



# BCA Assessment Report

## Regatta Park Penrith



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## EXECUTIVE SUMMARY

This document provides an assessment of the architectural design drawings for the proposed Café and Amenities development at Regatta Park Penrith, against the Deemed-to-Satisfy provisions of the Building Code of Australia (BCA) 2019, Volume 1 Amendment 1.

Part 3 'Statement of Compliance' within this report outlines the identified BCA compliance issues that require further information or consideration and/or assessment as Performance Solutions.

Any Performance Solution will need to be detailed in a separate report and must clearly indicate methodologies for achieving compliance with the relevant BCA Performance Requirements.

Item	Description	BCA Provision
<b>Performance Solutions Required</b>		
1.	Café Building: The construction of external walls is such that they will prevent the penetration of water that could cause unhealthy or dangerous conditions or loss of amenity to occupants and undue dampness or deterioration of building elements.	No DtS Provisions – FP1.4 Performance Provisions Only
<b>Further Information – to be detailed at CC stage</b>		
1.	Café fitout plan to ensure 1m path between benches (excluding dry store racking)	D1.6
2.	Ambulant and unisex accessible toilets to be detailed to AS 1428.1:2009	F2.4

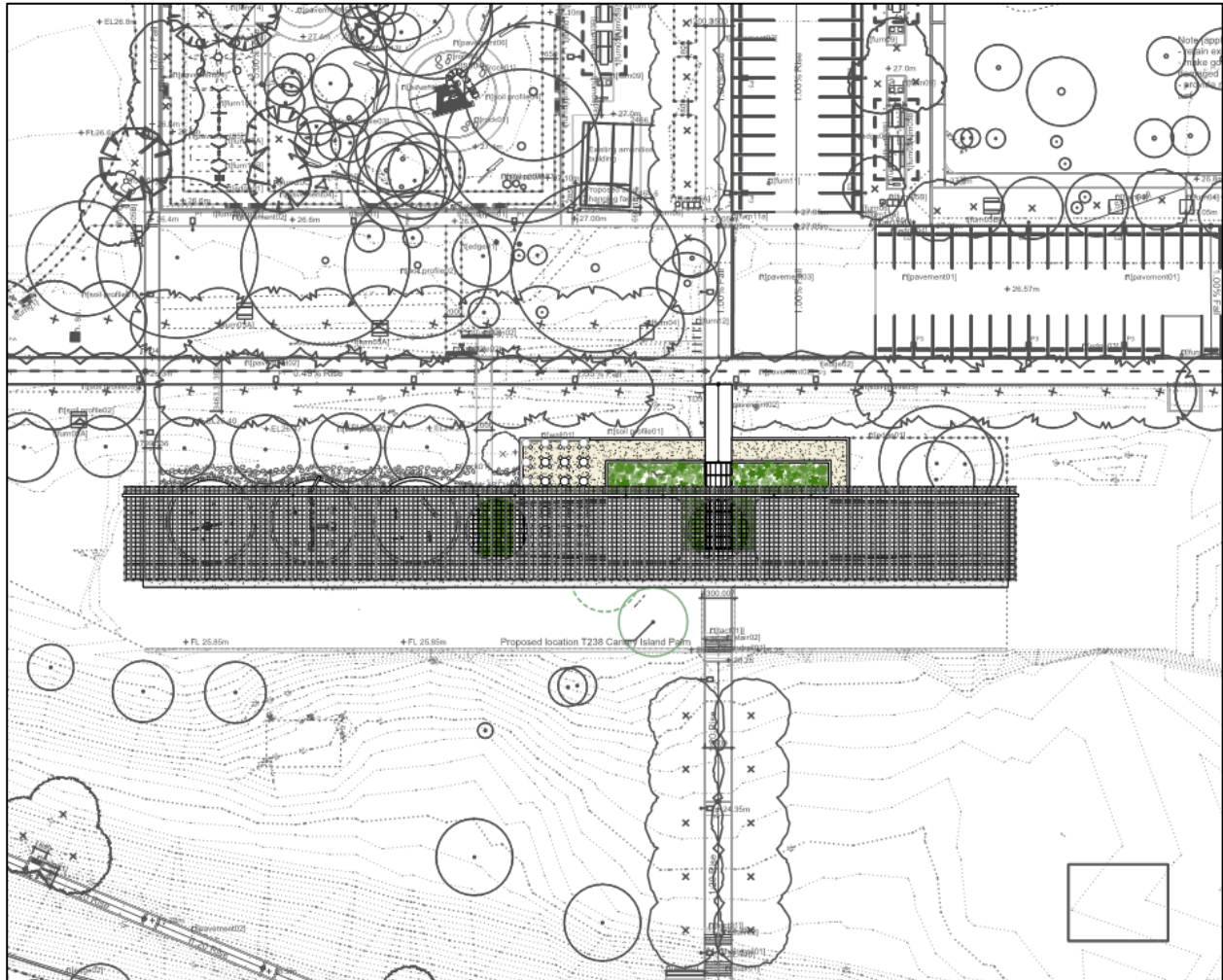
**Annexure D** to this report provides a detailed assessment of the proposal against ALL relevant Deemed-to-Satisfy Provisions of the BCA.

## 1 BASIS OF ASSESSMENT

### 1.1. Location and Description

The building development, the subject of this report, is located at Regatta Park Penrith for Penrith City Council. The development is for a single storey building with Café and sanitary facilities with additional roof structure over children's playground. The building is part of a larger redevelopment of the Park and sporting fields.

This Report will focus solely on the subject Café and amenities building.



### 1.2. Purpose

The purpose of this report is to assess the current design proposal against the Deemed-to-Satisfy Provisions of BCA 2019, and to clearly outline those areas (if any) where compliance is not achieved, where areas may warrant redesign to achieve strict BCA compliance or where areas may be able to be assessed against the relevant performance criteria of BCA 2019. Such assessment against relevant performance criteria will need to be addressed by means of a separate Performance Based Fire Safety Engineered Assessment Report to be prepared under separate cover.

### 1.3. Building Code of Australia

This report is based on the Deemed-to-Satisfy Provisions of the National Construction Code Series Volume 1 – Building Code of Australia, 2019 Amendment One (BCA2019) incorporating the State variations where applicable. Please note that the version of the BCA applicable to new building works is the version

applicable at the time of the lodgement of the Construction Certificate application to the Accredited Certifying Authority. The BCA is updated generally on a three-yearly cycle, starting from the 1st of May 2016.

#### **1.4. Limitations**

This report does not include nor imply any detailed assessment for design, compliance or upgrading for:

- (a) the structural adequacy or design of the building;
- (b) the inherent derived fire-resistance ratings of any proposed structural elements of the building (unless specifically referred to); and
- (c) the design basis and/or operating capabilities of any proposed electrical, mechanical or hydraulic fire protection services.

This report does not include, or imply compliance with:

- (a) the National Construction Code – Plumbing Code of Australia Volume 3
- (b) Demolition Standards not referred to by the BCA;
- (c) Work Health and Safety Act 2011;
- (d) Requirements of Australian Standards unless specifically referred to;
- (e) Requirements of other Regulatory Authorities including, but not limited to, Telstra, Telecommunications Supply Authority, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads and Maritime Services (RMS), Local Council, ARTC, Department of Planning and the like; and
- (f) Conditions of Development Consent issued by the Local Consent Authority.

#### **1.5. Design Documentation**

This report has been based on the Design plans and Specifications listed in Annexure A of this Report.

## 2 BUILDING DESCRIPTION

For the purposes of the Building Code of Australia (BCA) the development may be described as follows.

### 2.1. Rise in Storeys (Clause C1.2)

The building has a rise in storeys of one.

### 2.2. Classification (Clause A6.0)

The building has been classified as follows.

Table 1. Building Classification

Class	Level	Description
6	Single Storey	Café & seating
10a	Single Storey	Sanitary Facilities
10b	Single Storey	Roof shade structure

### 2.3. Effective Height (Clause A1.0)

The building is single storey.

### 2.4. Type of Construction Required (Table C1.1)

The building is required to be of Type C Construction.

### 2.5. Floor Area and Volume Limitations (Table C2.2)

The building is subject to maximum floor area and volume limits of:-

Class 6	Maximum Floor Area	2,000m <sup>2</sup>
	Maximum Volume	12,000m <sup>3</sup>

### 2.6. Fire Compartments

The following *fire compartments* have been assumed:

- (a) The overall building is one fire compartment.

### 2.7. Exits

The following points in the building have been considered as the exits: assumed:

- (a) Café building has a single door to open space.
- (b) Sanitary facilities – each cubicle has egress via the entry opening at all times to open space.

### 2.8. Climate Zone (Clause A1.0)

The building is located within Climate Zone 6.

### 2.9. Location of Fire-source features

The fire source features for the subject development are not relevant for this assessment.



### 3 STATEMENT OF COMPLIANCE

#### 3.1. General

Assessment of the Architectural design documentation against the Deemed-to Satisfy Provisions of the Building Code of Australia, 2019 (BCA) has revealed that such documentation complies or is capable of complying (as outlined in Annexure D) with that Code. Any *Performance Solutions* will be required to clearly indicate methodologies for achieving compliance with the relevant *Performance Requirements*.

