

23rd September 2020

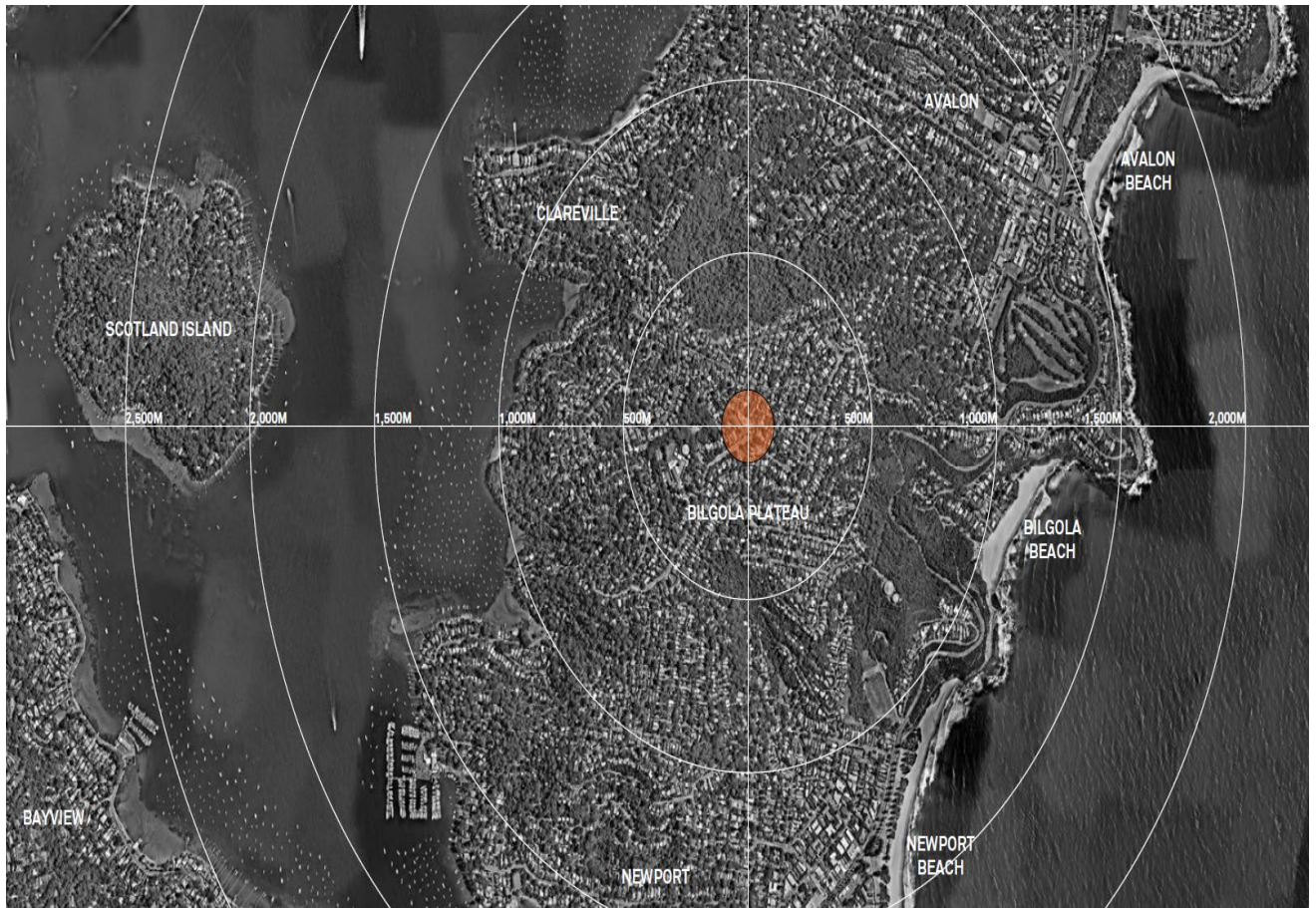
**DRAFT BCA/NCC Compliance assessment of the plans for the proposed
(3) Storey Residential, Retail and associated Basement carparking
Building at 1 Bilambree Ave Bilgola Plateau NSW**

1. Introduction

This report is an assessment of the plans for the proposed (3) Storey Residential, Retail and associated Basement Level carparking Building development at the above address to determine if construction shown generally complies with the (NCC/BCA) Building Code of Australia 2019

Plans for the proposed building work were assessed against the Deemed-to-Satisfy (DTS) Provisions of the BCA. As per below plans.

