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Building Compliance

BUILDING CODE OF AUSTRALIA 2022 ASSESSMENT REPORT

PROPOSED RESTAURANT DEVELOPMENT

40 MYOORA ROAD, TERREY HILLS, NSW 2084

Report prepared for:

H&E Architects
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Surry Hills, NSW 2010

Attention: Megan Naylor

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REVISION HISTORY

Revision No.	Prepared by	Description	Date
R01	Shaneel Sharma	Draft BCA report for review and comment	23/08/2024
R02	Shaneel Sharma	Updated BCA report – Final	13/09/2024

1.0 Introduction and Documentation

At the request of H&E Architects, we offer comments and recommendations with respect to Building Code of Australia 2022 compliance for the proposed development located at 40 Myoora Road, Terrey Hills, NSW 2084. The following plans prepared by H&E Architects have been assessed for the purpose of this report:

Drawing No/Rev.	Date
DA1-0000/12, DA1-0500/11, DA1-1010/12, DA1-1011/12, DA1-1013/11, DA1-1022/12, DA1-1023/11, DA1-1024/03, DA1-1200/03, DA1-1201/03, DA1-3100/09, DA1-4100/11, DA1-4101/11, DA1-4102/10, DA1-4110/11, DA1-4111/11, DA1-4112/10, DA1-4120/11, DA1-4121/11, DA1-4122/10, DA1-4130/10, DA1-9030/03	03/09/2024

We have reviewed the submitted architectural plans as tabulated above for compliance with the deemed-to-satisfy provisions of the Building Code of Australia 2022. Where compliance with the deemed to satisfy provisions is not possible a schedule of performance solutions will be required. We have made every attempt to cover the main issues under Sections B, C, D, E, F, G & J of the Building Code of Australia. Areas of the design are still being refined so that resolution will be possible prior to the issue of a Construction Certificate (CC) for the works.

It is the responsibility of all designers and engineers to ensure that the design complies with the requirements of the Building Code of Australia, the Australian Standards and the applicable legislation. This report does not infer compliance of the design at this stage of documentation. Further assessment will be required to validate the full compliance of the building design.

This report does not assess the impact of the Disability Discrimination Act (DDA) which is outside the scope of the BCA nor does it include compliance with Part D4, F4D5 or F4D6 of the BCA. Refer to the Access Consultant's Report for DDA compliance. Any Access design amendments or additional information is to be addressed prior to the issue of a CC.

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2.0 Non-compliances and Potential List of Fire Safety and Other Performance Solutions

The following list has been compiled based on a desktop review of the architectural plans submitted to date and are highlighted throughout the body of this report against the relevant BCA 2022 DtS Provisions in **red**. Items are still being developed at this stage and will need reassessment with respect to justification of performance solutions and further assessment as the design changes and progresses. Coordination with the design team will be needed to determine if the intent is to propose a DtS solution or if a fire engineered solution is preferred.

BCA Reference	Details of Non-compliance
C4D4	Separation of external walls and openings in different fire compartments at basement car park entry: - The basement car park entry can't be afforded the required FRLs / protection in accordance with the BCA DtS provisions. I.e., car park entry is a void opening that does not have a doorway/roller shutter that can be protected
C4D6	Roller shutter within the fire wall between the basement car park fire compartment and storeroom not achieving the required FRL integrity and/or insulation criteria.
	Glazed doorway to the fire separated lift lobby within the basement car park not achieving the required FRL of at least -/90/30.
	Glazed doorways within the fire wall leading to the central stair on the Restaurant 02 level not achieving the required FRL of at least -/90/30.
	Lift doors to the central lift not achieving an FRL of at least -/90/30. Note: The concession for lift doors in accordance with C4D11 cannot be applied as there are no provisions for fire-isolated / resisting lift shafts in Type C construction and as such the lift shaft walls must adopt the FRLs as required of a fire wall in accordance with Spec 5 to maintain fire separation of compartments. Therefore, these lift doors must be treated as doorways in a fire wall.
D2D5	Up to 46m to the nearest exit in lieu of 40m in the basement car park.

BCA Reference	Details of Non-compliance
D2D6	Up to 83m between exits in lieu of 60m in the basement car park.
D2D8	Clear widths of less than 1m within: - Restaurant 01 bar and kitchen - Restaurant 02 kitchen, wash up area and cooklines - Restaurant 03 kitchen
D2D12 & AS 2419.1-2021	Omission of an airlock between the basement car park pump room and the adjoining fire-isolated stairway is to be addressed by fire engineering.
E1D3	Omission of hose reel coverage to the fire separated lift lobby within the basement car park.

Areas outside fire safety that may have possible variances from the deemed to satisfy provisions and hence addressable by performance solutions that may also need to be considered are as follows: -

BCA Reference	Details of Non-compliance
F3P1	A roof and external wall (including openings around windows and doors) must prevent the penetration of water that could cause — (a) unhealthy or dangerous conditions, or loss of amenity for occupants; and (b) undue dampness or deterioration of building elements.

Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements F3P1 is satisfied by complying with the DtS prescriptive requirements of F3D2 to F3D5.

3.0 Building Assessment

Class and use and type of construction of the buildings are as follows:

BCA Parameters	
BCA Classifications	GF Entry Level / Basement - Class 6 (Restaurant) & Class 7a (Car Park)
	Level 01 / Restaurants 01 & 02 Level - Class 6 (Restaurant) & Class 7b (Storage Areas / Loading Dock)
	Level 02 / Restaurant 03 Level - Class 6 (Restaurant)
Rise in Storeys (RIS)	2 (Basement car park is completely underground where the topmost storey starts)
Number of Storeys	3
Effective Height	<12m (6.71m)
Type of Construction	C
Floor Area	GF Entry Level / Basement – Approx. 4,945m^2
	Level 01 / Restaurants 01 & 02 Level – Approx. 3,670m^2
	Level 02 / Restaurant 03 Level – Approx. 1,806m^2
Fire Compartment	Max. Fire Compartment Floor Area (excl. Basement Car Park) = < 2000m^2 (Approx. 1771m^2 for Restaurant 02 Fire Compartment) Max. Fire Compartment Volume (excl. Basement Car Park) = <12000m^3 (TBC but likely to be less than 12000m^3) *Note: The basement car park must be provided with a sprinkler system complying with Specification 17 of the BCA thus achieving the fire compartment area / volume limitation concession in accordance with BCA Clause C3D2.*
Structural Importance Level	Structural Engineer to confirm
Climate Zone	5

Building Classifications

The following BCA Classifications are considered applicable to the proposed works based on the classification and use of the building **in accordance with advice from the architect confirming that the development is <u>not</u> purposed for public events / functions i.e., <u>not</u> used as an assembly building.**

<u>Class 6 buildings</u>
A Class 6 building is a shop or other building used for the sale of goods by retail or the supply of services direct to the public, including—
(1) an eating room, café, restaurant, milk or soft-drink bar; or
(2) a dining room, bar area that is not an assembly building, shop or kiosk part of a hotel or motel; or
(3) a hairdresser's or barber's shop, public laundry, or undertaker's establishment; or
(4) market or sale room, showroom, or service station.
(5) small live music or arts venue.

