BCA CAPABILITY REPORT

FOR

CDARCHITECTS

PREMISES

691 VICTORIA ROAD, RYDE NSW 2112

Project No. V230024

Date: 19th May 2025

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1.0 – Executive Summary

The following BCA compliance assessment report has been prepared at the request of CDArchitects for the purpose of the proposed mixed-use development located at the 691 – 695 Victoria Road, Ryde

This report has been prepared to identify the extent of compliance achieved by the architectural documentation against the relevant provisions of the Building Code of Australia (BCA) 2022, Amendment 1 and adopted Australian Standards and Disability Discrimination Act.

The building, the subject of this report, is the construction of a mixed-use development consisting of

- Three (3) residential towers;
- An early childhood centre;
- One (1) level of commercial/retail space within Buildings A and B; and
- Three (3) levels of basement car parking.

This report will provide the consent authority with a BCA analysis to assist in the determination of the application.

2.0 – Property Description

2.1 – Location

The subject development is to be located at 691 – 695 Victoria Road, Ryde which is within the jurisdiction of Ryde City Council for the purposes of development approvals.

The subject building is to be located at 691 – 695 Victoria Road, Ryde situated with Victoria Road to the south, Blaxland Rad to the north, Princess Street to the southeast and residential developments to the northwest.

2.2 – Building Description

Use/Classification	• Class 2 – Residential accommodation • Class 5/6 – Commercial office/retail • Class 7a – Carpark • Class 9b – Early childhood centre
Rise in Storeys	The building has a rise of nine (9) storeys
Storeys Contained	The building contains eleven (11) storeys
Effective Height	The building will have an effective of more than 25m (RL 7760 – 52.10 = 25.5m)
Type of Construction (BCA)	The building is to adopt Type A construction throughout
Floor Area	Class 5 and 9b – Maximum floor area – 8,000m^2 Class 6 – Maximum floor area – 5,000m^2 Floor area limitations are not applicable to Class 2 part Floor area limitations do not apply to a sprinkler protected Class 7a car park.

Building Description Contd.

Volume	Class 5 and 9b– Maximum volume – 48,000m^3 Class 6– Maximum volume – 30,000m^3 Volume limitations are not applicable to Class 2 part Volume limitations do not apply to a sprinkler protected Class 7a car park.
Population	• Class 2 Residential levels are not populated in accordance with Clause D2D18 of the BCA • Class 5 use calculated at rate of one person per 10m^2 ○ Building A – 13 persons ○ Building B – 52 persons • Class 6 use calculated at rate of one person per 2m^2 ○ Building A – 44 persons ○ Building B – 171 persons • Class 7a – Basement car parking and plant rooms are being calculated at rate of one person per 30m^2 ○ Basement Level 1 – 132 persons ○ Basement Level 2 and 3 – 89 persons per storey • Class 9b Early childhood centre proposes a population of 108 children
Climate Zone	Zone 5

3.0 – Building Code of Australia Assessment

3.1 – Structural Provisions (Part B, BCA)

Item	***Comment***
Resistance to actions	The resistance of a building and its structure must be greater than the most critical action effect resulting from different combinations of actions; ▪ the most critical action effect on a building or structure is determined in accordance with Clauses B1D2 of the BCA and the general design procedures contained in AS/NZS 1170.0. Structural engineering regulated design, design declaration and design certification to be provided at the construction certificate stage.
Determination of individual actions	The magnitude of the building's actions must be determined in accordance with the following with Clause B1D3 of the BCA; ▪ Permanent and Imposed Actions – AS 1170.1, ▪ Wind and earthquake actions – AS 1170 Part 2 and 4. Structural engineering regulated design, design declaration and design certification to be provided at the construction certificate stage
Determination of structural resistance of materials and forms of construction	The structural resistance of the building and materials and forms of construction must be determined in accordance with Clause B1D4 of the BCA and the following, as appropriate: ▪ Masonry – AS 3700, ▪ Concrete – AS 3600, AS 5146.1, AS5416.3 and AS 5216, ▪ Steel Construction – AS 4100 and AS 4600, ▪ Composite steel and concrete – AS/NZS 2327, ▪ Aluminium construction – AS/NZS1664.1 or AS/NZS 1664.2, ▪ Piling – AS 2159 ▪ Glazing – AS 2047 Structural engineering regulated design, design declaration and design certification to be provided at the construction certificate stage

3.2 – Fire Resistance and Stability (Section C, BCA)

