

BCA 2019 COMPLIANCE REPORT

122 – 124 Queenscliff Road, QUEENSCLIFF NSW 2096

Issue: B Report Number: BCA220119 Prepared For: K. A. Harvey and Gemini Queenscliff Dated: 17 March 2022

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Table of Contents

Introduction	3
1.1 General	3
1.2 Purpose of the Report	3
1.3 Report Basis	3
1.4 Exclusions & Limitations	4
2. Building Code of Australia Description	5
3. Building Code of Australia Assessment	6
3.1 Structural & Fire Resistance (Section B & C of BCA 2019)	6
3.2 Access & Egress (Section D, BCA 2019)1	10
3.3 Services and Equipment (Section E, BCA 2019)1	5
3.4 Health & Amenity (Part F, BCA 2019)1	9
3.5 Ancillary Provisions (Part G, BCA 2019)2	23
3.6 Energy Efficiency. (Section J, BCA 2019)	24
4. Conclusion	27



1. Introduction

1.1 General

This report is prepared for the Development Application to Northern Beaches Council the construction of a 4 storey residential flat building. The building consists of 4 sole occupancy units over a basement carpark, at 122 – 124 Queenscliff Road, QUEENSCLIFF NSW 2096. The below site plan provides an overview of the proposal.







1.2 Purpose of the Report

This report has been prepared on behalf of K. A. Harvey, to establish compliance with the Building Code of Australia and relevant Acts and Regulations. It is intended that the report will be used as a supporting document for a Development Consent application with Northern Beaches Council.

1.3 Report Basis

This report is based on:

- a) Architectural plans prepared by ESS Lifestyle PTY LTD, revision DA01, dated March 2022;
- b) The Building Code of Australia 2019 Amendment 1, inclusive of NSW variations;
- c) Environmental Planning and Assessment Act 1979;
- d) Environmental Planning and Assessment Regulation 2000.

1.4 Exclusions & Limitations

This report does not consider the following, except where specifically mentioned;

- a) Structural design;
- b) Disability (Access to Premises Building) Standards 2010;
- c) Section J of the BCA Energy Efficiency, of volume One of the BCA does not form part of this report;
- d) The extent of the Building Code of Australia assessment is limited to the proposed residential flat building and associated basement carpark at 122 – 124 Queenscliff Road, QUEENSCLIFF NSW 2096.
- e) The report is limited to assessing the proposal for compliance with the Deemed to Satisfy Provisions of the BCA.



2. Building Code of Australia Description

Building Assessment Data

Part of Project	Construction Determination
Building Code of Australia Volume 2019 – Amendment 1	
Classification	2 & 7a
Rise in Storeys	3
Type of Construction	A
Effective Height (m)	~6.2m



3. BCA 2019 Assessment

3.1 – Structural & Fire Resistance (Section B & C of BCA 2019)

Part B	Structural Provisions	Clause Requirements/Comments	Compliance
B1.0	Deemed-to-satisfy provisions	Part applicable.	Note only.
B1.1	Resistance to actions.	Subject to geotechnical and structural	Yes
		engineering.	
B1.2	Determination of individual	Subject to geotechnical and structural	Yes
	actions.	engineering.	
B1.3	****	Blank clause.	N/A
B1.4	Determination of structural	Subject to geotechnical and structural	Yes
	resistance of materials and	engineering.	
	forms of construction.		
B1.5	Structural software.	Note only.	Note only.
B1.6	Construction of buildings in flood	Property not identified as flood prone.	N/A
Daví 01	hazard areas.	Olavas Daminamanta/Oammanta	0
Part C1	Fire Resistance and Stability	Clause Requirements/Comments	Compliance
C1.0	DtS Provisions.	Applicable performance requirements for building solutions.	Note only
C1.1	Type of construction required.	Type 'A' construction required to comply	Yes
		with Clause 2 and 3 of Specification C1.1.	
	Cladding:	•	
	Clause 2.4 of Spec. C1.1 states:	Primary building elements must be non-	
	The method of attaching or installing	combustible, including external walls, lifts	
	a finish, lining, <i>anciliary element</i> or service installation to a building	and fire resisting internal walls.	
	element must not reduce the fire-	Internal load bearing walls must be of	
	resistance of that element to below	concrete masonry. The roof does not	
	that required.	require an FRI, but must be non-	
		combustible	
		The required FRL's prior to the application	
		of concessions for sprinklers or non-load	
		bearing elements:	
		- Class 2 – 90 minutes;	
		- Class 7a – 120 minutes.	

Permitted Concessions within Clause 3.(b) of Specification E1.5a.

(i) Window openings need not be protected in accordance with C3.11(g) provided the room served by the window is sprinkler protected.

(ii) The FRL for-

(A) service penetrations through non-*loadbearing internal walls* and *shafts*, as *required* by C3.15, may be reduced to

--/60/15; and

(B) non-*loadbearing fire-resisting* lift and stair *shafts*, as *required* by Specification C1.1, may be reduced to -/60/60.

(iii) The maximum distance of travel, as *required* by D1.4(a)(i)(A), may be increased from 6 m to 12 m.

(iv) The maximum distance of travel from a single *exit* serving the *storey* at the level of egress to a road or *open space*, as *required* by D1.4(a)(i)(B), may be increased from 20 m to 30 m.

(v) The maximum distance between alternative *exits*, as *required* by D1.5©(i), may be increased from 45 m to 60 m.



BUILDING

Services

REGULATION

(vi) Internal fire hydrants in accordance with E1.3 are not required where-

(A) the building is served by external fire hydrants that provide compliant coverage installed in accordance with E1.3; or

(B) a dry fire hydrant system that complies with AS 2419.1 is installed in the building except—

- (aa) the system pipework is not connected to the water supply; and
- (bb) an on-site fire pumpset is otherwise not *required*; and

(cc) the minimum fire hydrant outlet flow of 6 L/s may be achieved when boosted by a *fire brigade* pumping appliance; and

(dd) the minimum pipe sizes specified in AS 2419.1 do not apply, and-

(ee) each fire hydrant head is located in accordance with E1.3 and fitted with a blank end cap or plug; and

(ff) a hydrant booster inlet connection is provided in accordance with E1.3; and

(gg) an external street or feed hydrant capable of providing the *required* system flow is located within 60 m of the hydrant booster connection.

