

PLATINO

BCA ASSESSMENT REPORT

Montessori Skyline Childcare

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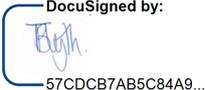


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Jensen Hughes Australia

Providing building regulations, fire engineering, accessibility, and energy consulting services to NSW for over 25 years

Our story begins in 1997 with the founding of BCA Logic to fulfill the demand of a consultancy company whose expertise expanded across the entire life cycle of a building, from consulting on the initial planning through to construction and occupation.

BCA Logic, SGA Fire and BCA Energy joined Jensen Hughes in 2021, a leading global, multi-disciplinary engineering, consulting and technology firm focused on safety, security and resiliency. We continue to be at the forefront of our industry and work thoroughly to preserve our position by ensuring the successful delivery of projects.

Jensen Hughes was launched in 2014 through the historic merger of Hughes Associates and Rolf Jensen & Associates (RJA), two of the most experienced and respected fire protection engineering companies at the time. Since then, we have gained market leadership in nuclear risk consulting and established commanding positions in areas like forensic engineering, security risk consulting and emergency management. Over the past 22 years, our integration of more than 30 privately held engineering and consulting firms has dramatically expanded our global footprint, giving us a powerful market presence ten times larger than our nearest competitor in some of our markets and extending our historical lineage back to 1939.

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Executive summary

This document provides an assessment of the architectural design drawings for the proposed Childcare Centre development at 5 Skyline Place, Frenchs Forest NSW 2086, against the Deemed-to-Satisfy provisions of the Building Code of Australia (BCA) 2022.

The project comprises the partial fit out of a ground floor storey of a mixed-use commercial development located at 5 Skyline Place, Frenchs Forest.

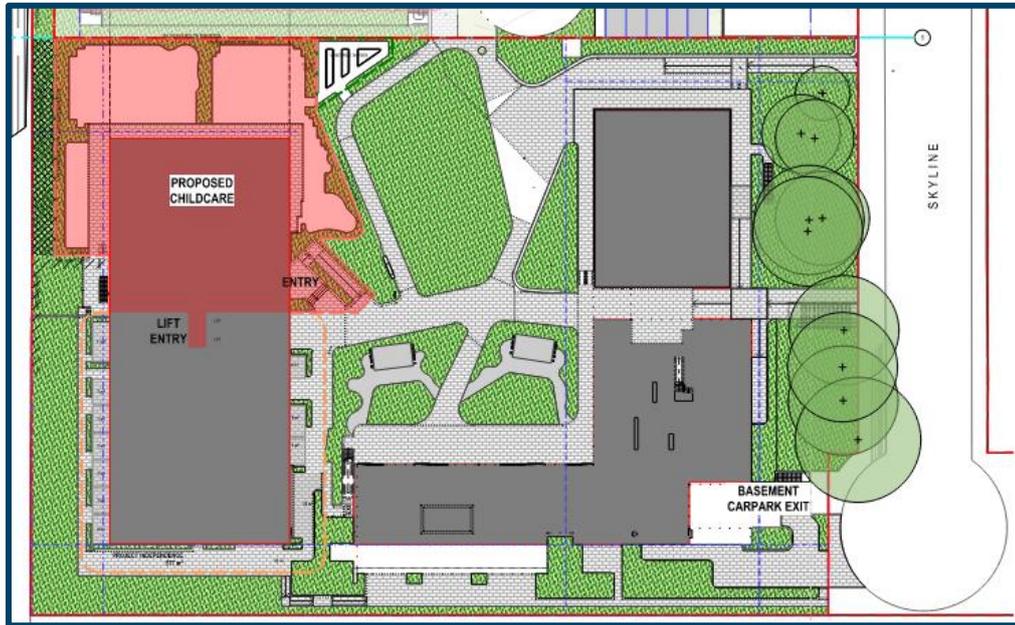


Figure 1 - Proposed Development

Part 3 ‘Matters for Further Consideration’ of 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
Performance Solutions Required		
1.	Lift doors achieving a -/60/- FRL to form part of the 120min fire wall providing separation between Class 9b and Class 3 parts.	C3D6(2)(a), C3D9 & Specification 5 C1P1, C1P2
2.	Provision of a Unisex Ambulant Sanitary Facility to be provided in lieu of separate facilities for males and females in addition to a Unisex Accessible Sanitary Facility to serve 13 staff members.	F4D4(1)
3.	Permit the kitchen facilities to not be provided with direct supervision facilities.	F4D4(9)(a)(ii)

Item	Description	BCA Provision
Building Code of Australia Compliance Matters to be Addressed		
1.	Nil	Nil
Further Information Required		
1.	Detailed Drawings to be provided post DA Phase. Facilities for use by children must be provided in accordance with Table F4D4g: (a) Junior pans; and (b) washbasins with a rim height not exceeding 600mm; and (c) accessible from both indoor and outdoor play spaces.	Table F4D4g
2.	Detailed Drawings to be provided post DA Phase. Facilities for use by children must have each sanitary compartment screened by a partition is opaque for a height of at least 900mm but not more than 1200mm above FFL.	F4D8(3)
3.	The capacity of the childcare kitchen cooking apparatus is to be confirmed.	F6D12

NCC Clause Numbering

BCA2022 uses a new structure and clause referencing system to create better consistency across all volumes of the NCC. While the new Section-Part-Type-Clause system makes the NCC look different at first, it's intended to improve user experience and make it more web accessible.

The new structure results in a reorganisation of specifications and parts, some of which are contained in the table below.

The NCC uses a uniform clause numbering system across each of its three volumes. This system is called Section-Part-Type-Clause (SPTC). In each clause number-

- + The first letter indicates which NCC section or part it sits within;
- + The first number indicates the number of the Part within a section or the number of a Specification.
- + The second letter indicates the clause type. It will be either G, O, F, P, V, D, or C. and these are explained below.
- + The second number is the clause number within each Part of Specification.

The clause Types used in the NCC are as follows:

- + G = Governing requirements (mandatory)
- + O = Objective (guidance)
- + F = Functional Statement (guidance)
- + P = Performance Requirement (mandatory) V = Verification Method (optional)
- + D = Deemed-to-Satisfy Provision (optional)
- + C = Clause in a Specification (can be mandatory or optional depending on how the Specification is called up by the NCC).

1.0 Basis of Assessment

1.1 LOCATION AND DESCRIPTION

The building development, the subject of this report, is located at 5 Skyline Place, Frenchs Forest NSW 2086.

The project comprises the partial fit out of a ground floor storey of a mixed-use commercial development located at 5 Skyline Place, Frenchs Forest.

