

# BUILDING CODE OF AUSTRALIA ASSESSMENT REPORT

Block 3A, Central Park

Project: Block 3A, Central Park




Client: Frasers Broadway Pty. Limited  
Report: 121997.1  
Date: 31 October 2012

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1	31.10.12	Draft issue for comment	Adam DeLooze	Daren Bugg
				

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## **1.0 INTRODUCTION**

### **1.1 General**

This report serves as an assessment for compliance with the Building Code of Australia for the adaptive reuse of the Clare Hotel and Administration Building comprising 60 hotel rooms, food and drink premises consisting of 601m<sup>2</sup> of dining area and 191m<sup>2</sup> of kitchen with a total GFA of approximately 4595m<sup>2</sup>.

### **1.2 Purpose of the Report**

This report has been prepared, on behalf of Frasers Broadway Pty. Limited, to establish compliance with the Building Code of Australia and relevant Acts and Regulations of the development application documentation for the proposed works.

### **1.3 Report Basis**

This report is based on:

- i. Architectural plans prepared by Tonkin Zulaikha Greer Architects, as identified in the attached Appendix 1.
- ii. Inspection undertaken by City Plan Services on the 24.10.2012.
- iii. The Building Code of Australia 2012, inclusive of NSW variations (See Note 1).
- iv. Environmental Planning and Assessment Act 1979.
- v. Environmental Planning and Assessment Regulation 2000.

Notes (1) Building Code of Australia (BCA) 2012 was adopted in NSW on 1 May 2012. The amendment of the BCA in force at the date of lodgement of a Construction Certificate is the version called up by Clause 98 of the Environmental Planning & Assessment Regulation 2000 for the purpose of the building design. Therefore comments may be subject to changes to comply with updated versions of the Building Code of Australia.

### **1.4 Exclusions & Limitations**

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

- i. Structural design.
- ii. The Disability Discrimination Act 1992.
- iii. Disability (Access to Premises – Building) Standards 2010.
- iv. Performance of any existing fire safety measures.
- v. The fire resistance level of any existing structural elements.

## 2.0 BUILDING CODE OF AUSTRALIA ASSESSMENT

### 2.1 Classification (A3.2)

The proposed building consists of;

Basement :	Class 6 - Retail
Ground floor:	Class 6 - Retail Class 3 - Residential (Hotel)
Level 1:	Class 3 - Residential (Hotel) Class 9b - Assembly Building
Level 2:	Class 6 - Retail Class 3 - Residential (Hotel)
Level 3:	Class 6 - Retail Class 3 - Residential (Hotel)
Level 4:	Class 3 - Residential (Hotel)
Pool Deck:	Class 9b - Assembly Building

### 2.2 Effective Height (A1.1)

The proposed building will have an effective height of 21.28m.

Note: The pool deck is included as a storey and included in the effective height, due to the proposed bar. The plant and amenities would otherwise be excluded from the calculation in effective height

### 2.3 Rise in Storeys (C1.2)

The proposed building will consist of a rise in storeys of six (6).

### 2.4 Type of Construction (C1.1)

Type A construction in accordance with Specification C1.1 of the BCA, is the applicable type of construction.

### 3.0 BUILDING CODE OF AUSTRALIA ASSESSMENT

#### 3.1 Structure (BCA Section B)

BCA Clause	Title	Assessment and Comment	Status
B1.1	Resistance to actions	The resistance of the building must be greater than the most critical action effects resulting from different combinations of actions.	Note
B1.2	Determination of individual actions	<p>The building is to be designed and constructed to accommodate the magnitude of individual actions generally covering;</p> <ul style="list-style-type: none"> <li>(a) Permanent actions</li> <li>(b) Imposed actions</li> <li>(c) Wind, snow and ice and earthquake actions</li> <li>(d) Other specified actions</li> </ul> <p>A structural engineer is to provide design certification at the Construction Certificate stage that the building has been designed to the relevant structural standards and maintain appropriate supervision during construction to certify that the structure has been constructed in accordance with the design.</p> <p>The structural adequacy of the existing building is subject to separate structural engineer report to confirm the proposed modifications will not affect the structural adequacy of the existing building.</p>	The proposed building is capable of complying
B1.4	Determination of structural resistance of materials & forms of construction	<p>The structural resistance of the following materials and forms of construction must be determined;</p> <ul style="list-style-type: none"> <li>(a) Masonry</li> <li>(b) Concrete construction</li> <li>(c) Steel construction</li> <li>(d) Composite steel and concrete</li> <li>(e) Aluminium construction</li> <li>(f) Timber construction</li> <li>(g) Piling</li> <li>(h) Glazing assemblies</li> <li>(i) Termite risk management</li> <li>(j) Roof construction</li> <li>(k) Particleboard structural flooring</li> <li>(l) Lift shafts not required to have an FRL</li> </ul> <p>A structural engineer is to provide design certification at the Construction Certificate stage that the building has been designed to the relevant structural standards and maintain appropriate supervision during construction to certify that the structure has been constructed in accordance with the design.</p>	The proposed building is capable of complying

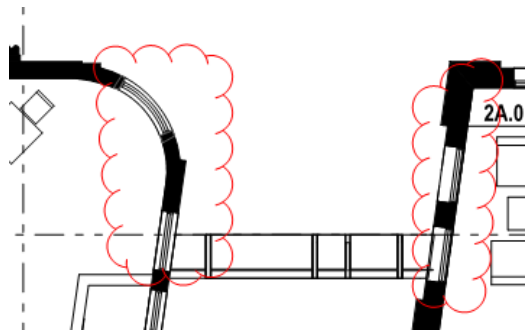
#### 3.2 Fire Resistance (BCA Section C)

BCA Clause	Title	Assessment and Comment	Status
C1.1	Type of construction required	<p>The type of fire resisting construction applicable is Type A construction.</p> <p>The minimum FRL's are to be achieved.</p>	The proposed building is capable of complying
C1.2	Calculation in rise in storeys	<p>The rise in storeys is the sum of the greatest number of storeys at any part of the external wall of the building.</p> <p>The building contains a RIS of 6.</p>	Note

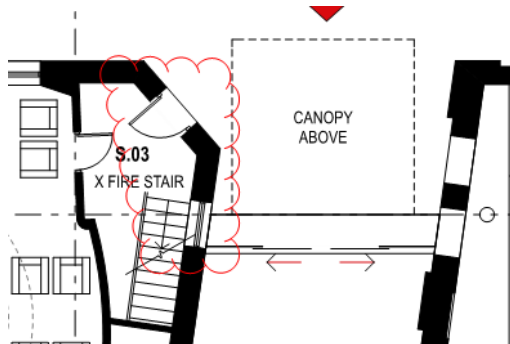
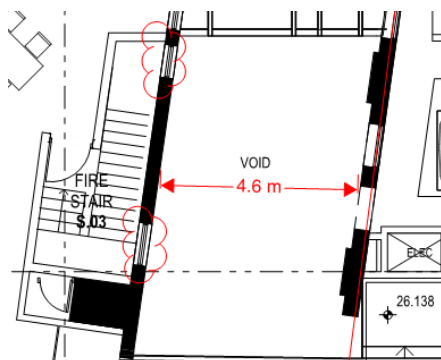
BCA Clause	Title	Assessment and Comment	Status
C1.8	Lightweight construction	Any proposed lightweight construction shall be designed and installed to comply with the provisions of Specification C1.8 and satisfy the relevant tests.	The proposed building is capable of complying
C1.10	Fire hazard properties	<p>Proposed floor materials, floor coverings, wall and ceiling lining materials are to be selected to comply with the required fire hazard properties of Specification C1.10 &amp; C1.10a. Evidence of compliance (test certificates) shall be obtained from the supplier or manufacturer.</p> <p>It is unknown if the existing materials and assemblies comply with this provision. Generally, most products widely available in Australia would have an inherent resistance to fire spread.</p>	<p>The proposed building is capable of complying</p> <p>Compliance with existing materials is unknown.</p>
C1.11	Performance of external wall in fire	The building has a rise in storeys of more than 2 and the requirements of this provision do not apply.	N/A
C2.2	General floor area and volume limitations	The building complies with the general floor area and volume limitations identified by this clause.	The proposed building complies
C2.6	Vertical separation of openings in external walls	<p>Sprinklers are not proposed to be introduced throughout the building and therefore spandrels are to demonstrate compliance.</p> <p>The new bridge is not proposed to have compliant spandrels and must be justified against the performance requirements of the BCA.</p>	Alternative solution
C2.7	Separation by fire walls	<p>Fire separation is proposed to separate the open stair and voids between the basement and level 4 from the remainder of the building along with separation of the retail on the ground floor from the residential component of the development.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying
C2.8	Separation of classifications in the same storey	<p>If a building has parts of different classifications located alongside one another in the same storey,</p> <ul style="list-style-type: none"> <li>each building element in that storey must have the higher FRL prescribed in Specification C1.1 for that element for the classifications concerned; or</li> <li>the parts must be separated in that storey by a fire wall.</li> </ul> <p>Fire separation is proposed to separate the open stair and voids between the basement and Level 4 which provides the required fire separation of the retail from the residential component of the building. The ground floor restaurants are also proposed to be separated from the residential portion of building by fire rated construction.</p> <p>The fire separation and fire resistance levels required by Specification C1.1 is proposed to be justified via a fire engineered alternative solution.</p> <p>Construction documentation should demonstrate compliance.</p>	<p>The proposed building is capable of complying</p> <p>Alternative solution</p>
C2.9	Separation of classifications in different stories	<p>The floors between parts of different classifications must have an FRL of not less than that prescribed in Specification C1.1 for the classification of the lower storey.</p> <p>The fire separation and fire resistance levels required by Specification C1.1 is proposed to be justified via a fire engineered alternative solution.</p> <p>Construction documentation should demonstrate compliance.</p>	<p>The proposed building is capable of complying</p> <p>Alternative solution</p>