Annexure D to this report provides a detailed assessment of the proposal against ALL relevant Deemed-to-Satisfy Provisions of the BCA.

Note: It is important that Annexure D is read in conjunction with the items below, as some matters may not have had sufficient information provided at DA stage to allow a detailed assessment to be undertaken.

#### 3.2. Dimensions and Tolerances

The BCA contains the minimum standards for building construction and safety, and therefore generally stipulates minimum dimensions which must be met. BCA Logic's assessment of the plans and specifications has been undertaken to ensure the minimal dimensions have been met.

The designer and builder should ensure that the minimum dimensions are met onsite and consideration needs to be given to construction tolerances for wall set outs, applied finishes and skirtings to corridors and bathrooms for example, tiling bed thicknesses and the like which can adversely impact on critical matters such as access for people with disabilities, stair and corridor widths and balustrade heights.

#### 3.3. Performance Based Design – Performance Solutions

There are specific areas throughout the development where strict Deemed-to-Satisfy BCA Compliance will not be achieved by the proposed design and site constraints. These matters will need to be address in a detailed Fire Safety Engineering Report to be prepared for this development under separate cover:

Table 2. Performance Solutions

Item	Description of Performance Solution	DTS Provision	Relevant Performance Requirements
1.	Café Building: The construction of the external walls is such that they will prevent the penetration of water that could cause unhealthy or dangerous conditions or loss of amenity to occupants and undue dampness or deterioration of building elements.	No DtS Provisions	FP1.4



## **ANNEXURE A DESIGN DOCUMENTATION**

## Annexure A – Design Documentation

This report has been based on the following design documentation.

Table 3. Architectural Plans

Architectural Plans Prepared by Breakspear Architects			
Drawing Number	Revision	Date	Title
DA-100	D	09.03.2021	SITE PLAN
DA-101	D	09.03.2021	FLOOR AND ROOF PLAN
DA-102	D	09.03.2021	RCP AND SLAB SETOUT PLANS
DA-200	D	09.03.2021	ELEVATIONS AND SECTIONS
K-102-SK-B	B	17.02.2021	Kiosk & Store Concept (by The Mack Group)

## **ANNEXURE B ESSENTIAL SERVICES**

## Annexure B - Essential Services

The following fire safety measures are required to be installed in the building. The following table may be required to be updated as the design develops and options for compliance are confirmed.

Table 4. Essential Fire Safety Measures

Item	Essential Fire and Other Safety Measures	Standard of Performance
1.	Portable fire extinguishers / fire blankets	<b>BCA2019 E1.6</b> AS 2444–2001
2.	Emergency lighting	<b>BCA2019 E4.2 &amp; E4.4</b> AS/NZS 2293.1:2018
3.	Exit signs	<b>BCA2019 E4.5 &amp; E4.8</b> AS/NZS 2293.1:2018

## **ANNEXURE C FIRE RESISTANCE LEVELS**

### **Annexure C - Fire Resistance Levels**

The following fire resistance levels (FRL's) are required for the various building elements, with a fire source feature being the far boundary of a road adjoining the allotment, a side or rear boundary or an external wall of another building on the allotment except a Class 10 structure.

#### **Type C Construction**

The building is more than 3m to a fire-source feature and does not require any FRLs.

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## **ANNEXURE D DETAILED BCA 2019 ASSESSMENT**



## Annexure D – Detailed BCA 2019 Assessment

Outlined below is a detailed assessment of the design under the Deemed-to-Satisfy Provisions of the Building Code of Australia (BCA) including the State variations where applicable.

All Deemed-to-Satisfy clauses that are applicable to the subject building have been referred to below, including a comment adjacent to each clause of the proposal's ability to satisfy each respective clause.

The abbreviations outlined below have been used in the following table.

<b>N/A</b>	Not Applicable. The Deemed-to-Satisfy clause is not applicable to the proposed design.
<b>Complies</b>	The relevant provisions of the Deemed-to-Satisfy clause have been satisfied by the proposed design.
<b>CRA – Refer Annexure F</b>	'COMPLIANCE READILY ACHIEVABLE'. It is considered that there is not enough information included in the documentation to accurately determine strict compliance with the individual clause requirements. However, with further design development, compliance can readily be achievable. This item is to be read in conjunction with the BCA Specification included within Annexure F of this report.
<b>FI</b>	Further Information is necessary to determine the compliance potential of the building design.
<b>PS</b>	Performance Solution with respect to this Deemed-to-Satisfy Provision is necessary to satisfy the relevant Performance Requirements.
<b>DNC</b>	Does Not Comply.
<b>Noted</b>	BCA Clause simply provides a statement not requiring specific design comment or confirmation.

**Deemed to Satisfy Clause Assessment**

Table 5. Deemed to Satisfy Clause Assessment

Clause	Clause Requirements	Comment	Status
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**Section B: Structure**

**Part B1 – Structural Provisions**

B1.0: Deemed-to-Satisfy Provisions	Informational	Noted	Noted
B1.1: Resistance to actions	The resistance of the building must be greater than the most critical action effect resulting from different combinations of actions, where the most critical action has been determined in accordance with this Part	Structural Engineer to certify at CC stage.	CRA – Refer Annexure F
B1.2: Determination of individual actions	The magnitude of actions must be determined in accordance with this Clause.	Structural Engineer to certify at CC stage.	CRA – Refer Annexure F
B1.4: Determination of structural resistance of materials and forms of construction	The structural resistance of materials and forms of construction must be determined in accordance with this Clause.	Structural Engineer to certify at CC stage.	CRA – Refer Annexure F
B1.5: Structural software	Structural software used in computer aided design of a building or structure within the geometrical limits of (b) of this Clause must comply with the ABCB Protocol for Structural Software.	Structural Engineer to certify at CC stage.	CRA – Refer Annexure F

**Section C: Fire Resistance**

**Part C1 – Fire Resistance and Stability**

Section C: Fire Resistance				
C1.0:	Deemed-to-Satisfy Provisions	Informational	Noted	Noted
C1.1:	Type of construction required	The building is required to be of Type C Construction. Refer to Specification C1.1 requirements at the end of this Section.	Building does not require any FRLs.	Noted
C1.2:	Calculation of rise in storeys	The building has a rise in storeys of one.	Noted	Noted
C1.3:	Buildings of multiple classification	Informational	Noted	Noted
C1.10:	Fire hazard properties	Fire hazard properties of internal linings, materials and assemblies must comply with C1.10 of the BCA and Specification C1.10, including floor, wall and ceiling linings, air-handling ductwork, lift cars, insulation, <i>sarking-type materials</i> and attachments, or be considered <i>non-combustible</i> .	Architect and Builder to certify.	CRA – Refer Annexure F
Part C2 – Compartment and Separation				
C2.0:	Deemed-to-Satisfy Provisions	Informational	Noted	Noted
C2.1:	Application of Part		Not applicable	N/A
C2.2:	General floor area and volume limitations	The size of <i>fire compartments</i> in the building must not exceed that specified in Table C2.2.	Complies	Complies
Part C3 – Protection of Openings				
C3.0:	Deemed-to-Satisfy Provisions	Informational	Noted	Noted

<b>Section C: Fire Resistance</b>				
C3.1:	Application of Part		Not applicable	N/A
<b>Specification C1.1 – Fire-Resisting Construction</b>				
2.0:	General Requirements	Informational	Noted	Noted
2.1:	Exposure to fire-source features		Not applicable	N/A
2.2:	Fire protection for a support of another part		Not applicable	N/A
2.3:	Lintels		Not applicable	N/A
2.4:	Attachments not to impair fire-resistance		Not applicable	N/A
2.5:	General concessions		Not applicable	N/A
2.6:	Mezzanine floors: Concession		Not applicable	N/A
2.7:	Enclosure of shafts		Not applicable	N/A
2.8:	Carparks in Class 2 and 3 Buildings		Not applicable	N/A
2.9:	Residential Aged Care building: Concession		Not applicable	N/A
5.0:	Type C fire-resisting construction	Type C fire-resisting construction is applicable to the development.	Refer to clause 5.1 below.	Noted

Section C: Fire Resistance				
5.1:	Fire-resistance of building elements	The FRL's of all elements are to be in accordance with the FRL's detailed in the Table contained within Part 4.0 of this report.	The building is more than 3m to a fire-source feature therefore no FRLs are applicable.	Noted
<b>Specification C1.10 – Fire Hazard Properties</b>				
1.	Scope	Informational	Noted	-
2.	Application	Informational	Noted	Noted
3.	Floor linings and floor coverings	<p>A floor lining or floor covering must have–</p> <ul style="list-style-type: none"> <li>(a) a <i>critical radiant flux</i> not less than that listed in Table 2; and</li> <li>(b) in a building not protected by a sprinkler system complying with Specification E1.5, a maximum smoke development rate of 750 percent-minutes; and</li> <li>(c) a <i>group number</i> complying with Clause 6(b), for any portion of the floor covering that is continued more than 150 mm up a wall.</li> </ul>	Architect & Builder to certify	CRA – Refer Annexure F
4.	Wall and ceiling linings	<ul style="list-style-type: none"> <li>(a) A wall or ceiling lining system must comply with the <i>group number</i> specified in Table 3 and for buildings not fitted with a sprinkler system complying with Specification E1.5 have–                             <ul style="list-style-type: none"> <li>(i) a <i>smoke growth rate index</i> not more than 100; or</li> <li>(ii) an <i>average specific extinction area</i> less than 250 m<sup>2</sup>/kg.</li> </ul> </li> <li>(b) A <i>group number</i> of a wall or ceiling lining and the <i>smoke growth rate index</i> or <i>average specific extinction area</i> must be determined in accordance with AS 5637.1:2015.</li> </ul>	Architect & Builder to certify	CRA – Refer Annexure F