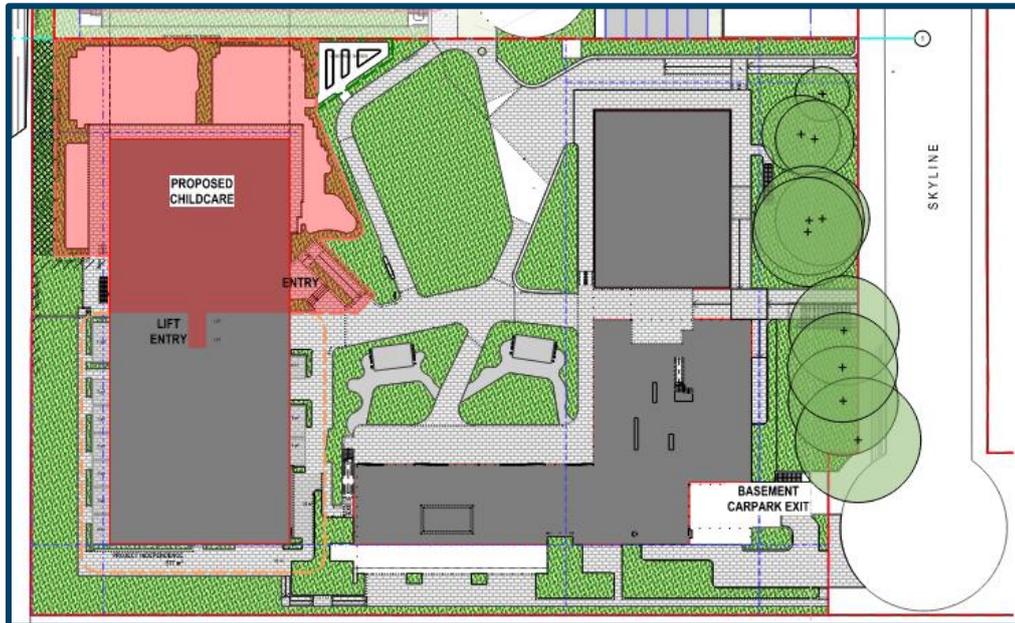


Figure 2 - Proposed Development

1.2 PURPOSE

The purpose of this report is to assess the current design proposal against the Deemed-to-Satisfy Provisions of BCA, 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. Such assessment against relevant performance criteria will need to be addressed by means of a separate Performance-based Assessment (Performance Solution) Report to be prepared under separate cover.

1.3 BUILDING CODE OF AUSTRALIA

The National Construction Code (**NCC**) is Australia's primary set of technical design and construction provisions for buildings.

As a performance-based code, it sets the minimum required level for the safety, health, amenity, accessibility and sustainability of certain buildings. The Australian Building Codes Board, on behalf of the Australian Government and each State and Territory government, produces and maintains the National Construction Code.

The NCC has three (3) volumes being:

- Volume One - containing technical design and construction requirements for all Class 2 to 9 buildings
- Volume Two - containing technical design and construction requirements for certain residential (class 1) and non-habitable buildings and structures (Class 10).
- Volume Three - Containing technical requirements for the design and construction for plumbing and drainage systems in new and existing buildings

This report is based on the Deemed-to-Satisfy Provisions of the National Construction Code (**NCC**) Series Volume One – Building Code of Australia, 2022 Edition (**BCA**), 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 currently updated on a three-yearly cycle.

A reference to the BCA in this report is a reference to **BCA2022**, being volume 1 of the NCC.

1.4 LIMITATIONS

1. This report is not a Design Compliance Declaration (DCD) under the Design and Building Practitioners Act 2020, nor is it to be construed as such.
2. This report is limited to a visual assessment of the plans and specifications provided and does not include any assessment or interrogation of the BIM model or the like.
3. 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 services.
4. This report does not include, or imply compliance with:
 - a. the National Construction Code – Plumbing Code of Australia Volume Three;
 - b. the Disability Discrimination Act 1992 including the Disability ((Access to Premises – Buildings) Standards 2010 – unless specifically referred to), (Note: The provision of access for people with a disability has not been assessed against the Deemed-to-Satisfy Provisions of Part D4 and Clauses E3D8, F4D5 and F4D12 of the BCA unless otherwise discussed in this report);
 - c. Demolition Standards not referred to by the BCA;
 - d. Work Health and Safety Act 2011;
 - e. Requirements of Australian Standards unless specifically referred to;
 - f. Requirements of other Regulatory Authorities including, but not limited to, Telecommunications Supply Authorities, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads and Maritime Services (RMS), Local Council, ARTC, Department of Planning and the like; and
 - g. 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.

2.0 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 C2D3)

The building has a rise in storeys of eight (8), with twelve (12) storeys contained.

2.2 CLASSIFICATION (CLAUSE A6G1)

The scope of works will be undertaken within portions of the building classified as follows.

Table 1: Building Classification

Class	Level	Description
Class 9b	Ground (part)	Childcare Centre
Class 3	Ground (part)	Disability Support Units

2.3 EFFECTIVE HEIGHT (CLAUSE A1G4)

The building has an *effective height* of less than 25 metres i.e. 23.7m (RL 180.3-156.6).

2.4 TYPE OF CONSTRUCTION REQUIRED (TABLE C2D2)

The building is required to be of Type A Construction.

2.5 FLOOR AREA AND VOLUME LIMITATIONS (TABLE C3D3)

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

Class 9b	Maximum Floor Area	8,000m ²
	Maximum Volume	48,000m ³

2.6 FIRE COMPARTMENTS

The following *fire compartments* have been assumed:

- + Ground Level is divided into two separate fire compartments as indicated in Figure 3 below.



Figure 3 - Ground Level Fire Compartments

2.7 EXITS

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

Ground Level

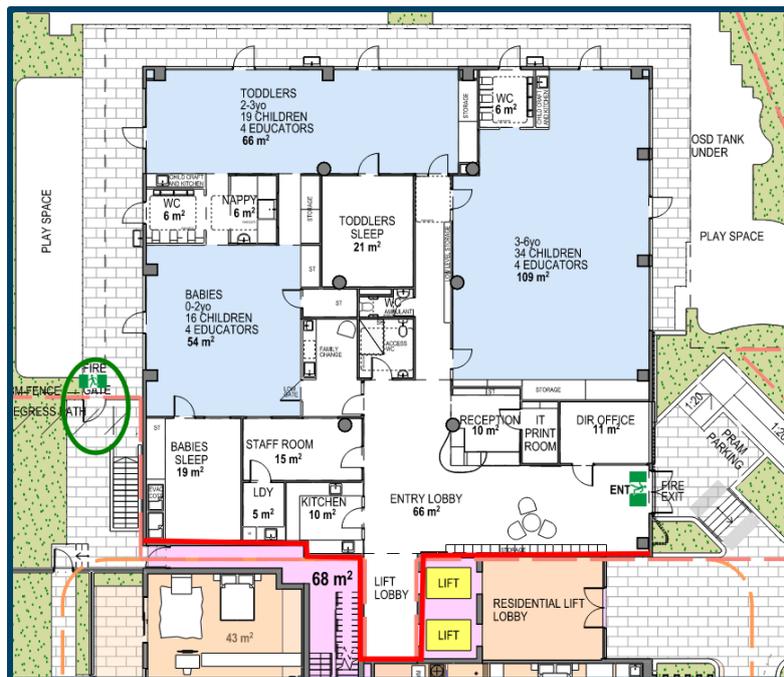


Figure 4 - Exits Ground Level

2.8 CLIMATE ZONE (SCHEDULE 1)

The building is located within Climate Zone 5.

