2022 J8D4(2)(a) – Pool Cover Verification

Results

Building	Modelled Items	Calculated Annual Greenhouse Gas Emission [kgCO ₂ -e/m ² .annum]
Building B – Swimming Pool	Reference Building with pool cover as per Section J8D4(2)(a)	17,574.3
	Proposed Building J1V3(1)(a)(ii) with PV offset (pool cover removed)	17,565.7

Model Inputs

Building Fabric Total R-Value

Building Fabric Parameter Summary		
Elements	DTS Reference Building (m ² .K/W)	Proposed Building (m ² .K/W)
Roofs & Ceilings	R3.7 (Downwards, SA < 0.45)	R3.7 (Downwards, SA < 0.50)
Envelope Walls	R1.4	R1.4
Envelope Floors	R2.0	R2.0
Pool Cover	≥ R0.05	-

Building Fabric Total System (Glass & Frame) U-Value and SHGC

Window Assembly (Glass & Frame)				
Location/Type	DTS Reference Building		Proposed Building	
	U-value (W/m ² .K)	SHGC (0-1)	U-value (W/m ² .K)	SHGC (0-1)
External Glazing	2.4	0.26	4.6	0.58

Modelling Results

Energy Use		DTS Reference Building	Proposed Building
		Electricity [MWhr]	Electricity [MWhr]
Interior Lighting		4.4	4.4
Other Process		2.0	2.0
Space Heating		22.9	24.0
Service Water Heating		1894.3	1912.3
Space Cooling		4.6	7.5
Interior Central Fans		1.5	1.5
Pumps		14.8	14.8
On-site Renewable Energy		-	23.0
Total [GJ/annum]		6,999.9	6996.5
Greenhouse Gas Emissions factor	NSW	236	236
Greenhouse Gas Emission [tCO ₂ -e/annum]		1,651,987.0	1,651,171.3
Total Conditioned Areas [m ²]		94.0	
Greenhouse Gas Emission [kgCO ₂ -e/m ² .annum]		17,574.3	17,565.7

Attachment B – J1V3 (1)(b) PMV Modelling Results

For NCC 2022, J1V3 additionally requires that the proposed building achieve a thermal comfort level of between a Predicted Mean Vote (PMV) of -1 to +1 is across not less than 95% of the floor area of all occupied zones for not less than 98% of the annual hours of operation of the building.

PMV Model Inputs

Space Operative Temperature Set Points and Comfort Parameters

Parameters	Values	Description
Operative Temperature (°C)	21 – 24	As per NCC 2022 Specification 34
Clothing Level (CLO)	0.60 - 0.90	Light Clothing (Summer) & Warm Clothing (Winter)
Activity Level (MET)	1.2	Seated, reading, relaxed
Nominal Air Velocity (m/s)	0.15	As per ASHRAE Standard 55-2017
Infiltration (ACH)	0.70 when AC plant is not operating, 0.35 at all other times	As per NCC 2022 Specification 34

Internal Heat Gains

Locations	Lighting [W/m ²]	Internal Sensible [W]	Heat Gains per Person	
			Sensible	Latent
Swimming Pool	8	150	75 W	55 W

Note:

- All comfort parameters in accordance with "ASHRAE Standard 55-2017".
- Modelling profiles are as per NCC 2022 Specification 35.

PMV Modelling Results

Locations	PMV (% hours in range)			Meets J1V3 (1)(b) criteria
	<-1.0	≥-1.0 & ≤1.0	> 1.0	
C_L1_POOL DECK	0	100	0	Y
Total	100%			

The results show **100.0%** of the floor area achieves a thermal comfort level of between a Predicted Mean Vote (PMV) of -1 to +1 for not less than 98% of the annual hours of operation of the building.

Therefore, PMV modelling results demonstrate that the proposed building **meets** the J1V3 Verification Method thermal comfort level requirements.