Drawn by Benson McCormack Architecture, Project No.2012A, Rev B



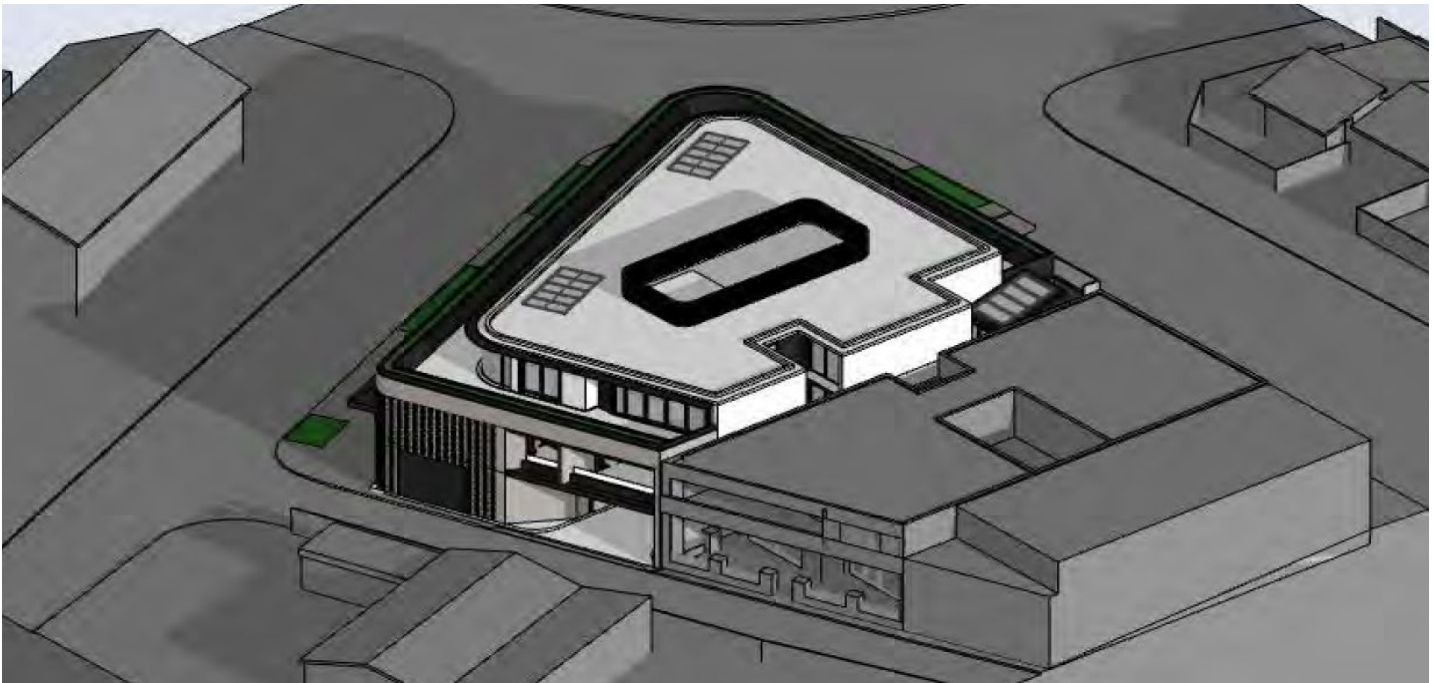
The assessment relates to the BCA/NCC 2019 and NSW Environmental Planning and Assessment legislation current at the time and therefore does not necessarily infer building compliance with the same legislation at some other point in time. The assessment relates specifically to the building the subject of this report and therefore should not be construed to apply to any other building.

Generally, the report only comments on non-compliances, or where insufficient detail is shown to confirm compliance. Other comment may be made where necessary to explain requirements for interrelated elements and systems of the building. The use of notes and diagrams from BCA and relevant Australian Standards on CC issue plans may address some of the requirements listed below.

Note: Non-compliances and potential issues noted in **red**, important to note in **green**

2. Description of Building/s

| | | |
|-------------------|---|-------------|
| Location: | 1 Bilambee Ave Bilgola Plateau NSW | |
| Use of Building: | Residential Units, Retail and associated Basement car parking | |
| Effective Height: | <12m | |
| Classification: | 2,6, 7a | (A6.2/A6.7) |
| Rise in Storeys: | 3 | (C1.2) |



3. Fire-Resisting Construction

Note: All fire resisting building elements/ FRLs should be referenced as notes on CC issue Architectural Plans and appropriate lightweight fire resisting system shown/ referenced. (other than those covered by Structural Engineer)