Section C: Fire Resistance				
5.	Air-handling ductwork	Rigid and flexible ductwork must comply with the fire hazard properties set out in AS 4254 Parts 1 and 2.	Mechanical to certify	CRA – Refer Annexure F
6.	Lift cars		Not applicable	N/A
7.	Other materials	Materials and assemblies not included in Clauses 3, 4, 5 or 6 must not exceed the indices set out in Table 4.	Architect & Builder to certify	CRA – Refer Annexure F

Section D: Access and Egress				
Part D1 – Provision for Escape				
D1.0:	Deemed-to-Satisfy Provisions	Informational	Noted	Noted
D1.1:	Application of Part	The Deemed-to-Satisfy Provisions of this Part do not apply to the internal parts of a <i>sole-occupancy unit</i> in a Class 2 or 3 building or a Class 4 part of a building.		Noted
D1.2:	Number of exits required	Without passing through another <i>sole-occupancy unit</i> , every occupant of a storey or part of a storey must have access to an <i>exit</i> .	Complies	Complies
D1.3:	When fire-isolated stairways and ramps are required		Not applicable	N/A
D1.4:	Exit travel distances	In a Class 6 building, the distance to a single <i>exit</i> serving a storey at the level of access to a road or open space may be increased to 30 m.	Café kitchen and covered seating area complies. Both sides of sliding panels will not be fully extended at the same time otherwise accessible entry and egress is not available – staff will utilise the sliding panels to always maintain an opening on one side for accessible entry and egress.	Complies

Section D: Access and Egress			
		Additional seating area & store room behind toilets will comply with less than 30m to open space if both sides of sliding panels are fully extended.	
D1.5: Distance between alternative exits		Not applicable	N/A
D1.6: Dimensions of exits and paths of travel to exits	<p>In a required <i>exit</i> or path of travel to an <i>exit</i>–</p> <ul style="list-style-type: none"> <li>&gt; the unobstructed height throughout <i>exits</i> and paths of travel to <i>exits</i> must not be less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1980 mm; and</li> <li>&gt; the unobstructed width of each <i>exit</i> or path of travel to an <i>exit</i>, except for doorways must be not less than 1m;</li> <li>&gt; the unobstructed width of doorways must be not less than 750 mm, unless providing access for people with disabilities in which case the unobstructed width must be not less than 850 mm.</li> <li>&gt; the required width of a stairway or ramp must be measured clear of all obstructions such as handrails.</li> <li>&gt; the unobstructed width of a required <i>exit</i> must not diminish in the direction of travel to a road or open space.</li> </ul>	<p>Café fitout to provide 1m clear egress between benches and walls, including wash up area. Dry store can have less than 1000mm between shelving. <b>Café fitout plan to be amended for CC.</b></p> <p>Café covered seating area will have staff maintain a 1500mm clear opening for access &amp; egress at all times.</p>	<b>FI</b>
D1.10: Discharge from exits	<p><i>Exits</i> must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the <i>exit</i>.</p> <p>If a required <i>exit</i> leads to open space, the path of travel to the road must have an unobstructed width of not less than 1m.</p> <p>If an <i>exit</i> discharges to open space that is at a different level that the public road to which it is connected, the</p>	<p>Compliant egress path is available from open space on both east and west side of the building. Ramps and stairs to comply with BCA.</p>	CRA – Refer Annexure F



Section D: Access and Egress			
	path of travel to the road must be by a ramp or other incline not steeper than 1:8, or a BCA compliant stairway.		
D1.11: Horizontal exits		Not applicable	N/A
D1.12: Non-required stairways, ramps or escalators		Not applicable	N/A
D1.13: Number of persons accommodated	<p>Informational—</p> <p>The number of persons accommodated in a storey, room or mezzanine must be determined within consideration to the purpose for which it is used and the layout of the floor area by—</p> <p>(a) calculating the sum of the numbers obtained by dividing the floor area of each part of the storey by the number of square metres per person listed in BCA Table D1.13 according to the use of that part, excluding spaces set aside for—</p> <p>(i) lifts, stairways, ramps and escalators, corridors, hallways, lobbies and the like; and</p> <p>(ii) service ducts and the like, sanitary compartments or other ancillary uses; or</p> <p>(b) reference to the seating capacity in an assembly building or room; or</p> <p>(c) any other suitable means of assessing its capacity.</p> <p>Based on floor area and Table D1.13, the population numbers are as follows:</p>	<p>Café Covered Seating = 50 seats</p> <p>Café Granite Seating = 50 seats</p> <p>Additional Seating Area adjacent Storeroom: This has a useable area of approx. 140m<sup>2</sup> which is equivalent to the combined café covered/granite seating area, therefore seating capacity of 100 seats is also proposed.</p>	Noted
D1.14: Measurement of distances	Informational	<p>Measure to nearest part of exit door to open space for kitchen.</p> <p>Covered seating areas measure to open space.</p>	Noted

Section D: Access and Egress			
D1.15: Method of Measurement	Informational	Noted	Noted
<b>Part D2 – Construction of Exits</b>			
D2.0: Deemed-to-Satisfy Provisions	Informational	Noted	Noted
D2.1: Application of Part		Not applicable	N/A
D2.7: Installations in exits and paths of travel	<ul style="list-style-type: none"> <li>&gt; Any electricity meters, distribution boards or ducts, or telecommunications distribution boards or equipment installed in corridors/hallways/lobbies or the like must be enclosed with <i>non-combustible</i> construction or a fire protective covering with doorways suitably sealed against smoke spread.</li> </ul>	If an EDB cupboard/enclosure is provided within the Café it shall comply.	CRA – Refer Annexure F
D2.8: Enclosure of space under stairs and ramps		Not applicable	N/A
D2.9: Width of stairways and ramps		Not applicable	N/A
D2.10: Pedestrian ramps	<ul style="list-style-type: none"> <li>&gt; A ramp serving as a required <i>exit</i> must—                             <ul style="list-style-type: none"> <li>(i) where the ramp is also serving as an accessible ramp under Part D3, be in accordance with AS 1428.1:2009; or</li> <li>(ii) in any other case, have a gradient not steeper than 1:8.</li> </ul> </li> <li>&gt; The floor surface of a ramp must have a slip-resistance classification complying with Table D2.14 when tested in accordance with AS 4586:2013.</li> </ul>	Western ramp leading to café - part of landscape works.	Noted

Section D: Access and Egress			
D2.15: Thresholds	<p>The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless–</p> <p>(a) in a building required to be accessible, the doorway–</p> <ul style="list-style-type: none"> <li>(i) opens to a road or open space; and</li> <li>(ii) is provided with a threshold ramp or step ramp in accordance with AS 1428.1:2009; or</li> </ul> <p>(b) in other cases–</p> <ul style="list-style-type: none"> <li>(i) the doorway opens to a road or open space, external stair landing or external balcony; and</li> <li>(ii) the door sill is not more than 190 mm above the finished surface of the ground, balcony, or the like, to which the doorway opens.</li> </ul>	Café doors and toilet shall comply with level thresholds	CRA – Refer Annexure F
D2.16: Barriers to prevent falls		Not applicable	N/A
D2.17: Handrails		Not applicable	N/A
D2.18: Fixed platforms, walkways stairways and ladders		Not applicable	N/A
D2.19: Doorways and doors		Not applicable	N/A
D2.20: Swinging doors	<p>A swinging door in a required <i>exit</i> must swing in the direction of egress unless–</p> <ul style="list-style-type: none"> <li>&gt; it serves a building or part with a floor area not more than 200 m<sup>2</sup>, it is the only required <i>exit</i> from the building or part and it is fitted with a device for holding it in the open position; or</li> </ul>	<p>Café final exit door is not applicable as less than 200m<sup>2</sup>.</p> <p>Toilet doors are exempt.</p>	N/A