Item	***Comment***
Non-combustible building elements	In a Type A Construction building, the following elements are required to be non-combustible in accordance with Clause C2D10 of the BCA: ▪ External walls and common walls, including all components incorporated in them including the facade covering, framing and insulation, ▪ The flooring and floor framing of lift pits, ▪ Non-loadbearing internal walls where they are required to be fire-resisting, and a shaft, being a lift, ventilating, pipe, garbage, or similar shaft that is not for the discharge of hot products of combustion, that is non-loadbearing, must be of non-combustible. An ancillary element must not be fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible unless it achieves complies with Clause C2D14 of the BCA. The proposed development can achieve the required prescriptive requirements which will be confirmed at the construction certificate phase.
Fire hazard properties	The fire hazard properties of all materials, assemblies, fixtures and linings are to comply with Clause C2D11 and Specification 7 of Part C of the BCA, as applicable. Further details are required to be provided during the Construction Certificate phase.
Compartmentation	The proposed fire compartments contained within the buildings will not exceed the maximum floor area and volume limitations as specified in Table C3D3 of the BCA.
Protection of equipment.	The following equipment is to be fire separated with construction complying with Clause C3D13 of the BCA. ▪ lift motors and lift control panels; or ▪ emergency generators used to sustain emergency equipment operating in the emergency mode; or ▪ central smoke control plant; or ▪ boilers; or ▪ 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. Separation of on-site fire pumps must comply with the prescriptive requirements of Clause E1D2 of the BCA and AS2419.1-2021. Further details are required to be provided during the Construction Certificate phase.

Item	***Comment***
Electricity supply	Electrical equipment is to be fire separated from the building in accordance with Clause C3D14 of the BCA. Any substation and/or main switchboard is to be constructed to achieve a fire-resistance level of 120/120/120 with the door being –/120/30 fire-rated unless higher FRL's required by electrical providers.
Class 2 corridor length	In a Class 2 building, a public corridor, if more than 40m in length, must be provided at intervals of not more than 40m with smoke-proof walls in accordance with Clause C3D15 of the BCA. Building B does propose for corridors having a length of more than 40m and will require smoke separation of the corridor. Assessment of the design confirms compliance is achieved. Further details are required to be provided during the Construction Certificate phase.
Protection of Openings	Openings in an external wall (i.e., a wall that is required to have a fire resistance level) must if situated less 3.0m from a fire-source feature to which it is exposed must be protected in accordance with Clause C4D5 of the BCA. Assessment of the architectural design has revealed that the development does not contain an opening situated less than the prescribed distance to a fire source feature Doorways to the fire- isolated stairways will be protected in accordance with the provisions of Clause C4D9 of the BCA. Openings to lift shafts will be protected by fire rated lift landing doors in accordance with the provisions Clause C4D11 of the BCA. All doorways to residential sole-occupancy units will be protected by fire door sets in accordance with the provisions Clause C4D12 of the BCA. Further details are required to be provided during the Construction Certificate phase.
Class 9 buildings	The early childhood center is to be fire separated from the remainder of the building and provided with a minimum of two (2) fire compartments in accordance with C3D6 of the BCA. Further details are required to be provided during the Construction Certificate phase.

<table>
<tr><th>Item</th><th>Comment</th></tr>
<tr><td>Fire sealing of penetrations</td><td>All service penetrations must be sealed to the requirements of Clause C4D13 and C4D15 of the BCA.

Garbage rooms and garbage service shafts, (including walls, floors, ceilings. doors and shutters) must be protected in accordance with Clause C4D14 of the BCA.

Further details are required to be provided during the Construction Certificate phase.</td></tr>
<tr><td>Bounding construction</td><td>All doorways within the Class 2 portion of the building that provide access to the following need to be protected;

▪ A room opening to a public corridor, public lobby, or the like; or
▪ Sole-occupancy residential units.

For Type A construction, the acceptable method of protect is a self-closing –/60/30 fire door in accordance with Clause C4D12 of the BCA.</td></tr>
<tr><td>Fire Resistance</td><td>The proposed building structure, being reinforced concrete floors, columns and the various shafts and cores, is to comply with the required fire resistance levels as specified in Clause 5C11 and Clause S5C2 of Specification 5 for Type A construction. Refer to Table S5C11a to S5C11G of Specification 5 for the specific FRL’s.

Required fire resistance levels (FRL) are generally as follows;

<table>
<tr><th>Class</th><th>FRL</th></tr>
<tr><td>Class 2</td><td>90/90/90</td></tr>
<tr><td>Class 5, 7a and 9b</td><td>120/120/120</td></tr>
<tr><td>Class 6</td><td>180/180/180</td></tr>
</table>

Where lightweight fire rated construction is proposed for walls, the system must comply with Specification 6 of Section C of BCA and the manufactures tested specification.