2.9 BUILDING IMPORTANCE LEVEL

Certain Australian Standards (particularly structural standards) require the Importance Level of the building to be determined. The importance level relates to the individual actions on a building listed in clause B1D3 of the BCA

Table B1D3a of the BCA provides the following:

Importance Level	Building Types	Jensen Hughes Interpretation and Examples
1	Buildings or structures presenting a low degree of hazard to life and other property in the case of failure.	1 and 2 storey factory buildings
2	Buildings or structures not included in Importance Level 1, 3 and 4.	Residential apartment buildings and associated carparking. Office buildings
3	Buildings or Structures that are designed to contain a large number of people.	Stadia, Entertainment venues, shopping centres. Transport facilities
4	Buildings or Structures that are essential to post-disaster recovery or associated with hazardous facilities.	Data centres, evacuation centres

2.10 LOCATION OF FIRE-SOURCE FEATURES

The fire source features for the subject development are:

The fire source features for the subject development are:

North: The allotment boundary

South: The allotment boundary

East: The far side of Skyline Place

West: The allotment boundary

In accordance with Clause S5C2 of Specification 5, a part of a building element is exposed to a *fire-source feature* if any of the horizontal straight lines between that part and the fire-source feature, or vertical projection of the feature, is not obstructed by another part of the building that–

- a. has an FRL of not less than 30/–/–; and
- b. is neither transparent nor translucent.

3.0 BCA Assessment

3.1 INTRODUCTION

The assessment undertaken is in relation to the plans prepared for the development consent application. The technical details required for a development consent are far less than that required for a construction certificate and as such, this assessment is designed to address a higher-level assessment of the building against the provisions of the BCA.

The main purpose of this report is to identify any major design changes required to the building, services required to be installed, and the fundamentals of design required by sections C, D, E, F, G and H (where applicable) of the BCA. This report does not address the design requirements for the structure of the building (Section B), or for the detailed design of services (Section E) and is subject to the limitations outlined under Section 1.4 of this report.

The summary below is to be read in conjunction with the BCA specification contained in Annexure E of the report.

3.2 FIRE RESISTANCE AND STABILITY – PART C2 & SPECIFICATION 5

The required fire resistance levels for the building elements are outlined in Annexure C of this report. The Ground Level of the building contains Class 3 and Class 9b parts. The Class 9b portion of the building (being the Childcare Fit out) is required to comply with Type A construction i.e. 120min FRL's as per Specification 5 of the BCA.

The external walls and all components of the wall, in a building of Type A Construction, are required to be non-combustible. Full details have not been provided with respect to the materials of the external wall and further details will be required to be submitted at Construction Certificate Stage for assessment.

Internal linings and materials are required to meet the specified fire hazard properties of BCA Clause C2D11 and Specification 7.

Subject to the required FRL's being provided, the proposed building is capable of complying with the requirements of the BCA with respect to fire resistance.

3.3 COMPARTMENTATION AND SEPARATION – PART C3

The Class 9b portion of the building has been assessed and the floor area and volume of these compartments is less than that permitted by BCA Clause C3D3. As such compliance with the provisions of the BCA for compartmentation is readily achieved, however this assessment is to be reaffirmed at Construction Certificate stage once holistic fire compartment drawings are available for assessment.

The development is Type A Construction and is required to be assessed under Clause C3D7. However, as the building is protected with an AS2118.1 system, fire rated spandrel panels are not required under the provisions of BCA Clause C3D7.

The development contains a Class 9b early childhood centre on the Ground Floor of the building. The development is required to be assessed under Clause C3D6(2) and C3D9 with the Class 9b section separated from the Class 3 portion by a 120min fire wall (both horizontally and vertically). *As the lift lobby will form part of the fire wall, it is anticipated that the lift landing door sets will achieve a -/60/- FRL in lieu of 120/120/120 as required by Specification 5 for Type A construction, this will be required to be addressed via a performance solution by a suitably qualified fire engineer.*

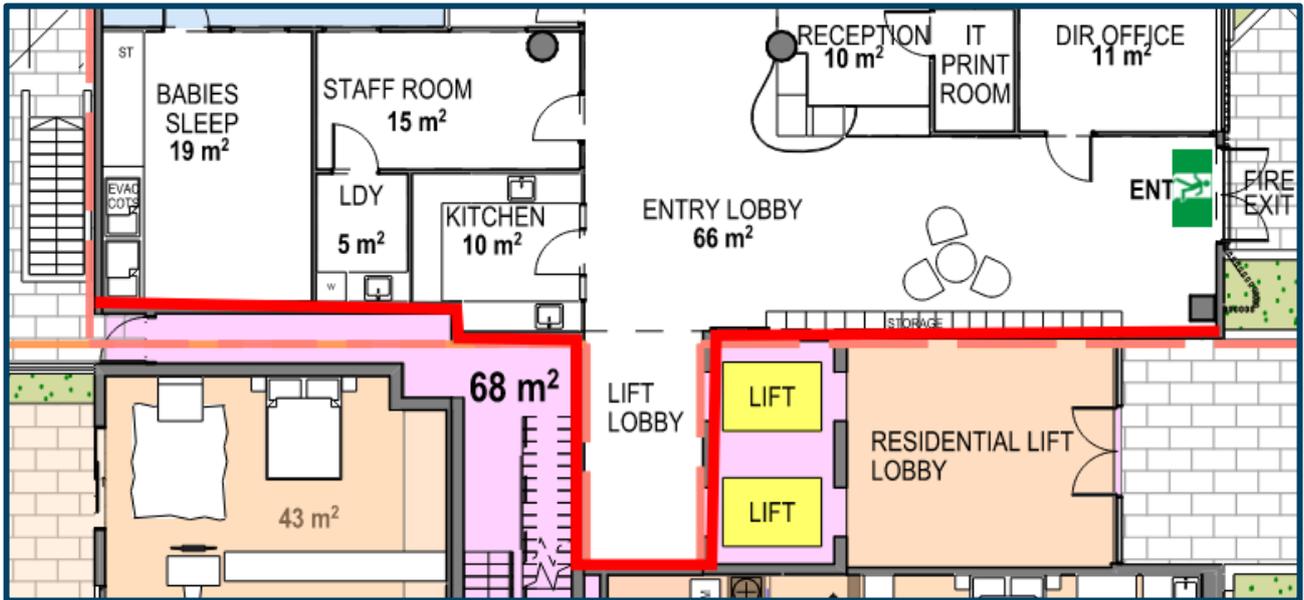


Figure 5 - Location of required Fire Wall

The childcare lift, as part of the base building, provides connection to more than 3 storeys. As such, the lift shaft will be required to achieve a 120min FRL as per C3D11 and Specification 5.