Section D: Access and Egress			
	>	it serves a sanitary compartment or airlock (in which case it may swing in either direction).	
D2.21: Operation of latch	(a)	<p>All doors in a required <i>exit</i> or forming part of a required <i>exit</i> AND doors in a path of travel to a required <i>exit</i> must be readily openable without a key from the side that faces a person seeking egress, by–</p> <p>(i) a single hand downward action or pushing action on a single device which is located between 900mm and 1.1 m from the floor and if serving an area required to be accessible by Part D3 –</p> <p>(A) be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch; and</p> <p>(B) have a clearance between the handle and the back plate or door face at the centre grip section of the handle of not less than 35mm and not more than 45mm; or</p> <p>(ii) a single hand pushing action on a single device which is located between 900mm and 1.2m from the floor.</p> <p>(b) The above requirements do not apply to a door that–</p> <p>(i) serves a <i>sole-occupancy unit</i> in a Class 5, 6, 7 or 8 building with a floor area not more than 200m<sup>2</sup>; or</p> <p>(ii) serves a space which is otherwise inaccessible to persons at all times when the door is locked.</p>	<p>Café doors are not applicable as the SOU is less than 200m<sup>2</sup>.</p> <p>Storeroom is exempt as it is otherwise inaccessible at all times when the door is locked.</p>
<b>Part D3 – Access for People with A Disability</b>			
D3.0: Deemed-to-Satisfy Provisions		Informational	Noted
			Noted

Section D: Access and Egress			
D3.1: General building access requirements	<p>Access complying with AS 1428.1:2009 must be provided from the principal pedestrian entrance(s):</p> <p><u>Class 6</u></p> <ul style="list-style-type: none"> <li>&gt; to and within all areas normally used by the occupants.</li> </ul> <p><u>Class 7a-</u></p> <ul style="list-style-type: none"> <li>&gt; to any area containing accessible carparking spaces.</li> </ul>	<p>Class 6 café seating area and additional seating area will be accessible – kitchen is exempt under D3.4.</p> <p>Access is provided to toilet block for unisex accessible sanitary facility.</p> <p>Landscape works will provide accessway from the accessible parking to the Café. Landscape works include ramp and bridge over garden in the central accessway to the buildings. (not part of these works)</p>	CRA – Refer Annexure F
D3.2: Access to buildings	<ul style="list-style-type: none"> <li>&gt; Access complying with AS 1428.1-2009 must be provided to the building from the main points of pedestrian entry at the allotment boundary.</li> <li>&gt; Another accessible building connected by a pedestrian link</li> <li>&gt; Required accessible carparking on the allotment</li> <li>&gt; Compliant access must be provided through the main pedestrian entrance and not less than 50% of all pedestrian entrances; and</li> <li>&gt; In a building with a total floor area of more than 500m<sup>2</sup>, a pedestrian entrance which is not accessible must not be located more than 50m from an accessible pedestrian entrance.</li> <li>&gt; Where a doorway on an accessway has multiple leaves, (except an automatic opening door) one of those leaves must have a clear opening width of not less than 850 mm.</li> </ul>	<p>Café covered seating area is accessible from the eastern side – the sliding panels will be designed so the accessible entry is always provided between the concrete seat and the café servery, even if sliding panels are in position as a wind break on the eastern side.</p> <p>Landscape works will provide accessway from the accessible parking to the Café. Landscape works include ramp and bridge over garden in the central accessway to the buildings. (not part of these works)</p>	CRA – Refer Annexure F
D3.3: Parts of buildings to be accessible	<ul style="list-style-type: none"> <li>&gt; Walkways and ramps must comply with clause 10 of AS 1428.1:2009.</li> <li>&gt; Accessways must have passing spaces (1800 mm x 2000 mm) complying with AS 1428.1:2009 at maximum 20 m intervals on those parts of an</li> </ul>	<p>Café seating area and additional seating area have accessible pathways leading to them.</p> <p>Café seating area - the sliding panels will be designed so the accessible entry is always provided between the</p>	CRA – Refer Annexure F

Section D: Access and Egress			
	<p>accessway where a direct line of sight is not available.</p> <ul style="list-style-type: none"> <li>&gt; Accessways must have turning spaces (1540 mm x 2070 mm) within 2m of the end of the accessway and at maximum 20 m intervals along the accessway. Note: Turning spaces must be provided clear of fixtures and fittings such as skirtings, general purpose outlets (GPOs), fire extinguishers etc.</li> <li>&gt; An intersection of accessways satisfies the spatial requirements for a passing and turning space.</li> </ul>	<p>concrete seat and the café servery, even if sliding panels are in position as a wind break on the eastern side.</p> <p>Accessway is provided to the unisex accessible toilet. Detailed design will maintain 1500x 1500mm turning spaces on accessway to the toilet.</p>	
<p>D3.4: Exemptions</p>	<p>Informational – The following areas are not required to be accessible:</p> <ul style="list-style-type: none"> <li>&gt; an area where access would be inappropriate because of the particular purpose for which the area is used.</li> <li>&gt; an area that would pose a health or safety risk for people with a disability.</li> <li>&gt; any path of travel providing access only to an exempted area.</li> </ul>	<p>The following areas in the building are considered to not be accessible due to the specific uses of the room or space:</p> <p>Café kitchen and store room area.</p> <p>Storeroom behind toilets.</p>	<p>Noted</p>
<p>D3.5: Accessible car parking</p>		<p>Not applicable – refer to separate Landscape package</p>	<p>N/A</p>
<p>D3.6: Signage</p>	<ul style="list-style-type: none"> <li>&gt; Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access, or deafness as appropriate, must identify each:                             <ul style="list-style-type: none"> <li>o sanitary facility;</li> </ul> </li> <li>&gt; Signage to accessible sanitary facilities must identify if the facility is suitable for left or right handed use; and</li> </ul>	<p>Unisex accessible facility and ambulant facility to comply.</p>	<p>CRA – Refer Annexure F</p>

Section D: Access and Egress			
	> Signage to identify an ambulant accessible facility in accordance with AS 1428.1:2009 must be located on the door of the facility.		
D3.7: Hearing augmentation		Not applicable	N/A
D3.8: Tactile indicators		Not applicable – ramp is part of Landscape Consultant package for civil/landscape design.	N/A
D3.9: Wheelchair seating spaces in Class 9b assembly buildings		Not applicable	N/A
D3.10: Swimming pools		Not applicable	N/A
D3.11: Ramps		Not applicable	N/A
D3.12: Glazing on an Accessway		Not applicable	N/A
Specification D3.6 – Braille and Tactile Signs			
1. Scope	Informational	Noted	Noted
2. Location of Braille and Tactile Sign	<p>Signs including symbols, numbering and lettering must be designed and installed as follows:</p> <p>(a) Braille and tactile components of a sign must be located not less than 1200 mm and not higher than 1600 mm above the floor or ground surface.</p> <p>(b) Signs with single lines of characters must have the line of tactile characters not less than 1250 mm and not higher than 1350 mm above the floor or ground surface.</p>	To be certified at CC stage.	CRA – Refer Annexure F



Section D: Access and Egress			
	<ul style="list-style-type: none"> <li>(c) Signs identifying rooms containing features or facilities listed in D3.6 must be located –                             <ul style="list-style-type: none"> <li>(i) on the wall on the latch side of the door with the leading edge of the sign located between 50 mm and 300 mm from the architecture; and</li> <li>(ii) where (i) is not possible, the sign may be placed on the door itself.</li> </ul> </li> <li>(d) Signs identifying a door required by E4.5 to be provided with an <i>exit</i> sign must be located –                             <ul style="list-style-type: none"> <li>(i) on the side that faces a person seeking egress; and</li> <li>(ii) on the wall on the latch side of the door with the leading edge of the sign located between 50 mm and 300 mm from the architrave; and</li> <li>(iii) where (ii) is not possible, the sign may be placed on the door itself.</li> </ul> </li> </ul>		
<p>3. Braille and Tactile Sign Specification</p>	<ul style="list-style-type: none"> <li>(a) Tactile characters must be raised or embossed to a height of not less than 1 mm and not more than 1.5mm.</li> <li>(b) Title case must be used for all tactile characters, and –                             <ul style="list-style-type: none"> <li>(i) upper case tactile characters must have a height of not less than 15 mm and not more than 55 mm, except that the upper case tactile characters on a sign identifying a door required by E4.5 to be provided with an <i>exit</i> sign must have a height of not less than 20 mm and not more than 55 mm; and</li> <li>(ii) lower case tactile characters must have a minimum height of 50% of the related upper case characters.</li> </ul> </li> </ul>	<p>To be certified at CC stage.</p>	<p>CRA – Refer Annexure F</p>

Section D: Access and Egress			
	<ul style="list-style-type: none"> <li>(c) Tactile characters, symbols, and the like, must have rounded edges.</li> <li>(d) The entire sign, including any frame, must have all edges rounded.</li> <li>(e) The background, negative space or fill of signs must be of matt or low sheen finish.</li> <li>(f) The characters, symbols, logos and other features on signs must be matt or low sheen finish.</li> <li>(g) The minimum letter spacing of tactile characters on signs must be 2 mm.</li> <li>(h) The minimum word spacing of tactile characters on signs must be 10 mm.</li> <li>(i) The thickness of letter strokes must not be less than 2 mm and more than 7 mm.</li> <li>(j) Tactile text must be left justified, except that single words may be centre justified.</li> <li>(k) Tactile text must be Arial typeface.</li> </ul>		
4.	<p>Luminance contrast</p> <p>The following applies to luminance contrast:</p> <ul style="list-style-type: none"> <li>(a) The background, negative space, fill of a sign or border with a minimum width of 5 mm must have a luminance contrast with the surface on which it is mounted of not less than 30%.</li> <li>(b) Tactile characters, icons and symbols must have a minimum luminance contrast of 30% to the surface on which the characters are mounted.</li> <li>(c) Luminance contrasts must be met under the lighting conditions in which the sign is to be located.</li> </ul>	To be certified at CC stage.	CRA – Refer Annexure F
5.	<p>Lighting</p> <p>Braille and tactile signs must be illuminated to ensure luminance contrast requirements are met at all times during which the sign is required to be read.</p>	To be certified at CC stage.	CRA – Refer Annexure F

