

Our Ref: J090110

1 October 2009

DeiCorp Construction
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PETERSHAM NSW 2049



Email: gcolbran@deicorp.com.au

Att: Greg Colbran

**Certifying Authority Services
157 Redfern Street, Redfern**

Please find attached a review of the proposed project in respect of compliance with the Building Code of Australia 2009.

In this regard I advise that subject to the comments contained within the report and summary I am satisfied the building can achieve compliance with the provisions of the Building Code of Australia (BCA) utilising both the deemed-to-satisfy provisions and incorporating alternate solutions addressing the performance requirements of the BCA by the application of fire engineering principals.

Should you require further information please do not hesitate to contact the undersigned

Regards

A handwritten signature in black ink, appearing to read 'DMorton', is enclosed in a thin black rectangular border.

Dean Morton
Accredited Certifier Grade A1 (#0742)
For Vic Lilli and Partners

Building Code of Australia 2009 Report

BCA Compliance Report

Project: 157 Redfern Street, Redfern

Prepared For: Deicorp Construction

Prepared By: Vic Lilli and Partners

Date: 1 October 2009

Our Ref: J090110

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1.0 - Executive Summary

1.1 Introduction

The purpose of this report is to assess the documentation as provided (and referenced) within this report against the 'deemed-to-satisfy' provisions of the Building Code of Australia 2009 (BCA) including any NSW variations.

The development involves the construction of a new 18 storey mixed use building constituting retail on the ground floor, an RSL club to the 1st floor, commercial office space on the 2nd and 3rd floors and residential units to the remaining floors. The development also includes a 5 storey basement for car parking and ancillary storage.

1.2 Summary

The following matters have been identified as non-compliances or potential non-compliances with the 'deemed-to-satisfy' provisions of the BCA from the drawings referred to below

- (I) With regards to the requirement for a zone smoke control system to commercial floors of the building it is advised compliance may not be possible with AS/NZS1668.1 due to openings etc within external walls on the ground floor not allowing required pressure differentials. In this regard an alternative solution may be applicable as determined by a Fire Engineer.
- (II) The spiral stairs to the top most storey are to comply with BCA volume 2 provisions
- (III) Under NSW Place of Public Entertainment provisions the club level is to be fire separated from the ground floor level with construction achieving not less than 60/60/60
- (IV) Egress to the commercial floors is to be resolved in respect of tenancy configurations and if required subject to an alternate solution

1.3 Compliance statement

It is the opinion of this office that, on satisfaction of the above comments and the assessment contained in this report, the proposed building at 157 Redfern Street, Redfern will achieve compliance with the requirements of the Building Code of Australia (BCA) 2009 and relevant adopted standards as they relate to its use as a mixed use building without requiring alteration that will result in a Section 96 application to Council.

Author,



Dean Morton
For **Vic Lilli & Partners**

2.0 – Property Description

2.1 – Location: 157 Redfern Street, Redfern

2.2 - Building Description

Use/Classification	<p>Class 7a- basement parking levels Class 6- ground floor retail Class 9b- first floor RSL club (Place of Public Entertainment) Class 5- second and third floors office levels Class 2- residential</p>										
Type of Construction	Type A Construction required										
Floor Area	<p>Maximum of 8000m² for the fire compartments containing Class 5 and 9b. Maximum of 5000 m² car park Class 6. No limitation apply to Class 2 or 7a (when sprinkler protected)</p>										
Volume	<p>Maximum of 48000m³ for the fire compartments containing Class 5 and 9b. Maximum of 30000m³ for the fire compartments containing Class 6. No limitations apply to Class 2 and 7a (when sprinkler protected)</p>										
Populations	<p>By way of application of clause D1.13 of the BCA, it is considered that the following populations are likely to the building:</p> <table border="0"> <tr> <td>Basement</td> <td>23 person per half level</td> </tr> <tr> <td>Ground</td> <td>retail 01- 131 persons retail 02 & 03- 72 persons loading dock- 8 persons</td> </tr> <tr> <td>Level 01</td> <td>unable to determine without further fit out details</td> </tr> <tr> <td>Level 02</td> <td>83 persons</td> </tr> <tr> <td>Level 03</td> <td>83 persons</td> </tr> </table> <p>Residential levels are not populated using D1.13.</p>	Basement	23 person per half level	Ground	retail 01- 131 persons retail 02 & 03- 72 persons loading dock- 8 persons	Level 01	unable to determine without further fit out details	Level 02	83 persons	Level 03	83 persons
Basement	23 person per half level										
Ground	retail 01- 131 persons retail 02 & 03- 72 persons loading dock- 8 persons										
Level 01	unable to determine without further fit out details										
Level 02	83 persons										
Level 03	83 persons										
Effective Height	The building will have an effective height of 63.7m (RL of 89.2 to lowest level of direct discharge RL of 28.5)										

2.3 – Drawings & Information

This report is prepared on the assessment of architectural drawings provided by Nordon Jago as follows

Drawing No	Rev	Date	Title
DA000	B	15/5/2009	Coversheet
DA091	C	15/5/2009	Basement 4 plan
DA092	C	15/5/2009	Basement 3 plan
DA093	C	15/5/2009	Basement 2 plan
DA094	C	15/5/2009	Basement 1 plan
DA100	C	15/5/2009	Level 1 (ground)
DA101	C	15/5/2009	Level 2 (RSL)
DA102	C	15/5/2009	Level 3 (office)
DA103	C	15/5/2009	Level 4 (office)
DA110	C	15/5/2009	Level 5 (residential)
DA111	C	15/5/2009	Level 6 -12 (residential)
DA112	C	15/5/2009	Level 13-16 (residential)
DA113	C	15/5/2009	Level 17 (residential)
DA114	C	15/5/2009	Level 18 (residential)
DA120	C	15/5/2009	Level 19 (roof terrace)
DA121	C	15/5/2009	Roof
DA200	B	15/5/2009	Sections AA & BB
DA201	B	15/5/2009	Sections CC & DD
DA202	B	15/5/2009	Section EE

3.0 - Building Code of Australia Assessment

3.1 – Structure (Section B, BCA)

Clause	BCA Matter	Comment
B1.1 to B1.4	<p><u>Structural Provisions</u></p> <p>The development is to be designed so the structure will resist loads determined AS 1170.1 – Dead and live loads and load combinations, AS 1170.2 – Wind Loads and AS1170.4 – Earthquake loads.</p>	<p>Structural engineer’s certification is to be provided confirming that their design meets all the relevant provisions of the BCA as well as all relevant structural standards.</p> <p>All such certification is to be relevant to the Importance Levels and Design Events specified under this section of the BCA.</p>

3.2 – Fire Resistance (Section C, BCA)

3.2.1 – Fire Resistance and Stability (Part C1, BCA)

Clause	Item	Comment
C1.1	<u>Type of Construction</u>	All building elements are required to be constructed in Type A construction
C1.2	<u>Rise in Storeys</u>	The building has a rise in storeys of 18
C1.3	<u>Buildings of Multiple classifications</u>	All building elements are to achieve the fire resistance levels (FRLs) as required for the relevant classification for Type A construction.
C1.8	<p><u>Lightweight fire rated construction to walls and columns</u></p> <p>Walls are to be constructed in accordance with Spec C1.8 of BCA and the manufacturer’s specifications.</p> <p>Columns are to be constructed in accordance with the manufacturer’s specifications and the gap between the column and protective board filled to a height not less than 1.2m</p>	<p>All fire rated walls and columns, including shafts walls, are to be constructed in pre-cast concrete and/or masonry.</p> <p>Where using lightweight construction it shall be a tested system compliant with Specification C1.8 and certified as such</p>

C1.10 Fire Hazard Properties

All floor, wall and ceiling linings are to have fire hazard properties in accordance with Specification C1.10a of the BCA – these relate to minimum ‘critical radiant flux’ not the traditional indices.