3.4 PROTECTION OF OPENINGS – PART C4

3.4.1 Openings in external walls

Drawings do not detail openings within external walls to be located within 3m of property boundaries. The proposed design demonstrates compliance with BCA Part C4.

3.4.2 Openings in different fire compartments

The external walls of the ground floor childcare centre (Class 9b) and disability support units (Class 3) are considered separate fire compartments. In accordance with Table C4D4 there is no protection required to be provided.

3.4.3 Openings in Floors for Services and Service Installations

Where electrical, plumbing, mechanical or other services pass through an element of construction that is required to achieve a fire resistance level (FRL), the service installation shall not compromise the fire resistance level of the element. As such, the service installation must be fire sealed with a compliant system such as fire collar on PVC pipes or fire rated mastic on electrical cables tested in accordance with AS1530.4-2014.

Fire sealing of services is a design element that will require detailed assessment and specification at Construction Certificate stage.

3.5 OCCUPANT ACCESS AND EGRESS – SECTION D

3.5.1 Egress from the building

General Requirements

As the development is under twenty-five (25) metres effective height, each storey is permitted to have a single exit. In addition, the Early Childhood Centre is required to have access to two exits for each storey or each part of the centre which occupies part of a storey. The building complies with provision of exits under Clause D2D3 & NSW D2D3 of the BCA. – refer Section 2.7 for illustration of exit locations.

Where the egress discharges to open space on the property, a continuous pathway from the point of discharge to the street is required. The plans do indicate such a pathway and as such the provisions of BCA Clause D2D15 are readily satisfied at Construction Certificate stage.

Details of treads and risers, landings, thresholds, ramps, and handrails have not been provided however compliance is readily achievable. The design of these elements can be assessed at the Construction Certificate stage.

Electrical distribution cupboards are to be provided with smoke separation to satisfy the requirements of BCA Clause D3D8. The doors are to be lined internally with fire grade plasterboard or metal backing sheets and smoke seals provided to all four sides, including drop down seals on the bottom. All penetrations from the enclosure are to be suitably sealed against smoke spread by sealing with non-combustible mastic.

Class 9b Travel Distance

Egress from the early childhood centre shall ensure that no point on the floor is more than twenty (20) metres from an exit, or where a point of choice of two (2) exits is available, the distance to the nearest of those exits can increase up to forty (40) metres, as permitted by BCA Clause D2D5.

The distance between alternative exits is required by BCA Clauses D2D6 to be no closer than nine (9) metres and no further apart than sixty (60) metres when measured through the point of choice. The travel distances and distances between exits throughout the building comply with the above requirements.

Egress is noted to be afforded via the external play space through an exit gate to a pathway connecting to road / open space and via the main entry door also directly connected to a pathway to road / open space.

3.5.2 Access for people with a disability

BCA Part D4 has not been assessed within this report. It is assumed a separate Access Consultant has been engaged.

3.6 SERVICES AND EQUIPMENT- PARTS E1, E2, E3 AND E4

The building is required to be provided with the services and equipment set out in Annexure B of this report. The annexure also outlines the standard of performance to be achieved by the services and equipment.

3.6.1 Part E1 – Fire Fighting Equipment

Specific comments pertaining to fire fighting services and equipment required for the building as set out in Annexure B of this report are provided as follows:

Fire hydrant

As the building has a floor area greater than 500m², fire hydrant protection is required. Installation of an onsite fire hydrant system with hydrants located within four (4) metres of exits, or within fire isolated stairs as relevant to the requirements contained within AS2419.1-2021. The hydrant booster is required to be no more than twenty (20) metres from the building and within sight of the principal pedestrian entrance as well as located not less than ten (10) metres from any substation.

The plans do not show the location of fire hydrants and further information will be required at the Construction Certificate Stage from the Hydraulic Consultant to demonstrate compliance.

Fire Hose Reel

As the building is greater than 500m² it is required to be provided with fire hose reel (FHR's) coverage in accordance with AS2441. The post DA drawings will be required to illustrate that FHRs are located within four (4) metres of an *exit*, and that coverage to all points on a floor are within thirty-six (36) metres, plus four (4) metres of spray as per AS2441-2005. Further design development is required from the Hydraulic Consultant to achieve compliance.

Sprinklers

The building is required to have a sprinkler system installed throughout in accordance with BCA Clause E1D11(2) & Specification 17 & AS 2118.1:2017. Details are to be provided at the Construction Certificate Stage by the Hydraulic Consultant to demonstrate compliance.

Portable Fire Extinguishers

The development is required to have portable fire extinguishers installed throughout in accordance with AS2444-2001. Compliance is readily achievable.

3.6.2 Part E2 – Smoke Hazard Management

Specific comments pertaining to smoke hazard management system services and equipment required for the building as set out in Annexure B of this report are provided as follows:

Smoke Detection & Alarm System

The building must be provided with a smoke detection and alarm system throughout all areas complying with Clause NSW E2D19(3) and Specification 20. The preliminary Development Application plans do not provide any details regarding the layout of smoke detection and alarm system. Further information is needed from the Electrical Consultant during the Construction Certificate Stage to demonstrate compliance.

Automatic Mechanical Shutdown

The Class 9b building/portion may have ducted mechanical ventilation or individual units with a capacity more than 1000 L/s, therefore automatic shutdown will be required to the ventilation system throughout the Class 9b parts in accordance with NSW BCA Clause E2D16. No details have been provided, and further design development is necessary from the Mechanical Consultant at Construction Certificate Stage.

3.6.3 Part E3 – Lift Installations

The lifts provided to access the Child Care Centre from the car park are understood to be part of the Base Building Works and do not form part of the scope of works assessed under this report.

3.6.4 Part E4 – Visibility in emergency, exit signs and warning systems.

Specific comments pertaining to emergency lighting, exit signs and warning systems required for the building as set out in Annexure B of this report are provided as follows:

- + Emergency lighting is required as per BCA Clause E4D2 for all non-fire-isolated stairs, corridors, passageways, hallways, or the like that is part of a path of travel to an exit.
- + Exit signs are required to be installed throughout the building, including directional exit signs to guide occupants to the designated exits in the building.

The DA plans do not provide any details for the emergency lighting and exit signs. As such further information will be required at the Construction Certificate Stage, however compliance is readily achievable.