C1.2	Calculation of rise in storeys.	The proposed building has a <i>rise in storeys</i> of three (3) as per Clause C1.2 of BCA 2019. The building contains four (4) levels.	Yes
C1.3	Buildings of multiple classifications.	The building contains Class 2 and 7a parts. For this clause only, the building is identified as a three (3) storey Class 2 building which requires Type 'A', construction.	Yes
C1.4	Mixed type of construction.	The building is not subject to mixed types of construction.	N/A
C1.5	Two storey Class 2, 3 or 9c buildings.	Not applicable as the Class 2 has a rise in storeys of three.	N/A
C1.6	Class 4 parts of buildings.	No Class 4 parts.	N/A
C1.7	Open spectator stands and indoor sports stadiums.	Not applicable.	N/A
C1.8	Lightweight fire rated construction.	If proposed to use lightweight fire rated construction in a wall or to cover a steel column or the like, the system must comply with this clause and the manufacturers specifications.	Yes
C1.9	Non-combustible building elements	 All following parts must be non- combustible. external walls; lift pits; fire resisting non lead bearing walls; Shafts. Sarking-type materials that do not exceed 1 mm in thickness and have a Flammability Index not greater than 5 do not have to comply with this clause. Detailed assessment must be undertaken at construction certificate stage.	Yes
C1.10	Fire hazard properties NSW Variations NSW C1.10(a)(v) NSW C1.10(b) NSW C1.10(c)(xiii).	 The fire hazard properties of floor linings, floor coverings, wall linings, ceiling linings and air-handling ductwork, must comply with this clause. As the Class 2 part of the building will be sprinklered, the floor linings are to achieve a critical radiant flux <i>not less than</i> 1.2. Plasterboard wall and ceiling linings comply 	Yes



		with this clause.	
C1.11	Performance of external walls in	Not applicable as the building not proposed	N/A
	fire.	to be constructed with concrete panels.	
C1.12	****	Deleted clause.	N/A
C1.13	Fire-protected timber:	Not proposed to comply with requirements	N/A
C1 14	Ancillary elements	An ancillary element must not be fixed	Ves
01.14	Ancillary elements	installed or attached to the internal parts or	165
		external face of an <i>external wall</i> that is	
		required to be non-combustible unless it is	
		one of the elements detailed in this clause.	
		Detailed assessment must be undertaken	
		at construction certificate stage.	
Part C2	Compartmentation and	Clause Requirements/Comments	Compliance
	Separation	-	
C2.0	DtS Provisions.	Applicable performance requirements for building solutions.	Note only
C2.1	Application of Part.	Applicable Yes or No	Applicable
C2.2	General floor area and volume	The maximum floor areas and volumes do	N/A
	limitations.	not apply to Class 2 parts and sprinkler	
C2 2	Large isolated buildings	protected carparks.	NI/A
C2.3	Pequirements for open space	Not a large isolated building.	N/A N/A
02.4	and vehicular access.	Not a large isolated building.	
C2.5	Class 9a and 9c buildings. NSW Variations NSW C2.5(b).	Not a Class 9a or 9c building.	N/A
	in external walls.	2118.4, or AS 2118.6 is proposed to the Class 2 parts, spandrel separation is not required. Spandrel separation is required if a sprinkler system to FPAA101D is proposed. Alternatively provide 450mm separation.	
C2.7	Separation by fire walls.	No fire walls separating fire compartments.	N/A
C2.8	Separation of classifications in	No different classifications on different	N/A
	the same storey.	storeys.	
C2.9	Separation of classifications in	The ground floor slab that separates the	Detail plans
	the different storey.	Class 7a carpark from the Class 2 parts,	
		120/120/120	
C2 10	Separation of lift shafts	The lift shafts must be fire rated and	Detail plans
02.10		achieve an FRL of:	Dotan plane
		- 120/120/120 on the basements;	
		- 90/90/90 on the ground level +.	
		Doorways to the lift are to have an FRL of	
C2 11	Stainways and lifts in one shoft	/00/	Voc
02.11	Stall ways and lints in one shart.	their own fire separated shafts as required by this clause.	Tes
C2.12	Separation of equipment.	The following equipment must be fire	Yes
		separated from the building: - (i)lift motors and lift control panels; or	
		(ii) emergency generators used to sustain	
		emergency equipment operating in the emergency mode; or	



		 (iii) central smoke control plant; or (iv) boilers; or (v) a battery system installed in the building that has a total voltage of 12 volts or more and a storage capacity of 200 kWh or more. (vi) on-site fire pumps must comply with the requirements of AS 2419.1 The fire pump room on the basement level is capable of being fire separated as per the above with construction that achieves an FRL of 120/120/120, and doors/120/30. 	
C2.13	Electricity supply system.	The main electrical distribution board room on the basement level, serving the fire pumps, must be fire separated with fire rated construction achieving an FRL of 120/120/120, with doorways achieving an FRL of/120/30. And the emergency switchgear must be separated from non- emergency switchgear as per Clause C2.13(d).	Yes
C2.14	Public corridors in Class 2 and	No public corridor greater than 40m in	N/A
	Class 3 buildings.	length.	
Part C3	Protection of Openings	Clause Requirements/Comments	Compliance
C3.0	DtS Provisions.	Applicable performance requirements for building solutions.	Note only
C3.1	Application of part.	Applicable Yes or No.	Applicable
<u>C3.2</u>	Protection of openings in external walls.	Doors and windows (and other openings to external walls) located within 3m of boundary will be required to be protected in accordance with C3.4 or provide performance solution to the DTS requirements.	Performance solution required
C3.3	Separation of external walls and associated openings in different fire compartments.	No separate fire compartments on the same level.	N/A
C3.4	Acceptable methods of protection.	If the external walls are load bearing and within 3m from a side or rear boundary of the allotment, then the openings in the external walls need to be protected in accordance with C3.4. This requires self- closing fire doors/60/30 and fire windows /60/ automatically closing or permanently fixed closed. Alternatively, a performance solution is required.	Performance solution required
C3.5	Doorways in fire walls.	No fire walls separating fire compartments.	N/A
C3.6	Sliding fire doors.	No sliding fire doors.	N/A
C3.7	Protection of doorways in horizontal exits	No norizontal exits.	N/A
C3.8	Openings in fire isolated exits	No fire isolated exits required.	N/A
C3.9	Service penetrations in fire isolated exits.	No fire isolated exits.	N/A
C3.10	Openings in fire isolated lift shafts.	The doorways to the lift <i>shaft</i> must be protected by –/60/– fire doors that— (i)comply with AS 1735.11; and	Yes



		(ii) are set to remain closed except when discharging or receiving passengers, goods	
		or vehicles.	
C3.11	Bounding construction: Class 2,	The doorways to the residential units must	Yes
	3, 4 & 9b buildings	be self-closing fire door sets that have an	
	NSW Variation NSW C3.11(d).	FRL of/60/30.	
C3.12	Openings in floors and ceilings	Excluding the basement floor separating	Yes
	for services.	carpark level, openings in the floors must	
		be fire stopped as per this clause.	
C3.13	Openings in shafts.	In a building of Type A construction, an	Yes
		opening in a wall providing access to a	
		ventilating, pipe, garbage or other service	
		shaft must be protected by—	
		(a) if it is in a sanitary compartment — a	
		door or panel which, together with its frame,	
		is non-combustible or has an FRL of not	
		less than –/30/30; or	
		(b) a self-closing -/60/30 fire door or	
		hopper; or	
		© an access panel having an FRL of not	
		less than $-/60/30$ or	
		(d) if the shaft is a garbage shaft — a door	
		or hopper of <i>non-combustible</i> construction	
C3 14	****	Blank clause	N/A
C3.15	Openings for service	Where an electrical, electronic, plumbing,	Yes
	installations	mechanical ventilation, air-conditioning or	
		other service penetrates a building element	
		(other than an <i>external wall</i> or roof) that is	
		required to have an FRL with respect to	
		integrity or insulation or a resistance to the	
		incipient spread of fire, that installation must	
		be fire stopped as per this clause.	
C3.16	Construction joints.	Construction joints to be fire stopped as per	Yes
		this clause.	
C3.17	Columns protected with	A column protected by lightweight	Yes
	lightweight construction to	construction to achieve an FRL which	
	achieve an FRL.	passes through a building element that is	
		required to have an FRL or a resistance to	
		the incipient spread of fire, must be	
		installed using a method and materials	
		identical with a prototype assembly of the	
		construction which has achieved the	
		required FRL or resistance to the incipient	
		spread of fire.	