General Requirements –

- external walls of the building and the flooring, floor framing of lift pits must be **non-combustible**
- Flooring and floor framing of lift pits must be non-combustible
- loadbearing internal walls (including those that are part of a loadbearing shaft) must be of **concrete or masonry**
- Internal walls required to have an FRL as outlined below, between sole occupancy units and bounding public corridors, public lobbies and the like, Ventilating, pipe, garbage, and like shafts; shafts (lift, stairs, services) are to extend to the underside of the floorabove, the underside of a roof with and FRL or non - combustible roof lining.
- Attachments to fire resisting construction and external walls - wall cladding: lightweight cladding panels to be **non-combustible construction. (e.g. Wall cladding to external parts of building)**
- non-loadbearing—
internal walls required to be fire-resisting (*as listed below*); and lift, ventilating, pipe, garbage, or similar shaft, must be of **non-combustible construction**

(Specification C1.1)

FRL REQUIREMENTS OF BUILDING ELEMENTS (TABLE 3 of SPECIFICATION C1.1 BCA NCC) -

Car park

Building elements require the following fire resistance levels (FRLs):

- Loadbearing external walls: 120/120/120 within 3m of boundary, 1.5m to 3.0m: 120/120/90, 3m or more: 120/60/30
- Non Loadbearing External Walls within 3m from boundary: -/120/120
- Internal walls: Ventilating, pipe, garbage, and like shafts loadbearing: 120/90/90 ; non-loadbearing: -/90/90; shafts (stairways , lifts and services): loadbearing: 120/120/120. non-loadbearing: -/120/120
- Loadbearing walls between carpark and residential units 120/120/120
- Non-Loadbearing walls between carpark and residential -/120/120
- Other loadbearing internal walls and internal beams: 120/-/-
- Internal columns: loadbearing: 120/-/-
- Floor (between carpark and ground floor): 120/120/120

Retail

Building elements require the following fire resistance levels (FRLs):

- Loadbearing external walls: 180/180/180 within 3m of boundary, 1.5m to 3.0m: 180/180/90, 3m or more: 180/60/30
- Non Loadbearing External Walls within 3m from boundary: -/180/180
- Internal walls: Ventilating, pipe, garbage, and like shafts loadbearing: 180/90/90 ; non-loadbearing: -/90/90; shafts (stairways , lifts and services): loadbearing: 180/180/180 non-loadbearing: -/180/180
- **Loadbearing walls between Retail and reminder of Storey 180/180/180**
- **Non-Loadbearing walls between retail and remainder of storey -/180/180**
- Other loadbearing internal walls and internal beams: 180/-/-
- Internal columns: loadbearing: 180/-/-
- Floor (between Retail and Residential): 180/180/180

Residential Levels

Building elements require the following fire resistance levels (FRLs):

- Loadbearing External walls: Within 3m of boundary 90/90/90, 3m or more from boundary: 90/60/30
- Non-loadbearing external walls with 3m of boundary: -/90/90
- External loadbearing columns not incorporated in an external wall: 90/-/-
- Internal walls: between sole occupancy units and bounding public corridors, public lobbies and the like: loadbearing: 90/90/90. Non-loadbearing: -/60/60;
- Internal walls: Ventilating, pipe, garbage, and like shafts loadbearing: 90/90/90 ; non-loadbearing: -/90/90; shafts (services): loadbearing: 90/90/90. non-loadbearing: -/90/90
- **Internal walls and columns to the top storey (if the roof is of non-combustible construction) can have a reduced FRL to 60/60/60.**
- Other loadbearing internal walls and internal beams: 90/-/-
- Internal columns: loadbearing: 90/-/-
- Floors: Between residential and ground floor (180/180/180) all other floors above (90/90/90)
- Roof: NIL

(Specification C1.1)

Any electrical substations and/or main switchboards (that sustain emergency equipment) located **within** the building must be separated from any other part of the building by construction with an FRL of 120/120/120 with any openings protected with a self-closing fire door having an FRL of not less than -/120/30. Fire Hydrant/Sprinkler pump rooms located within building will also require the above FRL with access via a Fire Isolated Passageway achieving 120/120/120 with required airlocks

Switchboards which sustain electrical supply to emergency equipment such as fire hydrant booster pumps and occupant warning must be separated from non-emergency equipment switchgear by metal partitions to minimise spread of a fault (C2.13)

The Fire Hazard Properties required for construction materials, carpets/vinyls/internal linings, etc. are as follows:

- Sarking: must have a flammability Index not more than 5;
- Floor materials and floor coverings: a critical radiant flux not less than 2.2 and maximum smoke development rate of 750 percent-minutes;
- Wall and Ceiling Lining Materials: Material Group 1 (fire isolated exits), 1 or 2 (public corridors) and 1, 2 or 3 in sole occupancy units and all other areas with a smoke growth rate index not more than 100 or an average specific extinction area less than 250m²/kg.