BCA Clause	Title	Assessment and Comment	Status
C2.10	Separation of lift shafts	The lift shaft is required to be separated from the rest of the building with walls having an FRL of not less than that required by Table 3 of Specification C1.1.	The proposed building is capable of complying
C2.11	Stairways and lifts in one shaft	The central void stair is treated as a non-fire isolated stair under the alternative solution strategy, therefore the building complies with the requirements of this provision.	The building complies
C2.12	Separation of equipment	<p>The following rooms are required to be fire separated from the remainder of the building by 120/120/120 FRL construction:</p> <ul style="list-style-type: none"> <li>• Lift motor rooms and lift control panels.</li> <li>• Emergency Generators.</li> <li>• Central smoke control plant.</li> <li>• Hydrant pumps.</li> <li>• Boilers.</li> <li>• Battery rooms.</li> </ul> <p>The building does not contain any of the above room and the requirements of this provision do not apply.</p>	N/A
C2.13	Electricity supply system	<p>The main switchboard located in the building which sustains emergency equipment operating in emergency mode, is required to be fire separated from the remainder of the building by 2 hr fire resisting construction.</p> <p>Construction should achieve an FRL of 120/120/120, doorways are required achieve an FRL of -/120/30 and to be self-closing and all penetrations in enclosures are to be appropriately fire stopped.</p> <p>All switchboards in the electrical distribution system, which sustain the electricity supply to the emergency equipment, must provide full segregation by way of enclosed metal partitions designed to prevent the spread of any fault from non-emergency equipment switchgear to the emergency equipment switchgear.</p> <p>Electrical conductors and switchboards are required to comply with this clause.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying
C2.14	Public corridors in Class 2 & 3 buildings	<p>The residential public corridor lengths do not exceed 40m provided the fire walls and doors located on grid line L1 are also treated as smoke doors and comply with Spec C2.5 of the BCA.</p> <p>The required smoke doors in grid line 1 are required to swing in both directions as per Spec C2.5 of the BCA. The current doorways are not currently documented as swinging in both directions.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying



BCA Clause	Title	Assessment and Comment	Status
C3.2	Protection of openings in external walls	<p>Openings in external walls which are located less than 3m from a side or rear boundary of an allotment require protection in accordance with Clause C3.4.</p> <p>The following openings are located less than 3m from an allotment and would require protection/justification;</p> <ol style="list-style-type: none"> <li>1. The southern window openings located on Levels 1, 2, 3.</li> <li>2. Southern fire stair discharge door on the ground floor.</li> <li>3. The eastern and western window openings located less than 3m from the southern boundary on Levels 1, 2, 3. Note: this applies where the eastern and western walls are set back from the street boundary allotment.</li> </ol> <p>The southern window protection must not exceed 1/3 of the area of the external wall.</p> <p>Construction documentation is to demonstrate compliance including a registered survey report confirm the boundary setbacks.</p> <p>Where protection is not proposed, justification would be required under the performance requirements of the BCA via a fire engineered alternative solution.</p>	The proposed building is capable of complying
C3.3	Separation of external walls and associated openings in different fire compartments	<p>The northern and southern external window openings of the meeting rooms / restaurants and the residential apartments on levels 1 &amp; 2 are located less than 6m from each other and both are required to be protected in accordance with C3.4 of the BCA.</p>  <p>Where protection is not proposed, justification would be required under the performance requirements of the BCA via a fire engineered alternative solution.</p>	The proposed building is capable of complying

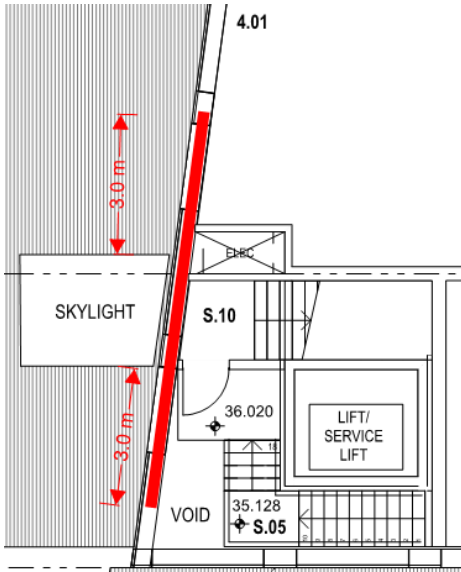
BCA Clause	Title	Assessment and Comment	Status
C3.4	Acceptable method of protection	<p>Windows requiring protection must be protected by one of the means;</p> <ul style="list-style-type: none"> <li>• External wall-wetting sprinklers with windows that are automatically or permanently fixed in the closed position.</li> <li>• -/60/- fire windows (Automatic or permanently fixed in the closed position)</li> <li>• -/60/- automatic fire shutters</li> <li>• Doorways which require protection can be protected externally with wall wetting sprinklers with doors that are self closing or automatic closing, or</li> <li>• -/60/30 fire doors which are self closing or automatic closing.</li> </ul> <p>Fire doors, fire windows and fire shutters are required to comply with Specification C3.4.</p> <p>Alternatively protection of openings could be justified against the performance provisions of the BCA, via a fire engineered alternative solution.</p>	The proposed building is capable of complying with the performance requirements of the BCA.
C3.5	Doorways in fire walls	<p>Doorway openings are to comply.</p> <p>A fire curtain on the ground floor is proposed for the purposes of achieving the fire engineered alternative solution requirements. The fire curtain should comply with the requirements of this clause.</p> <p>If the fire curtains cannot achieve the required fire resistance levels (-/180/30) justification against the performance requirements of the BCA would be required.</p> <p>Construction documentation is to demonstrate compliance</p>	<p>The proposed building is capable of complying</p> <p>Alternative solution</p>
C3.6	Sliding fire doors	<p>A fire curtain on the ground floor is proposed for the purposes of achieving the fire engineered alternative solution requirements. The fire curtain should comply with the requirements of this clause.</p> <p>(i) it must be held open with an electromagnetic device, which when de-activated in accordance with (b), allows the door to be fully closed in not less than 20 seconds and not more than 30 seconds after release; and</p> <p>(ii) in the event of power failure to the door—the door must fail safe in the closed position in accordance with (i); and</p> <p>(iii) an audible warning device must be located near the doorway and a red flashing warning light of adequate intensity on each side of the doorway must be activated in accordance with (b); and</p> <p>(iv) signs must be installed on each side of the doorway located directly over the opening stating—</p> <p style="text-align: center;"><b>WARNING — SLIDING FIRE DOOR</b></p> <p style="text-align: center;">in capital letters not less than 50 mm high in a colour contrasting with the background.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
C3.8	Openings in fire isolated exits	<p>The fire-isolated exits are required to be protected by -/60/30 self closing fire doors.</p> <p>The external window of fire stair S.03 and the discharge doorway on the ground floor are both located less than 6m from the external walls of restaurant 1 and the hotel foyer. Both the window and doorway must be protected in accordance with C3.4 of the BCA.</p>  <p>The high level openings of the fire stair located within the residential lobby void on levels 1 &amp; 2 do not comply with C3.8 of the BCA and must be filled with fire rated construction achieving an FRL of not less than -/120/120 or the windows would need to be justified via a fire engineered alternative solution.</p>  <p>Construction documentation should demonstrate compliance.</p>	<p>The proposed building is capable of complying</p> <p>Possible alternative solution</p>
C3.9	Service penetrations in fire isolated exits	<p>Service are not to penetrate through fire isolated exits unless permitted by this clause.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying
C3.10	Fire isolated lift shafts	<p>The lift doors are required to be -/60/- fire doors and comply with this provision.</p> <p>A lift call panel, indicator panel or other panel in the wall of a fire-isolated lift shaft must be backed by construction having an FRL of not less than -/60/60 if it exceeds 35 000 mm<sup>2</sup> in area.</p> <p>Construction documentation should demonstrate compliance</p>	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
NSW C3.11	Bounding construction	<p>Doors from sole occupancy units opening into enclosed public corridors are required to be protected by -/60/30 self closing fire doors.</p> <p>A doorway from any other room not within a SOU, must be protected by -/60/30 self closing fire doors if it opens to a public corridor, public lobby or the like within the residential portion of the building.</p> <p>The heritage board room entry, board room suite, board room bathroom, &amp; linen room on level 2 must be fire separated from the remainder of the building with -/60/60 construction and -/60/30 fire doors. The linen room on level 3 is also required to be protected.</p> <p>The window openings of units 1A.01, 2A.01 &amp; 3A.01 which open into the residential lobby void do not comply with C3.11 of the BCA and must be filled with fire rated construction achieving an FRL of not less than -/60/60 or the windows would need to be justified via a fire engineered alternative solution.</p> <p>Construction documentation to demonstrate compliance.</p>	<p>The proposed building is capable of complying</p> <p>Possible alternative solution</p>
C3.12	Openings in floors and ceilings for services.	<p>Fire separation between floors is required to be maintained where services penetrate through floors unless the services are located in fire rated shafts.</p> <p>Construction documentation to demonstrate compliance.</p>	The proposed building is capable of complying
C3.15	Openings for service installations	<p>Services that penetrate a building element must be protected utilising one of the options listed under this clause.</p> <p>Construction documentation to demonstrate compliance.</p>	The proposed building is capable of complying
C3.15	Openings for service installations	<p>Services that penetrate a building element that is required to have an FRL must be protected utilising one of the options listed under this clause.</p> <p>Where polybutylen (plastic) pipes are proposed for domestic water supply, or UPVC pipes and fire collars for mechanical sub-ducts, they must be supported by the appropriate test data from a registered laboratory demonstrating compliance with C3.15 (a).</p>	The proposed building is capable of complying
C3.16	Construction joints	<p>Construction joints in building elements required to be fire resistant are required to be protected in accordance with this clause.</p>	The proposed building is capable of complying
C3.17	Columns protected with lightweight construction to achieve an FRL	<p>A column protected by lightweight construction to achieve an FRL which passes through a building element that is required to have an FRL or a resistance to the incipient spread of fire, must be installed using a method and materials identical with a prototype assembly of the construction which has achieved the required FRL or resistance to the incipient spread of fire.</p> <p>Details are to be provided with the construction documentation.</p>	The proposed building is capable of complying