3.7 FACILITIES IN CLASS 3 TO 9 BUILDINGS – PART F4

The early childhood centre proposes to provide 1 x Unisex Accessible Sanitary Facility and 1 x Unisex Ambulant Facility to cater to a staff population of 13. As there are proposed to be a maximum of 13 staff members, in accordance with F4D4 (3) unisex facilities are not permitted to be provided. *As per F4D4 (1) separate sanitary facilities for males and females are to be provided. Therefore, the proposed provision of 1 x Unisex Ambulant Facility is to be addressed via performance.*

The early childhood centre has been assessed against F4D4(9) and Table F4D4(g) and the following is noted:

- *As the kitchen is located in a position so it is not possible to facilitate supervision, it is proposed to permit the kitchen facilities to not be provided with direct supervision as per F4D4(9)(a)(ii).*
- A Shower is provided within the staff unisex accessible toilet which is satisfactory for use by child under staff supervision as required.
- The provision of a nappy change bench and associated requirements under F4D4 (9)(c)(i)(ii)(iii) as per will be provided in the children bathroom accessed via the Babies 0-2 Room. Further information will be required at the Construction Certificate Stage to confirm compliance.
- The Toddlers Room (2-3 year old) and Babies Room (0-2 years) has access to 3 children toilets and washbasins which caters to 45 children, room capacity is noted to be 20 + 16 children. Access to the toilets from both the inside and outdoor play areas has been provided.
- The 3-6 year old Room provides 3 children toilets and washbasins which caters to 45 children, room capacity is noted to be 34 children. Access to the toilets from both the inside and outdoor play areas has been provided.

3.8 ROOM HEIGHTS – PART F5

The section drawings indicate that the ceiling heights for all habitable spaces, corridors, and the like can achieve the minimum height of 2400 mm. In non-habitable rooms such as toilets, plant and storage rooms, and car park areas the ceiling height is no less than 2100 mm.

The early childhood centre has less than 100 people per storey therefore the ceiling heights required to achieve the minimum height of 2400 mm.

The ceiling heights have been assessed in accordance with BCA Part F5 which has indicated that compliance is readily achievable within all habitable spaces, corridors, and the like.

3.9 LIGHT AND VENTILATION – PART F6

Class 9b early childhood centre

Natural light is required to all children playrooms in an Early Childhood Centre. The plans have been assessed which reveals all playrooms are served by windows or glazed doors. The area of the doors and windows (exclusive of any framing members, glazing bars or other obstructions) are likely to be sufficient in size to provide the required 10% natural light to all habitable rooms, however a window specification will be needed with design development to verify compliance.

The sills of 50% of windows in children's rooms must be located no more than 500 mm above the floor area. However, a window specification will be needed with design development to verify compliance.

Clause F6D6 allows for either natural ventilation as per Clause F6D7 or mechanical ventilation or air-conditioning system complying with AS1668.2. The playrooms are served by windows or glazed doors. The area of the doors and windows (exclusive of any framing members, glazing bars or other obstructions) are likely to be sufficient in size to provide the required 5% ventilation to the playrooms. However, a window specification will be needed with design development to verify compliance if natural ventilation is relied upon. The rooms without natural ventilation will have mechanical ventilation or air-conditioning system complying with AS1668.2.

3.10 OUTDOOR PLAY SPACES – G1D4

Any outdoor play space in a Class 9b early childhood centre must be enclosed on all sides with a barrier which—

- (a) where the edge of the trafficable surface of the outdoor play space is at the same level or less than 2 m above the surface beneath — complies with AS 1926.1; and
- (b) where the edge of the trafficable surface of the outdoor play space is 2 m or more above the surface beneath—
 - i. is not less than 1.8 m high, as measured from above the trafficable surface; and
 - ii. is non-climbable and does not contain horizontal or other elements that could facilitate climbing; and
 - iii. does not have any openings or apertures through which a 100 mm or greater sphere could pass; and
 - iv. is not within 1.8 m, as measured directly from the top of the barrier, of any elements within the outdoor play space that facilitate climbing; and
 - v. is not within 900 mm of elements in a wall that facilitate climbing; and has strength and rigidity complying with AS 1926.1.

Details of proposed fencing to the outdoor play space will be required at the Construction Certificate Stage, however compliance is readily achievable.

3.11 CLEANING WINDOWS – NSW G1D5

A building must provide for a safe manner of cleaning any *windows* located three (3) or more storeys above ground level as per NSW Clause G1D5. Two (2) options are available for cleaning the windows:

1. The windows can be cleaned wholly from within the building; or

2. Provisions are made for cleaning windows by a method complying with the *Work Health and Safety Act 2011* and regulations made under the Act.

No information has been provided to determine if the development can comply with this requirement, and further information will be required during the design development stage.

3.12 ENERGY EFFICIENCY - SECTION J

To be separately assessed by Energy Consultant.

4.0 Statement of Compliance

The plans assessed were developed to a standard suitable for submission as a development application and do not contain all the details necessary information to allow a CC to be issued. As such, this assessment was limited to the major items of the BCA with the view of identifying any items that may result in a modified development consent being required, or additional key items that need to be included in the design.

The architectural design documentation as referred to in report has been assessed against the applicable provisions of the Building Code of Australia, (BCA) and it is considered that such documentation complies or is capable of complying with that Code, subject to all matters for further consideration identified in this report being addressed in the design, and subject to compliance with all Annexures and Specifications included with this report.

Annexures

Annexure A - Design Documentation

This report has been based on the following design documentation.

Table 2: Architectural Plans

Architectural Plans Prepared by PA Studio			
Drawing Number	Revision	Date	Title
CH.6	B	02.12.24	Site Plan
CH.7	B	02.12.24	Basement Parking
CH.3	I	21.11.24	Childcare Floor Plan
CH.5	B	02.12.24	Childcare Elevations

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, including any omissions or additions as a result of the fire engineering processes.

This section provides information for the design team, including service designers, and may need to be updated upon receipt of final designs and performance solutions at the construction approval stage.

Table 3: Essential Fire Safety Measures

Item	Essential Fire and Other Safety Measures	Standard of Performance
Fire Resistance (Floors – Walls – Doors – Shafts)		
1.	Lightweight construction + 120MIN Fire Rating of Walls/floors/ceiling located <ul style="list-style-type: none"> ▪ Light Weight Wall System by TBC ▪ Light Shaft Wall System by TBC + Enclosure of Shafts (Service Shafts)	BCA2022 C2D2, Specification 5 BCA2022 C2D9, Specification 6 AS1530.4:2014
General		
2.	Portable fire extinguishers	BCA2022 E1D14 AS 2444–2001
3.	Fire blankets	AS 2444–2001
General Egress		
4.	Automatic fail safe devices + Break Glass release	BCA2022 D3D26 (Operation of Latches) AS 1670.1:2018 (Fire)
5.	Evacuation Training	AS 3745:2010
6.	Operation of Door latches + Failsafe + Manual Push Button Control	D3D26 (Operation of Latch) AS 1670.1:2018
7.	Swing of Exit Doors	D3D24 (Swinging Doors)
8.	Warning & operational signs	BCA2022 D4D7 (Braille Exit Signs) (Note: E4D5 (Exit Signs)) BCA2022 E3D4 (Lift Signs)
Lifts		
9.	+ Lift Landing Doors (Located within Fire Wall)	AS 1735.11:1986 (Fire rated landing doors)