Further details are required to be provided during the Construction Certificate phase.</td></tr>
</table>

3.3 – Access and Egress (Section D, BCA)

Item	***Comment***
Number of exits required	The number exits in the building will generally achieve compliance with the provisions of Clause D2D3 of the BCA being at least two (2) exits in the basement car park and residential levels and early childhood centre. Assessment of the architectural design has revealed that the development achieves compliance to the car park and early childhood centre. Having regard to the residential levels, the design provides for two (2) exits to Building B. Buildings A and C are only provided with a single exit which will not achieve compliance with Clause D2D3 (7) of the BCA. The proposed non-compliance will be addressed in a Performance Solution in accordance with Clause A2G2 of the BCA and address Performance Requirements D1P4 and E2P2 of the BCA.
Fire-isolation of stairways.	Class 2 portion, all stairways serving as a required exit must fire-isolated if it connects more than three consecutive storeys in accordance with Clause D2D4 of the BCA. The proposed Class 2 part has stairways connecting more than three (3) storeys and therefore requiring the stairways to be fire-isolated. Class 7a building, all stairways serving as a required exit must fire-isolated as the stairways connect more than three consecutive storeys. Assessment of the architectural design has revealed that the development achieves compliance.
Exit travel distances.	<u>Class 2 – Residential SOUs</u> The exit travel distances on the residential levels exceeds 6 metres to an exit, or a point of choice from which travel in two different directions is available or a distance of more than 40m to an exit in accordance with Clause D2D5 the BCA. <u>Class 2 – Common Areas</u> No point on the floor of a room which is not in a residential sole-occupancy must be more than 20 m from an exit or from a point at which travel in different directions to 2 exits is available with a total travel distance of 40m in accordance with Clause D2D5 of the BCA.

Item	**Comment**
Exit travel distances Contd.	Assessment of the design has identified the distance of travel on the residential levels and the waste storage room exceeds the maximum distance of travel to a required exit. The proposed non-compliance will be addressed in a Performance Solution in accordance with Clause A2G2 of the BCA and address Performance Requirements D1P4 and E2P2 of the BCA. <u>Class 5, 6, 7a and 9b</u> No point on the floor must be more than 20 m from an exit or from a point at which travel in different directions to 2 exits is available with a total travel distance of 40m in accordance with Clause D2D5 of the BCA. Assessment of the architectural design has revealed that the travel distance exceeds 20m to a point of choice to a required exit to the basement level. The proposed non-compliance will be addressed in a Performance Solution in accordance with Clause A2G2 of the BCA and address Performance Requirements D1P4 and E2P2 of the BCA.
Distance between alternative exits	<u>Class 2</u> Distance between alternate exits is not to exceed a maximum of 45m in accordance with D2D6 of the BCA. Assessment of the distances between alternative exits to Building B achieves compliance with the DTS provisions <u>Class 5, 6 7a and 9b</u> Distance between alternate exits is not to exceed a maximum of 60m in accordance with D2D6 of the BCA. Assessment of the distances between alternative exits within the carpark portion does not achieve compliance with the DTS provisions and therefore it will necessary to undertake a fire safety engineering assessment to address the extended distance of travel. The proposed non-compliance will be addressed in a Performance Solution in accordance with Clause A2G2 of the BCA and address Performance Requirements D1P4 and E2P2 of the BCA.
Dimensions of exits.	Aggregate egress widths for all storeys in the building have been designed to ensure compliance with the provisions of Clause D2D8 of the BCA.

Item	**Comment**
Travel via fire isolated exits	The fire-isolated exits have been designed to comply with the requirements of Clause D2D12 of the BCA providing for a continuous path of travel to the level at which discharge to road or open space is provided. The fire isolated exits discharge at the ground floor level at which direct access to the roadway is provided. It is noted the where the fire-isolated stairway discharges within 6m of an external opening of the building the opening will be required to be protected internally in accordance with Clause C4D5 of the BCA. The design proposes to discharge the fire-isolated stairways within the Level 1 lobby to Building B which does not achieve compliance with the provisions of Clause D2D12 (2) of the BCA. The proposed non-compliance will be addressed in a Performance Solution in accordance with Clause A2G2 of the BCA and address Performance Requirements D1P5 and E2P2 of the BCA.
Discharge from exits	All fire isolated exit discharge to ground floor and level one which have direct access to the public road to which it is connected, the path of travel to the road must be by; ▪ A ramp or other incline having a gradient not steeper than 1:8 at any part, or not steeper than 1:14 if required by Part D4 of the BCA. ▪ A stairway in accordance with Clause D2D15 of the BCA. The design generally complies with the requirements of this Clause. The proposed non-compliance will be addressed in a Performance Solution in accordance with Clause A2G2 of the BCA and address Performance Requirements D1P5 and E2P2 of the BCA.
Electrical distribution boards	Electrical distribution boards located in the path of travel to an exit must be enclosed in a non-combustible enclosure and sealed to prevent the escape of smoke in accordance with Clause D3D8 of the BCA. Further details are required to be provided during the construction certificate phase.