### 3.3 Fire-Resisting Construction (Specification C1.1)

BCA Clause	Title	Assessment and Comment	Status
2.1	Exposure to fire source features	The requirements of this provision apply to the subject building.	Note
2.2	Fire protection for support of another part	When determining FRL's applicable to a particular building element, the requirements of this clause are required to be complied with.	The proposed building is capable of complying
2.3	Lintels	Lintels are to be protected as required by the requirements of this clause.	The proposed building is capable of complying
2.4	Attachment not to impair fire resistance	Any attachments such as louvers over windows, external wall cladding to the façade or any type of combustible material must comply with this requirement and not be installed directly above or near an exit, will not constitute a risk of fire spread via the façade and must comply with C1.10 above.  Details are to be provided with the construction documentation.	The proposed building is capable of complying
2.5	General concessions	Note.	Note
2.6	Mezzanine floors: concession	The building does not contain mezzanine's that are subject to this provision.	N/A
2.7	Enclosure of shafts	The shafts are to be enclosed at the top and bottom in accordance with the requirements of this clause.	The proposed building is capable of complying
3.1	Fire resistance of building elements	<p>The following fire resistance levels are required throughout the building;</p> <p>Residential: 90 minutes  Assembly building: 120 minutes  Retail: 180 minutes</p> <p>The fire resistance levels of the proposed retail component of the development along with the existing floor construction of the northern heritage building are proposed to be performance justified via an alternative solution.</p> <p>In addition to the required fire resistance levels, the following also applies;</p> <ul style="list-style-type: none"> <li>• External walls, common walls and the flooring and floor framing of lift pits must be non-combustible</li> <li>• a loadbearing internal wall and a loadbearing fire wall (including those that are part of a loadbearing shaft) must be of concrete or masonry; and</li> <li>• a non-loadbearing— <ul style="list-style-type: none"> <li>(i) internal wall required to be fire-resisting; and</li> <li>(ii) lift, ventilating, pipe, garbage, or similar shaft that is not for the discharge of hot products of combustion, must be of non-combustible construction; and</li> </ul> </li> </ul> <p>New works are to comply and construction documentation is to demonstrate compliance.</p>	Alternative solution

BCA Clause	Title	Assessment and Comment	Status
3.5	Roof: Concession	The roof of the plant, bar and amenities on the pool deck are not required to achieve an FRL as the building is proposed to be sprinkler protected throughout.	The proposed building is capable of complying
3.6	Roof lights	<p>The roof light above the bridge is located less than 3m from the external walls of unit 4.01 and the stairs on level 4. The portion of the wall which extends 3m either side of the skylight and a distance of 6m above would need to be fire rated to achieve an FRL of 180/180/180 and the openings protected in accordance with C3.4 of the BCA.</p> <p>Protection and fire rating is to be incorporated within the alternative solution.</p> 	Alternative solution
3.7	Internal wall and column concession	Internal columns immediately below the roof on the pool deck are permitted to achieve an FRL of 60/60/60. This concession does not apply to internal columns within 1.5m from the external windows.	Concession available


### 3.4 Access & Egress (BCA Section D)

BCA Clause	Title	Assessment and Comment	Status
D1.2	Number of exits required	<p>The basement is required to be provided with a minimum of two exits.</p> <p>The building is provided with the minimum required exits under the requirements of this provision.</p>	The building complies

BCA Clause	Title	Assessment and Comment	Status
D1.3	When fire isolated exits are required	<p>Every required exit serving a building must be fire isolated if the exit stair connects and/or pass through more than 3 consecutive storeys.</p> <p>Stair S.03 and S.07/S.08 are proposed to be fire isolated stairs. Stair S.01 is not fire isolated for the purposes of this clause but is constructed of fire rated material to provided fire separation between the basement and the remainder of the building.</p> <p>The central stair around the lift void connecting the basement and level 4 is not proposed to be fire isolated and is proposed to be justified against the performance requirements of the BCA via an alternative solution.</p> <p>The base</p>	Alternative solution
D1.4	Exit travel distances	<p><b>Class 2 part</b> - The entrance doorway of any sole-occupancy unit must be not be more than 6m from an exit or from a point from which travel in different directions is available or 20m from a single exit serving the storey at the level of egress to a road or open space.</p> <p>No point on the floor of a room which is not in a sole-occupancy unit must be more than 20m from an exit or from a point at which travel in different directions to 2 exits is available.</p> <ol style="list-style-type: none"> <li>1. The new bathroom on level 2 is likely to exceed 20m to a point of choice (POC) once all the fixtures are finalised. On the blank floor plate the egress travel distances are 18m to a POC.</li> </ol> <p><b>Class 5, 6 and 7a parts</b> - 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 40m.</p> <p>The following non-compliances require justification against the performance requirements of the BCA,</p> <ol style="list-style-type: none"> <li>2. Basement beverage store - 24m to an exit or point of choice. The travel distances will also be increased once any storage or racks are introduced.</li> <li>3. Basement kitchen 1 - 26.5m to the non-fire isolated stair serving the restaurant. The travel distances will be increased with the kitchen fitout.</li> <li>4. Basement kitchen 2 - 22m to the non-fire isolated stair serving the restaurant. The travel distances will be increased with the kitchen fitout.</li> <li>5. Level 2 kitchen - 24m to a POC. The travel distances will be increased with the kitchen fitout.</li> <li>6. Pool Deck - 44m to a single exit.</li> </ol> <p>Doorways to the plant room on the pool deck must be provided to ensure compliant travel distances are achieved. Doorways are not currently documented.</p>	<p>Alternative solution</p> <p>Alternative solution</p>

BCA Clause	Title	Assessment and Comment	Status
D1.5	Distance between alternative exits	<p>Exits that are required to serve as alternative means of egress must not be more than 45m apart in a residential building and not more than 60m in all other parts.</p> <p>The distance between alternative exits within the residential portion of the building comply, noting that the central stair around the lifts are being utilised as a non-fire isolated stair.</p> <p>The egress travel distances between stairs S.08 and S.05 on the basement level exceed 60m (63m) and requires justification against the performance requirements of the BCA.</p> <p>Exits required as alternative means of egress must be located not less than 9m apart and located so that the alternative paths of travel do not converge such that they become less than 6m apart.</p> <p>The exits comply with the requirements above.</p>	Alternative solution
NSW D1.6	Dimensions of exits and paths of travel to exits	<p>A required exit or path of travel to an exit are required to be a minimum unobstructed height of not less than 2m and minimum width of 1m.</p> <p>The exits from the open balcony and common room would achieve minimum dimensions.</p>	The proposed building is capable of complying
D1.7	Travel via fire isolated exits	<p>A doorway from a room must not open directly into a stairway, passageway or ramp that is <i>required</i> to be fire-isolated unless it is from—</p> <ul style="list-style-type: none"> <li>(i) a public corridor, public lobby or the like; or</li> <li>(ii) a sole-occupancy unit occupying all of a storey; or</li> <li>(iii) a sanitary compartment, airlock or the like.</li> </ul> <p>An airlock or the like is required between both the loading dock and plant room on the ground floor which open directly into the fire isolated stairway. Construction documentation is to demonstrate compliance.</p> <p>Each fire-isolated stairway or fire-isolated ramp must provide independent egress from each storey served and discharge directly, or by way of its own fire-isolated passageway to a road or open space;</p> <p>Fire stair S.07 / S.08 discharges directly onto an allotment boundary and is not defined as open space as it is not located within the boundary. The proposed discharge must be justified against the performance requirements of the BCA via an alternative solution.</p> <p>Fire stair S.07 / S.08 has 3 access doors opening into the stair on the ground floor, being access from the loading dock, plant room and the hotel corridor. The fire stair is accessed by more than 2 doorways and is required to be pressurised in accordance with AS/NZS1668.1-1998 or a smoke lobby comply with D2.6 must be provides to all access doors. The proposed connections must be justified against the performance requirements of the BCA via an alternative solution if the stairs are not pressurised.</p>	<p>The proposed building is capable of complying</p> <p>Alternative solution</p> <p>Alternative solution</p>
D1.8	External Stairs or ramps in lieu of Fire-isolated exits	External stairs are not provided in lieu of fire isolated exits.	N/A




BCA Clause	Title	Assessment and Comment	Status
D1.9	Travel via non-fire-isolated stairways or ramps	<p>A non fire-isolated stair serving as a required exit must provide a continuous means of travel by its own flights and landings to a level at which egress to a road or open space is available.</p> <p>Travel from the non-fire isolated stairs serving and connecting the basement levels and the restaurant and hotel reception complies with the requirements of this provision.</p> <p>The non-fire isolated stair serving the signature wine and dessert bar on level 3 discharges via level 2 and then into a fire isolated stairway (S.03) which does not comply with the requirements of this provision. The stair must be justified against the performance requirements of the BCA via an alternative solution.</p>	<p>The proposed building complies</p> <p>Alternative solution</p>
D1.10	Discharge from exits	<p>The discharge point of the fire isolated exits are required to be connected to the road by a minimum 1 m wide path and where there is a change of level, the path must contain a complying stair or ramp.</p> <p>The BCA also specifies that exits must not be blocked at a point of discharge and where necessary suitable barriers must be provided to prevent vehicles from blocking the exit or access to it.</p>	The proposed building complies
D1.11	Horizontal exits	Horizontal exits are not proposed.	N/A
D1.12	Non-required stairways, ramps or escalators	<p>The feature stair has been assessed as a non-required stairways as the construction would not comply with the requirements of D2.3 for a required non-fire isolated stairway. The feature stair directly and indirectly (via non-fire isolated stairs) connect the basement, ground floor, levels 1, 2, 3 &amp; 4 and requires justification against the performance requirements of the BCA via a fire engineered alternative solution.</p> <p>Alternatively, the stair could be accessed as a non-fire isolated stair which connect 3 storeys in a sprinkler protected building but this would require additional justification under D2.3. This option does address the egress travel distances from the level 2 kitchen, however the final option would be the discretion of the fire engineer.</p> 	Alternative solution
D1.13	Number of persons accommodated	Populations have been assessed in accordance with Table D1.13.	Note