Item	Essential Fire and Other Safety Measures	Standard of Performance
Electrical Services		
10.	Automatic fail safe devices + Break Glass release	BCA2022 D3D26 (Operation of Latches) AS1670.1:2018 (Fire)
11.	Automatic fire detection & alarm: + Clause S20C4 – AS 1670.1:2018 system throughout the building/part connected to a BOWS @ 100dB(A)	BCA2022 Part E2 , NSW Part E2 Specification 20 BCA2022 D3D26 (Operation of Latch) BCA2022 S20C4 (Smoke detection system) BCA2022S20C7 (BOWS) AS 1670.1:2018 (Fire) – Section 4 and 5 (Detectors)
12.	Emergency lighting	BCA2022 E4D2, E4D4 AS/NZS 2293.1:2018
13.	Exit signs	BCA2022 E4D55 (Exit Signs) BCA2022 E4D6 (Direction Signs) BCA2022 E4D8 (Design and Operation - Exits) AS/NZS 2293.1:2018
Hydraulic Services		
14.	Fire hydrant systems + NSW Storz Couplings	BCA2022 E1D2 AS 2419.1:2021 FRNSW Technical Sheet D15/45534.V9 issued 10.01.19, 'Compatible Hose Connections'
15.	Hose reel systems	BCA2022 E1D3 AS 2441:2005
Mechanical Services		
16.	Fire dampers	BCA2022 E2, Specification 20, Specification 21 BCA2022 C4D16 AS 1668.1:2015 (Amdt 1) AS 1682.1:2015 & AS 1682.2:2015
17.	18. Mechanical ventilation to carpark. 19. Auto-shutdown of Air-handling System. + Any system that recycles air from one fire compartment to another, or operates in a manner that may spread smoke and does not operate as a smoke control system as per AS 1668.1:2015;	BCA2022 E2, Specification 20, AS 1668.1:2015 (Amdt 1) Note: 5.5.3 Override control To enable manual control by attending emergency services personnel, fans that are not required to shut down on initiation of fire mode in the car park shall be

Item	Essential Fire and Other Safety Measures	Standard of Performance
	<p>+ miscellaneous exhaust are systems installed as per Section 5 and 6 of AS 1668.1:2015;</p>	<p>provided with a control switch at the designated building entry point. Note: Signage should be located at the car park entry indicating the location of the control switches.</p>
<p>E2D3 General Requirements</p>		
<p>20. An air-handling system which does not form part of a smoke hazard management system in accordance with E2D4 to E2D20 and which recycles air from one fire compartment to another fire compartment or operates in a manner that may unduly contribute to the spread of smoke from one fire compartment to another fire compartment must, subject to (2), be designed and installed—</p> <ul style="list-style-type: none"> a. to operate as a smoke control system in accordance with AS 1668.1; or b. such that it— <ul style="list-style-type: none"> i. incorporates smoke dampers where the air-handling ducts penetrate any elements separating the fire compartments served; and ii. is arranged such that the air-handling system is shut down and the smoke dampers are activated to close automatically by smoke detectors complying with clause 7.5 of AS 1670.1. <p>21. Miscellaneous air-handling systems covered by Sections 5 and 6 of AS 1668.1 serving more than one fire compartment (other than a carpark ventilation system) and not forming part of a smoke hazard management system must comply with these Sections of the Standard.</p>		

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 A Construction

Table 4: Type A Construction

Table S5C11a: Type A construction: FRL of loadbearing parts of external walls

Distance from a fire-source feature	FRL (in minutes): Structural adequacy / Integrity / Insulation			
	Class 2, 3 or 4 Part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5 m	90/90/90	120/120/120	180/180/180	240/240/240
1.5 to less than 3 m	90/60/60	120/90/90	180/180/180	240/240/180
3m, or more	90/60/30	120/60/30	180/120/90	240/180/90

Table S5C11b: Type A construction: FRL of non-loadbearing parts of external walls

Distance from a fire-source feature	FRL (in minutes): Structural adequacy / Integrity / Insulation			
	Class 2, 3 or 4 Part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5 m	-/90/90	-/120/120	-/180/180	-/240/240
1.5 to less than 3 m	-/60/60	-/90/90	-/180/120	-/240/180
3m, or more	-/-/-	-/-/-	-/-/-	-/-/-

Table S5C11c: Type A construction: FRL of external columns not incorporated in an external wall.

Column Type	FRL (in minutes): Structural adequacy / Integrity / Insulation			
	Class 2, 3 or 4 Part	Class 5, 7a or 9	Class 6	Class 7b or 8
Loadbearing	90/-/-	120/-/-	180/-/-	240/-/-
Non-loadbearing	-/-/-	-/-/-	-/-/-	-/-/-

Table S5C11d: Type A construction: FRL of common walls and fire walls

FRL (in minutes): Structural adequacy / Integrity / Insulation				
Wall Type	Class 2, 3 or 4 Part	Class 5, 7a or 9	Class 6	Class 7b or 8
Loadbearing or non-bearing	90/90/90	120/120/120	180/180/180	240/240/240

Table S5C11e: Type A construction: FRL of loadbearing internal walls

FRL (in minutes): Structural adequacy / Integrity / Insulation				
Location	Class 2, 3 or 4 Part	Class 5, 7a or 9	Class 6	Class 7b or 8
Fire-resisting lift and stair shafts	90/90/90	120/120/120	180/120/120	240/120/120
Bounding public corridors, public lobbies and the like	90/90/90	120/-/-	180/-/-	240/-/-
Between or bounding sole-occupancy unit	90/90/90	120/-/-	180/-/-	240/-/-
Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of combustion	90/90/90	120/90/90	180/120/120	240/120/120

Table S5C11f: Type A construction: FRL of non-loadbearing internal walls

FRL (in minutes): Structural adequacy / Integrity / Insulation				
Location	Class 2, 3 or 4 Part	Class 5, 7a or 9	Class 6	Class 7b or 8
Fire-resisting lift and stair shafts	-/90/90	-/120/120	-/120/120	-/120/120
Bounding public corridors, public lobbies and the like	-/60/60	-/-/-	-/-/-	-/-/-
Between or bounding sole-occupancy unit	-/60/60	-/-/-	-/-/-	-/-/-
Ventilating, pipe, garbage, and like shafts not used for	-/90/90	-/90/90	-/120/120	-/120/120

the discharge of hot products of combustion				
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Table S5C11g: Table A construction: FRL of other building elements not covered by Tables S5C11a to S5C11f

Building Element	FRL (in minutes): Structural adequacy / Integrity / Insulation			
	Class 2, 3 or 4 Part	Class 5, 7a or 9	Class 6	Class 7b or 8
Other loadbearing internal walls, internal beams, trusses and columns	90/-/-	120/-/-	180/-/-	240/-/-
Floors	90/90/90	120/120/120	180/180/180	240/240/240
Roofs	90/60/30	120/60/30	180/60/30	240/90/60

N.B. There are FRL concessions for roofs, applicable for fully sprinkler protected buildings under Clause S5C15 of BCA Specification 5.

Annexure D - 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/m²) as determined by AS ISO 9239.1:2003.

Designated bushfire prone area

Designated bushfire prone area means land which has been designated under a power of legislation as being subject, or likely to be subject, to bushfires.