3.2 – Access & Egress (Section D, BCA 2019)

Part D1	Provisions for Escape	Clause Requirements/Comments	Compliance
D1.0	DtS Provisions	Applicable performance requirements for	Note only.
		building solutions.	
D1.1	Application of Part	Part applicable	Note only.
D1.2	Number of exits required NSW Variation NSW D1.2(d)(vii).	The basement level is serviced by a single exit, D1.2(c) requires a basement to be serviced by not less than 2 exits where travel distance exceeds 20m.	Performance solution required



D1.3	When fire-isolated stairways and ramps are required.	Not required as the building has not more than 3 consecutive storeys. Direction of travel up (from ground level and car parking) and down (from level 2) to point of egress to street frontage (level 1) does not affect this clause.	N/A
D1.4	Exit travel distances	Basement:Only 1 exit has been provided and travel distance exceeds 20m. This will require performance solution.Residential levelsAll sole occupancy units are to be located not more than 20m from a single exit serving the storey at the level of egress to a road or open space.	Performance solution required
D1.5	Distance between alternative exits	The building is serviced by a single exit.	NA
D1.6	Dimensions of exits and paths of travel NSW Variations NSW D1.6(f)(vii) NSW D1.6(i)	The dimensions of exits and paths of travel to exits generally complies with this clause and is subject to detailed design at construction certificate stage. The aggregate egress width complies with this clause based on normal residential occupancy levels.	Yes
D1.7	Travel via fire-isolated exits.	Exits discharge to open space.	Yes
D1.8	External stairways or ramps in lieu of fire-isolated exits	No external stair in lieu of a fire isolated stair.	N/A
D1.9	Travel by non-fire-isolated stairways or ramps.	Travel distance does not exceed 60m.	Yes
D1.10	Discharge from exits NSW Variation NSW D1.10(f).	Check the <i>required exit</i> width, otherwise provide 1m width.	Yes
D1 11	Horizontal exits	No horizontal exits are provided / required	N/A
D1.12	Non-required stairways, ramps or escalators.	No non-required stairways, ramps or escalators.	Yes
D1.13	Number of persons accommodated. NSW Variation NSW Table D1.13.	The aggregate egress width complies with this clause based on normal residential occupancy levels.	Yes
D1.14	Measurement of distances	Note only.	Note only.
D1.15	Method of measurement	Note only.	Note only.
D1.16	Plant rooms and lift machine rooms: Concession.	No plant concession required.	N/A
D1.17	Access to lift pits	The lift pits will be less than 3m in depth and therefore access to the lift pit will be via the lowest landing doors.	Yes
Part D2	Construction of Exits	Clause Requirements/Comments	Compliance
D2.0	DtS Provisions.	Applicable performance requirements for building solutions.	Note only.
D2.1	Application of part NSW Variation NSW D1.(c).	Part applies.	Note only.



D2.2	Fire-isolated stairways and ramps.	It is assumed that the fire isolated stairs will be constructed from masonry and concrete, which complies with this clause.	Yes
D2.3	Non-fire-isolated stairways and ramps.	As the building has a rise of storey of more than 2, the required stairs and ramps must be constructed in accordance with D2.2 or methods prescribed in this clause, such as reinforced or prestressed concrete.	Yes
D2.4	Separation of rising and descending stair flights.	Not required to be fire isolated.	N/A
D2.5	Open access ramps and balconies.	No open access ramps or balconies used to comply with the requirements of Table E2.2a.	N/A
D2.6	Smoke lobbies.	No smoke lobbies utilised.	N/A
D2.7	Installations in exits and paths of travel.	Electrical distribution boards that are located within a path of travel to an exit must be contained within non-combustible construction (metal cabinet) and smoke sealed.	Yes
D2.8	Enclosure of space under stairs and ramps.	No cupboards beneath the fire isolated stairs.	Yes
D2.9	Width of stairways.	Stairways greater than 2m in width only count for 2m of exit width.	Note only.
D2.10	Pedestrian ramps.	The central ramp serving the ground floor must comply with AS 1428.1-2009 and have the required slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586.	Yes
D2.11	Fire-isolated passageways.	No fire isolated passageways proposed.	N/A
D2.12	Roof as open space.	No roof or podium slab used as open space.	N/A
D2.13	Goings and risers. NSW Variation NSW 2.13(a)(ix), (x), xi	The goings and the risers are capable of complying with this clause and are subject to detailed design at construction certificate stage.	Yes
D2.14	Landings.	The proposed landings are capable of complying with this clause and are subject to detailed design at construction certificate stage.	Yes
D2.15	Thresholds. NSW Variation NSW D2.15(d)©.	The proposed thresholds are capable of complying with this clause and are subject to detailed design at construction certificate stage.	Yes
D2.16	Balustrades or other barriers. NSW Variation D2.16(g)(iv) & (v).	The proposed balustrades capable of complying with this clause and are subject to detailed design at construction certificate stage.	Yes
D2.17	Handrails.	One hand rail is required to all stairs as per this clause. Stairs that form part of the accessible path of travel must have two hand rails to AS 1428.1-2009.	Yes
D2.18	Fixed platforms, walkways' stairways and ladders.	No fixed platforms, walkways and ladders proposed or required.	N/A
D2.19	Doorways and doors. NSW Variation NSW D2.19(b)(v).	At present, no revolving, sliding or tilt up doors proposed in an exit or in the path of travel to an exit.	Yes
D2.20	Swinging doors.	The exit doors swing in the direction of egress as required.	Yes