Floors not < 1.2 Sprinkler protected areas
not < 2.2 No sprinkler protection
not <2.2 Fire Isolated exits
not <2.2 Lift cars

Floor materials in areas with no sprinkler protection are to also have a maximum smoke development rate of 750 percent-minutes

Wall and ceiling lining materials are to have the following ‘group number’ as determined under AS ISO 9705

<u>Location</u>	<u>Group No</u>
Fire isolated exits	1
Public Corridors	1 (walls no sprinklers) 1, 2 (walls with sprinklers) 1 (ceilings no sprinklers) 1, 2 (ceilings with sprinklers)
Open Plan Office	1, 2 (walls no sprinklers) 1, 2, 3 (walls with sprinklers) 1, 2 (ceilings no sprinklers) 1, 2, 3 (ceilings with sprinklers)
Other Areas	1,2,3 (walls no sprinklers) 1, 2, 3 (walls with sprinklers) 1, 2,3 (ceilings no sprinklers) 1, 2, 3 (ceilings with sprinklers)
Lift cars	1, 2 (walls and ceilings)

Air handling duct work is to comply with AS4254.

Note that any material specified for Construction Certificate is to have been suitably tested for their ‘critical radiant heat flux’ and ‘group numbers’ as defined.

‘Open plan offices’ are considered to be areas where the minimum floor dimension and ceiling height ratio is greater than 5. Note that further office fit outs may lessen the dimensions.

Note that some exemptions are applicable under Clause C1.10 of the BCA.

C1.11 Performance of external walls in fire

Not applicable to this building

C1.12 Non-combustible materials

To be noted in reference to other comments in this report.

3.2.2 – Fire Compartmentation and Separation (Part C2, BCA)

Clause	Item	Comment
C2.2	<p><u>Floor Area and Volume Limitations</u></p> <p>Floor area Maximum of 8000m² for the fire compartments containing Class 5 and 9b Maximum of 5000m² for the fire compartments containing Class 6</p> <p>Volume Maximum of 48000m³ for the fire compartments containing Class 5 and 9b Maximum of 30000m³ for the fire compartments containing Class 6</p>	complies
C2.6	<p><u>Spandrel Separation</u></p> <p>Fire rated vertical separations are required to be provided between openings on different storeys in the external walls of the building. To be achieved by:</p> <ol style="list-style-type: none"> 1. Spandrels of 900mm in height with a minimum 600mm above the floor slabs with an FRL not less than 60/60/60; or 2. Slab projections of FRL 60/60/60 extending 1100mm out from the openings concerned and minimum 450mm either side. <p>Notes:</p> <ul style="list-style-type: none"> • Not required where sprinklers installed throughout the building. • Not required to open deck car parks. • Where the construction is behind a curtain wall the gap between the spandrel and curtain is to be packed with a non-combustible material that will withstand expansion and structural movement without loss of seal against fire and smoke 	Not applicable due to sprinkler protection
C2.7	<p><u>Firewalls</u></p> <p>Fire walls installed for fire compartmentation purposes are required have the higher FRL as specified under Specification C1.1 for the classifications concerned, extend to the underside of a floor/roof slab of an equivalent FRL or the underside of a roof covering.</p>	<p>Separate compartmentation of the first floor club would be required to avoid the higher FRL of the class 6 portion of the ground floor extending to the first floor also.</p> <p>Form of construction to comply with this part</p>

C2.8	<u>Separation of classifications in same storey</u>	Not applicable, each floor has a single classification only
	Parts of the building of different classifications are to fire separated by a fire wall of the higher FRL specified under Specification C1.1 for the classifications concerned or the entire storey is to be constructed of the higher FRL	
C2.9	<u>Separation of classification is different storeys</u>	Structural engineer to confirm FRL's achieved based on the classification of the lower storey in reference to floors.
	The FRL specified for 'floors' for the lower storey classification is to be applied to the floor separating the classifications.	
C2.10	<u>Separation of lift shafts</u>	Refer to Specification C1.1 for relevant FRL's for shafts
	The lifts of the building are to be fire isolated from the storeys of the building. Emergency lifts are to be separated with by construction having a minimum FRL of 120/120/120.	
C2.12	<u>Separation of equipment</u>	Any such equipment must be separated from remainder of the building.
	The following equipment is to be fire isolated from the building with construction having an FRL not less than 120/120/120, doors accessing the spaces are to be self closing -/120/30 fire doors: <ul style="list-style-type: none"> • Lift motors and lift control panels • Emergency generators or central smoke control plant • Boilers • Batteries 	
C2.13	<u>Electricity supply system</u>	Any substation is to be constructed to achieve a fire resistance level of 120/120/120 with the door being - /120/30 fire rated. The main switchboard that sustains emergency equipment such as emergency lifts, hydrant booster pumps, EWIS etc to be isolated within equivalent construction.
	Substations, electrical conductors and main switchboards that are required to sustain power to essential equipment operating in emergency mode is to be fire isolated from the remainder of the building with construction having a minimum of FRL of 120/120/120.	
C2.14	<u>Public corridors in Class 2 and 3 buildings</u>	Complies
	Corridors are not to exceed 40m in length without division by smoke proof construction	

3.2.3 – Protection of Openings (Part C3, BCA)