Effective height

Effective height means the vertical distance between the floor of the lowest storey included in a determination of rise in storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift or other equipment, water tanks or similar service units).

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—

22. the exterior of the building; or
23. a non-conditioned space including—
 - a. the floor of a rooftop plant room, lift-machine room or the like; and
 - b. the floor above a carpark or warehouse; and
 - c. the common wall with a carpark, warehouse or the like.

Exit

Exit means –

24. Any, or any combination of the following if they provide egress to a road or open space—
 - a. An internal or external stairway.
 - b. A ramp.
 - c. A fire-isolated passageway.
 - d. A doorway opening to a road or open space.
 - e. A horizontal exit or a fire-isolated passageway leading to a horizontal exit.

Fire compartment

Fire compartment means –

25. the total space of a building; or

26. when referred to in—

- a. the Performance Requirements — any part of a building separated from the remainder by barriers to fire such as walls and/or floors having an appropriate resistance to the spread of fire with any openings adequately protected; or
- b. the Deemed-to-Satisfy Provisions — any part of a building separated from the remainder by walls and/or floors each having an FRL not less than that required for a fire wall for that type of construction and where all openings in the separating construction are protected in accordance with the Deemed-to-Satisfy Provisions of the relevant Part.

Fire-resistance level (FRL)

Fire-resistance level (FRL) means the grading periods in minutes determined in accordance with Specification A2.3, for the following criteria—

27. structural adequacy; and

28. integrity; and

29. insulation,

and expressed in that order.

Note: A dash means that there is no requirement for that criterion. For example, 90/–/– means there is no requirement for an FRL for integrity and insulation, and –/–/– means there is no requirement for an FRL.

Fire-source feature

30. the far boundary of a road, river, lake or the like adjoining the allotment; or

31. a side or rear boundary of the allotment; or

32. an external wall of another building on the allotment which is not a Class 10 building.

Fire wall

Fire wall means a wall with an appropriate resistance to the spread of fire that divides a storey or building into fire compartments.

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.

Horizontal exit

Horizontal exit means a required doorway between 2 parts of a building separated from each other by a fire wall.

Loadbearing

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

Non-combustible

Non-combustible means—

33. applied to a material — not deemed combustible as determined by AS 1530.1:1994 — Combustibility Tests for Materials; and
34. applied to construction or part of a building — constructed wholly of materials that are not deemed combustible.

Occupiable outdoor area

Occupiable outdoor area means a space on a roof, balcony or similar part of a building—

35. that is open to the sky; and
36. to which access is provided, other than access only for maintenance; and
37. that is not open space or directly connected with open space.

Open space

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.

Sole-occupancy unit

Sole-occupancy unit means a room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier and includes—

- 38. a dwelling; or
- 39. a room or suite of rooms in a Class 3 building which includes sleeping facilities; or
- 40. a room or suite of associated rooms in a Class 5, 6, 7, 8 or 9 building; or
- 41. a room or suite of associated rooms in a Class 9c building, which includes sleeping facilities and any area for the exclusive use of a resident.

Annexure E - 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. The FRL's of building elements for the proposed works have been designed in accordance with S5C11 of Specification 5 of BCA2022 for a building of Type A Construction.
2. Lightweight construction used to achieve required fire resistance levels will comply with Specification 6 of BCA2022.
3. Building elements, including external walls and their components in buildings of Type A Construction, must be non-combustible in accordance with C2D10 of BCA2022.
4. 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 C2D11 and Specification 7 of BCA2022.
5. Any ancillary elements fixed, installed, or attached to the internal parts or external face of an external wall that is required to be non-combustible will comply with Clause C2D14 of BCA2022.
6. Floors separating storeys of different classifications will comply with BCA Clause C3D10 of BCA2022.
7. Equipment will be separated in accordance with Clause C3D13 of BCA2022.
8. Any main switch room sustaining emergency equipment required to operate in emergency mode, will be separated from the remaining building with construction having an FRL 120/120/120 and provided with self-closing -/120/130 fire doors in accordance with Clause C3D14 of BCA2022.
9. Services penetrating elements required to possess an FRL including the floor slabs, walls, shafts, etc. will be protected in accordance with Clause C4D13, C4D14 and C4D15 and Specification 13 of BCA2022.
10. Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation will be protected in accordance with BCA Clause C4D16.
11. Doorways and other opening in internal walls required to have an FRL will be protected in accordance with Clause C4D12 of BCA2022.
12. A lintel will have the FRL required for the part of the building in which it is situated, unless it does not contribute to the support of a fire door, fire window or fire shutter, and it spans an opening in masonry which is not more than 150 mm thick and is not more than 3m wide if the masonry is non- loadbearing; or not more than 1.8m wide if the masonry is loadbearing and part of a solid wall or one of the leaves of a cavity wall, or it spans an opening in a non-loadbearing wall of the Class 2 or 3 building, in accordance with Specification 5 Clause S5C4 BCA2022.
13. The number of exits provided to the building will be in accordance with Clause D2D3 of BCA2022.
14. The required exits will be fire-isolated in accordance with Clause D2D4 of BCA2022.
15. Travel distances to exits will be in accordance with Clause D2D5 of BCA2022.
16. The alternative exits will be distributed uniformly around the storey and will be not be less than 9m apart, and not more than 60m apart, in accordance with Clause D2D6 of BCA2022.

17. The dimensions of exits and paths of travel to exits will be provided in accordance with Clause D2D7 to D2D11 of BCA2022.
18. Discharge from exits will be in accordance with Clause D2D15 of BCA2022.
19. The non-fire isolated stairs will be constructed in accordance with Clause D3D4 of BCA2022.
20. The construction of EDB's and telecommunications distribution boards will be in accordance with Clause D3D8 of BCA2022 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.
21. New pedestrian ramps will comply with AS 1428.1:2009, Clause D3D11 and Part D4 of BCA2022. The floor surface of a ramp must have a slip-resistance classification complying with Table D3D15 when tested in accordance with AS 4586:2013.
22. Stair geometry to the new stairways will be in accordance with Clause D3D14 of BCA2022. Stair treads are to have a surface with a slip-resistance classification complying with Table D3D15 when tested in accordance with AS 4586:2013.
23. Landings and door thresholds throughout the development will be provided in accordance with Clause D3D15 and D3D16 of BCA2022. Landings to have either a surface with a slip-resistance classification complying with Table D3D15 when tested in accordance with AS 4586:2013 or a strip at the edge of the landing with a slip-resistance classification complying with Table D3D15 when tested in accordance with AS 4586:2013 where the edge ledge to a flight below.
24. The handrails and balustrades to all stairs and throughout the building will be in accordance with Clause D3D17 to D3D21, and D3D22 of BCA2022.
25. The doorways and doors will be in accordance with Clause D3D24 and D3D25 of BCA2022.
26. Door latching mechanisms will be in accordance with Clause D3D26 of BCA2022.
27. Signage will be provided on fire and smoke doors in accordance with Clause D3D28 of BCA2022.
28. The openable portion of a window in a 9b early childhood centre will be protected with a restricting device or secure screen that does not allow a 125mm sphere to pass through the opening or screen and resist an outward horizontal action of 250N in accordance with Clause D3D29 of BCA2022. In addition to window protection, and for other openable windows 4 meters or more above the ground below, a barrier with a height not less than 865mm above the floor will be installed to the openable window.
29. Fire precautions whilst the building is under construction will be in accordance with Clause E1D16 of BCA2022.
30. External above ground waterproofing membranes will comply with Clause F1D5 of BCA2022 and AS 4654 Parts 1 & 2:2012.
31. The new roof covering will be in accordance with Clause F3D2 of BCA2022.
32. Any sarking proposed will be installed in accordance with Clause F3D3 of BCA2022.
33. Waterproofing of all wet areas to the building will be carried out in accordance with Clause F2D2 and F2D3 of BCA2022 and AS 3740:2010.
34. Damp proofing of the proposed structure will be carried out in accordance with Clause F1D6 and F1D7 of BCA2022.
35. Floor wastes, including falls to floor wastes (including any voluntarily proposed floor wastes), will be installed in accordance with Clause F2D4 of BCA2022.