U2.21	Operation of latch. NSW Variation NSWD2.21©& (d).	Excluding the internal doors of the residential units, door hardware must be a single hand downward action on a single device which is located between 900 mm and 1.1 m from the floor and if serving an area required to be accessible by Part D3— (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 (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 35 mm and not more than 45 mm	Yes
D2.22	Re-entry from fire-isolated exits.	Building not more than 25m in effective	N/A
D2.23	Signs on doors.	The doors to and from the fire isolated stairs must have signage that states: "FIRE SAFETY DOOR DO NOT OBSTRUCT DO NOT KEEP OPEN"	Yes
D2.24	Protection of openable windows. Class 2, 3, 4 or 9b building. <u>http://www.legislation.nsw.gov.a</u> <u>u/#/view/act/2015/50/part6/div3/s</u> <u>ec118</u>	BCA 2019 applies to bedroom windows only, 2m above the ground with a sill less than 1.7m in height. They MUST be fixed into that position or have the screen that can withstand 250 Newtons (25kg). Section 118 of the Strata Schemes Management Act 2015 requires	Yes
		apartment, 2m above the ground with a sill less than 1.7m in height. They MUST have	
		or have the screen that can withstand 250 Newtons (25kg).	
D2.25	Timber stairways: Concession	or have the screen that can withstand 250 Newtons (25kg). No applicable as no timber stairs proposed within the fire isolated stairway.	N/A
D2.25 NSW D2.101	Timber stairways: Concession Doors in path of travel in an entertainment venue.	 or have the screen that can withstand 250 Newtons (25kg). No applicable as no timber stairs proposed within the fire isolated stairway. Not an 'entertainment venue', as defined by the EP & A Regs. 2000. 	N/A N/A
D2.25 NSW D2.101 Part D3	Timber stairways: Concession Doors in path of travel in an entertainment venue. Access for People with Disabilities	 Ine child lock, but do not have to be lixed, or have the screen that can withstand 250 Newtons (25kg). No applicable as no timber stairs proposed within the fire isolated stairway. Not an 'entertainment venue', as defined by the EP & A Regs. 2000. Clause Requirements/Comments 	N/A N/A Compliance
D2.25 NSW D2.101 Part D3 D3.0	Timber stairways: Concession Doors in path of travel in an entertainment venue. Access for People with Disabilities DtS Provisions.	 Ine child lock, but do not have to be lixed, or have the screen that can withstand 250 Newtons (25kg). No applicable as no timber stairs proposed within the fire isolated stairway. Not an 'entertainment venue', as defined by the EP & A Regs. 2000. Clause Requirements/Comments Applicable performance requirements for building solutions. 	N/A N/A Compliance Note only.



		located on the levels served by the lift or ramp.	
		<u>Class 7a:</u>	
		I o and within any level containing accessible	
D3 2	Access to buildings	An accessway must be provided from the	Ves
00.2	Access to buildings.	principal pedestrian entry to and through	105
		the building, excluding the internal parts of	
		the units	
		The principle podestrian entry is accessible	
		as required	
D3 3	Parts of buildings to be	In this instance, disabled access must be	Voc
00.0	accessible	provided from the principal pedestrian entry	163
	accessible.	at the property boundary to the:	
		at the property boundary to the.	
		- accessible car parking place on the	
		- Calwash Day,	
		- bulky waste room on the basement	
		levels;	
		- entry doors of the residential units	
		on all levels.	
		The building encours to generally econoly	
		with this cloure and the detailed design is	
		to be provided at construction cortificate	
		to be provided at construction certificate	
D3 4	Exemptions	Disabled access need not be provided to	Voc
03.4	Exemptions.	service areas / metres rooms etc	165
		- Gas metre room:	
		- Water metre room:	
		- Electricity metre room:	
		- Electricity metre room,	
D2 5	Accessible car parking	- File service / pump room.	Vee
D3.5	Accessible car parking.	required and provided. The spaces must	165
		comply with AS/NZS 2800.6	
		Vertical clearance of not less than 2500mm	
		must be provided above each dedicated	
		space and adjacent shared area, when	
		measured in accordance with AS 2890 1	
		1993 Clause 5.3 (AS 2890.6: 2009 Clause	
		2.4) (Figure 4).	
D3.6	Signage.	Braille and tactile signage complying with	Yes
		Specification D3.6 must: -	
		(ii) identify each door required by E4.5 to be provided	
		with an exit sign and state—	
		(A) "Exit"; and (B) "Level" : and either	
		(aa) the floor level number; or	
		(bb) a floor level descriptor; or	
D2 7	Hooring ourmentation	(cc) a combination of (aa) and (bb).	NI/A
D3./	Teaning augmentation.	Teating augmentation not required.	IN/A
03.0		radines will be required to the non-life	res
D3 0	Wheelchair seating in Class 0h	No fixed seating proposed as part of the	ΝΙ/Δ
00.0	assembly buildings	development	11/7
D3 10	Swimming Pools	No pools proposed	N/A
D3 11	Ramps	On an accesswav—	Yes
00.11		(a)a series of connected ramps must not	163
		have a combined vertical rise of more than	
		3.6 m: and	
		,	



		(b)a landing for a step ramp must not overlap a landing for another step ramp or ramp.	
D3.12	Glazing on an accessway.	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1- 2009.	Yes

3.3 – Services and Equipment (Section E, BCA 2019)

Part E1	Fire Fighting Equipment	Clause Requirements/Comments	Compliance
E1.0	DtS Provisions	Applicable performance requirements for	Note only
		building solutions	
E1.1	****	Blank clause.	N/A
E1.2	****	Blank clause.	N/A
E1.3	Fire hydrants.	Fire hydrant coverage is required as the building is greater than 500m ² .	Yes
		<u>Class 7a part:</u> The hydrant must comply with E1.5 and AS 2419.1-2005.	
		<u>Class 2 part:</u> Served by a single fire hydrant located at the level of egress from that <i>sole-occupancy</i> <i>unit</i> provided that the fire hydrant can provide coverage to the whole of the <i>sole-</i> <i>occupancy unit.</i>	
E1.4	Fire hose reels.	Fire hose reels are not required for the Class 2 parts.	Yes
		Fire hose reels are required for the carpark and must be located within 4m of the exits, (but not necessarily all exits), to provide coverage via a 36m hose and 4m spray.	
E1.5	Sprinklers NSW Variation NSW Table E1.5	Not applicable. Class 2 portion of building does not have rise of storey of four or more or effective height of 25m or more. Class 7a portion does not have 40 vehicles or more.	N/A
E1.6	Portable fire extinguisher.	Portable fire extinguishers must be installed throughout the Class 2 parts, where internal hydrants are installed, which would result in ABE a minimum size 2.5kg, on each storey, 10m from each SOU. Portable fire extinguishers must be installed to cover Class AE or E fire risks associated with emergency services switchboards.	Yes
E1.7	****	Blank clause.	N/A



E1.8	Fire control centres.	Not required or proposed as the size of the Class 7a part combined is less than 18,000m ² (approximately 15,000m ²).	N/A
E1.9	Fire precautions during construction.	Not less than one 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 exit or temporary stairway or exit.	Yes
E1.10	Provision for special hazards.	Not required or proposed.	N/A
F2 0	DtS Provisions	Clause Requirements/Comments	Note only
E2.0		building solutions	Applieghte
E2.1	Application of Part.	Part applies.	Applicable
E2.2	General requirements.	The building will require an automatic smoke detection and alarm system (BOWS). The building is permitted to utilise a system complying with Clause E2.2a, Clause 3 of Spec. E2.2a and AS 3786-2014. This will require: - Mains powered with battery back-up smoke alarms to AS 3786-2014, installed to the ceiling of the hallways serving the bedrooms of the residential units: and	Yes
		 Mains powered with battery back-up smoke alarms to AS 3786-2014, to the common hallways / lobbies on the: ground floor; first floor; second floor; third floor, that are also interconnected to each other and the speakers in the basements. If one smoke alarms, all common area smoke alarms and speakers in the carparks activate; 85 dB must be achieved at the doorway to the residential units; A minimum 65 dB to 105db must be achieved in other common areas and the carpark. 	
		 The carpark ventilation system requires compliance with Clause E2.2a, Clause 5.5 of AS 1668.1-2015 & AS 1668.2-2012. This requires: smoke detectors to the mechanical supply air parts; auto shutdown of the supply air on detection of smoke by the supply air smoke detectors; auto full ventilation rate where smoke detection or sprinklers installed activated by thermals in accordance with AS 1670.1-2015; 	