Vertical Separation is required to stop fire spread from floor to floor via openings in external walls as per the below:

Please note these are in additional external wall FRL requirements above (and includes non-loadbearing walls regardless of distance to boundary).

Vertical separation is required for this building where openings in external walls (doors/windows etc.) of the building are located above another opening of the next in below storey but only where the vertical projection is less than 450mm (e.g. offset from each other is less than 450mm) this excludes opening to internal fire isolated stairwells which get a concession.

From looking at the elevations, the building appears to have openings above openings which will require separation/ protection in accordance with one of the below methods, architect is to provide further details and notations as to DTS method adopted on CC issue plans for FRL's of the external part of wall where non-loadbearing

OPTIONS for spandrel separation –

The balconies will require 450mm extension beyond openings per below diagrams, the architect will need design the below requirements accordingly into the building

Where the above applies separation is required by:

A spandrel or curtain wall which;

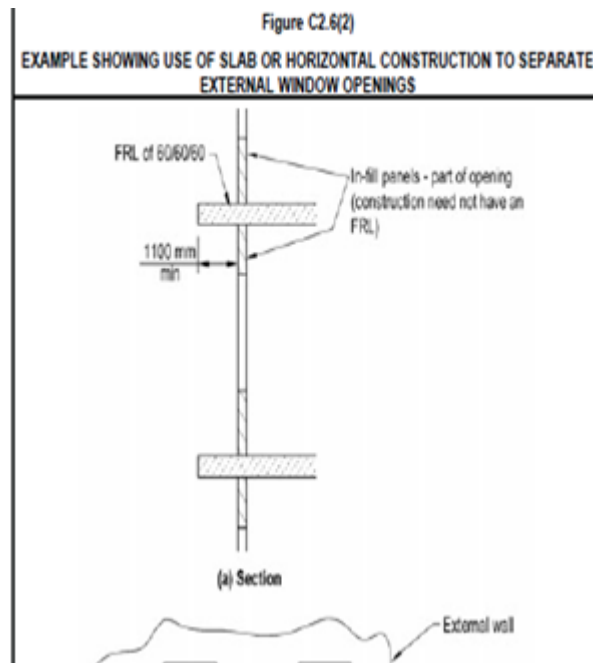
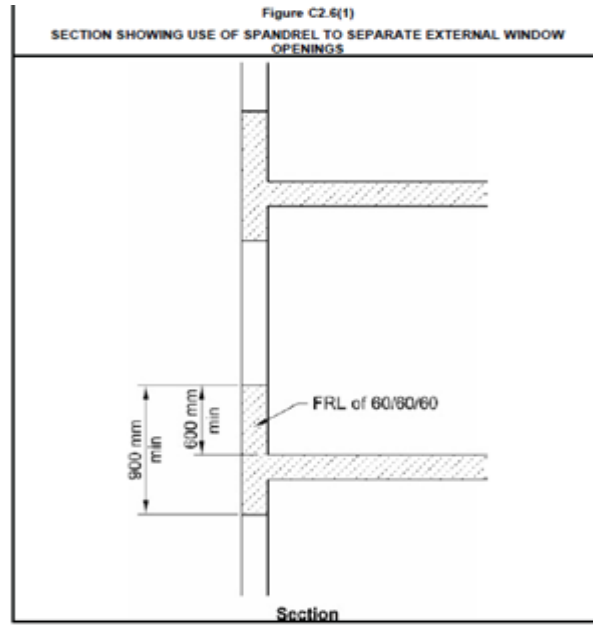
- (A) is not less than 900 mm in height; and
- (B) extends not less than 600 mm above the upper surface of the intervening floor; and
- (C) is of non-combustible material having an FRL of not less than 60/60/60