Item	**Comment**
Construction of Stairways.	Stairway design and construction shall comply with the requirements specified in Clause D3D14 of the BCA. Riser (R) dimensions shall be between 115mm-190mm and going (G) dimensions between 250mm -355mm. The quantity (2R+G) shall be between 550mm-700mm. Stairway landing design and construction shall comply with the requirements specified in Clause D3D15 of the BCA. Generally, landings shall be not less than 750mm long and a maximum gradient of 1:50. Threshold design and construction shall comply with the requirements specified in Clause D3D16 of the BCA. Generally, the threshold of a doorway must not incorporate a step or ramp at any point closer than the width of the door leaf. Further details are required to be provided during the construction certificate phase.
Balustrades.	Balustrades are to be provided to all stairways, terraces and balconies in accordance with Clause D3D17 to D3D20 of the BCA. Balustrades protecting a difference in levels of over 4m must not have horizontal elements between 150mm and 760mm of the floor that facilitate climbing. Further details are required to be provided during the construction certificate phase.
Handrails	Handrails are to be provided to stairways and ramps as required by Clause D3D22 of the BCA and AS14281.2-2009 Further details are required to be provided during the construction certificate phase.
Egress Doors.	All required doorways will swing in the direction of egress and will be provided with the appropriate hardware in accordance with Clauses D3D24 and D3D26 of the BCA. Further details are required to be provided during the construction certificate phase.
Signs on Doors	All required exit doors to fire-isolated exit are required to be provided with door signage in accordance with Clause D3D28 of the BCA. Further details are required to be provided during the construction certificate phase.

Item	***Comment***
Protection of openable windows	Window openings where the floor is more than 2m above the surface beneath must be protected in accordance with BCA Clause D3D29 of the BCA in the bedrooms for the Class 2 part of the building.
Access for people with disabilities.	The building is to comply with: ▪ The Disability (Access to Premises — Buildings), Standards 2010; ▪ Part D4 of the BCA; ▪ Australian Standard AS 1428.1-2009. Buildings and parts of buildings must be accessible as required by Clauses D4D2, D4D3 and D4D4 of the BCA, unless exempted by Clause D4D5 of the BCA, which requires access as follows: <u>Class 2</u> To the entrance doorway of each sole-occupancy unit. <u>Class 2 – Common areas</u> Where a ramp complying with AS 1428.1 or a passenger lift is installed; ▪ to the entrance doorway of each sole-occupancy unit; and ▪ to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp. <u>Class 7a –</u> To and within all areas normally used by the occupants. Accessible car parking to be provided at the rate of 1 space per 100 spaces. Accessible car parking spaces are to have the minimum dimension and are to be provided with a dedicated share space in accordance with AS2890.6. The car parking spaces are to be located adjacent to the lift cores. Carparking for people with disabilities will be provided in accordance with Clause D4D6 of the BCA and AS2890.6 <u>Class 9b –</u> To and within all areas normally used by the occupants. It is considered the proposed design is capable of achieving compliance with the provisions of the BCA and adopted standards. A detailed assessment and access report is to be provided during the construction certificate phase.

3.4 – Services and Equipment (Section E, BCA)

Item	***Comment***
Hydrant Systems.	The building will be provided with a hydrant system in accordance with the provisions of Clause E1D2 of the BCA and AS 2419.1-2021. A regulated hydrant design, design declaration and design certification to be provided at the construction certificate stage.
Hose Reel Systems.	The Class 7a & 9b parts will be provided with a fire hose reel system in accordance with the provisions of Clause E1D3 of the BCA and AS 2441-2005. This system must cover the car park levels as well as all storeys relating to commercial/retail tenancies. A regulated hose reel design, design declaration and design certification to be provided at the construction certificate stage.
Sprinkler System	As the development has an effective height of more than 25m the development will require a sprinkler system throughout the entire development complying with Clause E1D5 and Specification 17 of Part E1 of the BCA. The system is to be designed in compliance with AS2118.1-2017. A regulated sprinkler design, design declaration and design certification to be provided at the construction certificate stage.
Portable Fire Extinguishers.	Fire extinguishers will be provided in accordance the provisions of Clause E1D14 of the BCA and AS2444-2001. Further details shall be provided for compliance assessment during the construction certificate design phase.
Fire Control Centre	A fire control centre will be provided in accordance the provisions of Clause E1D15 and Specification 19 of the BCA. Further details shall be provided for compliance assessment during the construction certificate design phase.