Section D: Access and Egress			
6.	Braille	<p>The following applies to braille:</p> <ul style="list-style-type: none"> <li>(a) Braille must be grade 1 braille (uncontracted) in accordance with the criteria set out by the Australian Braille Authority.</li> <li>(b) Braille must be raised and domed.</li> <li>(c) Braille must be located 8 mm below the bottom line of text (not including descenders).</li> <li>(d) Braille must be left justified.</li> <li>(e) Where an arrow is used in the tactile sign, a solid arrow must be provided for braille readers.</li> <li>(f) On signs with multiple lines of text and characters, a semi-circular braille locator at the left margin must be horizontally aligned with the first line of braille text.</li> </ul>	<p>To be certified at CC stage.</p>
			CRA – Refer Annexure F

Section E: Services and Equipment			
Part E1 – Fire Fighting Equipment			
E1.0:	Deemed-to-Satisfy Provisions	Informational	Noted
E1.3:	Fire hydrants		Not applicable
E1.4:	Fire hose reels		Not applicable
E1.5:	Sprinklers		Not applicable
E1.6:	Portable fire extinguishers	Portable fire extinguishers must be provided in accordance with clause E1.6 & Table E1.6 of the BCA and must be selected, located and distributed in accordance with Sections 1, 2, 3 and 4 of AS 2444:2001.	Contractor to certify kitchen PFEs
			CRA – Refer Annexure F

<b>Section E: Services and Equipment</b>				
E1.8:	Fire control centres		Not applicable	N/A
E1.9:	Fire precautions during construction	Informational– > During construction, not less than one portable fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required / temporary exit;	Builder to comply with.	Noted
E1.10:	Provision for special hazards		Not applicable	N/A
<b>Part E2 – Smoke Hazard Management</b>				
E2.0:	Deemed-to-Satisfy Provisions	Informational	Noted	Noted
E2.1:	Application of Part	Informational	Noted	Noted
E2.2:	General requirements (including Tables E2.2a and E2.2b)		No smoke hazard management required for single storey class 6 building	N/A
E2.3:	Provisions for special hazards		Not applicable	N/A
<b>Part E4 – Visibility In An Emergency, Exit Signs And Warning Systems</b>				
E4.0:	Deemed-to-Satisfy Provisions	Informational	Noted	Noted
E4.2:	Emergency lighting requirements	An emergency lighting system must be installed throughout the building in accordance with Clause E4.2 of the BCA and AS/NZS 2293.1:2018.	Shall be provided to internal areas – kitchen and toilets.	CRA – Refer Annexure F

Section E: Services and Equipment				
E4.3:	Measurement of distance	Informational	Noted	Noted
E4.4:	Design and operation of emergency lighting	The emergency lighting system must comply with AS/NZS 2293.1:2018.	Electrical Contractor to Certify	CRA – Refer Annexure F
E4.5:	Exit signs	<i>Exits</i> signs are to be provided above or adjacent to a door providing egress as well as directional signage throughout the entire development where necessary.	One required at final exit door for Café.	CRA – Refer Annexure F
E4.6:	Direction signs	Where an <i>exit</i> is not readily apparent, directional signage is to be installed indicating the direction of egress.	Not required in this instance due to small size of spaces.	N/A
E4.7:	Class 2 and 3 buildings and Class 4 Parts: Exemptions	Informational	Noted	Noted
E4.8:	Design and operation of exit signs	<i>Exit</i> signs must comply with AS/NZS 2293.1:2018 and be clearly visible at all times when the building is occupied.	Electrical Contractor to Certify	CRA – Refer Annexure F
E4.9:	Emergency warning and intercom systems		Not applicable	N/A

Section F: Health and Amenity				
Part F1 – Damp and Weatherproofing				
F1.0:	Deemed-to-Satisfy Provisions	<i>Performance Requirement</i> FP1.4, for the prevention of the penetration of water through external walls, must be complied with. There are no Deemed-to-Satisfy Provisions for this <i>Performance Requirement</i> in respect of external walls. The assessment contained within this report does not include an assessment against Performance Provision FP1.4.	Only applicable to the internal café part. Architect to certify design of external walls.	PS Required

Section F: Health and Amenity				
F1.1:	Stormwater drainage	Stormwater drainage to comply with AS/NZS 3500.3:2018.	Hydraulic Contractor to certify	CRA – Refer Annexure F
F1.4:	External above ground membranes		Not applicable	N/A
F1.5:	Roof coverings	Roof coverings are to comply with BCA Clause F1.5.	Fibreglass roofing to comply with F1.5(e).	CRA – Refer Annexure F
F1.6:	Sarking	<i>Sarking-type materials</i> used for weatherproofing must comply with AS/NZS 4200 Part 1 and 2:2017.	Builder to certify.	CRA – Refer Annexure F
F1.7:	Water proofing of wet areas in buildings	Wet areas must be constructed in accordance with AS 3740:2010 and F1.7 of the BCA.	Waterproofing Contractor to certify	CRA – Refer Annexure F
F1.9:	Damp-proofing	Moisture is to be prevented from reaching the walls above a damp-proof course, and the underside of the suspended floors.	Architect to certify design of external walls.	CRA – Refer Annexure F
F1.10:	Damp-proofing of floors on the ground	If a floor of a room is laid on the ground or on fill, moisture from the ground must be prevented from reaching the upper surface of the floor and adjacent walls by the insertion of a vapour barrier in accordance with AS 2870:2011 (N/A to areas that do not require weatherproofing – refer specific clause exemptions).	Structural Engineer to certify	CRA – Refer Annexure F
F1.11:	Provision of floor wastes		Not applicable	N/A
F1.12:	Sub-floor ventilation		Not applicable	N/A
F1.13:	Glazed Assemblies	Glazed assemblies are to comply with AS 2047:2014 and AS 1288:2006.	Contractor to certify	CRA – Refer Annexure F
<b>Part F2 – Sanitary and Other Facilities</b>				

Section F: Health and Amenity				
F2.0:	Deemed-to-Satisfy Provisions	Informational	Noted	Noted
F2.1:	Facilities in residential buildings (including Table F2.1)		Not applicable	N/A
F2.2:	Calculation of number of occupants and facilities	Informational – (a) The number of persons accommodated must be calculated according to D1.13 if it cannot be more accurately determined by other means (b) Unless the premises are used predominantly by one sex, sanitary facilities must be provided on the basis of equal numbers of males and females (c) In calculating the number of sanitary facilities to be provided under F2.1 and F2.3, a unisex facility required for people with a disability may be counted once for each sex (d) For the purpose of this Part, a unisex facility comprises one closet pan, one washbasin and means for the disposal of sanitary towels	Noted	Noted
F2.3:	Facilities in Class 3 to 9 buildings (including Table F2.3)	(a) Except where permitted by (b), (c), (f), F2.4(a) and F2.4(b), separate sanitary facilities for males and females must be provided for Class 3, 5, 6, 7, 8 or 9 buildings in accordance with Table F2.3. (b) If not more than 10 people are employed, a unisex facility may be provided instead of separate facilities for each sex. (c) If the majority of employees are one sex, not more than 2 employees of the other sex may share toilet facilities if the facilities are separated by means of walls, partitions and doors to afford privacy.	Max 200 patrons require: Males: 1 x Pan, 2 x Urinals, 2 x washbasins Female: 3 x Pans, 2 x washbasins. Total provision of sanitary facilities complies.  Note: This clause requires separate male and female toilets, however the Project Brief by Council specifically requires Unisex sanitary facilities.	Complies

Section F: Health and Amenity			
	<p>(d) Employees and the public may share the same facilities in a Class 6 and 9b building (other than a school or early childhood centre) provided the number of facilities provided is not less than the total number of facilities required for employees plus those required for the public.</p> <p>(e) Adequate means of disposal of sanitary towels must be provided in sanitary facilities for use by females.</p>		
F2.4: Accessible sanitary facilities (including Table F2.4)	Unisex accessible sanitary facility required by Clause F2.3 is to be an accessible compliant with AS 1428.1:2009.	<p>Size of unisex accessible compartment is sufficient.</p> <p>One ambulant facility required - can be readily provided.</p> <p>Fitout to comply at CC stage.</p>	<b>FI</b>
F2.5: Construction of sanitary compartments	<p>(a) Other than in an early childhood centre, sanitary compartments must have doors and partitions that separate adjacent compartments and extend—</p> <p>(i) from floor level to the ceiling in the case of a unisex facility; or</p> <p>(ii) to a height of not less than 1.5 m above the floor if primary school children are the principal users; or</p> <p>(iii) 1.8 m above the floor in all other cases.</p> <p>(b) The door to a fully enclosed sanitary compartment must—</p> <p>(i) open outwards; or</p> <p>(ii) slide; or</p> <p>(iii) be readily removable from the outside of the sanitary compartment, unless there is a clear space of at least 1.2 m, measured in accordance with Figure F2.5, between the closet pan within the sanitary compartment and the doorway.</p>	Detailed design to ensure compliance with full height partitions separating unisex compartments.	CRA – Refer Annexure F