BCA Clause	Title	Assessment and Comment	Status
D1.16	Plant rooms and lift rooms: concession	<p>A ladder may be used in lieu of a stairway to provide egress from -</p> <ul style="list-style-type: none"> <li>(i) a plant room with a floor area of not more than 100 m<sup>2</sup>; or</li> <li>(ii) all but one point of egress from a plant room or a lift machine room with a floor area of not more than 200 m<sup>2</sup>.</li> </ul> <p>A ladder permitted in accordance with the above -</p> <ul style="list-style-type: none"> <li>(i) may form part of an exit provided that in the case of a fire-isolated stairway it is contained within the shaft; or</li> <li>(ii) may discharge within a storey in which case it must be considered as forming part of the path of travel; and</li> <li>(iii) must comply with AS1657 for a plant room; and AS1735.2 for a lift machine room.</li> </ul> <p>Details are to be provided with the construction documentation.</p>	The proposed building is capable of complying
D1.17	Access to lift pits	<p>Access to lift pits must, where the pit depth is not more than 3m, may be through the lowest landing doors; or where the pit depth is more than 3 m, be provided through an access doorway complying with the following:</p> <ul style="list-style-type: none"> <li>(i) In lieu of D1.6, the doorway must be level with the pit floor and not be less than 600 mm wide by 1980 mm high clear opening, which may be reduced to 1500 mm where it is necessary to comply with (ii).</li> <li>(ii) No part of the lift car or platform must encroach on the pit doorway entrance when the car is on a fully compressed buffer.</li> <li>(iii) Access to the doorway must be by a stairway complying with A1657.</li> <li>(iv) In lieu of D2.21, doors fitted to the doorway must be— <ul style="list-style-type: none"> <li>(a) of the horizontal sliding or outwards opening hinged type; and</li> <li>(b) self-closing and self-locking from the outside; and</li> <li>(c) marked on the landing side with the letters not less than 35 mm high:</li> </ul> <p>“DANGER LIFTWELL – ENTRY OF UNAUTHORIZED PERSONS PROHIBITED – KEEP CLEAR AT ALL TIMES”</p> </li> </ul> <p>Details are to be provided with the construction documentation.</p>	The proposed building is capable of complying
D2.2	Fire-isolated stairways and ramps	<p>A stairway or ramp (including any landings) that is required to be within a fire-resisting shaft must be constructed of non-combustible materials and so that if there is local failure it will not cause structural damage to, or impair the fire-resistance of, the shaft.</p> <p>Details are to be provided with the construction documentation.</p>	The proposed building is capable of complying
D2.3	Non-fire isolated stairs and ramps	<p>If the feature stair is treated as a non-fire isolated stairway, the existing construction would not comply with the requirements of this provision and would need to be justified against the performance requirements of the BCA. The final option would be the discretion of the fire engineer.</p> <p>The remainder of the non-fire isolated stairways are to comply with the requirements of this provision.</p> <p>Details are to be provided with the construction documentation.</p>	<p>Possible alternative solution</p> <p>The proposed building is capable of complying</p>

BCA Clause	Title	Assessment and Comment	Status
D2.4	Separation of rising and descending stair flights	<p>If a stairway serving as an exit is required to be fire-isolated there must be no direct connection between—</p> <ul style="list-style-type: none"> <li>(i) a flight rising from a storey below the lowest level of access to a road or open space; and</li> <li>(ii) a flight descending from a storey above that level</li> </ul> <p>Any construction that separates or is common to the rising and descending flights must be—</p> <ul style="list-style-type: none"> <li>(i) non-combustible; and</li> <li>(ii) smoke proof in accordance with Clause 2 of Specification C2.5.</li> </ul>	The proposed building is capable of complying
D2.7	Installation in exits and paths of travel	<p>Existing and/or proposed services or equipment comprising electricity meters, distribution boards, central telecommunication distribution boards / equipment, electrical motors or other motors serving equipment in the building, can be installed in the existing corridors or the like leading to a required exits if the services or equipment are enclosed with non-combustible construction or appropriate fire-protective covering and doorways suitably sealed against smoke spread from the enclosure.</p> <p>Gas or other fuel services are not permitted in a required exit.</p> <p>NB: The internal part of a SOU is excluded from this provision.</p> <p>Details are to be provided with the construction documentation.</p>	The proposed building is capable of complying
D2.8	Enclosure of space under stairs and ramps	The space below the required fire-isolated stairways must not be enclosed to form a cupboard or similar enclosed space.	The proposed building is capable of complying
D2.9	Width of stairways	The required width of a stairway must be measured clear of all obstructions such as handrails, projecting parts of balustrades or other 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 of the landing.	Note
D2.11	Fire-isolated passageways	The enclosing construction of the fire-isolated passageways on the ground floor must have an FRL when tested for a fire outside the passageway in another part of the building of not less than that required for the stairway shaft.	N/A
NSW D2.13	Goings & risers	<p>Goings and risers are to be designed to comply with this clause, including opening sizes, going and riser dimensions and non-slip finish or non-skid nosings.</p> <p>Construction documentation should demonstrate compliance.</p> <p>The existing feature stair complies with the requirements of this provision.</p>	<p>The proposed building is capable of complying</p> <p>The building complies</p>
D2.14	Landings	<p>Landings are to be designed in accordance with this clause. The current documentation does not contain this level of detail.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying



BCA Clause	Title	Assessment and Comment	Status
D2.17	Handrails	<p>Handrails are required along at least one side of the stairways or ramps, or on both sides of stairs or ramps with a total width of more than 2m.</p> <p>Handrails are also required on one side of the internal stairs of the residential units.</p> <p>Construction documentation should demonstrate compliance.</p> <p>Handrails are not provided on the existing external stairs on the ground floor. Council discretion is sort under Clause 94 of the EP&amp;A Regs 2000 if the installation would affect the heritage significance of the building.</p> 	<p>The proposed building is capable of complying</p> <p>Does not comply</p>
NSW D2.19	Doorways and doors	<p>A doorway serving as a required exit or forming part of a required exit must not be fitted with a revolving door, roller shutter or tilt-up door. Sliding doors must also not be fitted unless it leads directly to a road or open space and the door provided that it is capable of being opened manually under a force of not more than 110 N.</p> <p>A doorway serving as a required exit or forming part of a required exit is fitted with a door which is power-operated—</p> <ul style="list-style-type: none"> <li>(a) it must be able to be opened manually under a force of not more than 110 N if there is a malfunction or failure of the power source; and</li> <li>(b) if 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.</li> </ul> <p>Construction documentation should also demonstrate compliance.</p>	<p>The proposed building is capable of complying</p>

BCA Clause	Title	Assessment and Comment	Status
D2.20	Swinging doors	<p>A swinging door in a required exit or forming part of a required exit must not encroach at any part of its swing by more than 500mm on the required width (including any landings) of a required stairway, ramp or passageway if it is likely to impede the path of travel of the people already using the exit; and when fully open, by more than 100 mm on the required width of the required exit.</p> <p>The measurement of encroachment in each case is to include door handles or other furniture or attachments to the door. The door must swing in the direction of egress unless it is fitted with a device for holding it in the open position; or it serves a sanitary compartment or airlock (in which case it may swing in either direction); and must not otherwise impede the path or direction of egress.</p> <p>Required exit doors are required to swing in the direction of egress. The existing ground floor doorways facing Broadway and Kensington Lane are proposed to remain swinging against the direction of egress and are proposed to be justified against the performance requirements of the BCA.</p> <p>The doorway of S.08 which leads to the fire stair / passage on the ground floor does not swing in the direction of egress and should be re-swung.</p> <p>Construction documentation should also demonstrate compliance.</p>	<p>The proposed building is capable of complying</p> <p>Alternative solution</p>
NSW D2.21	Operation of latch	<p>All the doors in the required exits, or doors forming part of the required exits, must be readily openable without a key from the side that faces a person seeking egress, by a single hand downward or pushing action on a single device which is located between 900mm and 1.1m from the floor.</p> <p>The above provision would not apply to sole occupancy unit doors or doors fitted with a fail-safe device which automatically unlocks the door upon the activation of any sprinkler or detection system installed in the building.</p> <p>Construction documentation should also demonstrate compliance.</p>	The proposed building is capable of complying
D2.22	Re-entry from fire-isolated exits	N/A	N/A

BCA Clause	Title	Assessment and Comment	Status
D2.23	Signs on doors	<p>A sign, to alert persons that the operation of certain doors must not be impaired, must be installed where it can readily be seen on, or adjacent to the following;</p> <ul style="list-style-type: none"> <li>• A required fire door providing direct access to a fire-isolated exit,</li> <li>• A required smoke door,</li> <li>• A fire door forming part of a horizontal exit;</li> <li>• A smoke door that swings in both directions;</li> <li>• door leading from a fire isolated exit to a road or open space,</li> </ul> <p>Signage is required to be in capital letters not less than 20 mm high in a colour contrasting with the background and state—</p> <p>(i) for an automatic door held open by an automatic hold-open device—  <b>“FIRE SAFETY DOOR—DO NOT OBSTRUCT”</b>; or</p> <p>(ii) for a self-closing door—  <b>“FIRE SAFETY DOOR DO NOT OBSTRUCT DO NOT KEEP OPEN”</b>; or</p> <p>(iii) for a door discharging from a fire-isolated exit—  <b>“FIRE SAFETY DOOR—DO NOT OBSTRUCT”</b>.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying
D3.1	General building access requirements	<p>Access is required to be provided to and within all areas normally used by occupants in accordance with the requirements of this provision and AS1428.1-2009.</p> <p>Class 3 Access to not less than 3 units must be provided and not more than 2 required accessible sole-occupancy units may be located adjacent to each other and where more than 2 accessible sole-occupancy units are required, they must be representative of the range of rooms available.</p> <p>Construction documentation should demonstrate compliance.</p>	Subject to separate access report

BCA Clause	Title	Assessment and Comment	Status
D3.2	Access to buildings	<p>An accessway must be provided to a building required to be accessible—</p> <ul style="list-style-type: none"> <li>i. from the main points of a pedestrian entry at the allotment boundary; and</li> <li>ii. from another accessible building connected by a pedestrian link; and</li> <li>iii. from any required accessible carparking space on the allotment.</li> </ul> <p>In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance (except for pedestrian entrances serving only areas exempted by D3.4),</p> <ul style="list-style-type: none"> <li>i. through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and</li> <li>ii. in a building with a total floor area more than 500 m<sup>2</sup>, a pedestrian entrance which is not accessible must not be located more than 50 m from an accessible pedestrian entrance,</li> </ul> <p>Where a pedestrian entrance required to be accessible has multiple doorways—</p> <ul style="list-style-type: none"> <li>i. if the pedestrian entrance consists of not more than 3 doorways — not less than 1 of those doorways must be accessible; and</li> <li>ii. if a pedestrian entrance consists of more than 3 doorways, not less than 50% of those doorways must be accessible.</li> </ul> <p>Where a doorway on an access way has multiple leaves, (except an automatic opening door) one of those leaves must have a clear opening width of not less than 850 mm in accordance with AS 1428.1-2009.</p> <p>Construction documentation should demonstrate compliance.</p>	Subject to separate access report