		 Override control switch at the designated building entry point or the at the FDCIE (aka FIP);' Detectors are not required to circulations spaces. 	
E2.3	Provision of special hazards. NSW variations NSW Table E2.2a NSW Table E2.2b	The building is not considered to be subject to the provision of special hazards.	N/A
Part E3	Lift Installations	Clause Requirements/Comments	Compliance
E3.0	DtS Provisions	Applicable performance requirements for building solutions.	Note only
E3.1	Lift installations.	The electric passenger lift must comply with Specification E3.1.	Yes
E3.2	Stretcher facility in lifts.	A stretcher facility is not required as the effective height of the building is not more than 12.00m.	Yes
E3.3	Warnings against the use of lifts in fire.	Signage will be provided to comply with this clause.	Yes
E3.4	Emergency lifts.	An emergency lift is not required or proposed.	N/A
E3.5	Landings.	Landings to the lift will comply with this clause.	Yes
E3.6	Passenger lifts.	 The passenger lift will comply with this clause. The required disabled access provisions. a) Hand rail to AS 1735.12; b) Lift floor of 1400 (w) x 1600 (d); c) Lifts doors that have passenger protection to AS 1735.12; d) Lift landing doors at the upper landing; e) Lift car control buttons to AS 1735.12; f) Lighting to AS 1735.12; g) Automatic audible information, visual indicators to identify the level and when the lift stops. h) Emergency button to call centre 	Yes
E3.7	Fire service controls.	 Where lifts serve any storey above an effective height of 12 m, the following must be provided: (a) A fire service recall control switch complying with E3.9 for— (i) a group of lifts; or (ii) a single lift not in a group that serves the storey. (b) A lift car fire service drive control switch complying with E3.10 for every lift. 	Yes
E3.8	Aged care buildings.	The building is not a Class 9c building.	N/A
E3.9	Fire service recall operation switch.	Each group of lifts must be provided with one fire service recall control switch as per this clause.	Yes
E3.10	Lift car service drive control switch.	The lift car fire service drive control switch <i>required</i> by E3.7 must be activated from within the lift car in accordance with this clause.	Yes



Part E4	Emergency Lighting, Exit Signs and Warning Systems	Clause Requirements/Comments	Compliance
E4.0	DtS Provisions	Applicable performance requirements for building solutions.	Note only.
E4.1	****	Blank clause.	N/A
E4.2	Emergency lighting requirements.	Emergency lighting is required to be installed to all common areas and all stairs that are part of the path of travel to the road in accordance with this clause.	Yes
E4.3	Measurement of distance.	Noted.	Note only.
E4.4	Design and operation of emergency lighting.	Emergency lighting must be installed in accordance with AS 2293.1-2018.	Yes
E4.5	Exit signs.	Exit signs to be installed on all levels above or adjacent to the exit.	Yes
E4.6	Direction signs. NSW Variation NSW E4.6	If the exit is not readily apparent, additional directional exit signs must be installed to guide occupants to the exit.	Yes
E4.7	Class 2 & 3 buildings and Class 4 parts: Exemption.	The Class 2 parts are entitled to use the with the word "EXIT" in capital letters 25 mm high in a colour contrasting with that of the background, on the side remote from the <i>exit</i> or balcony of every exit door.	Yes
E4.8	Design and operation of exit signs.	Every required exit sign must comply with— AS 2293.1; or for a photoluminescent exit sign, Specification E4.8; and be clearly visible at all times when the building is occupied by any person having the right of legal entry to the building.	Yes
E4.9	Sound systems and intercom systems for emergencies	Not a class 3, 9a, or 9b building or over 25m in Effective Height building.	N/A

3.4 – Health & Amenity (Part F, BCA 2019)

Part F1	Damp and Waterproofing	Clause Requirements/Comments	Compliance
F1.0	DtS Provisions	Applicable performance requirements for	Note only
		building solutions.	-
F1.1	Stormwater drainage.	The stormwater must comply with AS/NZS	Yes
		3500.3-2015.	
F1.2	****	Blank clause	N/A
F1.3	****	Blank clause	N/A
F1.4	External above ground	Where external membranes are proposed,	Yes
	membranes.	they must comply with AS 4654.1 & 2.	
F1.5	Roof coverings.	The roof coverings must comply with this	Yes
		clause. If metal deck roofing is proposed it	
		must comply with AS 1562.1.	
F1.6	Sarking	New sarking will comply with this clause and	Yes
		AS/NZS 4200.1 & 2.	
		Sarking-type materials that do not exceed 1	
		mm in thickness and have a Flammability	
		Index not greater than 5 can be used	
		wherever a non-combustible material is	
		required.	
F1.7	Waterproofing of wet areas in	Waterproofing of all internal wet areas must	Yes
	buildings.	be in accordance with this clause and AS	
		3740-2010.	
F1.8	****	Blank clause.	N/A



F1.9	Damp-proofing	Moisture from the ground must be prevented from reaching— (i)the lowest floor timbers and the walls above the lowest floor joists; and (ii)the walls above the damp-proof course; and (iii)the underside of a suspended floor constructed of a material other than timber,	Yes
F1.10	Damp-proofing of floors on the ground.	and the supporting beams or girders. 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.	Yes
F1.11	Provision of floor wastes.	Floor wastes must be provided to the Class 2 parts within the bathrooms and laundries.	Yes
F1.12	Sub-floor ventilation.	No sub floor ventilation.	N/A
F1.13	Glazed assemblies.	New glazed members must comply with AS 1288-2006 and AS 2047-2014.	Yes
Part F2	Sanitary and Other Facilities	Clause Requirements/Comments	Compliance
F2.0	DtS Provisions	Applicable performance requirements for building solutions.	Note only
F2.1	Facilities in residential buildings.	Each residential SOU will be provided with a kitchen, bathroom, toilet, and shower. Laundry facilities are proposed via a washing machine. Clothes drying will be via dryer or 7.5m of clothes lines on balconies	Yes
F2.2	Calculation of number of occupants and facilities.	The aggregate egress width complies with this clause based on normal residential occupancy levels.	Noted
F2.3	Facilities in Class 3-9 buildings.	The class 7a part does not require facilities as per this clause.	N/A
F2.4	Accessible sanitary facilities.	Accessible bathroom facilities not required by this clause.	N/A
F2.5	Construction of sanitary compartments.	The door to a fully enclosed <i>sanitary</i> <i>compartment</i> must— (i)open outwards; or (ii) slide; or (iii) be readily removable from the outside of the <i>sanitary compartment</i> , 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 <i>sanitary compartment</i> and the doorway. Minor design changes may be required at construction certificate stage ensure compliance.	Yes
F2.6	Interpretation: Urinals and washbasins.	Noted only.	Yes
F2.7	Microbial. NSW Variation NSW F2.7	Not applicable in NSW.	N/A
F2.8	Waste management.	Not Class 9a.	N/A
F2.9	Accessible adult change facilities	Not a large Class 6 building or a 9b, or public building.	N/A