Item	***Comment***
Smoke Hazard Management.	<u>Class 2</u> o An automatic fire detection and alarm system in accordance with the provisions of Clauses E2D3 and E2D5 of the BCA and Specification 20 of the BCA. <u>Class 5 and 6</u> o An automatic fire detection and alarm system in accordance with the provisions of Clauses E2D3 and E2D6 of the BCA and Specification 20 of the BCA. <u>Class 7a</u> o The car park mechanical system is required to be designed to Clause E2D12 of the BCA, AS1668.2-2012 and Clause 5 of AS1668.1-2015 except that- ▪ Fans with metal blades suitable for operation at normal temperature; and ▪ Electrical power and control cabling need not be fire rated <u>Class 9b</u> o An automatic fire detection and alarm system in accordance with the provisions of Clauses E2D3 and E2D6 of the BCA and Specification 20 of the BCA. o Automatic shutdown of the air-conditioning system in accordance with the provisions of NSW Clauses E2D16 and Specification 20 of the BCA. <u>Fire-isolated exits</u> o Fire isolated exits serving more than 2 storeys below ground and serving an effective height of more than 25m in effective height will be required to be pressurized in accordance with Clause E2D4 of the BCA and AS1668.1-2015. A regulated smoke hazard management system design, design declaration and design certification to be provided at the construction certificate stage.

Item	***Comment***
Lift Services.	The passenger lifts are to be installed in accordance with Clause E3D2 of the BCA and Specification 24 of the BCA. Lifts are to be designed as emergency lifts and have the capacity to contain a stretcher in accordance with Clauses E3D3 and E3D5 of the BCA as the building has an effective height of greater than 25m. A sign must be provided in accordance with Clause E3D4 of the BCA warning against the use of lifts in a fire. The proposed lifts shall also comply with all requirements nominated by AS1735.12 and Clause E3D8 of the BCA with regards to facilities for people with disabilities. Fire services control are required to be provided to the lift service in accordance with Clause E3D9 to E3D12 of the BCA. A regulated lift service design, design declaration and design certification to be provided at the construction certificate stage.
Emergency Lighting.	Emergency lighting will be provided throughout the building in accordance with Clauses E4D2 and E4D4 of the BCA and AS/NZS2293.1-2018. A regulated emergency lighting system design, design declaration and design certification to be provided at the construction certificate stage.
Exit Signs.	Exit signs will be provided throughout the building in accordance with Clauses E4D5, E4D6 and E4D8 of the BCA and AS/NZS2293.1-2018. A regulated exit sign system design, design declaration and design certification to be provided at the construction certificate stage.
Early Warning & Intercommunication System (EWIS)	As the development has an effective height of more than 25m the development will require an EWIS throughout the entire development complying with Clause E4D9 of Part E1 of the BCA. The system is to be designed in compliance with AS1670.4-2018. A regulated EWIS design, design declaration and design certification to be provided at the construction certificate stage.

3.5 – Health and Amenity (Section F, BCA)

Item	***Comment***
Damp and External Weatherproofing.	Adequate measures will be employed to ensure compliance Performance Requirement F1P2 of the BCA is achieved in terms of the impact of surface water on the development. It is proposed to manage the disposal of surface water in accordance with F1D3 of the BCA. External waterproofing of the development will be designed in accordance with Clause F1D5 of the BCA. The building is capable of compliance subject to detailed design. Full documentation is to be provided for assessment at the Construction Certificate phase.
Wet Areas	The design of the internal wet areas will be undertaken in accordance with Clause F2D2 of the BCA and AS3740. Floor wastes are to be provided in accordance with Clause F2D4 of the BCA. The building is capable of compliance subject to detailed design. Full documentation is to be provided for assessment at the Construction Certificate phase.
Roof and Wall Cladding	The wall and roof coverings are to be designed to meet the requirements of Performance Requirement F3P1 of the BCA. It is proposed to prepare a verification report for the construction of the external walls in accordance with Verification Method F3V1 of the BCA. The RC roof construction is to be protected with an external waterproofing membrane complying with F1D5 of the BCA. Full documentation is to be provided for assessment at the Construction Certificate phase.
Sanitary and Other Facilities	<u>Class 2</u> Facilities are to be provided within the residential sole-occupancy units in accordance with the provisions of Clause F4D2 of the BCA. Assessment to the architectural design confirms compliance with the provisions of the BCA has been achieved.