BCA Clause	Title	Assessment and Comment	Status
D3.3	Parts of building to be accessible	<p>Every ramp and stairway (except for ramps and stairways in areas exempted by D3.4) must comply with—</p> <ul style="list-style-type: none"> <li>i. for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and</li> <li>ii. for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; and</li> <li>iii. for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1-2009.</li> </ul> <p>Every passenger lift must comply with E3.6; and</p> <p>Accessways must have—</p> <ul style="list-style-type: none"> <li>i. passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an accessway where a direct line of sight is not available; and</li> <li>ii. turning spaces complying with AS 1428.1— <ul style="list-style-type: none"> <li>(A) within 2 m of the end of accessways where it is not possible to continue travelling along the accessway; and</li> <li>(B) at maximum 20 m intervals along the accessway; and</li> </ul> </li> </ul> <p>An intersection of accessways satisfies the spatial requirements for a passing and turning space and a passing space may serve as a turning space.</p> <p>In addition to the above, Clause 7.4.1(a) of AS 1428.1 does not apply and is replaced with 'the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm'; and</p> <p>The carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in figure 8 of AS 1428.1 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively.</p> <p>Construction documentation should demonstrate compliance.</p>	Subject to separate access report
D3.4	Exemptions	<p>The following areas are not required to be accessible:</p> <ul style="list-style-type: none"> <li>(a) An area where access would be inappropriate because of the particular purpose for which the area is used.</li> <li>(b) An area that would pose a health or safety risk for people with a disability.</li> <li>(c) Any path of travel providing access only to an area exempted by (a) or (b).</li> </ul>	Note
D3.5	Car parking	N/A	N/A

BCA Clause	Title	Assessment and Comment	Status
D3.6	Signage	<p>Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1 must identify each—</p> <ul style="list-style-type: none"> <li>i. sanitary facility, except a sanitary facility within the sole-occupancy unit of the Class 3 component; and</li> <li>ii. a space with a hearing augmentation system;</li> </ul> <p>Signage including the international symbol for deafness in accordance with AS 1428.1 must be provided within a room containing a hearing augmentation system identifying—</p> <ul style="list-style-type: none"> <li>i. the type of hearing augmentation; and</li> <li>ii. the area covered within the room; and</li> <li>iii. if receivers are being used and where the receivers can be obtained.</li> </ul> <p>Signage in accordance with AS 1428.1 must be provided for accessible unisex sanitary facilities to identify if the facility is suitable for left or right handed use.</p> <p>Signage to identify an ambulant accessible sanitary facility in accordance with AS 1428.1 must be located on the door of the facility.</p> <p>Where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access, in accordance with AS 1428.1 must be provided to direct a person to the location of the nearest accessible pedestrian entrance.</p> <p>Where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, directional signage incorporating the international symbol of access in accordance with AS 1428.1 must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex sanitary facility.</p> <p>Construction documentation should demonstrate compliance.</p>	The building is capable of complying
D3.7	Hearing augmentation	A hearing augmentation is to comply if an inbuilt amplification system is installed within the Class 9b parts of the building.	The building is capable of complying
D3.8	Tactile indicators	<p>Tactile ground surface indicators are required to be provided to warn people who are blind or have a vision impairment that they are approaching—</p> <ul style="list-style-type: none"> <li>(i) a stairway, other than a fire-isolated stairway; and</li> <li>(ii) an escalator; and</li> <li>(iii) a passenger conveyor or moving walk; and</li> <li>(iv) a ramp other than a fire-isolated ramp, step ramp, kerb ramp or swimming pool ramp; and</li> <li>(v) in the absence of a suitable barrier— <ul style="list-style-type: none"> <li>(A) an overhead obstruction less than 2 m above floor level, other than a doorway; and</li> <li>(B) an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building, excluding a pedestrian entrance serving an area referred to in D3.4, if there is no kerb or kerb ramp at that point, except for areas exempted by D3.4.</li> </ul> </li> </ul> <p>Tactile ground surface indicators required are required to comply with sections 1 and 2 of AS/NZS 1428.4.1.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying
D3.9	Wheelchair seating spaces in Class 9b assembly buildings	N/A	N/A

BCA Clause	Title	Assessment and Comment	Status
D3.10	Swimming Pools	The roof top swimming pool has a perimeter of less than 40m (38m) and is not required to be accessible.	N/A
D3.11	Ramps	A series of connected ramps must not have a combined vertical rise of more than 3.6 m and a landing for a step ramp must not overlap a landing for another step ramp or ramp. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
D3.12	Glazing on an accessway	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1. Construction documentation should demonstrate compliance.	The proposed building is capable of complying

### 3.5 Services & Equipment (BCA Section E)

BCA Clause	Title	Assessment and Comment	Status
E1.3	Fire hydrants	A fire hydrant system must be provided in accordance with this clause to serve the whole building and must also be installed in accordance with AS2419.1-2005.  The locations of hydrant boosters and pumps have not been detailed and the construction documentation should demonstrate compliance.  The hydrant landing valves are proposed to be located on the mid-landings of the fire stairs and is proposed to be incorporated within the alternative solution due the Fire and Rescue NSW interpretation of Clause 3.2.3.2(a) of AS2419.1-2005.  Construction documentation should demonstrate compliance otherwise.	The proposed building is capable of complying       Alternative solution
E1.4	Fire hose reels	A hose reel system must be provided to serve the whole building. The hose reel system must be installed in accordance with this clause and AS2441.  All fire hose reels are currently not documented and the construction documentation should demonstrate compliance noting that hose reels must be located less than 4m from a required exit and are not permitted to cross fire or smoke doors, so careful design is required to ensure compliant coverage is achieved. Hose reels will be required to serve areas like the stair void, loading dock and plant room on the ground floor, the bridge and stair voids on levels 1, 2 & 3 etc.	The proposed building is capable of complying
E1.5	Sprinklers	A sprinkler system not required to be installed in the building under the requirements of this provision.	N/A
E1.6	Portable fire extinguishers	Portable fire extinguishers are to comply with this provision and sections 1, 2, 3 and 4 of AS2444.  Construction documentation should demonstrate compliance.	The proposed building is capable of complying
E1.8	Fire control centres	A fire control room is not required.	N/A

BCA Clause	Title	Assessment and Comment	Status
E1.9	Fire precautions during construction	<p>In a building under construction—</p> <p>(a) 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; and</p> <p>(b) after the building has reached an effective height of 12 m—</p> <p>(i) the required fire hydrants and fire hose reels must be operational in at least every storey that is covered by the roof or the floor structure above, except the 2 uppermost storey's; and</p> <p>(ii) any required booster connections must be installed.</p>	The proposed building is capable of complying
E2.2	General requirements	<p>An air-handling system which does not form part of a smoke hazard management system in accordance with Table E2.2a 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—</p> <ul style="list-style-type: none"> <li>• be designed and installed to operate as a smoke control system in accordance with AS/NZS 1668.1; or</li> <li>• incorporate smoke dampers where the air-handling ducts penetrate any elements separating the fire compartments served; and</li> <li>• be arranged such that the air-handling system is shut down and the smoke dampers are activated to close automatically by smoke detectors complying with Clause 4.10 of AS/NZS 1668.1; and for the purposes of this provision, each SOU in the Class 2 part is treated as a separate fire compartment.</li> </ul> <p>Miscellaneous air-handling systems covered by Sections 5 and 11 of AS/NZS 1668.1 serving more than one fire compartment and not forming part of a smoke hazard management system must comply with that Section of the Standard.</p> <p>The Class 3 part of the building must be provided with an automatic smoke detection and alarm system complying with Specification E2.2a &amp; AS1670.2004 and AS3786-1993. The detection system is required to activate a building occupant warning system installed in accordance with Spec E2.2a (Clause 6) &amp; of AS1670.1-2004 (Clause 3.22).</p> <p>The Class 6 and 9b parts of the building are also required to be protected with an automatic smoke detection and alarm system complying with Specification E2.2a &amp; AS1670.2004.</p> <p>The mechanical ventilation system in the level 2 meeting rooms are required to <i>automatically</i> shutdown (other than individual room units with a capacity not more than 1000 L/s, systems serving critical treatment areas and miscellaneous exhaust air systems installed in accordance with Sections 5 and 11 of AS/NZS 1668.1) on the activation of the smoke detection system.</p>	The proposed building is capable of complying
E3.2	Stretcher facility in lifts	<p>A stretcher facility must be provided in accordance with the requirements of this clause and must be able to accommodate a raised stretcher with a patient lying on it horizontally by providing a clear space not less than 600 mm wide x 2000 mm long x 1400 mm high above the floor level.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
E3.3	Warning against use of lifts in fire	Warning signs must be displayed near every call button for a passenger lift or group of lifts throughout the building in accordance with this clause and must comply with the details and dimensions of Figure E3.3.	The proposed building is capable of complying
E3.4	Emergency lifts	Emergency lifts are not required.	N/A
E3.5	Landings	The provisions of Clause 12.2 "Access" of AS1735.2 do not apply. The provisions of Clause A3.2 —"Access to landings" of Appendix A of AS1735.1 do not apply. Access and egress to and from lift well landings must comply with the Deemed-to-Satisfy Provisions of Section D.	The proposed building is capable of complying
E3.6	Facilities for people with disabilities	Every passenger lift must comply with the requirements of this provision.  Construction documentation should demonstrate compliance.	The proposed building is capable of complying
E3.7	Fire service controls	Fire service controls are required to every lift serving any storey above an effective height of 12m.  Construction documentation should demonstrate compliance.	The proposed building is capable of complying
E3.8	Aged care buildings	N/A	N/A
E4.2	Emergency lighting requirements	Emergency lighting must be provided in accordance with this clause. Emergency lighting is required to comply with AS2293.1-2005. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
E4.5	Exit signs	An exit signage must be provided in accordance with this clause.  Exit signage is required to comply with AS2293.1-2005 and be clearly visible at all times. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
NSW E4.6	Direction signs	If an exit is not readily apparent to persons occupying or visiting the building then exit signs must be installed in appropriate positions in corridors, hallways, lobbies, and the like, indicating the direction to a required exit. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
E4.9	Sound systems and intercom systems for emergency purposes	A sound system and intercom system for emergency purposes is not required under the requirements of this provision.	N/A