Small live music or arts venue:
The whole or **part of a building**—

1. in which cultural activities including **live music**, visual arts' displays, dancing, poetry and spoken word **performances are provided to the public; and**
2. **that has a floor area of not more than 300 square metres; and**
3. **that has a rise in storeys of not more than 2; and**
4. **that occupies not more than 2 storeys including the ground floor storey; and**
5. **where pyrotechnics or theatrical smoke (smoke machines, hazers or the like) are not used.**

<u>Class 7 buildings</u>
A Class 7 building is a storage-type building including the following sub-classifications:

1. Class 7a — a carpark.
2. Class 7b — a building that is used for storage.

4.0 Structure

Clause	Description	Requirement	Assessment
SECTION B - STRUCTURE			
Section B	Structure	Structural provisions	The structural components of the building must comply with the applicable Australian Standards. A structural engineer will need to ensure the structural requirements of BCA Clauses B1D2, B1D3, and B1D4 are considered in the building design (including the importance level of the building). This will mean assessment according to all relevant parts of Section B of the Building Code of Australia and where any provisions cannot be met, a performance solution to be formulated for consideration of the relevant project stakeholders. Under Part B1D1 of the Building Code of Australia (BCA), a building or structure must be designed to withstand loads including earthquake loads in accordance with AS1170.1-2002, AS1170.2-2021, AS1170.4-2007, as appropriate. Whilst earthquake loads have obvious implications to the structural design of a building or structure and any alterations to structural elements within an existing building or structure, it is important to note that within AS1170.4-2007, there is also an obligation for certain non-structural parts, components and their connections to be designed & constructed to withstand earthquake loads. Structural Engineer to note the requirements for the development prior to issue of a Construction Certificate. Compliance is readily achievable. Structural design and certification required prior to the issue of the Construction Certificate for the works.

5.0 Fire Resistance

Clause	Description	Requirement	Assessment
SECTION C – FIRE RESISTANCE			
C2D2	Type of construction required	Type C construction is required. Refer to Appendix A of this report for specific FRLs applicable to this building.	Structural Engineer to note the requirements for the development in accordance with the requirements of Tables S5C24a - S5C24e of Specification 5. Compliance readily achievable. Details demonstrating compliance must be provided with the application for CC.
C2D3	Calculation of rise in storeys	The rise in storeys is the sum of the greatest number of storeys at any part of the external walls of the building and any storeys within the roof space – (a) above the finished ground next to that part; or (b) if part of the external wall is on the boundary of the allotment, above the natural ground level at the relevant part of the boundary.	The maximum rise in storeys is calculated to be 2 as the basement car park level is completely underground below the L2 / Restaurant 03 level.
C2D9	Lightweight construction	If lightweight construction is utilised to achieve the required FRL, it must comply with Specification 6 of the BCA. Details demonstrating compliance must be submitted with the application for CC.	Architect to note.
C2D11	Fire hazard properties	All new surface finishes, assemblies and linings are to comply with BCA Clause C2D11 and Specification 7 including NSW variations with regard to Fire Hazard Properties of varies finishes and materials within the building.	Compliance can be readily achievable. All new floor, wall and ceiling details to be provided demonstrating compliance with Specification 7 prior to issue of a CC.
C2D12	Performance of external walls in fire	Concrete external walls that could collapse as complete panels (e.g. tilt-up and pre-cast concrete), in a building having a rise in storeys of not more than 2, must comply with Specification 8.	Architect and structural engineer to note.
C3D2	Application of part	C3D3, C3D4 and C3D5 do not apply to a carpark provided with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17, an open-deck carpark or an open spectator stand. C3D13(1)(e) does not apply to a Class 8 electricity network substation.	The fire compartment floor area and volume limitations do not apply to the basement car park as it must be provided with a sprinkler system complying with Specification 17 when accommodating more than 40 vehicles.

<table>
<tr><th>Clause</th><th>Description</th><th>Requirement</th><th>Assessment</th></tr>
<tr><td>C3D3</td><td>General floor area and volume limitations</td><td>The table below depicts the floor area and volume limitations applicable for Type C construction.
<table><tr><td>Classification</td><td>Type C Construction</td></tr><tr><td>Class 6 & 7</td><td>Max floor area – 2000m2</td></tr><tr><td></td><td>Max volume – 12000m2</td></tr></table></td><td>Refer to the architects proposed fire compartmentation plan.

Maximum Fire Compartment Floor Area (excl. Basement Car Park) = < 2000m^2 (Approx. 1771m^2 for Restaurant 02 Fire Compartment)

Maximum Fire Compartment Volume (excl. Basement Car Park) = <12000m^3 (TBC but likely to be less than 12000m^3)</td></tr>
<tr><td>C3D8</td><td>Separation by fire walls</td><td>Separation of fire compartments — A part of a building separated from the remainder of the building by a fire wall may be treated as a separate fire compartment if it is constructed in accordance with (a) and the fire wall extends to the underside of—
a. a floor having an FRL required for a fire wall; or
b. the roof covering.</td><td>Floors other than those directly laid on ground will need to achieve an FRL of at least 90/90/90 to maintain fire compartment separation. Other walls not terminating at a slab must be extended to the roof covering.
Also refer to Clause D3D12 for additional floor FRL requirements.</td></tr>
<tr><td>C3D9</td><td>Separation of classifications in the same storey</td><td>If a building has parts of different classifications located alongside one another in the same storey—
a. each building element in that storey must have the higher FRL prescribed in Specification 5 for that element for the classifications concerned; or
b. the parts must be separated in that storey by a fire wall.</td><td>As Type C Construction is required the same FRLs apply to the Class 6, 7a and 7b as per Specification 5 of the BCA.</td></tr>
<tr><td>C3D11</td><td>Separation of lifts shafts</td><td>Any lift connecting more than 2 storeys, or more than 3 storeys if the building is sprinklered, (other than lifts which are wholly within an atrium) must be separated from the remainder of the building by enclosure in a shaft which achieves an FRL in accordance with Specification 5 for Type A and Type B construction (when loadbearing) and if non-loadbearing in Type B construction, be of non-combustible construction.</td><td>As Type C Construction is applied, fire rating of lift shafts is only required to separate fire compartments. Where fire separation is required, lift shaft walls must achieve an FRL of at least 90/90/90 in accordance with Specification 5 Table S5C24c for fire walls.</td></tr>
<tr><td>C3D12</td><td>Stairways and lifts in one shaft</td><td>A stairway and lift must not be in the same shaft if either the stairway or the lift is required to be in a fire-resisting shaft.</td><td>The stairway adjacent to the indicated accessible parking spaces within the basement car park is not required to be a fire-isolated stairway as it only connects 2 storeys. Therefore, the lift and stairway may share the lobby.</td></tr>
<tr><td>C3D13</td><td>Separation of equipment</td><td>Equipment comprising of lift motors, lift control panels, emergency generators, central smoke control plant, boilers or a battery or batteries installed in the building that have a total voltage exceeding 12 volts and a storage capacity exceeding 200kWh must be constructed with an FRL in accordance with Spec 5 but not less than 120/120/120 and any doorway protected with a self-closing fire door having an FRL of not less than -/120/30.</td><td>Services engineer or architect to confirm if at all applicable prior to issue of any CC.</td></tr>
</table>