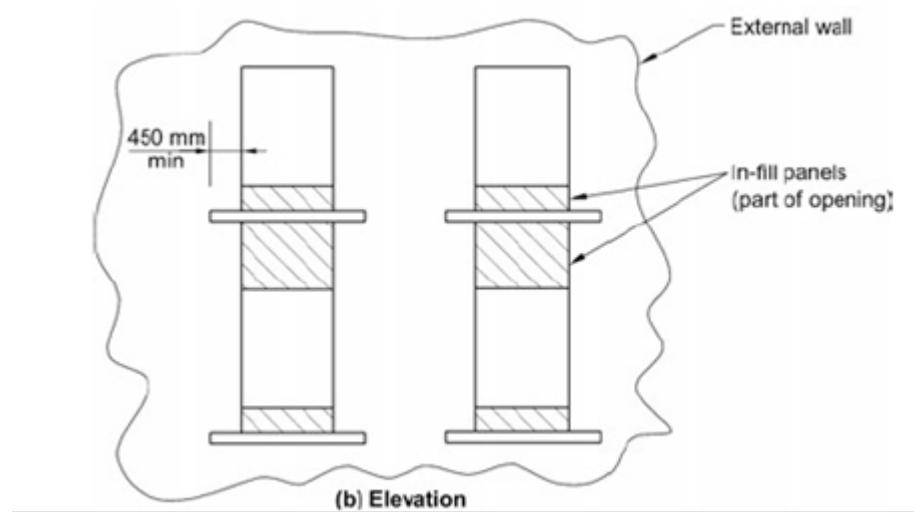
OR

A slab or horizontal construction (such as balcony) that;

- (A) Projects outwards from the external face of the wall not less than 1100mm and extends along the wall not less than 450mm beyond openings concerned and is non-combustible achieving an FRL of 60/60/60

See below diagrams relating to C2.6 (Vertical Separation):





4. Protection of Openings

Non-Compliances:

- Unit 201 – Several Openings (Windows/ Doors) within 3m of North Western Boundary require protection in accordance with BCA Part C3.4
- Unit 105 Roof Skylights do not comply with BCA/NCC Specification C1.1- Part 3.6 (a) and (b)
- Discharge of fire isolated passageway – Occupants must pass by openings in the building at ground level after exiting passageway door, openings must be protected in accordance with D1.7(c) for walls and doors

The following openings also will require protection:

- Openings in the fire isolated stairway are to be protected by -/60/30 fire doors that are self-closing or automatic closing.
- Openings in fire isolated lift shafts are to be protected by -/60/- fire doors that operate in accordance with Part C3.10 of the BCA.
- Doors to sole occupancy units are to be protected by a self-closing -/60/30 fire doors.
- Doors to fire exits are to have fire door signage in accordance with D2.23 and Clause 183 of the Environmental Planning and Assessment Regulation 2000.

Lift indicator panels including a lift call panel, indicator panel or other panel in the wall of the fire isolated lift shaft must be backed by construction having an FRL of not less than -/60/60 if it exceeds 35,000mm² in area.

Fire-isolated *exits* must not be penetrated by any services other than—

- (a) Electrical wiring permitted by 2.7(e) of the BCA to be installed within the *exit*; or
- (b) Water supply pipes for fire services.

Penetrations of walls, floors and ceilings required to have an FRL by services are to be protected in accordance with Specification C3.15 or where a shaft is used to penetrate floor/ceilings in accordance with Specification C1.1 of the BCA. (i.e. (3). Fire Resisting Construction in this report with openings achieving -/60/30

Openings in walls of shafts providing access to ventilating, pipe, garbage or other services shaft must be protected by the relevant methods below;

- (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
- (c) 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 non-combustible construction.

5. Access and Egress

Note: Fire isolated stairs and passages must have unobstructed width of 1m measured between required handrail

Non-compliances:

- The Fire Isolated Stair does not provide independent egress via its own passageway BCA Part D1.7(b)
- The Fire Isolated Stair discharges into a covered area that does not comply with BCA Part D1.7(b)(iii)
- 2 x Retail Units not occupying the whole storey discharge directly into the Fire Isolated passageway which does not comply with BCA Part D1.7(a)(ii)
- Separation between Rising and Ascending Stairs is not provided in accordance with BCA Part D2.4

Access to lift pits must—

(a) where the pit depth is not more than 3 m, be through the lowest landing doors; or
(b) where the pit depth is more than 3 m, be provided through an access doorway complying with the following:

(i) In lieu of D1.6, the doorway must be level with the pit floor and not be less than 600 mm wide by 1980 mm high clear opening, which may be reduced to 1500 mm where it is necessary to comply with (ii).

(ii) No part of the lift car or platform must encroach on the pit doorway entrance when the car is on a fully compressed buffer.

(iii) Access to the doorway must be by a stairway complying with AS 1657.

(iv) In lieu of D2.21, doors fitted to the doorway must be—

(A) of the horizontal sliding or outwards opening hinged type; and

(B) self-closing and self-locking from the outside; and

(C) marked on the landing side with the letters not less than 35 mm high:

'DANGER LIFTWELL ' ENTRY OF UNAUTHORIZED PERSONS PROHIBITED ' KEEP CLEAR AT ALL TIMES'

General requirement for all doors

ALL doors must be readily openable without a key from the side that faces a person seeking egress by a single hand downward action on a single device which is located between 900 mm and 1.1 m from the floor. (D2.21)

D2.24 Protection of openable windows

(a) A window opening must be provided with protection, if the floor below the window is 2 m or more above the surface beneath in—

(i) in all bedrooms of this building

(b) Where the lowest level of the window opening is less than 1.7 m above the floor, a window opening covered by (a) must comply with the following:

(i) The openable portion of the window must be protected with—

(A) a device capable of restricting the window opening; or

(B) a screen with secure fittings.