### 3.5 Health & Amenity (BCA Section F)

BCA Clause	Title	Assessment and Comment	Status
F1.0	Deem to satisfy provisions	Performance requirement FP1.4, for the prevention of the penetration of water through external walls, is required to be complied with.  Details are to be provided with construction documentation.	The proposed building is capable of complying
F1.1	Stormwater drainage	Stormwater drainage is required to be designed to comply with AS/NZS3500.3.  Construction documentation should demonstrate compliance.	The proposed building is capable of complying
F1.5	Roof coverings	Lightweight metal roof sheeting is to comply with AS1562.1.  Construction documentation should demonstrate compliance.	The proposed building is capable of complying
F1.6	Sarking	Sarking-type materials used for weatherproofing of roofs and walls are required to comply with AS/NZS 4200 Parts 1 and 2.  Construction documentation should demonstrate compliance.	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
F1.7	Waterproofing of wet areas in buildings	Waterproofing of wet areas are required to comply with this clause.  Construction documentation should demonstrate compliance.	The proposed building is capable of complying
F1.9	Damp-proofing	Damp proof course is required to be provided to walls to comply with this clause.	The proposed building is capable of complying
F1.10	Damp-proofing of floor on ground	Damp-proofing is required to be provided in accordance with the requirements of this provision.	The proposed building is capable of complying
F1.11	Provision of floor wastes	The floor of each bathroom and laundry in the residential sole occupancy units are to b provided with a floor waste.	The proposed building is capable of complying
F1.12	Sub-floor ventilation	The sub-floor space between the suspended floor of a building and the ground must be provided with cross ventilation, be cleared of all debris and graded to prevent ponding and evenly spaced ventilation openings.  The minimum sub-floor ventilation openings are to be achieved in accordance with Table F1.12 providing 6000 mm <sup>2</sup> /m wall.	The proposed building is capable of complying
F1.13	Glazed assemblies	Glazed assemblies to comply with AS 2047 as applicable.	The proposed building is capable of complying
F2.1	Facilities in residential buildings	The residential portion of the building is to be provided with appropriate facilities in accordance with Table F2.1. Generally provision of the following facilities within each unit will comply. <ul style="list-style-type: none"> <li>• A bath or shower; and</li> <li>• A closet pan &amp; wash basin.</li> <li>• Kitchen</li> <li>• Wash tub and space for washing machine and drier</li> </ul> Sanitary facilities are provided as required.  A caretaker's facility comprising a closet pan and wash pan is required to be provided at or near the ground level.	The proposed building is capable of complying
F2.3	Facilities in Class 3 to 9 buildings	The sanitary facilities provided comply.	The proposed building complies

BCA Clause	Title	Assessment and Comment	Status
F2.4	Facilities for people with disabilities	<p>Unisex sanitary compartments must be provided on every storey containing sanitary facilities and where a storey has more than 1 bank of sanitary compartments, at not less than 50% of these banks in accordance with AS1428.1-2009.</p> <p>In addition to the unisex sanitary compartment, each bank of toilets must be provided with a sanitary compartment suitable for a person with an ambulant disability in accordance with AS 1428.1 and must be provided for use by males and females.</p> <p>An accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels.</p> <p>The circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4(a) and Table F2.4(b) must comply with the requirements of AS 1428.1; and</p> <p>Access to unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only.</p> <p>Where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right handed mirror image facilities must be provided as evenly as possible,</p> <p>Accessible unisex showers must be provided where required by Table F2.4(b)</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying
F2.5	Construction of sanitary compartments	<p>The construction of sanitary compartments is required to comply with this requirement.</p> <p>Doorways located less than 1.2m from the closet pan are required to swing outwards, slide or be capable of being removed from the outside (lift off hinges).</p>	The proposed building is capable of complying
F2.6	Interpretation: Urinals and washbasins	<p>A urinal may be—an individual stall or wall-hung urinal; or each 600 mm length of a continuous urinal trough, or a closet pan used in place of a urinal.</p> <p>A washbasin may be an individual basin or a part of a hand washing trough served by a single water tap.</p>	Note
F3.1	Height of rooms and other spaces	The minimum ceiling height requirements are to comply with the requirements of this provision. Generally the building compliance however full construction documentation is to demonstrate compliance.	The proposed building is capable of complying
F4.1	Provision of natural light	<p>Natural lighting must be provided in all habitable rooms of the residential units in accordance with the requirements of this provision.</p> <p>A detailed calculation confirming compliance must be submitted with the construction documentation to demonstrate compliance.</p>	The proposed building is capable of complying
F4.4	Artificial lighting	<p>Artificial lighting is to be provided in accordance with AS/NZS1680.0 and in accordance with this clause.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying
F4.5	Ventilation of rooms	<p>Ventilation is to be provided by natural or mechanical means in accordance with this provision and Clause F4.6.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying
F4.8	Restriction on the position of water closets and urinals	<p>A room containing a closet pan or urinal must not open directly into a room used for public assembly, workplace or kitchen.</p> <p>An air lock must be provided between the staff WC and kitchen on the basement level.</p>	The building complies



BCA Clause	Title	Assessment and Comment	Status
F4.9	Airlocks	<p>If the room containing a closet pan or urinal must not open directly into rooms identified in F4.8 above then an airlock of not less than 1.1 m<sup>2</sup> and fitted with self-closing doors at all access doorways or the room containing the closet pan or urinal must be provided with mechanical ventilation and the doorway to the room adequately screened from view.</p> <p>Mechanical ventilation of the bathrooms is to be provided.</p>	The proposed building is capable of complying
F4.11	Car park exhaust	N/A.	N/A
F4.12	Kitchen local exhaust	No commercial kitchens are provided.	N/A
F5.1	Application of part	The sound insulation requirements of F5.2, F5.3, F5.4, F5.5, F5.6 & F5.7 only apply to the Class 3 residential component of the building.	
F5.2	Determination of airborne sound insulation ratings	<p>A form of construction required to have an airborne sound insulation rating must-</p> <ul style="list-style-type: none"> <li>(i) have the required value for weighted sound reduction index (<math>R_w</math>) or weighted sound reduction index with spectrum adaptation term (<math>R_w + C_{tr}</math>) determined in accordance with AS/NZS 1276.1 or ISO 717.1 using results from laboratory measurements; or</li> <li>(ii) an acceptable form of construction under Spec F5.2.</li> </ul>	The proposed building is capable of complying
F5.3	Determination of impact sound insulation ratings	<p>A floor in a building required to have an impact sound insulation rating must—</p> <ul style="list-style-type: none"> <li>(i) have the required value for weighted normalised impact sound pressure level with spectrum adaptation term (<math>L_{n,w} + C_i</math>) determined in accordance with AS/ISO 717.2 using results from laboratory measurements; or</li> <li>(ii) comply with Specification F5.2.</li> </ul> <p>A wall in a building required to have an impact sound insulation rating in the Class 3 part must be of discontinuous construction.</p> <p>For the purposes of this Part, discontinuous construction means a wall having a minimum 20 mm cavity between 2 separate leaves, and</p> <ul style="list-style-type: none"> <li>(i) for masonry, where wall ties are required to connect leaves, the ties are of the resilient type; and</li> <li>(ii) for other than masonry, there is no mechanical linkage between leaves except at the periphery. <p>Construction documentation should demonstrate compliance.</p> </li></ul>	The proposed building is capable of complying
F5.4	Sound insulation rating of floor	<p>Floors in the Class 3 part of the building must have an <math>R_w + C_{tr}</math> (airborne) not less than 50 and an <math>L_{n,w} + C_i</math> (impact) not more than 62 if it separates—</p> <ul style="list-style-type: none"> <li>(i) sole-occupancy units; or</li> <li>(ii) a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification.</li> </ul> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying



BCA Clause	Title	Assessment and Comment	Status
F5.5	Sound insulation of walls	<p>The walls in the Class 2 part of the building must;</p> <ul style="list-style-type: none"> <li>i. have an <math>R_w + C_{tr}</math> (airborne) not less than 50 if it separates SOU's; and</li> <li>ii. have an <math>R_w + C_{tr}</math> (airborne) not less than 50 if it separates a SOU from a plant room, public corridor, public lobby or the like; and</li> <li>iii. have complying discontinuous construction if it separates a bathroom, sanitary compartment, laundry or kitchen in one SOU from a habitable room (other than a kitchen) in another, or a SOU from a plantroom.</li> </ul> <p>A door may be incorporated in a wall that separates a SOU from a stairway, public corridor, public lobby or the like, provided the door assembly has an <math>R_w</math> not less than 30. The doors opening to the external balconies are not required to have sound insulation rating.</p> <p>Where a wall required to have sound insulation has a floor above, the wall must continue to the underside of the floor above or a ceiling that provides the sound insulation required for the wall.</p> <p>Where a wall required to have sound insulation has a roof above, the wall must continue to the underside of the roof above or a ceiling that provides the sound insulation required for the wall.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying
F5.6	Sound insulation rating of services	<p>Services that serves or pass through more than one SOU must achieve the required ratings specified by this clause.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying
F5.7	Sound isolation of pumps	<p>A flexible coupling must be installed at the point of connection between service pipes in a building and any circulating or other pump.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying

### 3.6 Ancillary Provisions (Section G)

BCA Clause	Title	Assessment and Comment	Status
G1.1	Swimming Pools	N/A	N/A
G1.2	Refrigerated chambers, strongrooms & vaults	<p>Refrigerated chambers are to comply with the requirements of this provision.</p> <p>Construction documentation should demonstrate compliance.</p>	The proposed building is capable of complying
NSW G1.101	Provision for the cleaning of windows	<p>The method of provision for the cleaning of windows is required to be in accordance with this clause (windows 3 or more storeys above the ground). Details are to be provided with the construction documentation submitted with the construction certificate.</p>	The proposed building is capable of complying
G5.2	Protection in bushfire prone areas	N/A	N/A

### 3.7 Energy Efficiency – (Section J – Class 3 and 5 to 9 buildings)

The assessment is based on buildings located within Climate Zone 5.