Clause	Item	Comment
C3.1	<p><u>Application of Part</u></p> <p>This part is applicable to all openings in the external walls of the building (e.g. doors, windows, etc) and includes openings formed in the vertical plane of the building between floors and columns. This part also applies to penetrations in fire rated elements of the building (e.g. bounding fire rated construction and floors) except for penetrations between floors of car park levels</p>	To be noted
C3.2	<p><u>Protection of openings in external walls</u></p> <p>Openings in the external walls of the building are required to be 'protected' per C3.4 below where they are located within 3.0m of the allotment boundary or 6.0m of the far boundary of a road adjoining the allotment.</p> <p>Openings requiring protection are not occupy greater than 1/3 of the area of the external wall of the storey concerned.</p>	Not applicable, no exposed openings
C3.3	<p><u>Separation of external wall and opening in different fire compartments</u></p> <p>Wall and opening elements of external walls of the building are required to be protected with construction having an FRL not less than 60/60/60 or the openings are required to be protected as per C3.4</p>	Not applicable
C3.4	<p><u>Acceptable methods of protection</u></p> <p>Doors – external wall wetting sprinklers to a self closing door or a –/60/30 self closing fire door. Windows – external wall wetting sprinklers over fixed or automatic closing windows, fixed fire rated windows (FRL –/60/–) or fire shutters. Other openings – external wall wetting drenchers or construction with FRL –/60/–</p>	To be noted in respect of openings identified in C3.2
C3.5	<p><u>Doors in fire walls</u></p> <p>Doors in fire walls are required to occupy no more than ½ the total area of the wall and be protected with self or automatic fire doors or fire rated shutter of –/(FRL)/30 or 2 doors facing one another of –/(½ FRL)/30.</p>	Not applicable

C3.7	<u>Protection of doorways in horizontal exits</u>	Not applicable
	Protection to be provided by a fire door which is either self or automatic closing. Automatic closing is to be caused by the activation of smoke detectors located not greater than 1.5m from both sides of the door as well as any other fire system (e.g. sprinklers, smoke detection systems, etc)	
C3.8	<u>Openings in fire isolated exits</u>	All doors into fire isolated exits are to be self or automatic closing -/60/30 fire doors.
	Doors into fire isolated stairs are to be -/60/30 fire doors which are either self or automatic closing. Automatic closing is to be caused by the activation of smoke detectors located not greater than 1.5m from both sides of the door as well as any other fire system (e.g. sprinklers, smoke detection systems, etc).	
	Windows in fire isolated exits are to be protected as per C3.4 if they are located within 6.0m of another opening in the same building.	
C3.9	<u>Service penetrations into fire isolated exits</u>	Details in this regard are to ensure that no services except for those nominated under C3.9 and D2.7 of the BCA are locate within a fire isolated exit.
	No services are permitted to penetrate into the fire isolated exits except for those directly related to the 'operation' of the stair such as wiring emergency lighting and exit signage, pressurizing systems or water pipes for fire services. Note that some security, and other hydrant/sprinkler monitoring electrical wiring can be installed in the fire isolated exit.	
C3.10	<u>Openings in fire isolated lift shafts</u>	Lift landing doors to be -/60/- fire rated
	All doors to fire isolated lift shafts are to be protected by FRL -/60/- fire doors complying with AS1735.11 which remain closed except for when persons are entering or exiting the lift car.	
	All panels (lift call, indicator, etc) are to be backed by construction with FRL -/60/60 if > 35000mm ² in area.	
C3.11	<u>Bounding construction: Class 2, 3 and 4 buildings</u>	Doors to residential units are to have self closing -/60/30 fire rated entry doors.
	Doorways to class 2 & 3 buildings are to be protected if access from a SOU is to a public corridor, a room not within a SOU, landing of internal non fire-isolated stairway serving as a required exit, another SOU.	Note also sound insulation requirements in Part F5

C3.12	<p><u>Openings in floors and ceilings for services</u></p> <p>All penetrations through the floors and fire rating ceilings (if any) of the building are to be contained within fire isolated shafts or installed in accordance with C3.15 of the BCA.</p>	<p>Services must be within shafts achieving an FRL of 180/120/120 to the ground floor, 120/90/90 for levels 2-4 and 90/90/90 for levels 5-18. or</p> <p>Where services are not contained within a shaft they are to be protected in accordance with C3.15 of the BCA.</p>
C3.13	<p><u>Openings in shafts</u></p> <p>Openings into shaft walls containing garbage, ventilating, pipe or other service are to be provide with self closing -/60/30 fire door or hopper, -/60/30 access panel or if in a sanitary compartment a door or panel of -/30/30 or a door and frame of non-combustible construction</p>	<p>Design details are to include for the provision of compliant fire protected openings.</p>
C3.15	<p><u>Openings for service installations</u></p> <p>This clause and it's specification offer a range of suitable protections to be installed about service penetrations through fire rated elements (e.g. fire collars, fire dampers, etc). Reference should be made to this clause for detail.</p>	<p>Design details are to include for the provision of compliant fire protected openings.</p> <p>Methods include fire rated dampers, fire collars and intumescent materials.</p>

3.2.4 – Fire Resisting Construction (Spec C1.1, BCA)

Clause	Item	Comment																																								
Spec C1.1	<p><u>Fire Resisting Construction</u></p> <p>Type A buildings are required to be of fire resisting compartmentalized construction. For the most part a building of concrete floor and column with masonry wall (internal and external) construction will generally comply. (Note Fire Source Features (FSF) in this instance are to the boundaries of the site and the far boundary of the adjacent public roadways)</p> <table border="1"> <tr> <td><u>Loadbearing Ext Walls</u></td> <td>class 6</td> <td>class 5,7a,9</td> <td>class 2</td> </tr> <tr> <td><1.5m to FSF</td> <td>180/180/180</td> <td>120/120/120</td> <td>90/90/90</td> </tr> <tr> <td>1.5 to 3.0m to FSF</td> <td>180/180/120</td> <td>120/90/90</td> <td>90/60/60</td> </tr> <tr> <td>3.0m or > to FSF</td> <td>180/120/90</td> <td>120/60/30</td> <td>90/60/30</td> </tr> <tr> <td><u>Non-loadbearing Ext Walls</u></td> <td></td> <td></td> <td></td> </tr> <tr> <td><1.5m to FSF</td> <td>-/180/180</td> <td>-/120/120</td> <td>-/90/90</td> </tr> <tr> <td>1.5 to 3.0m to FSF</td> <td>-/180/120</td> <td>-/90/90</td> <td>-/60/60</td> </tr> <tr> <td>3.0m or > to FSF</td> <td>-/-/-</td> <td>-/-/-</td> <td>-/-/-</td> </tr> <tr> <td><u>External Columns</u></td> <td></td> <td></td> <td></td> </tr> <tr> <td><3.0m to FSF</td> <td>180/-/-</td> <td>120/-/-</td> <td>90/-/-</td> </tr> </table>	<u>Loadbearing Ext Walls</u>	class 6	class 5,7a,9	class 2	<1.5m to FSF	180/180/180	120/120/120	90/90/90	1.5 to 3.0m to FSF	180/180/120	120/90/90	90/60/60	3.0m or > to FSF	180/120/90	120/60/30	90/60/30	<u>Non-loadbearing Ext Walls</u>				<1.5m to FSF	-/180/180	-/120/120	-/90/90	1.5 to 3.0m to FSF	-/180/120	-/90/90	-/60/60	3.0m or > to FSF	-/-/-	-/-/-	-/-/-	<u>External Columns</u>				<3.0m to FSF	180/-/-	120/-/-	90/-/-	<p>All designs are to ensure that the necessary FRLs are attained subject to the following notes.</p> <p>Notes:</p> <ul style="list-style-type: none"> Any building elements that support another required to have an FRL is to have the same FRL. Non-combustible structures on the roof for the plant such as ventilation and air conditioning, window cleaning equipment, other non-combustible service units not containing combustible liquids or gases, etc are not required to be fire rated. All shafts are to be enclosed top and bottom by construction with FRL not less than -/120/120 except if
<u>Loadbearing Ext Walls</u>	class 6	class 5,7a,9	class 2																																							
<1.5m to FSF	180/180/180	120/120/120	90/90/90																																							
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3.0m or > to FSF	-/-	-/-	-/-	<p>the shaft extends through the roof covering. Exemption does not apply to fire isolated stairs.</p> <ul style="list-style-type: none"> External walls, fire walls and the floor and floor framing are to be non-combustible. All internal walls requiring an FRL are to extend to the underside of the floor above or to or through the roof (see above shafts). All loadbearing internal walls and fire walls are to be of concrete or masonry. Non-loadbearing internal walls and shaft walls are to be of non-combustible construction.
<u>Fire Walls</u>	180/180/180	120/120/120	90/90/90	
<u>Internal Walls</u>				
Lift and fire stair shafts				
Loadbearing	180/120/120	120/120/120	90/90/90	
Non-loadbearing	-/120/120	-/120/120	-/90/90	
Service shafts				
Loadbearing	180/120/120	120/90/90	90/90/90	
Non-loadbearing	-/120/120	-/90/90	-/90/90	
<u>Other internal load bearing wall and columns</u>				
Loadbearing	180/-	120/-	90/-	
<u>Floors</u> (not on ground)	180/180/180	120/120/120	90/90/90	
<p><u>Roof-</u> concession for roof if non-combustible as the building is required to be fitted with a sprinkler system complying with BCA Spec E1.5.</p>				