Part F3	Room Heights	Clause Requirements/Comments	Compliance
F3.0	DtS Provisions	Applicable performance requirements for building solutions.	Applies
F3.1	Height of rooms and other spaces.	Habitable rooms are required to be 2.4 meters in height, and 2.1m in non-habitable rooms. It is noted that that normal internal heights are generally 2.4 metres or more.	Yes
Part F4	Light and Ventilation	Clause Requirements/Comments	Compliance
F4.0	DtS Provisions	Applicable performance requirements for building solutions.	Applicable
F4.1	Provision of natural light.	Natural lighting must be provided to all habitable rooms within Class 2 parts.	Yes
F4.2	Methods and extent of natural lighting.	Compliant direct or borrowed natural lighting is provided to all habitable rooms within the Class 2 parts.	Yes
	We raye Daylight Factor $-\frac{1}{A} (1 - R^2)$ W = the net area of the light transmitting area of the window (m ²); and A = the total area of the internal wall, floor and ceiling surfaces (m ²); and T = the diffuse light transmittance of the window; and θ = visible sky angle in degrees, measured in a vertical plane normal to and from the centre of the window, and R = the area-weighted average reflectance of area A.	Additional calculations should be made at construction certificate stage to ensure compliance. Compliance can also be achieved via verification method FV4.3.	
F4.3	Natural light borrowed from adjoining room.	Sufficient lighting is provided.	Yes
F4.4	Artificial lighting.	In non-habitable rooms, artificial lighting will comply with this clause, the BASIX certificate and Part J6 and AS 1680.0-2009.	Yes
F4.5	Ventilation of rooms. NSW Variation F4.5(b).	Excluding the car park, unit bathrooms & laundries and common area hallways, the building is provided with natural ventilation. Parts that are mechanical ventilated must comply with the BASIX certificate, Part J5 and AS 1668.2-2012.	Yes
F4.6	Natural ventilation.	The Class 2 parts of the building that are naturally ventilated, comply with the natural ventilation requirements of this this clause.	Yes
F4.7	Ventilation borrowed from adjoining room.	Sufficient ventilation is provided throughout the Sole occupancy units.	Yes
F4.8	Restriction of position of water closets and urinals.	The bathrooms and laundries within the residential units must be mechanically ventilated as the vast majority have no window or door to the external wall.	Yes
F4.9	Airlocks.	The bathrooms and laundries within the residential units must be mechanically ventilated as the vast majority have no window or door to the external wall.	Yes
F4.10	*****	Blank clause.	N/A
F4.11	Carparks	The basement carpark part must be mechanically ventilated as per AS 1668.2-2012.	Design consideration
		Further details required at construction certificate stage to confirm exhaust locations, which will open to the court yard of ground floor level slab, to ensure the 3m	



		separation from the path of travel of	
		persons using an exit discharging to this	
		area that connects to a road or open space.	
		[Refer D2.12; N/A].	
F4.12	Kitchen and local exhaust ventilation.	No commercial kitchens detailed at this stage.	N/A
Part F5	Sound Transmission and Insulation	Clause Requirements/Comments	Compliance
F5.0	DtS Provisions	Applicable performance requirements for building solutions.	Noted.
F5.1	Application of Part.	Applies to Class 2 parts.	Applies
F5.2	Determination of airborne sound insulation ratings.	Airborne sound insulation requirement.	Noted
F5.3	Determination of impact sound	Airborne sound insulation ratings must be	Note only
	insulation ratings.	determined in accordance with Clause F5.2(a) or comply with Specification F5.2.	
F5.4	Sound insulation of floors.	The residential floors must have an Rw + Ctr	Yes
		(airborne) not less than 50 and an L _{n,w} (impact) not more than 62.	
F5.5	Sound insulation of walls.	The walls separating Units must have an R_w	Yes
		+ Ctr (airborne) not less than 50.	
	For the purposes of this Part,	Discontinuous construction will be required,	
	discontinuous construction means a wall having a minimum 20 mm cavity	where a wall separate:	
	between 2 separate leaves, and	- a bathroom, sanitary compartment,	
	(i)for masonry, where wall ties are	laundry or kitchen in one sole-	
	of the resilient type: and	occupancy unit from a habitable	
	(ii)for other than masonry, there is no	room (other than a kitchen) in an	
	mechanical linkage between leaves		
		- a sole-occupancy unit from a plant	
		room or lift shaft.	
F5 6	Sound insulation of internal	Pinework including stormwater pines must	Ves
1 3.0	services	have an Rw + Ctr (airborne) not less than—	163
		(i) 40 if the adjacent room is a <i>habitable</i>	
		room (other than a kitchen); or (ii) 25 if the	
		adjacent room is a kitchen or non-habitable	
		room.	
F5.7	Sound insulation of pumps.	A flexible coupling must be used at the point	Yes
		of connection between the service pipes in	
		a building and any circulating or other	
Part F6	Condensation Management		
F6.0	DtS Provisions	Applicable performance requirements for	Note only
50.4		building solutions.	
F6.1	Application of Part	unit of a Class 2 or 4 part.	Clause Applies
F6.2	Pliable building membrane.	vvnere a pilable building membrane is used	Yes
		- comply with AS/NIZS 4200.1 and	
		- be installed with AS/NZS 4200.1, and	
		- be a vapour permeable membrane for	
		Climate zones 6 7 and 8.	
		- be located on the exterior side of the	
		primary insulation layer;	
		Except for single akin mesoner and single	
		LACEPTION SINGLE SKIN MASONLY AND SINGLE	



		skin concrete, where a pliable building membrane is not installed in an external wall, the primary water control layer must be separated from water sensitive materials by a drained cavity.	
F6.3	Flow rate and discharge of exhaust systems	 a) An exhaust system installed in a kitchen, bathroom, sanitary compartment or laundry must have a minimum flow rate of— (i) 25 L/s for a bathroom or sanitary compartment, and (ii) 40 L/s for a kitchen or laundry. (b) Exhaust from a kitchen must be discharged directly or via a shaft or duct to outdoor air. © Exhaust from a bathroom, sanitary compartment, or laundry must be discharged— (i) directly or via a shaft or duct to outdoor air, or (ii) to a roof space that is ventilated in accordance with F6. 	Yes
F6.4		 Where an exhaust system covered by F6.3 discharges directly or via a shaft or duct into a roof space, the roof space must be ventilated to outdoor air through evenly distributed openings. (b) Openings required by (a) must have a total unobstructed area of 1/300 of the respective ceiling area if the roof pitch is greater than 22°, or 1/150 of the respective ceiling area if the roof pitch is less than or equal to 22°. © 30% of the total unobstructed area required by (b) must be located not more than 900 mm below the ridge or highest point of the roof space, measured vertically, with the remaining required area provided by eave vents. 	Yes