#### 3.7.1 External fabric (Part J1)

BCA Clause	Title	Assessment and Comment	Status
J1.2	Thermal Construction General	Required insulation, reflective insulation and bulk insulation is to be installed in accordance with this clause and AS/NZS 4859.1.	The proposed building is capable of complying
J1.3	Roof and Ceiling Construction	<p>A roof or ceiling that is part of the envelope must achieve the Total R-Value specified in Table J1.3a for the direction of heat flow.</p> <p>Climate Zone 5 requires a minimum total R-Value of 3.2 and up to 4.2 measured downwards, depending on the roofs solar absorptance level.</p> <p>A roof that—</p> <ul style="list-style-type: none"> <li>(i) is required to achieve a minimum Total R-Value; and</li> <li>(ii) has metal sheet roofing fixed to metal purlins, metal rafters or metal battens; and</li> <li>(iii) does not have a ceiling lining or has a ceiling lining fixed directly to those metal purlins, metal rafters or metal battens (see Specification J1.3 Figure 2(c) and (f)),</li> </ul> <p>must have a thermal break, consisting of a material with an R-Value of not less than R0.2, installed between the metal sheet roofing and its supporting member.</p> <p>Detail of the roof construction and Total R-Value is to be provided with the construction documentation to demonstrate compliance.</p>	The proposed building is capable of complying
J1.4	Roof Lights	<p>The rooflights are required to comply with the requirements of this provision.</p> <p>Detail of the skylight SHGC and total U-Value are to be provided with the construction documentation to demonstrate compliance.</p>	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
J1.5	Walls	<p>Each part of an external wall that is part of the envelope must satisfy one of the options in Table J1.5a. Generally walls are required to achieve a total R-Value of 2.8.</p> <p>Any internal wall forming part of the <i>envelope</i> must achieve the total R-value in Table J1.5b. Generally walls are required to achieve a total R-Value of 1.0 or 1.8, depending on the location.</p> <p>A wall that—</p> <ul style="list-style-type: none"> <li>(i) is required to achieve a minimum Total R-Value; and</li> <li>(ii) has lightweight external cladding such as weatherboards, fibre cement or metal sheeting fixed to a metal frame; and</li> <li>(iii) does not have a wall lining or has a wall lining that is fixed directly to the metal frame,</li> </ul> <p>must have a thermal break, consisting of a material with an R-Value of not less than R0.2, installed between the external cladding and the metal frame.</p> <p>Detail of the wall construction and Total R-Value is to be provided with the construction documentation to demonstrate compliance.</p>	The proposed building is capable of complying
J1.6	Floors	<p>(a) A floor that is part of the envelope of the building, including a floor above a plant room or other non-conditioned space—</p> <ul style="list-style-type: none"> <li>(i) must achieve the Total R-Value specified in Table J1.6;</li> </ul> <p>(b) The minimum Total R-Value required in (a) may be reduced by R0.5 provided R0.75 is added to the Total R-Value required for the roof and ceiling construction.</p> <p>Floor construction is deemed to have the thermal properties listed in Specification J1.6.</p> <p>Construction documentation is to demonstrate compliance.</p>	The proposed building is capable of complying

### 3.7.2 External Glazing (Part J2)

BCA Clause	Title	Assessment and Comment	Status
J2.4	Glazing	<p>Glazing must be designed in accordance with J2.4 to achieve the aggregate air-conditioning energy value.</p> <p>A glazing calculator results are to be provided with the construction documentation to demonstrate compliance.</p>	The proposed building is capable of complying
J2.5	Shading	<p>Required shading must be designed in accordance with the requirements of this condition.</p> <p>The construction documentation is to identify if shading is required and details to demonstrate compliance.</p>	The proposed building is capable of complying

### 3.7.3 Building Sealing (Part J3)

BCA Clause	Title	Assessment and Comment	Status
J3.2	Chimneys and flues	Solid fuel burning appliances are not proposed and the requirements of this provision do not apply.	N/A

BCA Clause	Title	Assessment and Comment	Status
J3.3	Roof Light	The roof light is required to be sealed or capable of being sealed.  Construction documentation is to demonstrate compliance.	The proposed building is capable of complying
J3.4	Windows and doors	Windows and doors forming part of the envelope are required to be sealed to restrict air infiltration. The requirements of this provision do not apply to, 1. Windows complying with AS2047, 2. A fire or smoke door, 3. Roller shutter doors.  The bottom edge of a swing door required to be sealed must have a draft protection device and the other edges of doors or windows must have a foam or rubber compression strip, fibrous seal or the like.  An entrance to a building, if leading to a conditioned space must have an airlock, self-closing door, revolving door or the like, other than where the conditioned space has a floor area of not more than 50 m <sup>2</sup> .  The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying
J3.5	Exhaust Fans	A miscellaneous exhaust fan must be fitted with a sealing device such as a self-closing damper or the like when serving a; (a) conditioned space; or (b) a habitable room in climate zone 4, 6, 7 & 8.  The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying
J3.6	Construction of roofs, walls and floors	Roofs, ceilings, walls, floors and any openings are required to be designed and constructed to minimise air leakage in accordance with this clause.  The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying
J3.7	Evaporative Coolers	Evaporative coolers are not proposed.	N/A

#### 3.7.4 Air Conditioning and Ventilation Systems (Part J5)

BCA Clause	Title	Assessment and Comment	Status
J5.2	Air Conditioning and Ventilating system	Any proposed air-conditioning systems and mechanical ventilation systems must;  i. Be capable of being deactivated when the SOU or part of the building served is not occupied; and ii. When serving a SOU of a Class 3 building, not operate when any external door including a door opening to a balcony, patio, courtyard or the like is open for more than 1 minute; and iii. In a Class 3 building be capable of controlling the temperature of a SOU at a different temperature during sleeping periods than during other periods; and iv. When the air flow rate is greater than 1000 L/s, be designed so that the total fan power of the fans in the system is in accordance with Table J5.2, except as permitted.  The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
J5.3	Time Switch	<p>The mechanical ventilation system and air conditions system design would is required to be provided with a time switch in accordance with Spec J6. The requirement does not apply to an air-conditioning system that serves only one SOU.</p> <p>The construction documents are to have details demonstrating compliance.</p>	The proposed building is capable of complying
J5.4	Heating and chilling systems	<p>Heating a space other than via water, must be</p> <ul style="list-style-type: none"> <li>i. A solar heater; or</li> <li>ii. A gas heater; or</li> <li>iii. An oil heater if reticulated gas is not available at the allotment boundary; and</li> <li>iv. A heat pump heater; or</li> <li>v. A heater using reclaimed heat from another process such as reject heat from refrigeration plant; or</li> <li>vi. A combination of 2 or more</li> </ul> <p>Package air-conditioning equipment with a capacity of not less than 65 kW<sub>r</sub>, including a split unit and a heat pump, must have an energy efficiency ratio complying with Table J5.4c when tested in accordance with AS/NZS 3823.1.2 at test condition T1.</p>	The proposed building is capable of complying
J5.5	Miscellaneous exhaust system	<p>A miscellaneous exhaust system with an air flow rate of more than 1000 L/s, that is associated with equipment having a variable demand such as a stove in a commercial kitchen or a chemical bath in a factory is required to be design to comply with this clause.</p> <p>The construction documents are to have details demonstrating compliance.</p>	The proposed building is capable of complying

### 3.7.5 Artificial Lighting and Power (Part J6)

BCA Clause	Title	Assessment and Comment	Status
J6.2	Artificial lighting	<p>The requirements of this provision relate to the illumination load and power of artificial lighting. Artificial lighting is to be designed in accordance with this provision.</p> <p>The construction documents are to have details demonstrating compliance.</p>	The proposed building is capable of complying
J6.3	Interior artificial lighting and power control	<p>Artificial lighting and power control are to be designed and provided in accordance with this provision.</p> <p>An occupant activated device such as a security device, motion detector is required to be provided to the residential units (class 3) to cut the power to lighting, air-conditioner, local exhaust or bedroom heater when the suites are not occupied.</p>	The proposed building is capable of complying
J6.4	Interior decorative and display lighting	<p>Interior decorative and display lighting, such as for foyer mural or art display, must be controlled in accordance with this clause.</p> <ul style="list-style-type: none"> <li>i. Individually operated;</li> <li>ii. An occupant activation device to activate artificial lighting, air-conditioning, local exhaust fans and bathroom heaters when SOU is not occupied;</li> <li>iii. An artificial lighting switch must be located in a visible position;</li> </ul> <p>The construction documents are to have details demonstrating compliance.</p>	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
J6.5	Artificial lighting around the perimeter of a building	<p>Artificial lighting around the perimeter of a building must be designed to comply with this clause.</p> <ul style="list-style-type: none"> <li>i. Controlled by a daylight sensor;</li> <li>ii. A time switch at variable pre-programmed times and on variable pre-programmed days; and</li> <li>iii. When the total perimeter lighting exceeds 100 W it must have an average light source efficacy of not less than 60 lumens/W or be controlled by a motion detector;</li> </ul> <p>The construction documents are to have details demonstrating compliance.</p>	The proposed building is capable of complying
J6.6	Boiling water and chilled water storage units	<p>Power supply to a boiling water or chilled water storage unit is required to be controlled by a time switch in accordance with Spec J6.</p> <p>The construction documents are to have details demonstrating compliance.</p>	The proposed building is capable of complying

### 3.7.6 Hot Water Supply and Swimming Pool and Spa Pool Plant (Part J7)

BCA Clause	Title	Assessment and Comment	Status
J7.2	Hot Water Supply	A hot water supply system for food preparation and sanitary purposes, other than a solar hot water supply system in climate zones 1, 2 and 3, must be designed and installed in accordance with Section 8 of AS/NZS 3500.4.	The proposed building is capable of complying
J7.3	Swimming pool heating and pumping	<p>If the pool is heated it must be via,</p> <ul style="list-style-type: none"> <li>(i) a solar heater not boosted by electric resistance heating; or</li> <li>(ii) a heater using reclaimed energy; or</li> <li>(iii) a gas heater; or</li> <li>(iv) a heat pump; or</li> <li>(v) a combination of 2 or more of (i), (ii), (iii) and (iv).</li> </ul> <p>Where some or all of the heating is by a gas heater or a heat pump, the pool must have a cover and a time switch in accordance with Specification J6 to control the operation of the heater.</p> <p>A time switch must be provided in accordance with Specification J6 to control the operation of a circulation pump for a swimming pool.</p> <p>The construction documents are to have details demonstrating compliance.</p>	The proposed building is capable of complying
J7.4	Spa pool heating and pumping	A spa pool is not proposed.	N/A

### 3.7.7 Hot Water Supply (Part J8)

BCA Clause	Title	Assessment and Comment	Status
NSW J8.2	Access for maintenance	<p>Access for maintenance must be provided to services, equipment and other building elements identified in this clause is required to be provided in accordance with this clause.</p> <p>The construction documents are to have details demonstrating compliance.</p>	The proposed building is capable of complying
J8.3	Facilities for energy monitoring	<p>A building is required to have a facility to record the consumption of gas and electricity.</p> <p>In addition, the building is required to have a facility to record individually the energy consumption of—</p> <ul style="list-style-type: none"> <li>(i) <i>air-conditioning</i> plant including, where appropriate, heating plant, cooling plant and air handling fans; and</li> <li>(ii) artificial lighting; and</li> <li>(iii) appliance power; and</li> <li>(iv) central hot water supply; and</li> <li>(v) internal transport devices including lifts, escalators and travelators where there is more than one serving the building; and</li> <li>(vi) other ancillary plant.</li> </ul> <p>The construction documents are to have details demonstrating compliance.</p>	The proposed building is capable of complying

## 4.0 FIRE SAFETY SCHEDULE

The following table is a list of the required fire safety measures for this development. This list is to be treated as a guide as to what the buildings are considered to require.