3.3 – Access & Egress (Section C, BCA)

3.3.1 – Provision for escape (Part D1, BCA)

Clause	Item	Comment
D1.2	<u>Number of exits required</u>	The building requires a minimum of 2 exits from each storey.
	The minimum number of exits required to each storey is (1). Minimum 2 are required for Class 2-8 with effective height exceeding 25m	The arrangement is considered satisfactory.
D1.3	<u>Fire Isolation of Exits</u>	Exits are to be isolated with shaft walls to ground floor achieving a FRL's as indicated to Specification C1.1
	Stairs/Exits passing through > 2 storeys (no sprinklers) or > 3 storeys (sprinklers) are required to be contained within fire isolated shafts.	
D1.4	<u>Exit travel Distances</u>	Exit travel distances are generally compliant however internal partition configuration to the club level will have to be assessed when resolved.
	All points on the floor of the building are to be no greater than 20m to a single exit or point of choice to two (2) or more exits. Where two (2) or more exits are available then a maximum distance of 40m in total distance is permitted and must be measured through the point of choice.	

D1.5	<u>Distance between alternate exits</u>	Configuration of scissor stairs is compliant
	Exits to the floors are to be distributed as uniformly as practicable, not < 9.0m apart, not > 60m apart and the paths of travel to exits are not to converge so that they become less than 6.0m apart.	
D1.6	<u>Dimensions of exits and paths of travel</u>	Given the populations determined at start of this report, it is considered that provided both stairs achieve the minimum required widths and adequate aggregate egress widths have been provided.
	All paths of travel and exit routes are to be: 1. 2.0m in clear height (noting ceiling height requirements under F3.1 below) 2. A minimum 1.0m in clear unobstructed width.	
	In relation to the unobstructed width of stairs, it is to be the dimension between the handrail and the opposing wall/handrail.	It is noted that a maximum of 3m of exit width has been provided from the club level, this allows for a maximum population to the space not exceeding 300 persons, exit widths are to be reviewed again upon fit out details being concluded.
	Doors may reduce egress widths to 1980mm in height and 750mm of clear unobstructed width. Note that where disabled access is required this is to be 800mm of clear width.	
	Aggregate exit widths are to be provided relevant to the total populations of the building.	
D1.7	<u>Fire isolated exits</u>	As detailed the design is compliant
	Doors to fire isolated stairs are not to directly open to stairs unless from public corridors, sanitary facilities or tenancies that occupies the entire storey.	
	Each fire isolated exit must provided independent egress from each storey to a point of open space or covered areas of uses and open perimeters, as nominated.	
	Where discharge from exits require passage within 6.0m of walls and/or openings in the external façade the walls are to have minimum FRL of 60/60/60 and the openings are to be protected internally as C3.4.	
	No greater than two (2) doors are to open into a fire isolated stair without smoke lobbies or stair pressurization.	
D1.10	<u>Discharge from exits</u>	Egress over the lane is to be confirmed in respect of either being a public lane or has consented use for egress.
	Bollards or other suitable barriers are to be provided to ensure that exits must are not blocked by parked vehicles. Be located as far apart as practical. Required exit widths must be maintained between the discharge point of the exits and the roadway and the path connecting the exit to the road must have stairs and/or ramps connecting it.	

D1.11	<u>Horizontal Exits</u>	Not applicable
	Horizontal Exits are not to occupy greater than ½ the required exits to a storey of the building and are to have sufficient area (as determined under this clause) to accommodate persons escaping from one side of the wall to the other.	
D1.13	<u>Populations</u>	See earlier comments in this report.
D1.17	<u>Access to Lift Pits</u>	All detail drawings are to ensure compliance in this regard.
	Where the pit depth is greater than 3.0m access to the pit must be provided in accordance with the provisions of clause D1.17 (b) – Further details on request	

3.3.2 – Construction of Exits (Part D2, BCA)

Clause	Item	Comment
D2.2	<u>Fire-isolated stairs and ramps</u>	All detail drawings are to ensure compliance in this regard.
	Stairs and ramps within fire isolated shafts are to be of non-combustible materials and be constructed so that if there is local failure it will not cause structural damage or impair the fire resistance of the shaft.	
D2.4	<u>Separation of rising and descending flights</u>	Not applicable, no rising and descending flights in the same shaft
	Where flights of stairs rising from lower levels meet flights of stairs descending from upper levels, the smoke separating construction is to be provided between the two (2) areas.	
D2.7	<u>Installations in exits and paths of travel</u>	All detail drawings are to ensure compliance in this regard.
	Access to service shafts and services other than fire fighting equipment is not permitted from fire isolated exits. Gas or other fuel services must not be installed within 'required exits'.	
	Where electricity meters, distribution boards or ducts, central telecommunication distribution boards or equipment or electrical or other motors serving the building are located in corridors, hallways or the like leading to an exit they are to be enclosed in non-combustible construction or a fire protective covering with doorways and openings suitably sealed against smoke spreading from the enclosure.	
D2.8	<u>Enclosures under stairs and ramps</u>	Not applicable, no enclosures noted to plans
	The enclosure of spaces under in fire isolated stairs is prohibited.	