Attachment C – Building Fabric Requirements Markups

1. DRAWING TO BE READ IN CONJUNCTION WITH PLA-AR-001 LEGEND, RELEVANT SCHEDULES AND PROJECT SPECIFICATION.
 2. GRATED OPENINGS TO COMPLY WITH AS 1428.1:2019 G1.7

- GENERAL NOTES:**
- DRAWINGS COORDINATED WITH THE FOLLOWING CONSULTANTS:
- STRUCTURAL
 - ELECTRICAL
 - MECHANICAL
 - HYDRAULICS
 - FIRE SERVICES
 - FIRE ENGINEER
 - ACoustICS
 - AV/SECURITY
 - ACCESS
 - BCA
 - PCA
 - QS
 - SAFETY IN DESIGN
 - LANDSCAPE
 - SUSTAINABILITY
 - FACADE ENGINEER
 - CIVIL
 - WPM CONSULTANT

NCC 2022 Section J1V3 requirements
 Building Fabric Required total system R-Values

- Roof & Ceiling - Rt 3.7 (DOWNWARDS, SOLAR ABSORPTANCE OF THE UPPER SURFACE OF A ROOF MUST NOT BE MORE THAN 0.45)
- Walls - Rt 1.4
- Floors (including Slab on Ground) - Rt 2.0

Note:

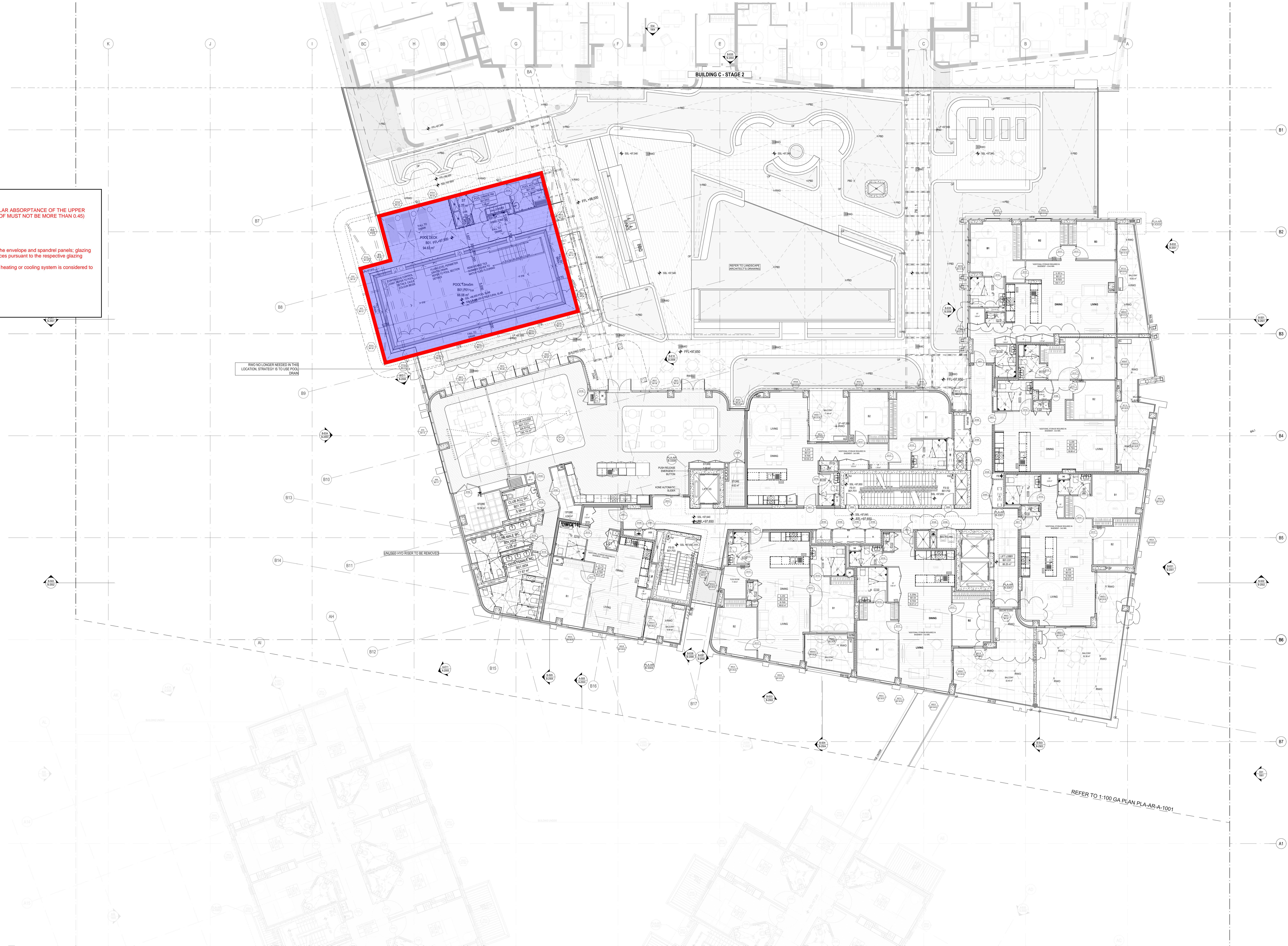
- The R-value is a total system performance value and NOT insulation.
- The above construction are only to be applied to non-glazed portions of the envelope and spandrel panels; glazing must be installed as per the architectural layouts with its thermal performances pursuant to the respective glazing specifications stated in the Section J report.
- For Climate Zone 5, a slab-on-ground floor that does not have an in-slab heating or cooling system is considered to achieve a total R-value of R2.0.