Section F: Health and Amenity				
F2.6:	Interpretation: urinals and washbasins		Not applicable	N/A
<b>Part F3 – Room Sizes</b>				
F3.0:	Deemed-to-Satisfy Provisions	Informational	Noted	Noted
F3.1:	Height of rooms and other spaces	<p>The height of rooms and other spaces must be not less than—</p> <p>(b) in a Class 6 building—</p> <p>(i) except as allowed in (ii) and (f) — 2.4 m; and</p> <p>(ii) a corridor, passageway, or the like — 2.1 m; and</p> <p>(f) in any building—</p> <p>(i) a bathroom, shower room, sanitary compartment, airlock, tea preparation room, pantry, store room, garage, car parking area, or the like — 2.1 m; and</p> <p>(ii) a commercial kitchen — 2.4 m;</p>	<p>Café kitchen has 2.4m ceiling height.</p> <p>Covered seating areas comply.</p> <p>Toilets comply.</p>	Complies
<b>Part F4 – Light and Ventilation</b>				
F4.0:	Deemed-to-Satisfy Provisions	Informational	Noted	Noted
F4.1:	Provision of natural light		Not applicable	N/A
F4.2:	Methods and extent of natural lighting		Not applicable	N/A
F4.3:	Natural light borrowed from adjoining room		Not applicable	N/A

Section F: Health and Amenity			
F4.4: Artificial Lighting	Lighting to all areas is to comply with AS/NZS 1680.0:2009.	Electrical contractor to certify	CRA – Refer Annexure F
F4.5: Ventilation of rooms	All rooms to be provided with Clause F4.6 compliant natural ventilation <b>OR</b> a mechanical ventilation or air-conditioning system complying with AS 1668.2:2012.	Café garbage room to comply with AS 1668.2. Toilets may comply with AS 1668.2 or Clause F4.6 subject to final design.	CRA – Refer Annexure F
F4.6: Natural ventilation	<p>(a) Natural ventilation provided in accordance with F4.5(a) must consist of permanent openings, windows, doors or other devices which can be opened—</p> <p>(i) with an aggregate opening or openable size not less than 5% of the floor area of the room required to be ventilated; and</p> <p>(ii) open to—</p> <p>(A) a suitably sized court, or space open to the sky; or</p> <p>(B) an open verandah, carport, or the like; or</p> <p>(C) an adjoining room in accordance with F4.7.</p>	With 5 x awning windows at servery open, the café kitchen building will comply with natural ventilation.	CRA – Refer Annexure F
F4.7: Ventilation borrowed from adjoining room		Not applicable	N/A
F4.8: Restriction on position of water closets and urinals	<p>Sanitary compartments must not open directly into a –</p> <ul style="list-style-type: none"> <li>&gt; kitchen or pantry</li> <li>&gt; public dining room or restaurant</li> <li>&gt; dormitory in a Class 3 building</li> <li>&gt; room used for public assembly (which is not an early childhood centre, primary school or open spectator stand)</li> </ul>	Toilets all open into a communal wash basin area	Complies

Section F: Health and Amenity			
	> workplace normally occupied by more than one person.		
F4.9: Airlocks		Not applicable	N/A
F4.11: Carparks		Not applicable	N/A
F4.12: Kitchen local exhaust ventilation	<p>Any commercial kitchen must be provided with a kitchen exhaust hood complying with AS 1668.1:2015 and AS 1668.2:2012 where:</p> <ul style="list-style-type: none"> <li>&gt; any cooking apparatus has:                             <ul style="list-style-type: none"> <li>○ a total maximum electrical power input exceeding 8 kW; or</li> <li>○ a total gas power input exceeding 29 MJ/h; or</li> </ul> </li> <li>&gt; the total maximum power input to more than one apparatus exceeds:                             <ul style="list-style-type: none"> <li>○ 0.5 kW electrical power; or</li> <li>○ 1.8 MJ gas,</li> </ul> </li> </ul> <p>Per m2 of floor area of the room or enclosure.</p>	Mechanical contractor to certify at CC stage.	CRA – Refer Annexure F

Section G: Ancillary Provisions			
Part G1 – Minor Structures and Components			
G1.0: Deemed-to-Satisfy Provisions	Informational	Noted	Noted
G1.1: Swimming pools		Not applicable	N/A
G1.2: Refrigerated chambers, strong-rooms and vaults		Not applicable	N/A

**Section G: Ancillary Provisions**

G1.3: Outdoor play spaces		Not applicable	N/A
NSW G1.101: Provision for cleaning windows		Not applicable	N/A

**Section J: Energy Efficiency (Class 3, 5, 6, 7b, 8, 9)****Part J0 – Energy Efficiency**

J0.1: Application of Section J	Informational	Noted	Noted
J0.2: Heating & cooling loads of Sole Occupancy Units to Class 2 & 4 parts	Not applicable, clause relevant to class 2 & 4 only		NA
J0.3: Ceiling fans	Not applicable		NA
J0.4: Roof thermal breaks	Not applicable, clause relevant to J0.2 only		NA
J0.5: Wall thermal breaks	Not applicable, clause relevant to J0.2 only		NA

**Part J1 – Building Fabric**

J1.0: Deemed-to-Satisfy Provisions	Informational	Noted	Noted
J1.1: Application of Part	The provisions of Part J1 apply to building elements forming part of the <i>envelope</i> of the building.	Compliance required at detailed design	CRA – Refer Annexure F
J1.2: Thermal construction general	Where required insulation is to comply with AS/NZS 4859.1:2018 and be installed in accordance with this clause.	Compliance required at detailed design	CRA – Refer Annexure F

<b>Section J: Energy Efficiency (Class 3, 5, 6, 7b, 8, 9)</b>			
	The required Total R-Value and Total System U-Value, must be determined in accordance with Clause J1.2 (e).		
J1.3: Roof and ceiling construction	<p>(a) A roof or ceiling must achieve a Total R-Value greater than or equal to—</p> <ul style="list-style-type: none"> <li>(i) in climate zones 1, 2, 3, 4 and 5, R3.7 for a downward direction of heat flow; and</li> <li>(ii) in climate zone 6, R3.2 for a downward direction of heat flow; and</li> <li>(iii) in climate zone 7, R3.7 for an upward direction of heat flow; and</li> <li>(iv) in climate zone 8, R4.8 for an upward direction of heat flow.</li> </ul> <p>(b) In climate zones 1, 2, 3, 4, 5, 6 and 7, the solar absorptance of the upper surface of a roof must be not more than 0.45.</p>	Compliance required at detailed design	CRA – Refer Annexure F
J1.4: Roof lights	<p>Any roof lights must have –</p> <ul style="list-style-type: none"> <li>(a) a total area of not more than 5% of the floor area of the room &amp; space served; and</li> <li>(b) transparent and translucent elements with performance of –                             <ul style="list-style-type: none"> <li>(i) Total system SHGC, in accordance with table J1.4, and</li> <li>(ii) Total system U-value, not more than U3.9</li> </ul> </li> </ul>	Compliance required at detailed design	CRA – Refer Annexure F
J1.5: Walls	<p>(a) The Total System U-Value of wall-glazing construction must not be greater than—</p> <ul style="list-style-type: none"> <li>(i) for a Class 2 common area, a Class 5, 6, 7, 8 or 9b building or a Class 9a building other than a ward area, U2.0; and</li> </ul>	Compliance required at detailed design	CRA – Refer Annexure F