Item	***Comment***
Sanitary and Other Facilities Contd.	<u>Class 5/6 and 9b</u> Facilities are to be provided within the commercial/retail parts and early childhood centre in accordance with the provisions of Clauses F4D4 & F4D5 of the BCA. Assessment to the architectural design confirms compliance with the provisions of the BCA can be readily achieved.
Room Heights	The development is required to achieve compliance with Clause F5D2 of the BCA with respect to achieving the following minimum room heights Class 2 habitable room– 2.4m Class 2 non habitable room – 2.1m Class 5/6 and 7a – 2.4m. Class 9b – 2.7m Assessment to the architectural design confirms compliance with the provisions of the BCA has been achieved.
Lighting	The development needs to provide natural light to all habitable rooms contained within the Class 2 portions of the development. This includes all rooms classified as studies. Assessment of the design confirms the residential sole-occupancy units have generally achieved compliance as required by Clauses F6D2(a) and F6D3 of the BCA. Full documentation is to be provided for assessment at the Construction Certificate phase. Artificial lighting may be provided throughout the remainder of the building in accordance with the provisions of Clause F6D5 of the BCA and AS1680.1-2009. The artificial lighting system is to be designed by an appropriately qualified electrical engineer at the construction certificate phase.
Ventilation	The residential portion of the development is required to be provided with ventilation system in accordance with the provisions of Clause F6D6 of the BCA. Ventilation may be provided by natural means as required by Clause F6D7 of the BCA or a mechanical system complying with AS 1668.2- 2012. Assessment of the design confirms the residential sole-occupancy units have generally achieved compliance with the provision of natural ventilation as required by Clause F6D7 of the BCA.

Item	***Comment***
Ventilation Contd.	The basement car park is to be ventilated in accordance with Clause F6D11 of the BCA and AS1668.2-2012. The mechanical ventilation systems are to be designed by an appropriately qualified mechanical engineer at the construction certificate phase.
Sound insulation	The floor separating the residential units and separating the sole occupancy units from public areas must achieve a sound insulation rating of Rw+Ctr (airborne) of not less than 50 and an Ln,w+Ci (impact) not more than 62 in accordance with Clause F7D5 of the BCA. Walls separating units must achieve a sound insulation rating of Rw+Ctr (airborne) of not less than 50 in accordance with Clause F7D6 of the BCA. Walls separating units from plant rooms, lift shafts, stairways corridors or other public areas must have an insulation rating of Rw (airborne) not less than 50 in accordance with Clause F7D6 of the BCA. Walls separating a bathroom, sanitary compartment, laundry or kitchen in one sole occupancy unit from a habitable room in another or separating a unit from a lift shaft must be of discontinuous construction in accordance with Clause F7D6 of the BCA. The doorway separating to sole occupancy unit from the public area must have an Rw not less than 30 in accordance with Clause F7D6 of the BCA. Soil, waste and stormwater services must be separated by construction having an Rw+Ctr (airborne) not less than • 40 if the room is a habitable room • 25 if the room is a non-habitable room. in accordance with Clause F7D7 of the BCA. An acoustic report is to be prepared by an appropriately qualified acoustic engineer to verify compliance with the provisions of Part F7 of the BCA at the construction certificate phase.

Item	***Comment***
Condensation management	For a Class 2 building, the following are applicable to the proposed development in accordance with Clause F8D3 of the BCA; Pliable building membrane, if installed within an external wall, must comply with the requirements below; • Comply with AS/NZS 4200.1; and • Be installed in accordance with AS 4200.2; and • Be a vapour permeable membrane for climate zones 6, 7 and 8; and • Be located on the exterior side of the primary insulation layer of wall assemblies that form the external envelope of a building. All exhaust systems installed in a kitchen bathroom, sanitary compartment or laundry must have a minimum flow rate of— ▪ 25 L/s for a bathroom or sanitary compartment; and ▪ 40 L/s for a kitchen or laundry. in accordance with Clause F8D4 of the BCA. Exhaust from a kitchen must be discharged directly or via a shaft or duct to outdoor air and exhaust from a bathroom, sanitary compartment, or laundry must be discharged to one of the following in accordance with F8D5 of the BCA; ▪ directly or via a shaft or duct to outdoor air; or ▪ to a roof space that is ventilated The building is capable of compliance subject to detailed design. Full documentation is to be provided for assessment at the Construction Certificate phase.

3.6 – Ancillary Provisions – (Section G, BCA)

Item	***Comment***
Cleaning of windows	All external windows located 3 or more storeys above ground level are to be provided with a safe manner of cleaning windows as required by NSW Clause G1D5 of the BCA as follows: ▪ All windows are to be capable of being cleaned wholly from within the building (i.e. pivot or reversible windows etc.); or ▪ By a method complying with the Occupational Health and Safety Act 2000 and regulations made under that Act. The building is capable of compliance subject to detailed design. Full documentation is to be provided for assessment at the Construction Certificate phase.
Occupiable outdoor areas	An outdoor occupiable area is to be designed in accordance with the provisions of Part G6 of the BCA. All lining, material or assembly in an occupiable outdoor area must comply with Clause C2D11 of the BCA as for an internal element. The construction of exits must comply with Part D2 of the BCA The building is capable of compliance subject to detailed design. Full documentation is to be provided for assessment at the Construction Certificate phase.