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<tr><th>Clause</th><th>Description</th><th>Requirement</th><th>Assessment</th></tr>
<tr><td>C3D14</td><td>Electricity supply system</td><td>An electricity substation or main switchboard that sustains emergency equipment operating in the emergency mode located within a building must be separated from other parts of the building by construction having an FRL of not less than 120/120/120, and doorways in that construction to be self-closing fire doors with an FRL of not less than -/120/30.</td><td>Designers to note. A MSB Room sustaining emergency equipment must be fire separated by FRL 120/120/120 construction. Details demonstrating compliance must be provided with the application for CC.</td></tr>
<tr><td>C4D3</td><td>Protection of openings in external walls</td><td>Any openings in an external wall required to have an FRL must be protected in accordance with BCA C3.4 and if used, wall-wetting sprinklers are to be externally fitted to fixed shut windows.</td><td>Designers to note. Some external walls are within 3m of the side boundary and any openings must comply.</td></tr>
<tr><td>C4D4</td><td>Separation of external walls and associated openings in different fire compartments</td><td>The distance between parts of external walls and any openings within them in different fire compartments separated by a fire wall must not be less than that set out in Table C4D4, unless—
a. those parts of each wall have an FRL not less than 60/60/60; and
b. any openings are protected in accordance with C4D5.

Table C4D4 Distance between external walls and associated openings in different fire compartments
<table><tr><th>Angle between walls</th><th>Minimum distance (m)</th></tr><tr><td>0° (walls opposite)</td><td>6</td></tr><tr><td>more than 0° to 45°</td><td>5</td></tr><tr><td>more than 45° to 90°</td><td>4</td></tr><tr><td>more than 90° to 135°</td><td>3</td></tr><tr><td>more than 135° to less than 180°</td><td>2</td></tr><tr><td>180° or more</td><td>Nil</td></tr></table></td><td>The basement car park entry can’t be afforded the required FRLs / protection in accordance with the BCA DtS provisions. I.e., car park entry is a void opening that does not have a doorway/roller shutter that can be protected. This must be addressed by Fire Engineering, or a DtS Solution be sought through amended design.

The external wall of the Restaurant 01 fire compartment perpendicular to the basement car park entry must be afforded an FRL of at least 60/60/60 for a distance of up to 4m away from the car park entry. Details demonstrating compliance must be provided with the application for CC.

This clause also applies to the external walls of the keg room and Restaurant 02 Office which are exposed to each other at 90^0. The external walls within 4m of each other must achieve an FRL of at least 60/60/60 with the external doorway to the office being a -/60/30 self-closing fire rated door. Details demonstrating compliance must be provided with the application for CC.</td></tr>
<tr><td>C4D6</td><td>Doorways in fire walls</td><td>The aggregate width of openings for doorways in a fire wall, which are not part of a horizontal exit, must not exceed ½ of the length of the fire wall, and each doorway must be protected by—
a. 2 fire doors or fire shutters, one on each side of the doorway, each of which has an FRL of not less than ½ that required by Specification 5 for the fire wall except that each door or shutter must have an insulation level of at least 30; or
b. a fire door on one side and a fire shutter on the other side of the doorway, each of which complies with (a); or</td><td>All doorways within the fire walls separating fire compartments must be self / auto closing doors which achieve an FRL of at least -/90/30.

Fire engineering is needed to address:
- roller shutters within fire walls if they do not achieve the required FRL integrity and/or insulation criteria.
- glazed doorways within fire walls not achieving the required FRL.
- lift doors to the central lift not achieving an FRL of at least -/90/30. Note: The concession for lift doors in accordance with C4D11 cannot be applied as there are no provisions for fire-isolated / resisting lift shafts in Type C construction and as such the lift shaft walls must adopt the FRLs as required of a fire wall in accordance with Spec 5 to maintain fire separation of compartments. Therefore, these lift doors</td></tr>
</table>

Clause	Description	Requirement	Assessment
		c. a single fire door or fire shutter which has an FRL of not less than that required by Specification 5 for the fire wall except that each door or shutter must have an insulation level of at least 30. A fire door or fire shutter required by (a), (b) or (c) must be self-closing, or automatic closing.	**must be treated as doorways in a fire wall.**
C4D13	Openings in floors and ceilings for services	Where a service passes through a floor that is required to have an FRL with respect to integrity and insulation, the service must be protected: a. in a building of Type A construction, by a shaft complying with Specification 5; or b. in a building of Type B or C construction, by a shaft that will not reduce the fire performance of the building elements it penetrates; or c. in accordance with C4D15.	**Designers to note. Clause applies due to the required fire compartment separation. Floors must achieve an FRL.**
C4D16	Construction Joints	Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation must be protected in a manner identical with a prototype tested in accordance with AS 4072.1 and AS 1530.4 to achieve the required FRL; or that differs from a prototype in accordance with Section 4 of AS 4072.1 and achieves the required FRL.	**This requirement will apply to any construction joints at the external walls within 3m of the side boundary, within fire walls and fire rated floors.**

6.0 Access and Egress

Clause	Description	Requirement	Assessment
SECTION D – ACCESS AND EGRESS			
D2D3	Number of exits required	A minimum of 2 exits must be provided from basements when the floor area exceeds 50m^2.	Multiple exits are provided for the basement car park. Complies.
D2D4	When fire-isolated stairways and ramps are required	Every stairway or ramp serving as a required exit must be fire-isolated unless it connects, passes through or passes by not more than 2 consecutive storeys and one extra storey of any classification may be included if the building has a sprinkler system (other than a FPAA101D system)	**None of the proposed stairways connects more than 2 consecutive storeys however the stairway serving the basement pumproom must be a fire-isolated stairway as required by AS 2419.1-2021.**