36. All new glazing to be installed throughout the development will be in accordance with Clause F3D4 of BCA2022 and AS 1288:2006 / AS 2047:2014.
37. Sanitary facilities will be provided in the building in accordance with Clause F4D4 of BCA2022.
38. The early childhood centre will be provided with the required facilities in accordance with Clause F4D4 of BCA2022.
39. The construction of the sanitary facilities will be in accordance with Clause F4D8 of BCA2022.
40. Ceiling heights will be in accordance with Clause F5D2 of BCA2022.
41. Natural light will be provided in accordance with Clause F6D2, F6D3, and F6D4 of BCA2022.
42. Natural or mechanical ventilation will be provided in accordance with Clause F6D6, F6D7 and F6D8 of BCA2022.
43. Water closets and urinals will be located in accordance with Clause F6D9 of BCA2022.
44. The sanitary compartments will be either be provided with mechanical exhaust ventilation or an airlock in accordance with Clause F6D10 of BCA2022.
45. A safe manner for cleaning of windows located 3 or more storeys above ground level will be provided in accordance with the Work Health & Safety Act 2011 and regulations made under that Act in accordance with NSW G1D5 of BCA2022.
46. Building Fabric and Thermal Construction will be in accordance with Part J4 of BCA2022.
47. Glazing will be in accordance with Part J4 of BCA2022.
48. Building sealing will be in accordance with Part J5 of BCA2022.
49. Facilities for Energy Monitoring will be provided in accordance with Clause J9D3 of BCA2022.

Electrical Services Design Certification:

50. A smoke detection and alarm system will be installed throughout the building in accordance with NSW E2D19 and Specification 20 of BCA2022.
51. Emergency lighting will be installed throughout the development in accordance with Clause E4D2, E4D4 of BCA2022 and AS/NZS 2293.1:2018.
52. Exit signage will be installed in accordance with Clause E4D5, E4D7, and E4D8 of BCA2022 and AS/NZS 2293.1:2018.
53. Artificial lighting will be installed throughout the development in accordance Clause F6D5 of BCA2022 and AS/NZS 1680.0:2009.
54. Lighting power and controls will be installed in accordance with Part J7 of BCA2022.
55. Electrical conductors located within the building that supply a main switchboard that sustains emergency equipment will comply with Clause C3D14 of BCA2022.

Hydraulic Services Design Certification:

56. Storm water drainage will be provided in accordance with Clause F1D3 of BCA2022 and AS/NZS 3500.3:2018
57. Fire hydrant system will be installed in accordance with Clause E1D2 of BCA2022 and AS 2419.1:2021.
58. Fire hose reels will be installed in accordance with Clause E1D3 of BCA2022 and AS 2441:2005.

59. A sprinkler system will be installed in accordance with Clause E1D4 & E1D11 of BCA2022 Specification 17 and appropriate part(s) of AS 2118.
60. Portable fire extinguishers will be installed in accordance with Clause E1D14 of BCA2022 and AS 2444:2001.

Mechanical Services Design Certification:

61. Class 9b: An air-handling system which does not form part of a smoke hazard management system will be installed in accordance with Clause NSW E2D16 of BCA2022 and AS 1668.1:2015.
62. Where not naturally ventilated the building will be mechanically ventilated in accordance with Clause F6D6 of BCA2022 and AS 1668.2:2012.
63. Every storey of the carpark will be provided with an adequate system of permanent natural or mechanical ventilation in accordance with Clause F6D11 of BCA2022.
64. The commercial kitchen will be provided with a kitchen exhaust hood in accordance with Clause F6D12 of BCA2022, and AS 1668.1:2015 and AS 1668.2:2012 – to be confirmed at CC stage.
65. The air-conditioning and ventilations systems will be designed and installed in accordance with Part J6 of BCA2022
66. Rigid and flexible ductwork will comply with the fire hazard properties set out in AS 4254 Parts 1 and 2.

Structural Engineers Design Certification:

67. The material and forms of construction for the proposed works will be in accordance with Clause B1D3, B1D4 and B1D6 of BCA2022 as follows:
 - a. Dead and Live Loads – AS/NZS 1170.1:2002
 - b. Wind Loads – AS/NZS 1170.2:2011
 - c. Earthquake actions – AS 1170.4:2007
 - d. Masonry – AS 3700:2018
 - e. Concrete Construction – AS 3600:2018
 - f. Steel Construction AS 4100:1998
 - g. Aluminium Construction – AS/NZS 1664.1 or 2:1997
 - h. Timber Construction – AS 1720.1:2010
 - i. ABCB Standard for Construction of Buildings in Flood Hazard Areas.
68. The FRL's of the structural elements for the proposed works have been designed in accordance with Specification 5 of BCA2022, including S5C11 for a building of Type A Construction.
69. Lightweight construction used to achieve required fire resistance levels will comply with Specification 6 of BCA2022.
70. The construction joints to the structure will be in accordance with Clause C4D16 of BCA2022 to reinstate the FRL of the element concerned.
71. Upon completion of the works, a structural engineer will be able to certify that local failure will be in accordance with Clause D3D3 of BCA2022 for the fire isolated stairs.

Lift Services Design Certification:

72. Warning signage in accordance with Clause E3D4 of BCA2022 will be provided to the lifts to advise not to use the lifts in a fire.
73. Access and egress to the lift well landings will comply with the Deemed-to-Satisfy Provisions of D4 of the BCA2022 and will be suitable to accommodate disabled persons.
74. The type of lifts will also be suitable to accommodate persons with a disability in accordance with Clause E3D7 and E3D8 and will also have accessible features in accordance with E3D7 and E3D8 of BCA2022.
75. The lifts will comply with AS 1735.12:1999 in accordance with Clause E3D7 and E3D8 of BCA2022.
76. All electric passenger lifts and electrohydraulic passenger lifts shall comply with Specification 24 of BCA2022.