DTS Glazing (Glass + Frame) requirements:
 All Windows - U-value: 4.6, SHGC: 0.58 (Single Glazed Low E or the like)

JHA
 MARKUP / SKETCH

DOCUMENT No.: 210296
 DOCUMENT TITLE: Uniting Charlestown
Building B - Swimming Pool

DOCUMENT REV: B
 DOCUMENT BY: FG DATE: 23/02/2026



FOR TENDER 85% PRELIMINARY ISSUE

DRAWING TO BE READ IN CONJUNCTION WITH PLA-AR-001 LEGEND, RELEVANT SCHEDULES AND PROJECT SPECIFICATION.

DATE	REVISION	BY	CHK	NO.
21/03/2024	ISSUE FOR INFORMATION	MA	MA	01
27/03/2024	ISSUE FOR INFORMATION	DHMK	MA/FT	02
11/04/2024	ISSUE FOR 30% COORDINATION	DHMK	MA/FT	03
3/05/2024	ISSUE FOR 40% COORDINATION	DHMK	MA/FT	04
23/05/2024	ISSUE FOR 50% COORDINATION	DHMK	MA/FT	05
18/06/2024	FOR COORDINATION	DHMK	MA/FT	06
11/11/2024	ISSUE FOR COORDINATION	DHMK	MA/FT	07
23/06/2025	AMENDED 50% FOR VE CHANGES	DHMK	MA/FT	08
14/07/2025	FOR TENDER 50% PRELIMINARY ISSUE	DHMK	MA/FT	09
9/09/2025	ISSUE FOR COORDINATION	DHMK	MA/FT	10

DATE	REVISION	BY	CHK	NO.
5/11/2025	FOR TENDER 70% PRELIMINARY ISSUE	DHMK	MA/FT	11
1/12/2025	PRELIMINARY ISSUE	DHMK	MA/FT	12
4/12/2025	PRELIMINARY ISSUE	DHMK	MA/FT	13
19/12/2025	FOR TENDER 85% PRELIMINARY ISSUE	DHMK	MA/FT	14

CONSULTANTS	PROJECT MANAGER	NO.
<input type="checkbox"/> TBA	T 60 926 1600	
<input type="checkbox"/> WPC	T 02 4427 5566	
<input type="checkbox"/> NORTHROP	T 02 4443 1777	
<input type="checkbox"/> NORTHROP	T 02 841 4188	
<input type="checkbox"/> ARCADIA	T 02 871 2900	
<input type="checkbox"/> BMS	T 02 841 7777	

CONSULTANTS	NO.
<input type="checkbox"/> BMS	T 02 841 7777
<input type="checkbox"/> JHA	T 02 947 1069



PROJECT:
**27 TIRAL STREET,
 CHARLESTOWN**

DRAWING TITLE:
BUILDING B - LEVEL 01 FLOOR PLAN

SCALE	1:100 @A0	PLOT DATE	19/12/2025	CHECKED	MA/FT
DRAWN	DHMK	JOB NO.	20456	DRAWING NO.	PLA-AR-B-1001
REVISION					14

In accepting and obtaining this document the recipient agrees that Plus Architecture Pty. Ltd. (ACN 603203323), its officers, employees, agents, subcontractors, consultants, and other parties, shall not be liable for any loss or damage, including consequential loss or damage, arising from the use of this document for any purpose other than that for which it was prepared. The recipient agrees to indemnify Plus Architecture Pty. Ltd. from and against all claims, damages, costs, and expenses, including legal costs, arising from the use of this document for any purpose other than that for which it was prepared. The recipient agrees to release Plus Architecture Pty. Ltd. from and against all claims, damages, costs, and expenses, including legal costs, arising from the use of this document for any purpose other than that for which it was prepared. The recipient agrees to release Plus Architecture Pty. Ltd. from and against all claims, damages, costs, and expenses, including legal costs, arising from the use of this document for any purpose other than that for which it was prepared.