Clause	Description	Requirement	Assessment
		complying with Specification 17 installed throughout.	
D2D5	Exit travel distances	No point on a floor must be more than 20 m from an exit, or a point from which travel in different directions to 2 exits is available, in which case the maximum distance to one of those exits must not exceed 40 m.	**Unless a DtS Solution is sought through amended design, fire engineering must be provided to address extended travel distances for the below:** - **Travel distances of up to 46m to the nearest exit within the basement car park.**
D2D6	Distance between alternative exits	Exits used as alternative means of egress must be no closer than 9m apart and no more than 60m apart. Alternate paths must also not converge to less than 6m apart.	**Unless a DtS Solution is sought through amended design, fire engineering must be provided to address extended travel distances for the below:** - **Up to 83m to the nearest exit within the basement car park.**
D2D7	Height of exits, paths of travel to exits and doorways)	In a required exit or path of travel to an exit the unobstructed height throughout must be not less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1980 mm.	Compliance readily achievable.
D2D8	Width of exits and paths of travel to exits	The minimum unobstructed width of required exits must not be less than 1m throughout the building except doorways where it can be reduced by no more than 250mm. In a story which accommodates more than 200 people, the aggregate unobstructed width of the required exits or path of travel to an exit must not be less than 2m plus 500mm for each 60 persons in excess of 200.	**Clear widths of less than 1m are proposed within the below areas:** - **Restaurant 01 bar and kitchen** - **Restaurant 02 kitchen, wash up area and cooklines** - **Restaurant 03 kitchen** **Reduced path of travel widths below 1m to be addressed via Fire Engineering.** Based on the number of exits the following populations may be accommodated. - Entry Level (Restaurant 01): 2m aggregate exit = 200 staff & patrons. - Level 01 / Restaurants 01 & 02 Level: 10.5m aggregate exit = 1,220 staff & patrons. - Level 02 / Restaurant 03 Level: 7.5m aggregate exit = 860 staff & patrons. A total of 2,280 occupants can be accommodated in accordance with the provided aggregate egress width. Architect has confirmed that the maximum patron population capacity for the whole site is 794 patrons, and it is expected that the total site population capacity will not exceed 2,280.
D2D11	Determination and measurement of exits and paths of travel to exits	The required width of a stairway or ramp in a required exit or path of travel to an exit must be measured clear of all obstructions such as handrails, projecting parts of barriers and the like; and extend without interruption, except for ceiling cornices, to a height not less than 2 m vertically above a line along the nosings of the treads or the floor surface of the ramp or landing.	Compliance readily achievable.
D2D12	Travel via fire-isolated exits	A doorway from a room must not open directly into a stairway, passageway or ramp that is required to be fire-isolated unless it is from— a. a public corridor, public lobby or the like; or	**Omission of an airlock between the basement car park pump room and the adjoining fire-isolated stairway is to be addressed by fire engineering.** **This applies to the discharge of the required fire-isolated stairway serving the**

Clause	Description	Requirement	Assessment
		b. a sole-occupancy unit occupying all of a storey; or c. a sanitary compartment, airlock or the like. Where a path of travel from the point of discharge of a fire-isolated exit necessitates passing within 6 m of any part of an external wall of the same building, measured horizontally at right angles to the path of travel, the following applies: a. That part of the wall must have— i. an FRL of not less than 60/60/60; and ii. any openings protected internally in accordance with C4D5; and b. The protection required by (a) must extend for a distance of 3 m above or below, as appropriate, the level of the path of travel, or for the height of the wall, whichever is the lesser.	**basement pump room. (Noting that the stairway is required to be fire-isolated in accordance with AS 2419.1-2021). All external walls perpendicular to the discharge path of the fire isolated stairway must achieve an FRL of at least 60/60/60 and any openings be protected in accordance with C4D5. Details demonstrating compliance must be provided with the application for CC.**
D2D14	Travel by non-fire-isolated stairways	A non-fire-isolated stairway serving as a required exit must provide a continuous means of travel by its own flights and landings from every storey served to the level at which egress to a road or open space is provided. The distance from any point on a floor to a point of egress to a road or open space by way of a required non-fire-isolated stairway or non-fire-isolated ramp must not exceed 80 m. A required non-fire-isolated stairway or non-fire-isolated ramp must discharge at a point not more than 20 m from a doorway providing egress to a road or open space or from a fire-isolated passageway leading to a road or open space; or 40 m from one of 2 such doorways or passageways if travel to each of them from the non-fire-isolated stairway or non-fire-isolated ramp is in opposite or approximately opposite directions.	Design complies.
D2D15	Discharge from exits	An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit, or access to it. Where required exit leads to open space, path of travel to the road must be minimum 1m or the minimum width of the required exit. Also, the path of	Egress widths to Myoora and Mona Vale Roads have been provided. Currently the provided aggregate egress width to road of approx. 14.5m can cater for max. total 1700 occupants. Architect has confirmed that the maximum patron population capacity for the whole site is 794 patrons, and it is expected that the total site population capacity will not

Clause	Description	Requirement	Assessment
		travel to the road must have a gradient not steeper than 1:8 or 1:14 where required by Part D4 of the BCA2022.	exceed 1700. **Architect to ensure that discharge of occupants from the upper levels to Mona Vale Road is facilitated via paved and/or unpaved paths that do not exceed a gradient of 1:8. An openable gate must also be provided at the boundary fence for occupants to reach Mona Vale Road.**
D2D18	Number of persons accommodated	The number of persons accommodated in a storey must be determined with consideration to the purpose for which it is used and the layout of the floor area by calculating the sum of the numbers obtained by dividing the floor area of each part of the storey by the number of square metres per person listed in Table D2D18 according to the use of that part, excluding spaces set aside for— (i) lifts, stairways, ramps and escalators, corridors, hallways, lobbies and the like; and (ii) service ducts and the like, sanitary compartments or other ancillary uses; or (iii) reference to the seating capacity in an assembly building or room; or (iv) any other suitable means of assessing its capacity.	Refer to D2D8 above. The number of occupants can be provided by the owner of the building, the Notice of Determination issued by the Council or by area per person calculation as per table D2D18 of the BCA. Occupant numbers are largely driven by the provided aggregate egress widths as per Clause D2D8 above. Also refer to Part F of this report in respect to calculation of sanitary facilities. Designers to note.
D2D21	Access to plant rooms, lift machine rooms and electricity substations	A ladder may be used in lieu of a stairway to provide egress from a plant room with a floor area of not more than 100 m2. The ladder must comply with AS1657.	Designer to note.
D2D22	Access to lift pits	Access to lift pits must be through the lowest landing doors where the pit depth is not more than 3m.	Designer to note.
D3D3	Fire-isolated stairways and ramps	A stairway or ramp (including any landings) that is required to be within a fire-resisting shaft must be constructed— a. of non-combustible materials; and b. so that if there is local failure it will not cause structural damage to, or impair the fire-resistance of, the shaft.	**Designers to note. Applies to the fire-isolated stairway serving the basement pumproom.**
D3D8	Installation of exits and paths of travel	Services or equipment must be enclosed with non-combustible construction and suitably sealed against smoke spreading from the enclosure where they are installed in a required exit, or in any corridor, hallway, lobby or the like leading to a required exit and the service or equipment comprises of:	Architect and service consultants to note requirements – further details required to ensure compliance prior to the issue of a Construction Certificate.