3.7 – Energy Efficiency (Section J, BCA)

Class 2

The residential Class 2 part of the building is to be designed to comply with two mandatory requirements 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 applicable sections of NSW Section J are to be complied with; these clauses are:

Item	***Comment***
Thermal Construction – general	Required insulation must comply with NSW Clause J4D3 of the BCA. Full documentation is to be provided for assessment at the Construction Certificate phase.
Building Sealing	External envelope must comply with NSW Clause J5D2 of the BCA. Full documentation is to be provided for assessment at the Construction Certificate phase.
Air-Conditioning and Ventilation System	The air-conditioning and ventilation system of the development is required to be designed to comply with Part J6 of the BCA. The building is capable of compliance subject to detailed design. Full documentation is to be provided for assessment at the Construction Certificate phase.

Cass 5/6, 7a and Class 9b

The following BCA Section J provisions are applicable to the early childhood centre, commercial/retail and car parking portions.

Item	***Comment***
Building Fabric	The energy efficiency of any new external fabric must comply with Part J4 of the BCA as appropriate to Climate Zone 6 and the orientation, exposure and shading of the window. Full documentation is to be provided for assessment at the Construction Certificate phase.

Item	**Comment**
Building Sealing	Openings in the building such as doors, windows, exhaust fans and ventilation systems must be sealed to the requirements of Part J5 of the BCA as appropriate to Climate Zone 5. In that regard, all external doorways must be fitted with a draft seal. Full documentation is to be provided for assessment at the Construction Certificate phase.
Air-Conditioning and Ventilation System	The air-conditioning and ventilation system of the development is required to be designed to comply with Part J5 of the BCA. The building is capable of compliance subject to detailed design. Full documentation is to be provided for assessment at the Construction Certificate phase.
Artificial Lighting and Power	The building is to maintain maximum lighting power levels and control systems as applicable. The design of lighting systems must comply with Part J6 of the BCA. The building is capable of compliance subject to detailed design. Full documentation is to be provided for assessment at the Construction Certificate phase.
Facilities for energy monitoring	The building is to have facilities energy monitoring in compliance with Clause J8.3 of the BCA The building is capable of compliance subject to detailed design. Full documentation is to be provided for assessment at the Construction Certificate phase.
Energy monitoring and on-site distributed energy resources	The building is to have facilities energy monitoring in compliance with Clause J9D3 of the BCA. The building is to have provisions for solar photovoltaic and battery systems in compliance with Clause J9D5 of the BCA. The building is capable of compliance subject to detailed design. Full documentation is to be provided for assessment at the Construction Certificate phase.

4.0 – Fire Safety and Other Measures

4.1 – Proposed Fire Safety Measures

In terms of the proposed works the following fire safety measures are proposed to be installed: -

Fire Safety Measure	Minimum Standard of Performance
Access panels, doors and hoppers	BCA 2022 AMDT 1 Clause C4D14
Automatic fail safe devices	BCA 2022 AMDT 1 Clause D3D24 & D3D26
Automatic fire detection and alarm system	BCA 2022 AMDT 1 Clause E2D3, E2D4, E2D5, E2D6, E2D12, NSW E2D16 Spec 20 Clause S20C3/S20C4/S20C5, S20C6 AS 1670.1 – 2018, AS 3786-2014
Automatic fire suppression system	BCA 2022 AMDT 1 E1D5, D1D6, E1D9, E1D11 AS 2118.1-2017
Emergency lifts	BCA 2022 AMDT 1 Clause E3D5 & AS 1735.2 - 2001
Emergency lighting	BCA 2022 AMDT 1 E4.2, E4.4, AS/NZS 2293.1 –2018
Exit and directional signage	BCA 2022 AMDT 1 E4D5, E4D6, E4D8 AS/NZS 2293.1 –2018
Early Warning and Intercommunication Systems (EWIS)	BCA 2022 AMDT 1 Clause E4D9 & AS 1670.4 - 2018
Fire alarm monitoring system	BCA 2022 AMDT 1 Spec 20 Clause S20C8 AS 1670.3 - 2018
Fire control centres	BCA 2022 AMDT 1 Clause E1D15, Spec. 19
Fire dampers	BCA 2022 AMDT 1 C4D15, Spec 13 AS 1668.1 – 2015, AS1682.1 and AS1682.2
Fire doorsets	BCA 2022 AMDT 1 C3D13, C3D14, C4D9, C4D11, C4D12 AS/NZS 1905.1 – 2015
Fire Engineering Report addressing: 1. To permit a reduction in the number of exits serving a storey 2. To permit an extended distance of travel to a required exit and point of choice 3. To permit an extended distance of travel between alternate required exits 4. To permit the fire-isolated exits to discharge within the building	Fire Engineering Guidelines
Fire hydrant systems	BCA 2022 AMDT 1 E1D2, C3D13 AS 2419.1 – 2021