(ii) A device or screen required by (i) must—

(A) not permit a 125 mm sphere to pass through the window opening or screen; and

(B) resist an outward horizontal action of 250 N against the—

- (aa) window restrained by a device; or
- (bb) screen protecting the opening; and

(C) have a child resistant release mechanism if the screen or device is able to be removed, unlocked or overridden.

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(c) A barrier with a height not less than 865 mm above the floor is required to an openable window—

(i) in addition to window protection, when a child resistant release mechanism is required by (b)(ii)(C); and

(ii) where the floor below the window is 4 m or more above the surface beneath if the window is not covered by (a).

(d) A barrier covered by (c) must not—

- (i) permit a 125 mm sphere to pass through it; and
- (ii) have any horizontal or near horizontal elements between 150 mm and 760 mm above the floor that facilitate climbing.

Installations in exits and paths of travel - Services or equipment comprising:

Electricity meters, distribution boards or ducts, telecommunication distribution boards, electrical motors, or any other motors or equipment may be installed in paths of travel to an exit if enclosed by non-construction or construction with a fire protective covering with doorways suitable sealed against smoke spread.

6. Provision of Services and Equipment

Emergency lighting complying with AS 2293.1 is required in any room or space to which there is public access in every storey of the building. NOTE: This emergency lighting design is to include the communal outdoor area as per Part G6.8 of the 2019 NCC/BCA. (E4.2(f))

Emergency lighting complying with AS 2293.1 must be installed in every passageway or corridor that is part of the path of travel to an exit, any room with a floor area more than 100m² that does not open to a corridor or space that has emergency lighting or to a road or open space, i.e. and any room that has a floor area more than 300m² (E4.2(b))

As per recent changes braille exit signage is required to be provided for each exit door to comply with D3.6 (a)(ii) of BCA.

Emergency lighting complying with AS 2293.1 must also be installed in all exit stairways. (E4.2)

Exit signs complying with AS 2293.1 are required over exit doors and in appropriate positions in corridors, hallways and the like indicating the direction to a required exit where exits are

not readily apparent to persons occupying or visiting the building. In particular and dependant on egress path chosen from areas on all levels and carpark, directional signage will be required to direct people egressing to at least 2 exits to road or open space. NOTE: Exit signage is required to serve the communal outdoor area to satisfy G6.8 of the 2019 NCC/BCA. (E4.5, E4.6)

The proposed building requires the provision of the following fire fighting equipment:

- Fire hydrants(entire building) and fire hose reels (carpark only)
- Wall wetting sprinklers (drenchers) are required where chosen as a method of protection to satisfy C3.4 of the 2019 NCC/BCA.

(Part E1)

Portable Fire Extinguishers must be provided in the residential part of the building and must be—

- (i) an ABE type fire extinguisher; and
- (ii) a minimum size of 2.5 kg; and
- (iii) distributed outside a sole-occupancy unit

(A) to serve only the storey at which they are located; and

(B) so that the travel distance from the entrance doorway of any sole-occupancy unit to the nearest fire extinguisher is not more than 10 m.

in accordance with Part E1.6 of the BCA and AS2444.

(E1.6)

Fire hydrants must be provided to the building in accordance with AS 2419.1. On-site hydrants have coverage of 70m and if external must not be located closer than 10 m to a building unless shielded by fire-rated construction.

(E1.3)

Automatic smoke detection and alarm systems must be provided in accordance with Specification E2.2a of the BCA, which includes occupant warning systems. This design must also cover the outdoor occupiable area as per BCA Clause G6.

(Tables E2.2a)

The carpark level is to be provided with mechanical ventilation system in accordance with AS 1668.2 or a system of natural ventilation complying with Section 4 of AS1668.4