Clause	Description	Requirement	Assessment
		a) electricity meters, distribution boards or ducts; or b) central telecommunications distribution boards or equipment; or c) electrical motors or other motors serving equipment in the building.	
D3D10	Width of required stairways and ramps	A required stairway or ramp that exceeds 2 m in width is counted as having a width of only 2 m unless it is divided by a handrail or barrier continuous between landings and each division has a width of not more than 2 m.	Compliance readily achievable.
D3D12	Roof as open space	If an exit discharges to a roof of a building, the roof must— a. have an FRL of not less than 120/120/120; and b. not have any roof lights or other openings within 3 m of the path of travel of persons using the exit to reach a road or open space.	**Multiple exits discharge to grassed / paved open space areas over the roof of the basement car park. The slab must achieve an FRL of at least 120/120/120 and not have any openings within 3m of any path of travel to road / open space. Architect to note. Further details required to ensure compliance prior to the issue of a Construction Certificate.**
D3D14 – D3D22	Construction of stairways, balustrade and handrail	The construction and discharge of stairs, landings, thresholds, balustrades, and handrails will need to meet the requirements of the BCA and AS1428.1.	Architect to note. Further details required to ensure compliance prior to the issue of a Construction Certificate.
D3D23	Fixed platforms, walkways, stairways and ladders	A fixed platform, walkway, stairway, ladder and any going and riser, landing, handrail or barrier attached thereto which serves machinery rooms, boiler houses, lift-machine rooms, plant-rooms, and the like may comply with AS1657.	Architect to note.
D3D24	Doorways and doors	A power-operated door in a required exit must be able to be opened manually under a force of not more than 110N if there is a malfunction or failure of the power source and where it leads directly to a road or open space it must open automatically if there is a power failure to the door or on the activation of a fire or smoke alarm anywhere in the fire compartment served by the door.	All new doors to comply. Architect to note. Further details required to ensure compliance prior to the issue of a Construction Certificate.
D3D25	Swinging doors	A swinging door in a required exit or forming part of a required exit must swing in the direction of egress unless it serves a building or part with a floor area not more than 200m2, it is the only required exit from the building or part and it is fitted with a device for holding it in the open position.	Design complies.
D3D26	Operation of latch	All doors in an exit, forming part of the exit or in the path of travel to the exit must be openable without a	Architect to note. Further details required to ensure compliance prior to the issue of a Construction Certificate.

Clause	Description	Requirement	Assessment
		key from the egress side by a single hand downward action or single hand push action installed in accordance with this part of the BCA.	
Part D4	Access for people with a disability	Access for people with a disability	Refer to the Access Consultant's Report for DDA compliance

7.0 Services and Equipment

Clause	Description	Requirement	Assessment
SECTION E – SERVICE AND EQUIPMENT			
E1D2	Fire Hydrants	A system of fire hydrants is required for the entire building - The system must be designed and installed to comply with Part E1D2 of BCA2022 and AS 2419.1-2021. If street hydrants are used in lieu of onsite hydrant system, they must meet the requirements of Clause 2.2.10.2 of AS2419.1-2021.	Hydraulic / wet fire services consultant consultant to provide details for assessment including a single line diagram to demonstrate compliant coverage. Details to be provided prior to the issue of a Construction Certificate. **The following must be provided to the basement car park pump room in accordance with AS 2419.1-2021:** - **Pump room to be sprinkler protected** - **Pump room to be fire separated by 90/90/90 FRL construction as the whole building isn't sprinkler protected.** - **Omission of an airlock between the basement car park pump room and the adjoining fire-isolated stairway is to be addressed by fire engineering.**
E1D3	Fire hose reels	Fire hose reels are required to serve the entire building having 36m hose length and 4m water spray. They are to be located within 4m of an exit and adjacent to an internal fire hydrant. They must be designed and installed in accordance with Clause E1D3 of BCA2022 & AS2441- 2005.	Hydraulic / wet fire services consultant to provide details for assessment prior to the issue of a Construction Certificate. **Ensure hose reels are located accordingly and are capable of serving areas without having to pass through a required fire door in a fire wall.** **From an assessment of the plans where fire hose reel locations have been shown in the basement car park, the following must be addressed:** - **Fire Engineering to address omission of hose reel coverage to the fire separated lift lobby within the basement car park.**
E1D8	Where sprinklers are required: Class 6 building	In a Class 6 building, sprinklers are required in fire compartments where either of the following apply: a. A floor area of more than 3 500 m^2. b. A volume of more than 21 000 m^3.	No Class 6 fire compartment greater than 3,500m^2 is proposed.
E1D9	Where sprinklers are required:	In a Class 7a building, other than an open-deck carpark, sprinklers are required in fire	**As the basement car park accommodates more than 40 vehicles, a sprinkler system complying with BCA Specification 17 must be provided.**

Clause	Description	Requirement	Assessment
	Class 7a building	compartments where more than 40 vehicles are accommodated.	Hydraulic / wet fire services consultant to provide details for assessment prior to the issue of a Construction Certificate.
E1D14	Portable fire extinguishers	PFE's are required to be located throughout the building in accordance with Clause E1D14 of BCA2021. PFE's are to comply with AS2444-2001.	Compliance readily achievable. Hydraulic / wet fire services consultant to provide details for assessment. Details to be provided prior to the issue of a Construction Certificate.
E1D16	Fire precautions during construction	In a building under 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.	Architect to note and provide sufficient notation on the plans.
E1D17	Provisions for special hazards	Suitable additional provision must be made if special problems of fighting fire could arise because of— a. the nature or quantity of materials stored, displayed or used in a building or on the allotment; or b. the location of the building in relation to a water supply for fire-fighting purposes.	**A fire safety strategy by a Fire Engineer must be developed to accommodate any electric vehicle charging facilities <u>within</u> the confines of the building.**
E2D2	Smoke hazard management Application of requirements	The Deemed-to-Satisfy Provisions of this Part do not apply to— (a) an open-deck carpark; or (b) an open spectator stand; or (c) a Class 8 electricity network substation with a floor area not more than 200 m2, located within a multi-classified building. In addition to the Deemed-to-Satisfy Provisions of E2D3 to E2D13, the following specific Deemed-to-Satisfy Provisions apply to the following Class 6 and Class 9b buildings: (a) For Class 6 buildings, in fire compartments more than 2000 m2— (i) not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit - must comply with E2D14; or (ii) containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit - must comply with E2D15.	Not applicable as the maximum Class 6 fire compartment is less than 2000m^2.
E2D3	Smoke hazard management	An air-handling system which does not form part of a smoke hazard management system in	**Services consultants to note as multiple fire compartments are proposed.** Details demonstrating compliance to be provided with the application for CC.