**Section J: Energy Efficiency (Class 3, 5, 6, 7b, 8, 9)**

	<ul style="list-style-type: none"> <li>(ii) for a Class 3 or 9c building or a Class 9a ward area—             <ul style="list-style-type: none"> <li>(A) in climate zones 1, 3, 4, 6 or 7, U1.1; or</li> <li>(B) in climate zones 2 or 5, U2.0; or</li> <li>(C) in climate zone 8, U0.9.</li> </ul> </li> <li>(b) The Total System U-Value of display glazing must not be greater than U5.8.</li> <li>(c) The Total System U-Value of wall-glazing construction must be calculated in accordance with Specification J1.5a.</li> <li>(d) Wall components of a wall-glazing construction must achieve a minimum Total R-Value of—             <ul style="list-style-type: none"> <li>(i) where the wall is less than 80% of the area of the wall-glazing construction, R1.0; or</li> <li>(ii) where the wall is 80% or more of the area of the wall-glazing construction, the value specified in Table J1.5a.</li> </ul> </li> <li>(e) The solar admittance of externally facing wall-glazing construction must not be greater than—             <ul style="list-style-type: none"> <li>(i) for a Class 2 common area, a Class 5, 6, 7, 8 or 9b building or a Class 9a building other than a ward area, the values specified in Table J1.5b; and</li> <li>(ii) for a Class 3 or 9c building or a Class 9a ward area, the values specified in Table J1.5c.</li> </ul> </li> <li>(f) The solar admittance of a wall-glazing construction must be calculated in accordance with Specification J1.5a.</li> <li>(g) The Total system SHGC of display glazing must not be greater than 0.81 divided by the applicable</li> </ul>		
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Section J: Energy Efficiency (Class 3, 5, 6, 7b, 8, 9)			
		shading factor specified in Clause 7 of Specification J1.5a.	
J1.6: Floors	<ul style="list-style-type: none"> <li>(a) A floor must achieve the Total R-Value specified in Table J1.6.</li> <li>(b) A floor must be insulated around the vertical edge of its perimeter with insulation having an R-Value greater than or equal to 1.0 when the floor—                             <ul style="list-style-type: none"> <li>(i) is a concrete slab-on-ground in climate zone 8; or</li> <li>(ii) has an in-slab or in-screed heating or cooling system, except where used solely in a bathroom, amenity area or the like.</li> </ul> </li> <li>(c) Insulation required by (b) for a concrete slab-on-ground must—                             <ul style="list-style-type: none"> <li>(i) be water resistant; and</li> <li>(ii) be continuous from the adjacent finished ground level—                                     <ul style="list-style-type: none"> <li>(A) to a depth not less than 300 mm; or</li> <li>(B) for the full depth of the vertical edge of the concrete slab-on-ground.</li> </ul> </li> </ul> </li> </ul>	Compliance required at detailed design	CRA – Refer Annexure F
<b>Part J2 – Glazing</b>			
J2.0: Deemed-to-Satisfy Provisions	Part J2 has deliberately been left blank from the BCA2019		Noted
<b>Part J3 – Building Sealing</b>			
J3.0: Deemed-to-Satisfy Provisions	Informational	Noted	Noted

Section J: Energy Efficiency (Class 3, 5, 6, 7b, 8, 9)			
J3.1: Application of Part	<p>The requirements of this Part apply to elements forming the <i>envelope</i> of the building other than:</p> <ul style="list-style-type: none"> <li>&gt; a building in a climate zones 1, 2, 3 and 5 where the only means of air-conditioning is by using an evaporative cooler; or</li> <li>&gt; a permanent building opening necessary for the safe operation of a gas appliance;</li> <li>&gt; a building or space where mechanical ventilation required by Part F4 provides sufficient pressurisation to prevent infiltration;</li> <li>&gt; parts of building that cannot be fully enclosed.</li> </ul>	Compliance required at detailed design	Noted
J3.2: Chimneys and flues		Not applicable	N/A
J3.3: Roof lights	<p>Roof lights serving conditioned spaces, or habitable rooms in climate zone 4-8, must be sealed or be capable of being sealed and must be constructed with—</p> <ul style="list-style-type: none"> <li>(i) an imperforate ceiling diffuser or the like installed at the ceiling or lining level; or</li> <li>(ii) a weatherproof seal; or</li> <li>(iii) a shutter system readily operated either manually, mechanically or electronically by the occupant.</li> </ul>	Compliance required at detailed design	CRA – Refer Annexure F
J3.4: Windows and doors	<ul style="list-style-type: none"> <li>(a) A door, openable window or the like must be sealed—                             <ul style="list-style-type: none"> <li>(i) when forming part of the <i>envelope</i>; or</li> <li>(ii) in climate zones 4, 5, 6, 7 or 8.</li> </ul> </li> <li>(b) The above does not apply to:                             <ul style="list-style-type: none"> <li>(i) a window complying with AS 2047; or</li> </ul> </li> </ul>	Compliance required at detailed design	CRA – Refer Annexure F



**Section J: Energy Efficiency (Class 3, 5, 6, 7b, 8, 9)**

	<ul style="list-style-type: none"> <li>(ii) a fire door or smoke door; or</li> <li>(iii) roller shutter door, roller shutter grille or other security device or device installed only for out-of-hours security.</li> <li>(c) A seal to restrict air infiltration—             <ul style="list-style-type: none"> <li>(i) for the bottom edge of a door, must be a draft protection device; and</li> <li>(ii) for the other edges of a door or the edges of an openable window or other such opening, may be a foam or rubber compression strip, fibrous seal or the like.</li> </ul> </li> <li>(d) An entrance to a building, if leading to a conditioned space must have an airlock, self-closing door, revolving door or the like, other than—             <ul style="list-style-type: none"> <li>(i) where the conditioned space has a floor area of not more than 50m<sup>2</sup>; or</li> <li>(ii) where a café, restaurant, open front shop or the like has—                 <ul style="list-style-type: none"> <li>(A) a 3m deep un-conditioned zone between the main entrance, including an open front, and the conditioned space; and</li> <li>(B) at all other entrances to the café, restaurant, open front shop of the like, self-closing doors</li> </ul> </li> </ul> </li> </ul>		
<p>J3.5: Exhaust fans</p>	<p>The exhaust fans serving conditioned spaces or habitable room in climate 4 - 8, must be fitted with a sealing device, such as a self-closing damper of the like.</p>	<p>Compliance required at detailed design</p>	<p>CRA – Refer Annexure F</p>
<p>J3.6: Construction of ceilings, walls and floors</p>	<p>The roof, walls, floors and any other openings, such as window or doors, are to be constructed to minimise air leakage by being enclosed by internal lining systems that are close fitting at ceiling, wall and floor junctions; or are</p>	<p>Compliance required at detailed design</p>	<p>CRA – Refer Annexure F</p>

Section J: Energy Efficiency (Class 3, 5, 6, 7b, 8, 9)			
	sealed by expanding architraves, skirting, cornices; or expanding foam, rubber compressible strip, caulking or the like.		
J3.7: Evaporative Coolers		Not applicable	N/A
Part J4			
J4.0:	This part has deliberately been left blank in the BCA2019		N/A
Part J5 – Air Conditioning and Ventilation Systems			
J5.0: Deemed-to-Satisfy Provisions	Informational	Noted	Noted
J5.1: Application of Part	Informational	Noted	Noted
J5.2: Air-conditioning systems	Clause contains requirements for air conditioning system control.	If Compliance is required, design certification to be provided by Mechanical Engineer.	CRA – Refer Annexure F
J5.3: Mechanical ventilation system control	Clause contains requirements for mechanical ventilation system control.	If Compliance is required, design certification to be provided by Mechanical Engineer.	CRA – Refer Annexure F
J5.4: Fan systems	Clause contains requirements for fans, ductwork and duct components.	If Compliance is required, design certification to be provided by Mechanical Engineer.	CRA – Refer Annexure F
J5.5: Ductwork Insulation	Clause contains requirements for ductwork insulation.	If Compliance is required, design certification to be provided by Mechanical Engineer.	CRA – Refer Annexure F
J5.6: Ductwork Sealing	Ductwork in an air-conditioning system with a capacity of 3000 L/s or greater, not located within the only or last room served by the system, must be sealed against air loss in accordance with the duct sealing requirements of AS 4254.1 and AS 4254.2 for the static pressure in the system.	If Compliance is required, design certification to be provided by Mechanical Engineer.	CRA – Refer Annexure F

<b>Section J: Energy Efficiency (Class 3, 5, 6, 7b, 8, 9)</b>				
J5.7:	Pump Systems	Clause contains requirements for pumps and pipework that form part of air-conditioning systems.	If Compliance is required, design certification to be provided by Mechanical Engineer.	CRA – Refer Annexure F
J5.8:	Pipework Insulation	Clause contains requirements for pipework insulation.	If Compliance is required, design certification to be provided by Mechanical Engineer.	CRA – Refer Annexure F
J5.9:	Space Heating		Not applicable	N/A
J5.10:	Refrigerant Chillers	Clause contains requirements for air-conditioning system refrigerant chillers.	If Compliance is required, design certification to be provided by Mechanical Engineer.	CRA – Refer Annexure F
J5.11:	Unitary Air-Conditioning Equipment	Clause contains requirements for unitary air-conditioning equipment.	If Compliance is required, design certification to be provided by Mechanical Engineer.	CRA – Refer Annexure F
J5.12:	Heat Rejection Equipment		Not applicable	N/A
<b>Part J6 – Artificial Lighting and Power</b>				
J6.0:	Deemed-to-Satisfy Provisions	Informational	Noted	Noted
J6.1:	Application of Part	Informational	Noted	Noted
J6.2:	Artificial lighting	Artificial lighting must comply with BCA Clause J6.2.	Design certification to be provided by the electrical designer.	CRA – Refer Annexure F
J6.3:	Interior artificial lighting and power control	Lighting switches and control devices must comply with BCA Clause J6.3.	Design certification to be provided by the electrical designer.	CRA – Refer Annexure F
J6.4:	Interior decorative and display lighting	Lighting falling under this clause is to be separately switched from other lighting, be under a manual switch and controlled with a time switch.	Design certification to be provided by the electrical designer.	CRA – Refer Annexure F

<b>Section J: Energy Efficiency (Class 3, 5, 6, 7b, 8, 9)</b>				
J6.5:	Exterior artificial lighting	Exterior lighting attached to or directed at the façade of the building must be controlled by daylight sensors or time switches in accordance with the specific requirements of this clause.	Design certification to be provided by the electrical designer.	CRA – Refer Annexure F
J6.6:	Boiling water and chilled water storage units	The power supply to a fixed boiling water or chilled water storage unit must be controlled by a time switch in accordance with BCA Specification J6.	Design certification to be provided by the electrical designer.	CRA – Refer Annexure F
J6.7:	Lifts		Not applicable	N/A
J6.8:	Escalators and moving walkways		Not applicable	N/A
<b>Part J7 – Heated Water Supply</b>				
J7.0:	Deemed-to-Satisfy Provisions	Informational	Noted	Noted
J7.2:	Heated water supply system	A heated water supply system for food preparation and sanitary purposes must be designed and installed in accordance with Part B2 of NCC Volume Three — Plumbing Code of Australia.		CRA – Refer Annexure F
<b>Part J8 – Facilities for Energy Monitoring</b>				
J8.0:	Deemed-to-Satisfy Provisions	Informational	Noted	Noted
J8.1:	Application of Part	Informational	Noted	Noted
J8.3:	Facilities for energy monitoring		Not applicable	N/A

## **ANNEXURE E DEFINITIONS**

## Annexure E - Definitions

### Average specific extinction area

Average specific extinction area means the average specific extinction area for smoke as determined by AS 5637.1:2015.