7. DRAFT List of statutory required Fire Safety Measures

| Essential Fire and Other Safety Measures | Standard of Performance |
|--|---|
| Access panels, doors and hoppers to fire resisting shaft | BCA Clause C3.13 |
| Automatic Fire Detection and Alarm System | BCA Spec. E2.2a and AS 1670-2015 |
| Emergency Lighting | BCA Clauses E4.2/E4.4 & AS/NZS 2293.1-2018 |
| Exit Signs | BCA Clauses E4.5/NSW E4.6/E4.7/E4.8 and AS/NZS 2293.1-2018 |
| Fire Dampers | AS/NZS 1668.1-1998, AS 1682.1-1991 |
| Fire Doors (self-closing/tight fitting) | BCA Spec. C3.4 & BCA Clauses C2.12, C2.13, C3.4, C3.5, C3.10, D2.8, Spec E1.8 and AS1905.1-2005 |
| Fire Hydrant Systems | BCA Clause E1.3 & AS 2419.1-2005 |
| Fire Seals (protecting openings in fire resisting components of the building) | BCA Clause C3.15 |
| Fire Windows (Including Internal Drenchers to protect other openings as required by his report) | BCA Clause C3.3 and AS1905.2-2005 |
| Hose Reel System (Carpark) | BCA Clause E1.4 & AS 2441-2005 |
| Lightweight Construction (between units and all other bounding construction) | BCA Clause C1.8 and BCA Spec. C1.8 |
| Mechanical Air Handling Systems 1. Mechanical Ventilation to Carpark. | BCA Clause F4.11 and AS/NZS 1668.1-2015 |
| Openings in Fire-isolated Lift Shafts | BCA Clause C3.10 and AS 1735.11-1986 |
| Path of Travel for stairways, passageway and ramps | EP&A Reg. 2000 Clauses 184-186 |
| Portable Fire Extinguishers | BCA Clause E1.6 and AS 2444-2001 |
| Wall Wetting Drencher Systems | BCA Clause C3.4 and AS 2118.2-1995 |
| Warning and Operational Signs | D2.23 (Signs on Fire Doors) E3.3 (Lift Sign), EPA Regs 2000, Clause 183 |

Note: The above measures will require design by appropriately qualified persons.

8. Stairways and balustrades

All stairways must have an unobstructed width between handrail/handrails of 1m.

Handrails are required to both sides of both Basement stairways including all features of AS1428 (as they are not required to be Fire Isolated)

Stair construction is to comply with BCA D2.13, D2.16 and D2.17 including riser and going dimensions, slope relationship, construction of landings and handrails. Stairs to have Risers: max 190 min 115; Goings: max 355 min 240; Slope Relationship (2R +G) max 700 min 550. Each flight must have not more than 18 nor less than 2 risers. The riser opening must not allow a 125 mm sphere to pass through between treads. Landings are to be not less than 750 mm long.

All treads of ALL stairways must have —

- (A) a Luminous contrasting nosing (includes fire isolated stairways); and
- (B) a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; OR
- (B) a nosing strip with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586

All landings of ALL stairways must have —

- (A) a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; OR
- (B) a strip at the edge of the landing with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586, where the edge leads to a flight below.

All ramps will require slip resistance classification as per above.

The balustrades to landings, decks, balconies and the like must have a height of not less than 1 m above finished surfaces. All balustrades must have openings that do not permit a 125 mm sphere to pass through it and for stairs, the space is tested above the nosing line. Balustrades must also comply with Part B of the BCA in terms resistance to impact, forces and the like.

For balustrades and windows more than 4 m above the surface beneath, any horizontal or near horizontal elements between 150 mm and 760 mm above the floor must not facilitate climbing

9. Sanitary and Other Facilities

Fully enclosed sanitary compartments must have doors that open outwards, slide or are readily removable from outside of the sanitary compartment unless there is a clear space of at least 1.2m between the door hinge and the closet pan. Plans are not fully dimensioned, and this requirement may apply to some SOU's which have inward swinging doors

(F2.5)

10. Light and Ventilation

The plans of the proposed building work show details of windows and other openings that provide natural lighting and ventilation to comply with BCA requirements.

Ventilation to Carpark will need to be designed to comply with BCA Part F4.11. Mechanical ventilation maybe required to satisfy this part.

Sanitary compartments without openable windows will require mechanical ventilation.

(Part F4)

Artificial lighting is to comply with AS/NZS 1680.0.

(F4.4)

11. Sound Insulation

Note: CC Architectural plans must detail tested system no. for forms of construction in relation to building elements or provided as notes on plans for reference by the builder.

F5.4 Sound insulation rating of floors

- (a) A floor in a Class 2 or 3 building must have an $R_w + C_{tr}$ (airborne) not less than 50 and an $L_{n,w} + C_I$ (impact) not more than 62 if it separates—
 - (i) sole-occupancy units; or
 - (ii) a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification.

F5.5 Sound insulation rating of walls

(a) Walls in residential parts of building must—

(i) have an $R_w + C_{tr}$ (airborne) not less than 50, where it separates sole-occupancy units; and

(ii) have an R_w (airborne) not less than 50, if it separates a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification; and

(iii) comply with F5.3(b) if it separates—

(A) a bathroom, sanitary compartment, laundry or kitchen in one sole-occupancy unit from a habitable room (other than a kitchen) in an adjoining unit; or

(B) a sole-occupancy unit from a plant room or lift shaft.