Clause	Description	Requirement	Assessment
	General Requirements	accordance with E2D4 to E2D20 and which recycles air from one fire compartment to another fire compartment or operates in a manner that may unduly contribute to the spread of smoke from one fire compartment to another fire compartment must be designed and installed to operate as a smoke control system in accordance with AS 1668.1. Miscellaneous air-handling systems covered by Sections 5 and 6 of AS 1668.1 serving more than one fire compartment (other than a carpark ventilation system) and not forming part of a smoke hazard management system must comply with these Sections of the Standard. A smoke detection system must be installed in accordance with S20C6 to operate AS 1668.1 systems that are provided for zone pressurisation and automatic air pressurisation for fire-isolated exits.	
E2D9	Smoke hazard management Buildings not more than 25 m in effective height: Class 5, 6, 7b, 8 and 9b building	A building not more than 25 m in effective height that— (a) is a Class 5 or 9b school building or part of a building having a rise in storeys of more than 3; or (b) is Class 6, 7b, 8 or 9b building (other than a school) or part of a building having a rise in storeys of more than 2; or (c) has a rise in storeys of more than 2, and contains— (i) a Class 5 or 9b school part; and (ii) a Class 6, 7b, 8 or 9b (other than a school) part, must meet the requirements of (2).	Not applicable as the rise in storeys is not more than 2.
E2D12	Class 7a buildings	A Class 7a building, including a basement, provided with a mechanical ventilation system in accordance with AS 1668.2, must comply with clause 5.5 of AS 1668.1.	Services consultants to note. Details demonstrating compliance to be provided with the application for CC.
E3D2	Lift installations	An electric passenger lift installation must comply with Specification 24 of BCA2022.	Details demonstrating compliance to be provided with the application for CC.
E3D4	Warning against use of lifts in fire	A warning sign must be displayed where it can be readily seen near every call button for a passenger	Details demonstrating compliance to be provided with the application for CC.

Clause	Description	Requirement	Assessment
		lift. Warning sign details and dimensions must comply with Part E3D4(3) and Figure E3D4 of BCA2022.	
E3D7	Passenger lift types and their limitations	A passenger lift must not rely on a constant pressure device for its operation if the lift car is fully enclosed.	Lift manufacturer to note. Details demonstrating compliance to be provided with the application for CC.
E3D8	Accessible features required for passenger lifts	In an accessible building, every passenger lift must have the following features where applicable: (a) A handrail complying with the provisions for a mandatory handrail in AS 1735.12, and; (b) Lift floor dimensions of not less than 1100 mm wide x 1400 mm deep for all lifts which travel not more than 12 m, and; (c) Passenger protection system complying with AS 1735.12 for all lifts with power-operated doors, and; (d) Lift landing doors at the upper landing for all lifts, and; (e) Lift car and landing control buttons complying with AS 1735.12, and; (f) Lighting in accordance with AS 1735.12 for all enclosed lift cars, and; (g) For all lifts serving more than 2 levels— i. automatic audible information within the lift car to identify the level each time the car stops; and ii. audible and visual indication at each lift landing to indicate the arrival of the lift car; and iii. audible information and audible indication required by (i) and (ii) is to be provided in a range of between 20 - 80 dB(A) at a maximum frequency of 1500 Hz, and; (h) Emergency hands-free communication, including a button that alerts a call centre of a problem and a light to signal that the call has been received.	Access consultant to confirm compliance when lift details are available. Details demonstrating compliance to be provided with the application for CC.
E4D2 - E4D6, E4D8	Visibility in an emergency, exit signs and warning systems	Emergency lighting, exit and directional signs are to be located, designed and installed in accordance with Part E4 of BCA 2022 and AS2293.1-2018.	Compliance readily achievable. Electrical consultant to provide details for assessment. Details to be provided prior to the issue of a Construction Certificate.

8.0 Surface water management, rising damp and external waterproofing

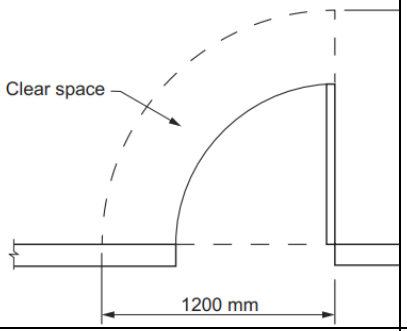
Clause	Description	Requirement	Assessment
SECTION F – HEALTH AND AMENITY			
F1D3	Stormwater drainage	Stormwater drainage must be designed and constructed in accordance with AS/NZS 3500.3.	Hydraulic engineering details demonstrating compliance to be provided with the application for CC.
F1D4	Exposed Joints	Exposed joints in the drainage surface on a roof, balcony or similar horizontal surface part of a building must be protected in accordance with Section 2.9 of AS 4654.2 and not be located beneath or run through a planter box, water feature or similar part of the building.	**Architect to note. This applies to joints within suspended slabs below lawn areas. Details demonstrating compliance to be provided with the application for CC.**
F1D5	External waterproofing membranes	A roof, balcony or similar horizontal surface part of a building must be provided with a waterproofing membrane consisting of materials complying with AS 4654.1 and designed and installed in accordance with AS 4654.2.	Designers and consultants to note. Details demonstrating compliance to be provided with the application for CC.
F1D6	Damp-proofing	Moisture from the ground must be prevented from reaching the structure by installation of damp-proof course or impervious sheet material in accordance with AS3660.1 where required.	Architectural and structural engineering details demonstrating compliance to be provided with the application for CC.
F1D7	Damp-proofing of floors on the ground	(1) 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 vapor barrier in accordance with AS 2870. (2) The requirements of (1) do not apply where— (a) weatherproofing is not required; or (b) the floor is the base of a stair, lift or similar shaft which is adequately drained by gravitation or mechanical means.	Designers and consultants to note. Details demonstrating compliance to be provided with the application for CC.
F1D8	Subfloor ventilation	(1) Subfloor spaces must— (a) be provided with openings in external walls and internal subfloor walls in accordance with Table F1D8 for the climatic zones given in Figure F1D8; and (b) have clearance between the ground surface and the underside of the lowest horizontal member in the subfloor in accordance with Table F1D8.	Designers and consultants to note. Details demonstrating compliance for any subfloor spaces to be provided with the application for CC.