D2.9	<u>Width of stairs.</u>	All detail drawings are to ensure compliance in this regard.
	The required width of a stair is measured between the handrail and the opposing wall or handrail.	
	Minimum unobstructed height of 2m is required measured from the nosing line of the treads.	
D2.11	<u>Fire Isolated Passageways</u>	Fire isolated passages on the club level connecting stairs are to achieve a 120/120/120 rating (-/120/120 if non load bearing).
	The enclosing construction of the fire isolated passageways serving the fire isolated stairs is to have the same FRLs and construction as that required for the stair.	
D2.13	<u>Goings and Risers</u>	All detail drawings are to ensure compliance in this regard.
	The goings and risers of the stairs to:	Plans appear compliant in this regard
	<ol style="list-style-type: none"> 1. Be within the dimensional limitations of Table D2.13 of the BCA. 2. Have not > 18 risers per flight 3. If open risers have not >125mm between treads. 4. Be of solid construction. 5. Have a non-slip finish or be provided with non-skid strips near the edge of the nosings. 	
D2.14	<u>Landings</u>	All detail drawings are to ensure compliance in this regard.
	The landings of stairs are to:	
	<ol style="list-style-type: none"> 1. Have a cross fall not greater than 1 in 50 2. Be not less than 750mm long. 3. Have a non-slip finish or be provided with non-skid strips near the edge of the nosings. 	
D2.15	<u>Thresholds</u>	All detail drawings are to ensure compliance in this regard.
	Steps at doorways from internal spaces on the building to external areas are to be not greater than 190mm (step permitted only where the internal space is higher). Note that some doors require AS1428.1 compliant threshold ramps may be required where disabled access is required.	
	No threshold step or ramp of any dimension is permitted to internal doorways at point from the doorway less than the width of the door leaf.	

D2.16	<u>Balustrades</u>	All detail drawings are to ensure compliance in this regard.
	Balustrades are required where the height change between to levels is greater than 1000mm. Balustrades to the building are to be as follows:	Note that new requirements have been introduced in relation to any glass balustrades (particularly frameless glass) under AS1288 – 2006, as adopted under BCA 2006.
	Fire Isolated Stairs	Not that balustrades to the club level are to comply with the NSW D2.16 provision and be a minimum of 1m high where internal and 1.2m high to the external balcony.
	<ol style="list-style-type: none"> 1. Be not less than 1000mm high above landings and 865mm above the nosings of stairs. 2. Have balusters not > 300mm apart or where rails are used a rail not less than 150mm above the nosing of the stairs and the gap between the rails is to be not > 460mm 	
	Balconies, non-fire isolated stairs and other locations	
	<ol style="list-style-type: none"> 1. Be not less than 1000mm high above landings and 865mm above the nosings of stairs. 2. Have openings not > 125mm. 3. Where the change in level is >4.0m it must not contain horizontal elements between 150mm and 760mm above the floor level that can facilitate climbing. 4. Windows to floors where the change in level is >4.0m must not have openable portions less than 865mm above the floor level. 	
	All balustrades are to be designed to ensure compliance with AS1170.1 or AS/NZS 1170.1.	
	Furthermore, we note that particular requirements are applicable under D2.16 (h) and Table D2.16 in relation to wire balustrades.	
	Loading docks are exempted from needing to meet these requirements.	
D2.17	<u>Handrails</u>	All detail drawings are to ensure compliance in this regard.
	Each flight of stairs are to be fitted with at least one (1) handrail	Plans to note handrails to all stairs
D2.18	<u>Fixed platforms, walkways, stairways and ladders</u>	Not applicable, plant accessed from internal fire isolated stairs to the roof top areas
	All platforms, walkways, stairways and ladders within the plant areas are to be designed in accordance with AS1657 or the stair, landing and balustrade requirements as above.	

D2.19	<u>Doorways and doors</u>	Details generally indicate that the exits to be the building will be served by swinging doors.
	Doors serving as exits are to be swinging doors except that power sliding doors can be used where it opens directly to a road or open space, capable of being manually opened under a force not > 110N upon a power malfunction and will automatically open on power failure or activation of the fire services in the building.	The doors entering the stairs (and throughout the future fit out) to the club level are to have 1050mm door leaves to provided a minimum 1m clear opening width
D2.20	<u>Swinging doors</u>	Swinging exit doors to the building appear to swing in the direction of egress.
	All exit doors are required to swing in the direction of egress.	
	Any swinging door must not encroach into the required width of an exit by more than 500mm and when fully open encroach by greater than 100mm.	
D2.21	<u>Operation of latch.</u>	All detail drawings or specifications are to ensure compliance in this regard.
	All exit doors and doors in the path of travel to exits are to be provided with lever action door furniture or panic bars located 900mm to 1.2m above the floor level which do not require a key to operate them on the side that a person would be seeking egress from the building.	Note that to the club level latches to the entry doors into stairs are to have panic bar type latches under the NSW D2.21 provisions
	Where security is required to the doors there may be locked provided that they are fitted with a 'fail safe' device (e.g. an electronic strike) which opens/releases on activation of the smoke detection or sprinkler systems installed throughout the building.	
D2.22	<u>Re-entry from fire isolated exits</u>	Re-entry is required to both the stairs serving floors above 25m in effective height.
	Doors of a fire isolated exit must not be locked from the inside in a Class 9a building, 9c aged care building or exit serving any storey above a effective height of 25m.	All detail drawings or specifications are to ensure compliance in this regard.
	Doors may be locked if the automatically unlock by a fail-safe device by activation of a fire alarm, however least every forth storey doors are not locked and signed that re-entry is available, or intercommunication system is provided with signage explaining its purpose and method of operation is provided.	