Where a wall required to have sound insulation has a floor above, the wall must continue to—

(i) the underside of the floor above; or

(ii) a ceiling that provides the sound insulation required for the wall.

(f) Where a wall required to have sound insulation has a roof above, the wall must continue to—

(i) the underside of the roof above; or

(ii) a ceiling that provides the sound insulation required for the wall.

NOTE: For the purposes of this Part, discontinuous construction means a wall having a minimum 20 mm cavity between 2 separate leaves, and

(i) for masonry, where wall ties are required to connect leaves, the ties are of the resilient type; and

(ii) for other than masonry, there is no mechanical linkage between leaves except at the periphery.

F5.6 Sound insulation rating of internal services

(a) If a duct, soil, waste or water supply pipe, including a duct or pipe that is located in a wall or floor cavity, serves or passes through more than one sole-occupancy unit, the duct or pipe must be separated from the rooms of any sole-occupancy unit by construction with an $R_w + C_{tr}$ (airborne) not less than—

(i) 40 if the adjacent room is a habitable room (other than a kitchen); or

(ii) 25 if the adjacent room is a kitchen or non-habitable room.

(b) If a storm water pipe passes through a sole-occupancy unit it must be separated in accordance with (a)(i) and (ii).

F5.7 Sound isolation of pumps

A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating or other pump

12. Energy Efficiency

Residential flat levels are required to comply with BASIX and NatHERS requirements where approved by the local council and conditions implemented in the development consent. Construction must comply with the supplied BASIX and NatHERS certificates.

13. Access for people with a disability

Basement Stairs to comply with AS 1428.1 (2009), Clause 11.2. (with 1m clear measured between them for egress requirements)

Provide handrails, with extensions, to both sides of the stair see (AS1428.1 (2009), Clause 11.2) for dimensions and configurations. Handrails to have an external diameter between 30-50mm with no obstructions i.e. a turnbuckle post to handrail connection is not permissible, 270 degree of usage of the diameter of the handrail must be maintained.

NOTE: The BCA requires that access for people with a disability from main entry from street and carparking areas along with all levels containing SOU's and to each SOU entry door on every level serviced by a lift.

Access to buildings (BCA D3.2) External Access – approach to the building

External access to the building is required to be provided to the principal pedestrian entrance of the building as per AS 1428.1 (2009) from:

- the main points of pedestrian entry at the allotment boundary
- any accessible car parking spaces

General requirements (not conclusive):

Passenger lift must comply with AS1428.1-2009 and BCA Part 3.6.

Entry door thresholds to ground floor commercial areas are not to incorporate a step or change in height unless appropriate threshold ramps, step ramps or walkways/ramps are provided in accordance with AS 1428.1 requirements.

Doorway through principal entrance of foyer at ground level are to have a minimum unobstructed width of 850mm (i.e. 920 door leaf) and latch/hinge side clearances depending on the opening width in accordance with AS 1428.1 both for entering and exiting rooms.

All doorways providing access for people with disabilities should have an un-obstructed opening of not less than 850mm (minimum 920mm door leaf) and adequate circulation space to comply with AS 1428.1.

Entrance doors including glazed doors or door frames to lobby area are to have a minimum luminance contrast of 30% to their adjacent surfaces. Full height glazing to lobby area is required to have on both sides, a line with the required luminance contrast for the full width at least 75mm wide installed at a height between 900-1000mm to comply with AS1428.1.

Stairway handrails complying with AS1428.1-2009 are required to both sides of all stairways (excluding fire isolated stairs)

Fire isolated stair balustrade requirements are below

Barrier to fire isolated stair must not allow 300mm sphere to pass through any opening in barrier

Tactile ground surface indicators must be provided at approaches to stairways top and bottom of open stairway serving **South Eastern Building**, and in the absence of a suitable barrier at an overhead obstruction less than 2 m above floor level and where a path of travel meets a vehicular way adjacent to a principal public entrance to a building to comply with D3.8.

14. Window Cleaning

NSW G1.101 requires the provision for window cleaning 3 or more storeys above ground level. The development will satisfy this requirement if the windows can be cleaned wholly from within the building OR 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.

15. Conclusion

There a few BCA/NCC items requiring further verification and detail that have been identified in the report, there are also some Non Compliances that are required to be addressed, where a Performance solution is to utilised to address non compliances it is suggested that this is approved in principal by C10 Accredited Fire Engineer and A1 Building Certifier to ensure no major design changes. This is to ensure design is suitable for DA OR CC stage.



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Grade 1 Accredited Building Certifier
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