Clause	Description	Requirement	Assessment
F2D2	Wet area construction	In a Class 6 and 7 building, building elements in a bathroom or shower room, a slop hopper or sink compartment, a laundry or sanitary compartment must be water resistant or waterproof in accordance with Specification 26 and comply with AS 3740.	Designers and specialist waterproofing consultants to note. Details demonstrating compliance to be provided with the application for CC.
F2D3	Rooms containing urinals	Where a slab or stall type urinal is installed— a. the floor surface of the room containing the urinal must be an impervious material; and i. where no step is installed, must— 1. be graded to the urinal channel for a distance of 1.5 m from the urinal channel; and 2. have the remainder of the floor graded to a floor waste; and ii. where a step is installed— 1. the step must have an impervious surface and be graded to the urinal channel; and 2. the floor behind the step must be graded to a floor waste; and b. the junction between the floor surface and the urinal channel must be impervious. Where a wall hung urinal is installed— a. the wall must be surfaced with impervious material extending from the floor to not less than 50 mm above the top of the urinal and not less than 225 mm on each side of the urinal; and b. the floor must be surfaced with an impervious material and be graded to a floor waste. In a room with timber or steel-framed walls and containing a urinal— a. the wall must be surfaced with an impervious material extending from the floor to not less than 100 mm above the floor surface; and b. the junction of the floor surface and the wall	Designers and specialist waterproofing consultants to note. Details demonstrating compliance to be provided with the application for CC.

<table>
<tr><th>Clause</th><th>Description</th><th>Requirement</th><th>Assessment</th></tr>
<tr><td></td><td></td><td>surface must be impervious.</td><td></td></tr>
<tr><td>F2D4</td><td>Floor wastes</td><td>Where a floor waste is installed—
a. the minimum continuous fall of a floor plane to the waste must be 1:80; and
b. the maximum continuous fall of a floor plane to the waste must be 1:50.</td><td>Designers and consultants to note. Falls to a floor waste must be a minimum of 1:80. Details demonstrating compliance to be provided with the application for CC.</td></tr>
<tr><td>F3D2</td><td>Roof coverings</td><td>A concrete roof must be covered with an external waterproofing membrane complying with F1D5 of BCA 2022.</td><td>Designers and specialist waterproofing consultants to note. Details demonstrating compliance to be provided with the application for CC.</td></tr>
<tr><td>F3D5</td><td>Wall cladding</td><td>External wall cladding must comply with one or a combination of the following:
a) Masonry, including masonry veneer, unreinforced and reinforced masonry: AS 3700.
b) Autoclaved aerated concrete: AS 5146.3.
c) Metal wall cladding: AS 1562.1.</td><td>Designers and consultants to note. Details demonstrating compliance to be provided with the application for CC.

A Performance Solution addressing Performance Requirement F3P1 below must be provided for any wall cladding systems not listed in BCA 2022 F3D5.
F3P1 - A roof and external wall (including openings around windows and doors) must prevent the penetration of water that could cause —
(a) unhealthy or dangerous conditions, or loss of amenity for occupants; and
(b) undue dampness or deterioration of building elements.</td></tr>
<tr><td>F4D4</td><td>Facilities in Class 3 to 9 buildings</td><td>Sanitary facilities must be provided in accordance with this clause.
It is noted that in a class 6 building, employees and patrons can use the same facilities.</td><td>GF / Restaurant 01 - The ground floor Restaurant 01 patron amenities could accommodate 150 male patrons and 150 female patrons. (Based on equal distribution between male and female)
<table><tr><th>Class 6 - restaurants, cafes, bars</th><th>Pans</th><th>Urinals</th><th>Washbasins</th></tr><tr><td>Male patrons</td><td>2</td><td>3</td><td>3</td></tr><tr><td>Allowable Population</td><td>300</td><td>150</td><td>400</td></tr><tr><td>Female patrons</td><td>5</td><td>-</td><td>4</td></tr><tr><td>Allowable Population</td><td>200</td><td>-</td><td>550</td></tr></table>
L1 / Restaurant 02 - The L1 / Restaurant 02 patron amenities could accommodate 500 male patrons and 500 female patrons. (Based on equal distribution between male and female, and each 600mm portion of trough urinal counted as a single urinal)
<table><tr><th>Class 6 - restaurants, cafes, bars</th><th>Pans</th><th>Urinals</th><th>Washbasins</th></tr><tr><td>Male patrons</td><td>3</td><td>8</td><td>5</td></tr><tr><td>Allowable Population</td><td>500</td><td>550</td><td>800</td></tr><tr><td>Female patrons</td><td>9</td><td>-</td><td>7</td></tr><tr><td>Allowable Population</td><td>550</td><td>-</td><td>1150</td></tr></table></td></tr>
</table>

<table>
<tr><th>Clause</th><th>Description</th><th>Requirement</th><th>Assessment</th></tr>
<tr><td></td><td></td><td></td><td>L1 / Restaurant 02 Staff - The L1 / Restaurant 02 staff amenities could accommodate 50 male patrons and 50 female patrons. (Based on equal distribution between male and female, and each 600mm portion of trough urinal counted as a single urinal)
<table><tr><th>Class 3, 5, 6 and 9 other than schools</th><th>Pans</th><th>Urinals</th><th>Washbasins</th></tr><tr><td>Male employees</td><td>3</td><td>2</td><td>4</td></tr><tr><td>Allowable Population</td><td>60</td><td>50</td><td>120</td></tr><tr><td>Female employees</td><td>5</td><td></td><td>4</td></tr><tr><td>Allowable Population</td><td>75</td><td>-</td><td>120</td></tr></table>
L2 / Restaurant 03 - The L2 / Restaurant 03 patron amenities could accommodate 350 male patrons and 350 female patrons. (Based on equal distribution between male and female)
<table><tr><th>Class 6 - restaurants, cafes, bars</th><th>Pans</th><th>Urinals</th><th>Washbasins</th></tr><tr><td>Male patrons</td><td>3</td><td>6</td><td>5</td></tr><tr><td>Allowable Population</td><td>500</td><td>350</td><td>800</td></tr><tr><td>Female patrons</td><td>8</td><td>-</td><td>6</td></tr><tr><td>Allowable Population</td><td>450</td><td>-</td><td>950</td></tr></table>
A total of 2000 patrons and 100 staff can be accommodated based on amenities.</td></tr>
<tr><td>F4D5
F4D6</td><td>Accessible sanitary facilities</td><td>Accessible unisex sanitary compartments must be provided in accessible parts of the building.</td><td>Refer to Access Report to ensure compliance prior to issue of any CC.</td></tr>
<tr><td>F4D8</td><td>Construction of sanitary compartments</td><td>Sanitary compartments must have doors and partitions that separate adjacent compartments and extend—
a) from floor level to the ceiling in the case of a unisex facility; or
b) to a height of not less than 1.5 m above the floor if primary school children are the principal users; or
c) 1.8 m above the floor in all other cases.
Where there is less than 1.2m space as shown in figure F4D8 of the BCA between an inward opening door and the closet pan, the door must be readily removable from the outside (i.e. lift off hinges).</td><td>Architect to note and ensure compliance.</td></tr>
</table>