FIRE SAFETY MEASURES	PROPOSED STANDARD OF PERFORMANCE
Access panels, doors and hoppers to fire resisting shaft	BCA2012 C3.13 & AS1905.1-2005, AS1905.2-2005
Automatic fail safe devices	BCA2012 D2.21
Automatic fire detection and alarm system	BCA2012 E2.2, Spec E2.2a & AS1670.1-2004, AS3786-1993
Building occupant warning system	BCA 2012 Spec E2.2a (Clause 6) & of AS1670.1-2004 (Clause 3.22)
Emergency lighting	BCA2012 E4.2, E4.4 & AS2293.1-2005
Exit signs	BCA2012 E4.5, E4.6, E4.8 & AS2293.1-2005
Fire blankets	AS2444-2001
Fire dampers	BCA2012 C3.12, C3.15 & AS/NZS1668.1-1998, AS1668.2-1991, AS1682.1-1990, AS1682.2-1990
Fire doors	BCA2012 Spec C3.4 & AS1905.1-2005
Fire rated lift landing doors	BCA 2012 C3.10 & AS1735.11-1986
Fire hydrant systems	BCA2012 E1.3 & AS2419.1-2005
Fire seals protecting openings in fire resisting components of the building	BCA2012 C3.12, C3.15 & Spec C3.15
Hose reel system	BCA2012 E1.4 & AS2441-2005
Lightweight construction	BCA2012 C1.8 & Spec C1.8
Mechanical air handling system	BCA2012 E2.2, Spec E2.2a & AS/NZS1668.1-1998
Portable fire extinguishers	BCA2012 E1.6 & AS2444-2001
Power Operated Sliding Exit Doors	BCA 2012 D2.19 (iv)
Required automatic exit doors	BCA2012 C3.4, C3.7 & C3.8
Smoke detectors and heat detectors	BCA2012 E2.2, Spec E2.2a & AS3786-1993
Smoke dampers	BCA2012 E2.2
Smoke doors	BCA2012 Spec C3.4
Wall wetting sprinkler and drencher systems	BCA2012 C3.4



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Warning and operational signs	EPA Regulation (reg 183), BCA2012 E3.3 (lifts), BCA2012 C3.6 sliding doors, BCA2012D2.23 Signs on exit doors
Alternative solution	Full details to be prepared by WSP

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## 5.0 SUMMARY OF COMPLIANCE ISSUES

The following is a summary table of non-compliance with the deemed-to-satisfy provisions of the BCA, identification of the Performance Requirements of the BCA and the appropriate justification method.

### SUMMARY OF NON-COMPLIANCE ISSUES WITH DEEMED-TO-SATISFY PROVISIONS OF BCA

BCA CLAUSE	Performance Requirements	ISSUE
C2.6	CP1 & CP2	The bridge connecting both buildings is not proposed to have compliant spandrels.
C2.8	CP1 & CP2	The fire separation of classifications on the same storey and the required fire resistance levels required by Specification C1.1 is proposed to be justified via a fire engineered alternative solution.
C2.9	CP1 & CP2	The fire separation of classifications on a different storey and the required fire resistance levels required by Specification C1.1 is proposed to be justified via a fire engineered alternative solution.
C3.5	CP1 & CP2	The proposed fire curtains are unlikely to achieve the required fire resistance levels (-/180/30).
Clause 3.1 of Spec C1.1	CP1 & CP2	The fire resistance levels of the proposed retail component of the development along with the existing floor construction of the northern heritage building are proposed to be reduced and or justified.
Clause 3.6 of Spec C1.1	CP1 & CP2	The roof light above the bridge is located less than 3m from the external walls of unit 4.01 and the stairs on level 4. The portion of the wall which extends 3m either side of the skylight and a distance of 6m above would need to be fire rated to achieve an FRL of 180/180/180 and the openings protected in accordance with C3.4 of the BCA.
D1.3	DP5 and EP2.2	The central stair around the lift void connecting the basement and level 4 is not proposed to be fire isolated
D1.4	DP4 & EP2.2	<ol style="list-style-type: none"> <li>1. The new bathroom on level 2 is likely to exceed 20m to a point of choice (POC) once all the fixtures are finalised. On the blank floor plate the egress travel distances are 18m to a POC.</li> <li>2. Basement beverage store - 24m to an exit or point of choice. The travel distances will also be increased once any storage or racks are introduced.</li> <li>3. Basement kitchen 1 - 26.5m to the non-fire isolated stair serving the restaurant. The travel distances will be increased with the kitchen fitout.</li> <li>4. Basement kitchen 2 - 22m to the non-fire isolated stair serving the restaurant. The travel distances will be increased with the kitchen fitout.</li> <li>5. Level 2 kitchen - 24m to a POC. The travel distances will be increased with the kitchen fitout.</li> <li>6. Pool Deck - 44m to a single exit.</li> </ol>
D1.5	DP4 & EP2.2	The egress travel distances between stairs S.08 and S.05 on the basement level exceed 60m (63m)
D1.7	DP2 & DP4	Fire stair S.07 / S.08 discharges directly onto an allotment boundary and is not defined as open space as it is not located within the boundary.
D1.7	DP5 and EP2.2	Fire stair S.07 / S.08 has 3 access doors opening into

		the stair on the ground floor, being access from the loading dock, plant room and the hotel corridor. The fire stair is accessed by more than 2 doorways and is required to be pressurised in accordance with AS/NZS1668.1-1998 or a smoke lobby comply with D2.6 must be provides to all access doors.
D1.9	DP5 and EP2.2	The non-fire isolated stair serving the signature wine and dessert bar on level 3 discharges via level 2 and then into a fire isolated stairway (S.03)
D1.12	DP5 and EP2.2	The feature stair has been assessed as a non-required stairways as the construction would not comply with the requirements of D2.3 for a required non-fire isolated stairway. The feature stair directly and indirectly (via non-fire isolated stairs) connect the basement, ground floor, levels 1, 2, 3 & 4.
D2.15	N/A discretion from Council sort	The existing thresholds of at the ground floor do not comply.
D2.17	N/A discretion from Council sort	Handrails are not provided on the existing external stairs on the ground floor.
D2.20	DP2	The existing ground floor egress doorways facing Broadway and Kensington Lane are proposed to remain swinging against the direction of egress.
E1.3	EP1.3	The hydrant landing valves are proposed to be located on the mid-landings of the fire stairs and is proposed to be incorporated within the alternative solution due the Fire and Rescue NSW interpretation of Clause 3.2.3.2(a) of AS2419.1-2005.

The following is a summary table of compliance issues which require further design development by the architect / design team at the construction certificate stage.

#### SUMMARY OF COMPLIANCE ISSUES WITH DEEMED-TO-SATISFY PROVISIONS OF BCA WHICH REQUIRE FURTHER DESIGN DEVELOPMENT

BCA CLAUSE	ISSUE
C2.14	The required smoke doors in grid line 1 are required to swing in both directions as per Spec C2.5 of the BCA. The current doorways are not currently documented as swinging in both directions.
C3.2	The following openings are located less than 3m from an allotment and would require protection/justification; <ol style="list-style-type: none"> <li>1. The southern window openings located on Levels 1, 2, 3.</li> <li>2. Southern fire stair discharge door on the ground floor.</li> <li>3. The eastern and western window openings located less than 3m from the southern boundary on Levels 1, 2, 3. Note: this applies where the eastern and western walls are set back from the street boundary allotment.</li> </ol>
C3.3	The northern and southern external window openings of the meeting rooms / restaurants and the residential apartments on levels 1 & 2 are located less than 6m from each other and both are required to be protected in accordance with C3.4 of the BCA.
C3.8	The external window of fire stair S.03 and the discharge doorway on the ground floor are both located less than 6m from the external walls of restaurant 1 and the hotel foyer. Both the window and doorway must be protected in accordance with C3.4 of the BCA.
C3.8	The high level openings of the fire stair located within the residential lobby void on levels 1 & 2 do not comply with C3.8 of the BCA and must be filled with fire rated construction achieving an FRL of not less than -/120/120
C3.11	The heritage board room entry, board room suite, board room bathroom, & linen room on level 2 must be fire separated from the remainder of the building with -/60/60 construction and -/60/30 fire doors. The linen room on level 3 is also required to be protected.
C3.11	The window openings of units 1A.01, 2A.01 & 3A.01 which open into the residential lobby void do not comply with C3.11 of the BCA and must be filled with fire rated construction achieving an FRL of not less than -/60/60
D1.7	An airlock or the like would be required between both the loading dock and plant room and the fire stair on the ground floor.

D1.12	The feature stair could be accessed as a non-fire isolated stair which connect 3 storeys, thereby comply with D1.12, however additional justification under D2.3 would be required under this scenario.
D2.3	If the feature stair is treated as a non-fire isolated stairway, the existing construction would not comply with the requirements of this provision and would need to be justified against the performance requirements of the BCA.
D2.20	The doorway of S.08 which leads to the fire stair / passage on the ground floor does not swing in the direction of egress and should be re-swung.
E1.3	The locations of hydrant boosters and pumps should be documented.
E1.4	All fire hose reels are currently not documented and the construction documentation should demonstrate compliance noting that hose reels must be located less than 4m from a required exit and are not permitted to cross fire or smoke doors, so careful design is required to ensure compliant coverage is achieved. Hose reels will be required to serve areas like the stair void, loading dock and plant room on the ground floor, the bridge and stair voids on levels 1, 2 & 3 etc.

## 6.0 CONCLUSION

The design as proposed is capable of complying with the Building Code of Australia, and will be subject to construction documentation that will provide appropriate details to demonstrate compliance. This report has identified areas of non-compliance with the deemed-to-satisfy provisions and indicates the design intent to demonstrate compliance with the Performance Requirements of the BCA. Whilst the performance based solutions are to be design developed, it is my view that the solutions will not impact on the current design.

Adam DeLooze  
For and on behalf of City Plan Services Pty Ltd

## APPENDIX 1

Assessed plans prepared by Tonkin Zulaikha Greer Architects

Plan Title	Drawing No	Revision	Date
Context Plan	A-001	-	05.10.2012
Basement	A-100	-	05.10.2012
Ground Floor	A-101	-	05.10.2012
Level 1	A-102	-	05.10.2012
Level 2	A-103	-	05.10.2012
Level 3	A-104	-	05.10.2012
Level 4	A-105	-	05.10.2012
Pool Deck	A-106	-	05.10.2012
Section 01	A-600	-	05.10.2012
Section 02+03	A-601	-	05.10.2012
East Elevation	A-700	-	05.10.2012
West Elevation	A-701	-	05.10.2012
North and South Elevation	A-702	-	05.10.2012