D2.23	<p><u>Signs on doors</u></p> <p>Doors accessing fire isolated exits and in horizontal exits are to be provided with 20mm high lettering of a colour contrasting to it's background stating 'FIRE DOOR, DO NOT OBSTRUCT, DO NOT KEEP OPEN'.</p> <p>Doors discharging fire isolated stairs are to be provided with 20mm high lettering of a colour contrasting to it's background stating 'FIRE SAFETY DOOR, DO NOT OBSTRUCT'.</p>	<p>All detail drawings or specifications are to ensure compliance in this regard.</p>
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3.3.3 – Construction of Exits (Part D3, BCA)

Clause	Item	Comment
D3.2 & D3.3	<p><u>General access requirements & parts required to be accessible</u></p> <p>AS1428.1 compliant access is required to be provided:</p> <ul style="list-style-type: none"> • Between the street and the main entry. • Through the main entry. • Between the main entry and the lifts • Between the disabled car parking spaces and the lifts. • Throughout the floors of the building except for plant areas and able bodied sanitary facilities. 	<p>Access is required to and within commercial parts of the building being ground level to the 3rd floor (as a lift is provided serving those floors)</p> <p>Access from the car parking area to the residential/commercial lobby is to comply.</p> <p>In general the layout will allow for compliant access.</p>
D3.5	<p><u>Car parking</u></p> <p>One (1) AS2890.1 compliant car park space is required to be provided per 100 car parking spaces or part there of.</p>	<p>The provision of parking spaces will relate to commercial parking areas only, a minimum 1 of space is required. Plans indicate suitable parking arrangements.</p>
D3.6	<p><u>Identification of accessible facilities, services and features</u></p> <p>Specification D3.6 compliant Braille and tactile signage is required to be installed to all sanitary facilities.</p>	<p>All detail drawings or specifications are to ensure compliance in this regard.</p>
D3.8	<p><u>Tactile indicators</u></p> <p>AS1428.4 tactile ground surface indicators are to be provide to all public accessible stairs, ramps etc.</p>	<p>All detail drawings or specifications are to ensure compliance in this regard. Tactiles are required to publicly accessible ramps, stairs and escalators only, not in fire stairs or residential parts.</p>

3.4 – Services and Equipment (Section E, BCA)

3.4.1 – Fire Fighting Equipment (Part E1, BCA)

Clause	Item	Comment
E1.3	<p><u>Fire Hydrants</u></p> <p>A hydrant system is required to protect the development in accordance with Clause E1.3 of the BCA & AS 2419.1 - 2005.</p>	Compliant designs are to be provided from the relevant services consultant. All designs are to be certified as being in accordance with BCA Clause E1.3 and AS2419.1-2005
E1.4	<p><u>Fire Hose Reels</u></p> <p>A fire hose reel system is required to protect the development in accordance with Clause E1.4 of the BCA & AS 2441 - 2005.</p>	Compliant designs are to be provided from the relevant services consultant. All designs are to be certified as being in accordance with BCA Clause E1.4 and AS2441-2005. it is noted FHR's are not detailed to the ground through third floors to plans.
E1.5	<p><u>Sprinklers</u></p> <p>Sprinklers are required to be installed throughout the building and car parking levels of the building.</p>	Compliant designs are to be provided from the relevant services. All designs are to be certified as being in accordance with BCA Clause E1.5 and AS2118.1-1999.
E1.6	<p><u>Portable Fire Extinguishers</u></p> <p>Portable fire extinguishers are required to protect the development in accordance with Clause E1.6 of the BCA & AS 2444 - 2001.</p>	<p>All detail drawings or specifications are to ensure compliance in this regard.</p> <p>Portable fire extinguishers are required near switchboards supplying power to essential fire safety equipment,</p>
E1.8	<p><u>Fire control centres</u></p> <p>A fire control facility must be provided for a building with an effectively height of more than 25m and for Class 6,7,8 or 9 with a total floor area of more than 18,000 m²</p>	The building is to have a fire control room complying with Specification E1.8 as the building exceeds 50m in effective height.
E1.9	<p><u>Precautions during construction</u></p> <p>During construction the building is to be provided with not less than one (1) extinguisher suitable for Class A, B & C fire and electrical fires located near exits or temporary stairs.</p> <p>When the building reaches twelve (12) metres in effective height the required fire hydrants and fire hose reels must be operational in every storey covered by a roof or the floor above.</p>	Construction details to confirm compliance.

3.4.2 – Smoke Hazard Management (Part E2, BCA)

Clause	Item	Comment
E2.2	<p><u>Smoke Hazard Management</u></p> <p>In addition to the sprinkler system indicated above</p> <ol style="list-style-type: none"> 1. BCA Specification E2.2a AS1670.1 compliant smoke detection and alarm system, or AS3786 smoke alarm system or combination of both to residential units levels AND 2. A zone smoke control system complying with AS/NZS1668.1 to ground level to level 5 (commercial units). AND 3. An automatic air pressurization system within the fire isolated stairs is to comply with AS/NZS1668.1. AND 4. Any air handling equipment that recycles air between fire compartments is to shutdown upon activation of the fire services in the building. 5. car parking mechanical ventilation is to comply with clause 5.5 of AS/NZS 1668.1 	<p>Compliant designs are to be provided from the relevant services. All designs are to be certified as being in accordance with BCA Clause E2.2, BCA Specification E2.2a, AS1670.1, AS3786 and AS/NZS1668.1.</p> <p>It is noted that a zone pressurization can not be accommodated to the building due to the configuration of the residential levels above the commercial floors. It is proposed to delete the requirement for the system via an alternate solution involving fire engineering.</p>

3.4.3 – Lift Installations (Part E3, BCA)

Clause	Item	Comment
E3.2	<u>Stretcher facility in lifts</u>	Any design is to accommodate for the provision of the required lift car dimensions. All three lifts serving the residential and commercial levels are to be emergency lifts.
E3.4	At least one (1) lift which serves all storeys is to be of sufficient dimension to accommodate the passage of a raised stretcher with a patient lying on it horizontally providing a clear space 600mm wide x 2000mm long x 1400mm high.	
E3.3	<p><u>Warning against the use of the lift</u></p> <p>Adjacent to the call buttons of all passenger and goods lifts signage 10mm high stating 'DO NOT USE LIFTS IF THERE IS A FIRE' is to be provided.</p>	All detail drawings or specifications are to ensure compliance in this regard.
E3.6	<p><u>Facilities for people with disabilities</u></p> <p>Every passenger lift is to be provided with handrails, minimum internal floor dimensions, clear door opening dimensions and car control buttons in accordance with AS1735.12 and be fitted with a series of sensory devices per clause E3.6 of the BCA.</p>	Compliant designs are to be provided from the relevant services consultant. All designs are to be certified as being in accordance with BCA Clause E3.6, Clause E3.7, AS1735.1 or .2 and AS1735.12.
E3.7	<p><u>Fire Service Controls</u></p> <p>All passenger lifts designed in accordance with AS1735 Part 1 or 2 are to be fitted with fire service controls (as building >12.0m in effective height).</p>	Compliant designs are to be provided from the relevant services.