### Critical radiant flux

Critical radiant flux (CRF) means the critical heat flux at extinguishment (CHF in kW/m<sup>2</sup>) as determined by AS ISO 9239.1:2003.

### Envelope

Envelope, for the purposes of Section J in Volume One, means the parts of a building's fabric that separate a conditioned space or habitable room from—

- (a) the exterior of the building; or
- (b) a non-conditioned space including—
  - (i) the floor of a rooftop plant room, lift-machine room or the like; and
  - (ii) the floor above a carpark or warehouse; and
  - (iii) the common wall with a carpark, warehouse or the like.

### Exit

Exit means –

- (a) Any, or any combination of the following if they provide egress to a road or open space—
  - (i) An internal or external stairway.
  - (ii) A ramp.
  - (iii) A fire-isolated passageway.
  - (iv) A doorway opening to a road or open space.
  - (v) A horizontal exit or a fire-isolated passageway leading to a horizontal exit.

### Fire-source feature

- (a) the far boundary of a road, river, lake or the like adjoining the allotment; or
- (b) a side or rear boundary of the allotment; or
- (c) an external wall of another building on the allotment which is not a Class 10 building

### Flammability index

Flammability Index means the index number as determined by AS 1530.2:1993.

### Group number

Group number means the number of one of 4 groups of materials used in the regulation of fire hazard properties and applied to materials used as a finish, surface, lining, or attachment to a wall or ceiling.

### Loadbearing

Intended to resist vertical forces additional to those due to its own weight.

### Open space

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Open space means a space on the allotment, or a roof or similar part of a building adequately protected from fire, open to the sky and connected directly with a public road.

Performance Requirement

Performance Requirement means a requirement which states the level of performance which a Performance Solution or Deemed-to-Satisfy Solution must meet.

Performance Solution

Performance Solution means a method of complying with the Performance Requirements other than by a Deemed-to-Satisfy Solution.

Sarking-type material

Sarking-type material means a material such as a reflective insulation or other flexible membrane of a type normally used for a purpose such as waterproofing, vapour management or thermal reflectance.

Smoke developed index

Smoke developed index means the index number for smoke as determined by AS/NZS 1530.3.

Smoke development rate

Smoke development rate means the development rate for smoke as determined by testing flooring materials in accordance with AS ISO 9239.1.

Smoke growth rate index

Smoke growth rate index (SMOGRA RC) means the index number for smoke used in the regulation of fire hazard properties and applied to materials used as a finish, surface, lining or attachment to a wall or ceiling.

## **ANNEXURE F BCA COMPLIANCE SPECIFICATION**



## Annexure F – BCA Compliance Specification

The following BCA matters are to be addressed by specific BCA Design Certificate to be issued by the relevant architectural, services and engineering consultants at the Construction Certificate Stage. This schedule should be forwarded to all consultants to obtain verification that these items have and will be included in the design documentation / specifications:

### Architectural Design Certification

1. Materials, floor and wall linings/coverings, surface finishes and air-handling ductwork used in the works will comply with the fire hazard properties of Clause C1.10 and Specification C1.10 of BCA2019.
2. The dimensions of exits and paths of travel to exits will be provided in accordance with Clause D1.6 of BCA2019.
3. Discharge from exits will be in accordance with Clause D1.10 of BCA2019.
4. The construction of EDB's and telecommunications distribution boards will be in accordance with Clause D2.7 of BCA2019 with the enclosure bounded by non-combustible construction or fire protective covering and smoke seals provided around the perimeter of the non-combustible doors and any openings sealed with non-combustible mastic to prevent smoke spreading from the enclosure.
5. New pedestrian ramps will comply with AS 1428.1:2009, Clause D2.10 and Part D3 of BCA2019. The floor surface of a ramp must have a slip-resistance classification complying with Table D2.14 when tested in accordance with AS 4586:2013.
6. The new works will be accessible in accordance with Clause D3.1 and Table D3.1, D3.2, D3.3 of BCA2019, and with AS 1428.1:2009, with particular note to circulation spaces, accessway widths, turning spaces and floor coverings, in accordance with Part D3 of BCA2019.
7. Braille and tactile signage will in accordance with Clause D3.6 and Specification D3.6 of BCA2019 and in accordance with AS 1428.1:2009.
8. Fire precautions whilst the building is under construction fire precautions will be in accordance with Clause E1.9 of BCA2019.
9. The new roof covering will be in accordance with Clause F1.5 of BCA2019.
10. Any sarking proposed will be installed in accordance with Clause F1.6 of BCA2019.
11. Waterproofing of all wet areas to the building will be carried out in accordance with Clause F1.7 of BCA2019 and AS 3740:2010.
12. Damp proofing of the proposed structure will be carried out in accordance with Clause F1.9 and F1.10 of BCA2019.
13. All new glazing to be installed throughout the development will be in accordance with Clause F1.13 of BCA2019 and AS 1288:2006 / AS 2047:2014.
14. Sanitary facilities will be provided in the building in accordance with Clause F2.3 and Table F2.3 of BCA2019.
15. Accessible sanitary facilities will be provided in the building in accordance with Clause F2.4, Table F2.4 (a) of BCA2019 and AS1428.1:2009.
16. The construction of the sanitary facilities will be in accordance with Clause F2.5 of BCA2019.
17. Ceiling heights to the new areas will be in accordance with Clause F3.1 of BCA2019.
18. Essential fire or other safety measures must be maintained and certified on an ongoing basis, in accordance with the provisions of the Environmental Planning and Assessment Regulation, 2000.

19. Building Fabric and Thermal Construction will be in accordance with Part J1 of BCA2019.
20. Glazing will be in accordance with Part J1 of BCA2019.
21. Building sealing will be in accordance with Part J3 of BCA2019.
22. Facilities for Energy Monitoring will be provided in accordance with Clause J8.3 of BCA2019.

**Electrical Services Design Certification:**

23. Emergency lighting will be installed throughout the development in accordance with Clause E4.2 & E4.4 of BCA2019 and AS/NZS 2293.1:2018.
24. Exit signage will be installed in accordance with Clause E4.5 and E4.8 of BCA2019 and AS/NZS 2293.1:2018.
25. Artificial lighting will be installed throughout the development in accordance Clause F4.4 of BCA2019 and AS/NZS 1680.0:2009.
26. Lighting power and controls will be installed in accordance with Part J6 of BCA2019.

**Hydraulic Services Design Certification:**

27. Storm water drainage will be provided in accordance with Clause F1.1 of BCA2019 and AS/NZS 3500.3:2018
28. Portable fire extinguishers will be installed in accordance with Clause E1.6 of BCA2019 and AS 2444:2001.
29. The heated water supply systems will be designed and installed to NCC Volume 3 – Plumbing code and Clause J7.2 of BCA2019.

**Mechanical Services Design Certification:**

30. Where not naturally ventilated the building will be mechanically ventilated in accordance with Clause F4.5 of BCA2019 and AS 1668.2:2012.
31. The commercial kitchen will be provided with a kitchen exhaust hood in accordance with Clause F4.12 of BCA2019, and AS 1668.1:2015 and AS 1668.2:2012.
32. The air-conditioning and ventilations systems will be designed and installed in accordance with Part J5 of BCA2019
33. Rigid and flexible ductwork will comply with the fire hazard properties set out in AS 4254 Parts 1 and 2.

**Structural Engineers Design Certification:**

34. The material and forms of construction for the proposed works will be in accordance with Clause B1.2, B1.4 and B1.6 of BCA2019 as follows:
  - Dead and Live Loads – AS/NZS 1170.1:2002
  - Wind Loads – AS/NZS 1170.2:2011
  - Earthquake actions – AS 1170.4:2007
  - Concrete Construction – AS 3600:2018
  - Steel Construction AS 4100:1998
  - Aluminium Construction – AS/NZS 1664.1 or 2:1997
  - Timber Construction – AS 1720.1:2010