3.5 – Ancillary Provisions (Part G, BCA 2019)

Part G1	Damp and Waterproofing	Clause Requirements/Comments	Compliance
G1.0	DtS Provisions	Applicable performance requirements for	Note only
		building solutions.	_
G1.1	Swimming Pools NSW G1.1(a)and (b)	No swimming pool proposed.	N/A
G1.2	Refrigerated chambers, strong	No refrigerated or cooling chamber,	N/A
	rooms and vaults.	strongroom or vault proposed.	
G1.3	Outdoor play spaces	Not a Class 9b building.	N/A
NSW	Provision of cleaning windows	(a) A building must provide for a safe	Yes
G1.101		manner of cleaning any windows located 3	
		or more storeys above ground level.	
		(b) A building satisfies (a) where—	



		(i) the windows can be cleaned wholly from	
		within the building; or	
		(ii) provision is made for the cleaning of the	
		windows by a method complying with the	
		Work Health and Safety Act 2011 and	
		regulations made under that Act.	
Part G2	Bollers, pressure vessels,	Clause Requirements/Comments	Compliance
	heating appliances, fireplaces, chimneys and flues		
G2.0	DtS Provisions	Applicable performance requirements for	Note only
		building solutions.	
G2.1	***	Deleted clause.	N/A
G2.2	Installation of appliances	G2.2 Installation of appliances	Yes
		The installation of a stove, heater or similar	
		appliance in a building must comply with:	
		(a) * * * * *	
		(b) Domestic solid-fuel burning appliances	
		 Installation: AS/NZS 2918. 	
		© For boilers and pressure vessels:	
		Specification G2.2.	
		At present none of the choice equipment	
		proposed.	
G2.3	Open fireplaces	No open fire place proposed.	N/A
G2.4	Incinerator rooms	No incinerator rooms proposed.	N/A
Part G3	Atrium construction	Clause Requirements/Comments	Compliance
G3.1	DtS Provisions	Applicable performance requirements for building solutions.	Note only
G3.2	Dimension of atrium well	No atrium proposed.	N/A
G3.3	Separation of atrium by bounding walls.	No atrium proposed.	N/A
G3.4	Construction of bounding walls	No atrium proposed.	N/A
G3.5	Construction of balconies	No atrium proposed.	N/A
G3.6	Separation of roof	No atrium proposed.	N/A
G3.7	Means of egress	No atrium proposed.	N/A
G3.8	Fire and smoke control systems	No atrium proposed.	N/A
Part G4	Construction in Alpine Areas	Clause Requirements/Comments	Compliance
G4.0	DtS Provisions	Not an alpine area	N/A
Part G5	Construction in Bush Fire Prone Area.	Clause Requirements/Comments	Compliance
G5.0	DtS Provisions	Not a Bush Fire Prone Area	N/A
Part G6	Occupiable outdoor areas	Clause Requirements/Comments	Compliance
G6.1	DtS Provisions	Applicable <i>performance requirements</i> for	Clause applies
		building solutions and only Clause G6.2	
		applies to Class 2 buildings.	
G6.2	Fire hazard properties	A lining, material or assembly in an	Yes
		occupiable outdoor area must comply with	
		C1.10 as for an internal element.	
		However, the following fire bazard	
		properties of a lining, material or assembly	
		in an occupiable outdoor area are not	
		required to comply with C1.10:	
		Average specific extinction area.	
		(ii) Smoke-Developed Index.	
		(iii) Smoke development rate.	
		(iv) Smoke growth rate index (SMOGRA _{RC}).	
		As such, the following is required:	



<u>Floor linings:</u> a critical radiant flux not less than 2.2 and a group number 1, 2 or 3 for any portion of the floor covering that is continued more than 150 mm up a wall.	
Wall and ceiling linings: a group number 1, 2 or 3.	
Note: The provisions of Clause C1.9, C1.14, C2.4 of Spec. C1.1 still apply.	

3.6 – Energy Efficiency. (Section J, BCA 2019)

The Class 2 part of the building is to be designed to comply with the requirements of two MANDATORY points for energy efficiency. They are:

- A, BASIX assessment and a BASIX certificate will be required to be lodged with the development application.
- In addition to the BASIX certificate compliance with NSW J (A) is required for the Class 2 part. The relevant/applicable sections of NSW J (A) are to be complied with. The clauses within Section J (A) are listed below.

NSW PART J(A)1	Building Fabric	Clause Requirements/Comments	Compliance
NSW J(A)1.1(a) &(b)	Application of Part.	NSW J(A)1.1(a)&(b). The DTS provisions apply if the Development Consent requires the installation of insulation.	Yes
NSW J(A)1.1(c)	Application of Part.	The Deemed-to-Satisfy provisions of this Part for thermal breaks apply to all Class 2 buildings.	Part applies
NSW J(A)1.2	Compliance with BCA provisions	The sole-occupancy units of the Class 2 parts must comply with the national BCA provisions of J0.2(b) to (c), as stated below, excluding J1.2 if the DA does not mandate insulation.	Part applies
		(b) for general thermal construction, comply with J1.2; and	
		(c)for thermal breaks, comply with J1.3(d) and J1.5(c); and	
		(d) for compensating for a loss of ceiling insulation, comply with J1.3(c), other than where the house energy rating software used can automatically compensate for a loss of ceiling insulation; and	
		(c) for floor edge insulation, comply with J1.6(c) and J1.6(d); and	



NSW PART J(A)2	Building Sealing		
NSW J(A)2.1	Application of Part.	Parts applies as Class 2 parts have air conditioning.	Part applies
NSW J(A)2.2	Compliance with BCA provisions	Class 2 parts must comply with the following national BCA provisions, as applicable—	Subject to Section J Report
		(a) J3.2 Chimneys and flues; and	
		(b) J3.3 Roof lights; and	
		J3.4 Windows and doors; and	
		(d) J3.5 Exhaust fans; and	
		floors: and	
		(f) J3.7 Evaporative coolers.	
NSW PART J(A)3	Air-Conditioning & Ventilation Systems		
NSW J(A)3.1	Application of Part.	Parts applies to Class 2 parts.	Part applies
NSW J(A)3.2	Compliance with BCA provisions	Class 2 buildings and Class 4 parts of buildings must comply with the following national BCA provisions, as applicable— (a) J5.2 (a) to (d) and (f) to (g) Air conditioning systems; and (b) J5.3 Mechanical ventilation systems; and J5.4 Miscellaneous exhaust systems. Note: Compliance is not required with the national BCA provisions of J5.2 as those matters are regulated under BASIX.	Subject to Section J Report
NSW PART J(A)4	Heated Water Supply		
NSW J(A)4.1	Application of Part.	Parts applies to Class 2 parts.	Part applies
NSW J(A)4.2	Compliance with BCA provisions	Class 2 buildings and Class 4 parts of buildings must comply with the national BCA provisions of J7.2 Heated water supply. Note: Compliance is not required with the national BCA provisions of J7.3 and J7.4 as those matters are regulated under BASIX.	Subject to Section J Report
NSW PART J(A)5	Heated Water Supply		



NSW J(A)5.1	Application of Part.	Applies to Class 2 common areas.	Part applies
NSW J(A)5.2	2 Compliance with BCA provisions	a) A building or sole-occupancy unit with a floor area of more than 500 m ² must have the facility to record the consumption of gas and electricity. This will be provided as required.	Yes

The following BCA 2019 Section	on J National provisions will be applicable to the Class 7a parts.