3.4.4 – Emergency Lighting, Exit Signs and Warning Systems (Part E4, BCA)

Clause	Item	Comment
E4.2, E4.3 & E4.4	<u>Emergency Lighting</u> An AS 2293.1 – 2005 compliant system of emergency lighting is to be provided through the building.	Lighting to be provided in accordance with BCA clauses E4.2, E4.3 & E4.4 and AS 2293.1-2005. Within the club levels lighting is to be provided to all publicly accessible parts.
E4.5, E4.6 & E4.8	<u>Exit Signage</u> An AS 2293.1 – 2005 compliant system of illuminated exit signage is to be provided through the building.	All designs are to be certified as being in accordance with BCA clauses E4.5, E4.6 & E4.8 and AS 2293.1 – 2005.
E4.9	<u>Sound systems and intercommunication systems for emergency purposes</u> Systems for occupant evacuation and co-ordination are required for buildings exceeding 25m in effective height compliant with AS 1670.4	All designs are to be certified as being in accordance with BCA clauses E4.9 and AS 1670.4

3.5 – Health and Amenity (Section F, BCA)

3.5.1 – Damp and Weatherproofing (Part F1, BCA)

Clause	Item	Comment
F1.1	<u>Stormwater</u> All storm water will be disposed of in accordance with AS3500.3	Compliant designs are to be provided from the relevant services consultant. All designs are to be certified as being in accordance with AS3500.3 – 2003.
F1.5	<u>Roof Coverings</u> All metal roofing is to comply with AS1562.1	All detail drawings or specifications are to ensure compliance in this regard.
F1.6	<u>Sarking</u> Any sarking is to comply with AS/NZS 4200 Parts 1 & 2 – 1994	All detail drawings or specifications are to ensure compliance in this regard.
F1.7	<u>Waterproofing of wet areas in buildings.</u> All bathroom and sanitary compartments are to be water resistant and waterproof in accordance with AS3740 as though they were in a residential building.	Design specifications are to include the need for water proofing to be carried out in accordance with AS3740 – 2004
F1.8 & F1.9	<u>Damproofing</u> The building is to be provided with damp proofing in accordance with AS2870, AS2904, etc.	All designs are to be certified as being provided with a system of damp proofing in accordance with AS2870 – 1996, AS 2904 – 1995, etc

F1.13	<u>Glazed Assemblies</u> All glass to the building is to comply with AS2047 and AS1288.	Design specifications are to include the need for all glazing systems to be constructed, glazed and fitted in accordance with AS1288 – 2006 and AS2047 – 1999.
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3.5.2 – Sanitary Facilities (Part F2, BCA)

Clause	Item	Comment
F2.1	<u>Facilities in residential buildings</u> This clause details requirements for residential buildings	It is noted that each residential unit if proposed to be fully self contained with kitchen, laundry and bathroom facilities and therefore compliant. The toilet provided to the ground floor may be used for maintenance staff as the number of units exceeds 10.
F2.2	<u>Calculation of occupants</u> The number of occupants used for the determination of the number of sanitary facilities required to the building has been determined in accordance with table D1.13 of the BCA.	Note population numbers nominated earlier in the report.
F2.3	<u>Facilities in class 3 to 9 buildings</u> This clause offers the required ratios of sanitary facilities required to a building depending upon the respective populations	Provision of facilities appears compliant providing no more than 10 persons are employed in the ground floor tenancies and the facility is a unisex type. Facilities for the club level would have to be re-assessed upon finalization of the fit out details. Facilities for the office levels are sufficient for the calculated population for these floors.
F2.4	<u>Facilities for People Disabilities</u> The BCA requires 1 disabled facility for up to 100 WCs and urinals (added together).	Compliant faculties are noted to each commercial level. All designs are to be in accordance with AS1428.1 – 2001
F2.5	<u>Construction of sanitary compartments</u> Any fully enclosed sanitary facility, where an inward swinging door is less than 1.2m from the WC pan, the door leaf is to be provided with lift off hinges that facilitate the removal of the door from outside the enclosure.	All detail drawings or specifications are to ensure compliance in this regard.

3.5.3 – Room Sizes (Part F3, BCA)

Clause	Item	Comment
F3.1	<p><u>Heights of rooms and other spaces</u></p> <p>All areas of the building are required to have a minimum ceiling height of 2.4m except for the corridors, sanitary facilities and car parking areas which are permitted to be 2.1m in height.</p>	<p>Details are to achieve compliance.</p> <p>Within the club level ceiling heights are to be a minimum of 2.7m. plans appear to note compliance.</p>

3.5.4 – Light and Ventilation (Part F4, BCA)

Clause	Item	Comment
F4.1	<p><u>Provision of natural light</u></p> <p>Natural lighting must be provided in:</p> <ul style="list-style-type: none"> • Class 2 and Class 4 parts of buildings to all habitable rooms. • Class 3 buildings to all bedrooms and dormitories. • Class 9a & 9c buildings to all rooms used for sleeping purposes. • Class 9b buildings to all general purpose classrooms in primary and secondary schools and playrooms or the like in early childhood centres. 	<p>Natural lighting appears compliant to habitable rooms of residential areas. Bathrooms are to be provided with artificial lighting as per F4.4.</p> <p>Plans indicate compliance in this regard</p>
F4.2	<p><u>Methods and extent of natural lighting</u></p> <p>Natural lighting must be provided by windows with an aggregate light transmitting area of not less than 10% of the floor area of the room and are open to the sky or open verandah etc.</p> <p>For Class 2,3 9 (excluding 9c) of Class 4 parts:</p> <p>If facing the boundary of an adjoining allotment or another building on the allotment windows are to be a horizontal distance of not less than 1m away or 50% of the square root of the exterior height of the wall (which contains the window) measured in metres from the sill whichever is the greater.</p>	<p>Design appears to comply, the lowest window to a habitable room has a sill height of approximately 45m below the top of the wall, the required setback is therefore 3.35m, as proposed the minimum setback is 3.5m and therefore compliant.</p>
F4.4	<p><u>Artificial Lighting</u></p> <p>The building is required to be provided with artificial lighting in accordance with AS1680.0 - 1998</p>	<p>Compliant designs are to be provided from the relevant services consultant. All designs are to be certified as being compliant with AS1680.0-1998.</p>

F4.5	<u>Ventilation of rooms</u> The building is required to be provided in mechanical ventilation in accordance with AS1668.2 or natural ventilation complying with Part F4.6.	Compliant designs are to be provided from the relevant services consultant. All designs are to be certified as being compliant with AS1668.2 - 1991.
F4.6	<u>Natural ventilation</u> Ventilation to be by permanent openings, windows, doors or other openable devices with an aggregate opening size of minimum 5% of the floor area of the room to be ventilated.	All detail drawings or specifications are to ensure compliance in this regard. If not otherwise providing mechanical ventilation as per F4.5.
F4.8 & F4.9	<u>Restriction on position of water closets and urinals</u> A room containing a WC or urinal must not open directly into a workplace occupied by more than one person without the provision of an airlock or mechanical exhaust and a wall screening the door accessing the space.	Details appear compliant.
F4.11	<u>Carparks</u> Car parks are to be provided with a system of ventilation complying with AS1668.2.	Compliant designs are to be provided from the relevant services consultant. All designs are to be certified as being compliant with AS1668.2 - 1991 and AS/NZS 1668.1 Furthermore, note requirements as listed under E2.2a above.