Fire Safety Measure	Minimum Standard of Performance
Fire hose reel systems	BCA 2022 AMDT 1 E1D3 AS 2441 – 2005
Fire seals (protecting openings and service penetrations in fire resisting components of the building)	BCA 2022 AMDT 1 C4D15, C4D16, Spec 13, AS4072.1-2005
Lightweight construction	BCA 2022 AMDT 1 C4D12, Manufacturer's specifications AS1530.4-2014
Mechanical air-handling systems	BCA 2022 AMDT 1 F6D11, Spec 20 AS1668.2–2012, Clause 5.5 of AS/NZS1668.1-2015
Openings in fire-isolated lift shafts	BCA 2022 AMDT 1 C4D11, Spec 24 AS1735.11-1986
Portable fire extinguishers	BCA 2022 AMDT 1 E1D14 AS 2444 – 2001
Pressurising Systems	BCA 2022 AMDT 1 Clause E2D4, AS/NZS 1668.1 – 2015
Smoke doors	BCA 2022 AMDT 1 Clause C3D15
Warning and operational signs	BCA 2022 AMDT 1 D3D28, D4D7, E3D4 Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 Section 108

5.0 – Conclusion

Assessment of the proposed mixed-use development at 691 – 695 Victoria Road, Ryde, will in our opinion is capable of achieve compliance with the Building Code of Australia (BCA) 2022 and relevant adopted Australian Standards.

Signed,

Vic Lilli
VPL Consulting Pty Ltd

6.0 – References

6.1 – Basis of Report

This BCA Capability report has been prepared on the basis of the following-

(i) Architectural Plans prepared by CDArchitects

Drawing No.	Title	Revision	Date
DA1001	Cover Sheet	D	22.05.2025
DA1006	Site Plan	D	22.05.2025
DA1012	Site Analysis – Plan	A	22.05.2025
DA1100	Basement 3 Floor Plan	D	22.05.2025
DA1101	Basement Level 2 Floor Plan	D	22.05.2025
DA1102	Basement Level 1 Floor Plan	D	22.05.2025
DA1103	Overall Ground Floor Plan	D	22.05.2025
DA1104	Overall Level 1 Floor Plan	D	22.05.2025
DA1105	Overall Level 2 Floor Plan	D	22.05.2025
DA1106	Overall Level 3 Floor Plan	D	22.05.2025
DA1107	Overall Level 4 Floor Plan	D	22.05.2025
DA1108	Overall Level 5 Floor Plan	D	22.05.2025
DA1109	Overall Level 6 Floor Plan	D	22.05.2025
DA1110	Overall Level 7 Floor Plan	D	22.05.2025
DA1111	Overall Level 8 Floor Plan	D	22.05.2025
DA1112	Roof Plan	D	22.05.2025
DA2001	North Elevation	D	22.05.2025
DA2002	South Elevation	D	22.05.2025
DA2004	West Elevation	D	22.05.2025
DA2011	Building A North Elevation	D	22.05.2025
DA2012	Building A South Elevation	D	22.05.2025
DA2013	Building A East Elevation	D	22.05.2025
DA2014	Building A West Elevation	D	22.05.2025
DA2021	Building B North Elevation	D	22.05.2025
DA2022	Building B South Elevation	D	22.05.2025
DA2023	Building B East Elevation	D	22.05.2025
DA2024	Building B West Elevation	D	22.05.2025
DA2031	Building C North Elevation	D	22.05.2025
DA2032	Building C South Elevation	D	22.05.2025
DA2033	Building C East Elevation	D	22.05.2025
DA2034	Building C West Elevation	D	22.05.2025
DA2051	Façade Details – Building A	B	22.05.2025
DA2051	Façade Details – Building B	B	22.05.2025
DA2051	Façade Details – Building B	B	22.05.2025
DA2051	Façade Details – Building D	B	22.05.2025
DA3001	Building Sections	D	22.05.2025
DA3002	Building Sections = No. 2& 4 Hatton & Building C	A	22.05.2025

(ii) Building Code of Australia (BCA) 2022 Amendment 1

(iii) Environmental Planning and Assessment Act, 1979, and Regulations.

(iv) Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021