Item	Comment	
Building Fabric	It is assumed the Class 7a parts will not be conditioned, as such the provisions of this part will not apply.	
Building Sealing	It is assumed the Class 7a parts will not be conditioned, as such the provisions of this part will not apply.	
Air-Conditioning and Ventilation System	The mechanical ventilation system must comply with this part.	
Artificial Lighting and Power	The 7a parts must maintain maximum lighting power levels and control systems as applicable by this clause.	
Hot Water Supply	Hot water supply systems must be installed in accordance with Part J7 of BCA 2019 and AS/NZS 3500.4.	
Access for Maintenance	 The building must have an energy meter configured to record the time-of-use consumption of gas and electricity. The building must have energy meters configured to enable individual time-of-use energy consumption data recording, in accordance with ©, of the energy consumption of— (i) air-conditioning plant including, where appropriate, heating plant, cooling plant and air handling fans; and (ii) artificial lighting; and (iii) appliance power; and (v) internal transport devices including lifts, escalators and moving walkways where there is more than one serving the building; and (vi) other ancillary plant. In the Class 2 parts, where the common areas are more than 500 m², energy meters must be interlinked by a communication system that collates the time-of-use energy consumption data to a single interface monitoring system where it can be stored, analysed and reviewed. 	



4. Conclusion

It is recommended that a performance solution be obtained for the following items:

C3.2 Protection of openings in external walls. Performance solution required to acceptable methods of protection; construction requirements of C3.4. Fire attenuation screens are an acceptable performance solution.

D1.2 Number of exits required NSW Variation NSW D1.2(d)(vii) and D1.4 Exit travel distances. Travel distance to single exit exceeds 20m. Performance solution includes increased lighting and visibility to single exit to allow for safe egress from building.

The installation of a car lift to carpark will require performance solution. The design will need to be considerate of AS2890.1: 2004 Parking facilities – off street parking, and turning circles, which may be verified by traffic engineer.

The assessment of the documentation has revealed that the building is primarily capable of complying with the DTS provisions of BCA 2019, and where necessary the Performance Requirements. Highlighted items recommend performance solutions to be adopted to meet the requirements of BCA 2019.

Kind Regards,

James Kim Registered Certifier BDC2331 Building Regulations Consultant



Table 3 Type A construction: FRL of building elements

Building element	Class of building — FRL: (in minutes)				
	Structural adequacy/Integrity/Insulation				
	2, 3 or 4 part	5, 7a or 9	6	7b or 8	
EXTERNAL WALL (including any	column and other bu	uilding element incor	porated within it) or	other external building	
element, where the distance from a	ny fire-source featur	e to which it is expo	sed is—		
For loadbearing parts-					
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	180/180/120	240/240/180	
3 m or more	90/ 60/ 30	120/ 60/ 30	180/120/ 90	240/180/ 90	
For non-loadbearing parts-					
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	
3 m or more	_/_/_	-1-1-	-1-1-		
EXTERNAL COLUMN not incorpor	ated in an <i>external v</i>	wall—			
For loadbearing columns-	90//	120/-/-	180/_/_	240//	
For non-loadbearing columns-		-1-1-	-1-1-		
COMMON WALLS and FIRE	90/ 90/ 90	120/120/120	180/180/180	240/240/240	
WALLS—					
INTERNAL WALLS—					
Fire-resisting lift and stair shafts-					
Loadbearing	90/ 90/ 90	120/120/120	180/120/120	240/120/120	
Non-loadbearing	-/ 90/ 90	-/120/120	-/120/120	-/120/120	
Bounding public corridors, public lo	bbies and the like-				
Loadbearing	90/ 90/ 90	120/_/_	180/_/_	240//	
Non-loadbearing	-/ 60/ 60	-1-1-			
Between or bounding sole-occupancy units-					
Loadbearing	90/ 90/ 90	120/_/_	180/_/_	240/_/_	
Non-loadbearing	-/ 60/ 60	-1-1-	-1-1-		
Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of combustion-					
Loadbearing	90/ 90/ 90	120/ 90/ 90	180/120/120	240/120/120	
Non-loadbearing	-/ 90/ 90	-/ 90/ 90	-/120/120	-/120/120	
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	

NCC 2019 Building Code of Australia - Volume One Amendment 1

Page 89

3

Fire resistance

Deemed-to-Satisfy Provisions

Building element	Class of building — FRL: (in minutes)			
	Structural adequacylintegritylinsulation			
	2, 3 or 4 part	5, 7a or 9	6	7b or 8
ROOFS	90/ 60/ 30	120/ 60/ 30	180/ 60/ 30	240/ 90/ 60



Table 3.9 Requirements for carparks

Building element			FRL (not less than) Structural	
_			adequacy/Integrity/Insulation	
			ESA/M (not greater than)	
Wall				
(a)	external v	vall		
	(i)	less than 3 m from a fire-source feature		
		to which it is exposed:		
		Loadbearing	60/60/60	
		Non-loadbearing	-/60/60	
	(ii)	3 m or more from a fire-source feature to		
		which it is exposed		
(b)	internal w	all		
	(i)	loadbearing, other than one supporting		
		only the roof (not used for carparking)	60//	
	(ii)	supporting only the roof (not used for		
		carparking)		
	(III)	non-loadbearing		
(c)	fire wall			
	(1)	from the direction used as a carpark	60/60/60	
	(ii)	from the direction not used as a carpark	as required by Table 3	
Column				
(a)	supporting	g only the roof (not used for carparking)		
	and 3 m o	r more from a fire-source feature to which		
	it is expos	sed		
(d)	steel colui	mn, other than one covered by (a) and one		
	used as a	not support a part of a building that is not	60/ / or 26 m ² /toppe	
(0)	used as a <i>carpark</i>			
(c) any other column not covered by (a) or (b)		column not covered by (a) or (b)	00//-	
Dealli	ataal flag	r been in continuous contact with a		
(a)	steel floor beam in continuous contact with a		60/ / or 30 m ² /toppe	
(b)	concrete floor stab			
(b) any other beam		stair shaft (within the correct only)	60(60(60	
Fire-resistin	ig int and	stall shalt (within the carpane only)	00/00/00	
Floor slab a	ind vehicle	e ramp	60/60/60	
Roof (not used for carparking)				