3.5.5 – Sound Transmission and Insulation (Part F5, BCA)

Clause	Item	Comment
F5.2	<u>Determination of airborne sound insulation ratings</u> A form of construction required to have airborne sound insulation rating must have the required weighted sound reduction index (R _w) or weighted sound reduction index with spectrum adaptation term (R _x + C _{tr}) determined in accordance with AS/NZS 1276.1 or ISO 717.1 or comply with BCA Spec F5.2	All detail drawings or specifications are to ensure compliance in this regard.
F5.3	<u>Determination of impact sound insulation ratings</u> A floor in building required to have an impact sound insulation rating must have a impact sound pressure level (L _{n,w} + C _i) determined in accordance with AS/ISO 717.2 or comply with BCA Spec F5.2. A wall in a building required to have an impact sound insulation ratings must for Class 2 & 3 building be discontinuous construction. Discontinuous construction being a wall of two separate leaves with 20mm cavity between.	All detail drawings or specifications are to ensure compliance in this regard.

F5.4	<p><u>Sound insulation of floors</u></p> <p>A floor in a class 2 or 3 building must have an $R_w + C_{tr}$ (airborne) of not less than 50 and an $L_{n,w} + C_I$ (impact) of not less than 62 if it separates</p> <ul style="list-style-type: none"> (i) Sole-occupancy units: or (ii) a sole-occupancy from a plant room, lift shaft, stairway, public corridor/lobby or parts of a different classification. 	<p>Floors of residential units are to comply including the floor of level 6 separating the residential units from commercial units. The plant room floor is to achieve equivalent insulation to residential units.</p>
F5.5	<p><u>Sound insulation rating of walls</u></p> <p>A wall in a class 2 or 3 building must:</p> <ul style="list-style-type: none"> (I) Have an $R_w + C_{tr}$ (airborne) not less than 50 if it separates sole-occupancy units (SOU). (II) Have an R_w (airborne) not less than 50 between sole-occupancy units from plant rooms, lift shafts, stairways, public corridors or parts of a different class. (III) Have impact sound insulation as per F5.3 if it separates a bathroom, sanitary compartment, laundry or kitchen in one SOU from a habitable room (other than a kitchen) in an adjoining SOU, or between a SOU and a plant room or lift shaft. 	<p>Generally walls are to achieve airborne sound insulation only between SOU's.</p> <p>Levels 7-11 will require impact sound insulation compliance between bathrooms and lounge/dining areas of adjoining SOU's.</p> <p>All detail drawings or specifications are to ensure compliance in this regard.</p>

3.6 – Ancillary Provisions (Section G, BCA)

Clause	Item	Comment
NSW G1.101	<p><u>Provision for the cleaning of windows</u></p> <p>A building must be provided with a system of cleaning windows located 3 or more storeys above ground level by a system provided in accordance with the Occupation Health and Safety Act 2000 or by having the design facilitate the cleaning of the windows from wholly within the building.</p>	<p>Compliant designs are to be provided from the relevant services. All designs are to be certified as being compliant with the relevant provisions of the Occupational Health and Safety Act 2000 and standards.</p>

3.7 – Special Use Buildings (Section H, BCA)

This section is applicable to the first floor club areas as is proposed to operate as a Place of Public Entertainment

3.7.1 – Places of Public Entertainment (NSW H101, BCA)

Clause	Item	Comment
H101.2	<p><u>Fire separation</u></p> <p>POPE areas are to be fire separated from non POPE areas with construction achieving 60/60/60</p>	<p>The separation of the club areas will exceed the 60 minute construction via compartmentation walls</p>

H101.5-1.5	<u>Stages and flying scenery</u> This section includes provisions for stages and flying scenery rigs	Not applicable
H101.10	<u>Safety curtains</u> This section sets out requirements for safety curtains in proscenium openings	Not applicable
H101.11-14	<u>Seating and guardrails</u> This section set out requirements for row seating and guard railing in auditoriums	Not applicable
H101.16	<u>Store rooms</u> Store rooms are to be fire separated with construction achieving and FRL of 60/60/60	Any store room proposed t he future fit out of the club level is to be suitably fire separated
H101.19	<u>Electric mains installation</u> The PoPE area of the building is to be served by separate and independent sub-mains from the main switchboard. The PoPE sub-mains are to be protected against fire by mineral insulated, metal sheathed with 2 hour fire protection or PVC or metal pipe concrete encased with 50mm cover as per NSW H101.19.3.	Electrical design is to incorporate separate sub-main distribution boards etc to the POPE parts
H101.20	<u>Lighting</u> Lighting switches are to be located so as not to be accessible to patrons, where lighting is of a type that will not re-strike immediately after power is restored the emergency lighting units are to have a delay to remain lit until generally lighting is restored.	The design of the lighting arrangements shall be in accordance with is part.

3.8 – Maintenance (Section I, BCA)

These provisions are not applicable to the subject building, the obligation to maintain safety measures is imposed under the Environmental Planning and Assessment Regulations 2000.

3.9 – Energy Efficiency (Section J, BCA)

These provisions are not applicable to the residential levels of the building where subject to BASIX, they are to comply with the NSW provisions as noted. The commercial parts are to comply with all parts.

Part	Item	Comment
J1	<u>Building Fabric</u> This part set out the requirements for the thermal efficiency of the envelope of the building.	The external envelope of the building is capable of achieving compliance with part J1 and is generally to achieve R1.8 for walls and R3.2 for ceiling and roof construction respectively. The residential parts are to comply with clause J1.2 for installation requirements.

J2	<p><u>External Glazing</u></p> <p>This part sets out the requirements for glazing forming part of the envelope of a building</p>	<p>Glazing that forms part of the envelope of the building is to achieve compliance with the method 1 or 2 of Part J2 of the BCA. The residential parts are not subject to this Part.</p>
J3	<p><u>Building Sealing</u></p> <p>This part sets out the provisions for sealing of a building to prevent the leakage of conditioned space</p>	<p>The method of construction of the envelope is to incorporate sealing of gaps etc to prevent loss of conditioned air. This part applies to residential portions also.</p>
J5	<p><u>Air-conditioning and Ventilation</u></p> <p>This part sets out the limitations of A/C and mechanical ventilations systems to impose minimum efficiencies within HVAC systems</p>	<p>Systems are to have maximum power inputs and control units if intending to be provided to comply with Part J5 including residential parts.</p>
J6	<p><u>Artificial Lighting</u></p> <p>This part sets out maximum illumination power densities and control arrangements to in part efficiency within lighting configurations</p>	<p>Internal lighting is capable of achieving compliance with Part J6 of the BCA.</p> <p>This part does not apply to residential parts.</p>
J7	<p><u>Hot water supply</u></p> <p>This part sets out he requirements for insulation of water supply lines to hot water units to reduce heat loss</p>	<p>Hot water units are to be insulated as per section 8 of AS/NZS 3500.4</p>
J8	<p><u>Access for maintenance</u></p> <p>This part sets out the requirements for access to maintain systems</p>	<p>Plans re to include access s applicable</p>