Clause	Description	Requirement	Assessment
		Figure F4D8: Construction of sanitary compartments  	
F5D2	Height of rooms and other spaces	The height of rooms and other spaces in a Class 6 and 7 building must be not less than 2.4 m except for the following areas: a) corridor, passageway, bathroom, shower room, sanitary compartment, airlock, tea preparation room, pantry, storeroom, garage, car parking area, or the like, not less than 2.1m. b) above a stairway, ramp, landing or the like — 2 m measured vertically above the nosing line of stairway treads or the floor surface of the ramp, landing or the like.	Compliance readily achievable.
F6D5	Artificial Lighting	Artificial lighting must be provided in class 6 & 7b to all rooms that are frequently occupied, all spaces required to be accessible, all corridors, lobbies, internal stairways, other circulation spaces and paths of egress. The artificial lighting system must comply with AS/NZS 1680.0.	Compliance readily achievable. Electrical consultant to provide details for assessment. Details to be provided prior to the issue of a Construction Certificate.
F6D6	Ventilation of rooms	A habitable room, office, shop, factory, workroom, sanitary compartment, bathroom, shower room, laundry and any other room occupied by a person for any purpose must have natural ventilation complying with F6D7; or a mechanical ventilation or air-conditioning system complying with AS 1668.2 and AS/NZS 3666.1.	Compliance readily achievable. Mechanical consultant to provide details for assessment. Details to be provided prior to the issue of a Construction Certificate.
F6D9	Restriction on location of sanitary compartments	Sanitary compartments must not open directly into: a) a kitchen or pantry; or b) a public dining room or restaurant; or	Design complies.

Clause	Description	Requirement	Assessment
		c) a room used for public assembly; or d) a workplace normally occupied by more than one person.	
F6D12	Kitchen local exhaust ventilation	A commercial kitchen must be provided with a kitchen exhaust hood complying with AS 1668.1 and AS 1668.2 where any cooking apparatus has a total maximum electrical power input exceeding 8 kW or a total gas power input exceeding 29 MJ/hour; or the total maximum power input to more than one apparatus exceeds, per m2 of floor area of the room or enclosure 0.5 kW electrical power; or 1.8 MJ/hour gas.	Compliance readily achievable. Mechanical consultant to provide details for assessment. Details to be provided prior to the issue of a Construction Certificate.

9.0 Ancillary Provisions

Clause	Description	Requirement	Assessment
SECTION G – ANCILLARY PROVISIONS			
G1D3	Refrigerated chambers, strong-rooms and vaults	A refrigerated or cooling chamber, strongroom or vault that is of sufficient size for a person to enter must have: a) a door (having clear with of not less than 600mm and clear height of not less than 1.5m) which is capable of being opened by hand from inside without a key; and b) internal lighting controlled only by a switch which is located adjacent to the entrance doorway inside the chamber, strongroom or vault; and c) an indicator lamp positioned outside the chamber, strongroom or vault which is illuminated when the interior lights required by (b) are switched on; and d) an alarm that is: (i) located outside but controllable only from within the chamber, strongroom or vault; and (ii) able to achieve a sound pressure level outside the chamber, strongroom or vault of 90 dB(A) when measured 3 m from the sounding device.	**Architect to note. Food Code consultant to provide details verifying compliance prior to the issue of a Construction Certificate.**
G2D3	Open fireplaces	An open fireplace, or solid-fuel burning appliance in which the fuel-burning compartment is not enclosed, must have— a. a hearth constructed of stone, concrete, masonry or similar non-combustible material so that—	**Architect to note. Details verifying compliance to be provided prior to the issue of a Construction Certificate.**

Clause	Description	Requirement	Assessment
		i. it extends not less than 300 mm beyond the front of the fireplace opening and not less than 150 mm beyond each side of that opening; and ii. it extends beyond the limits of the fireplace or appliance not less than 300 mm if the fireplace or appliance is free-standing from any wall of the room; and iii. its upper surface does not slope away from the grate or appliance; and iv. combustible material situated below or around the external edge of the hearth, but not below that part required to extend beyond the fireplace opening or the limits of the fireplace, is not less than 150 mm from the upper surface of the hearth; and b. walls forming the sides and back of the fireplace up to not less than 300 mm above the underside of the arch or lintel which— i. are constructed in 2 separate leaves of solid masonry with a total combined thickness not less than 180 mm, excluding any cavity; and ii. do not consist of concrete block masonry in the construction of the inner leaf; and c. walls of the chimney above the level referred to in (b)— i. constructed of masonry units with a net volume, excluding cored and similar holes, not less than 75% of their gross volume, measured on the overall rectangular shape of the units, and with an actual thickness of not less than 100 mm; and ii. lined internally to a thickness of not less than 12 mm with rendering consisting of 1 part cement, 3 parts lime, and 10 parts sand by volume, or other suitable material; and d. suitable damp-proof courses or flashings to maintain weatherproofing.40	

10.0 Energy efficiency

Clause	Description	Requirement	Assessment
SECTION J ENERGY EFFICIECNY			
Section J	Energy Efficiency provisions	Energy efficiency provisions	**Proposed development will be required to be compliant with the requirements of the energy efficiency calculations under Section J of the BCA 2022. A Section J consultant's report will need to be provided to confirm compliance with the BCA DtS provisions or a J1V3 report must be submitted demonstrating compliance prior to the issue of the CC.** **The building is in Climate Zone 5.**

Appendix A

Tables S5C24a: Type C Construction: FRL of parts of external walls				
Distance from a *fire-source feature*	FRL (in minutes): *Structural adequacy/ integrity / insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5m	90/90/90	90/90/90	90/90/90	90/90/90
1.5m to less than 3m	-/-/-	60/60/60	60/60/60	60/60/60
3m or more	-/-/-	-/-/-	-/-/-	-/-/-
Table S5C24b: Type C Construction: FRL of external columns not incorporated into an external wall				
Distance from a *fire-source feature*	FRL (in minutes): *Structural adequacy/ integrity / insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5m	90/-/-	90/-/-	90/-/-	90/-/-
1.5m to less than 3m	-/-/-	60/-/-	60/-/-	60/-/-
3m or more	-/-/-	-/-/-	-/-/-	-/-/-
Table S5C24c: Type C Construction: FRL of common walls and fire walls				
Wall Type	FRL (in minutes): *Structural adequacy/ integrity / insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Loadbearing or Non-loadbearing	90/90/90	90/90/90	90/90/90	90/90/90
Table S5C24d: Type C Construction: FRL of internal walls				
Location	FRL (in minutes): *Structural adequacy/ integrity / insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Bounding public corridors, public lobbies and the like	60/60/60	-/-/-	-/-/-	-/-/-
Between or bounding sole-occupancy units	60/60/60	-/-/-	-/-/-	-/-/-
Bounding a stair if required to be rated	60/60/60	60/60/60	60/60/60	60/60/60
Table S5C24e: Type C Construction: FRL of roof				
Location	FRL (in minutes): *Structural adequacy/ integrity / insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Roofs	-/-/-	-/-/-	-/-/-	-/-/-