



BUILDING REGULATION & FIRE SAFETY ENGINEERING CONSULTANTS

Project: 134-140 MARSDEN PLACE, PARRAMATTA
MACQUARIE PLACE

Report: BCA ASSESSMENT REPORT

Date: 23rd December 2010

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DOCUMENT CONTROL

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PART 1 BASIS OF ASSESSMENT

1.1 Location and Description

The building development, the subject of this report, is located at 134-140 Marsden Street, Parramatta and will be known as Macquarie Place. The site is currently vacant and it is proposed to construct a high rise residential building with commercial and retail areas with basement level carparking.

1.2 Purpose

The purpose of this report is to assess the design proposal against the Deemed-to-Satisfy provisions of the BCA, and to clearly outline those areas where compliance is not achieved.

1.3 Building Code of Australia

This report is based on the Deemed-to-Satisfy Provisions of the Building Code of Australia, 2010 Edition incorporating the State variations where applicable. Please note that the version of the BCA applicable is the version applicable at the time of the Construction Certificate Application is dated as received by the certifying authority and the BCA is updated generally on the 1st of May each year.

1.4 Limitations

This report does not include nor imply any detailed assessment for design, compliance or upgrading for: -

- (a) the structural adequacy or design of the building;
- (b) the inherent derived fire-resistance ratings of any proposed structural elements of the building (unless specifically referred to); and
- (c) the design basis and/or operating capabilities of any proposed electrical, mechanical or hydraulic fire protection services.

This report does not include, or imply compliance with:

- (a) the Disability Discrimination Act – Refer Annexure D For Commentary;
- (b) Demolition Standards not referred to by the BCA;
- (c) Occupational Health and Safety Act;
- (d) Requirements of other Regulatory Authorities including, but not limited to, Telstra, Sydney Water, Electricity Supply Authority, WorkCover, RTA, Council and the like; and
- (e) Conditions of Development Consent.

1.5 Design Documentation

This report has been based on the Design plans and Specifications listed in Annexure A of this Report.

PART 2 BUILDING DESCRIPTION

For the purposes of the Building Code of Australia (BCA) the development may be described as follows.

2.1 Rise in Storeys (Clause C1.2)

The building has a rise in storeys of twenty-six (26).

2.2 Classification (Clause A3.2)

The building has been classified as follows.

Class	Level	Description
2	Ground – Level 25	Residential Areas
5	Levels 1 – 3	Commercial Areas
6	Ground Floor	Retail Areas
7a	Basements	Carparking and ancillary areas
9b	Level 1	Gym, Library, Cinema and Conference Room

2.3 Effective Height (Clause A1.1)

The building has an effective height of more than 50 metres (81.6m).

2.4 Type of Construction Required (Table C1.1)

Type A Construction.

2.5 Floor Area and Volume Limitations (Table C2.2)

The building is subject to maximum floor area and volume limits of:-

- Class 2 - The Class 2 portions of the building are not subject to floor area and volume limitations of C2.2 as Table 3 of Specification C1.1 and Clause C3.11 of the BCA regulates the compartmentation and separation provisions applicable to buildings, or building portions, of Class 2 classifications.
- Class 5 & 9b -

Maximum Floor Area	8,000m ²
Maximum Volume	48,000m ³
- Class 6 -

Maximum Floor Area	5,000m ²
Maximum Volume	30,000m ³
- Class 7a - The carpark is to be sprinkler protected and as such there are no maximum floor area or volume limitations for this area.

2.6 Climate Zone (Clause A1.1)

The building is located within Climate Zone 6, being in the Parramatta Local Government Area.

PART 3 ESSENTIAL FIRE SAFETY MEASURES

The following fire safety measures are required to be installed in the building.

Item No.	Proposed Essential Fire Safety Measure	Minimum Standard of Performance
1.	Access panels, doors and hoppers to fire resisting shafts	BCA2010 Clause C3.13
2.	Automatic fail safe devices	Manufacturer's Specification
3.	Automatic fire detection and alarm system	BCA2010 Clause E2.2a, AS3786-1993
4.	Automatic fire suppression system (sprinkler system)	BCA2010 Clause E1.5, AS2118.1-1999
5.	Emergency lighting	BCA2010 Clauses E4.2 & E4.4, AS2293.1-2005
6.	Emergency lifts	BCA2010 Clause E3.4, AS1735.2-2001
7.	Exit signs	BCA2010 Clauses E4.5, E4.6 & E4.8, AS2293.1-2005
8.	Fire control room	BCA2010 Clause E1.8
9.	Fire dampers	AS/NZS1668.1-1998
10.	Fire doors	BCA2010 Spec C3.4, AS1905.1-2005
11.	Fire hose reel system	BCA2010 Clause E1.4, AS2441-2005
12.	Fire hydrant system	BCA2010 Clause E1.3, AS2419.1-2005
13.	Fire seals protecting openings in fire resisting components of the building	BCA2010 Clause C3.15, Manufacturer's Specification
14.	Fire shutters	BCA2010 Spec C3.4, AS1905.2-2005
15.	Fire windows	BCA2010 Spec C3.4
16.	Lightweight construction	Manufacturer's Specification
17.	Mechanical air handling systems	AS/NZS1668.1-1998
18.	Paths of travel, stairways, passageways or ramps	BCA2010 Section D
19.	Portable fire extinguishers	BCA2010 Clause E1.6, AS2444-2001
20.	Pressurisation system	AS/NZS1668.1-1998
21.	Required (automatic) exit doors	BCA2010 Clause D2.19, AS1670.1-2004
22.	Smoke control system	BCA2010 Spec E2.2a, BCA Spec E2.2b, AS/NZS1668.1-1998
23.	Smoke dampers	AS/NZS1668.1-1998
24.	Smoke doors	BCA2010 Spec C3.4
25.	Sound systems and intercom systems for emergency purposes (formerly EWIS)	BCA2010 Clause E4.9, AS1670.4-2004
26.	Wall wetting sprinkler and drencher system	BCA2010 Clause C3.4
27.	Warning and operational signs	BCA2010 Clause D2.23, EP&A Reg. 2000 Clause 183

PART 4 FIRE RESISTANCE LEVELS

The following fire resistance levels (FRL's) required for the various structural elements of the building, with a fire source feature being the far boundary of a road adjoining the allotment, a side or rear boundary or an external wall of another building on the allotment except a Class 10 structure.

Item	Class 2	Class 5, 7a or 9b	Class 6
Loadbearing External Walls - less than 1.5m to a fire source feature 1.5 – 3m from fire source feature; - more than 3m from a fire source feature.	90/90/90 90/60/60 90/60/30	120/120/120 120/90/90 120/60/30	180/180/180 180/180/120 180/120/90
Non-Loadbearing External Walls - less than 1.5m to a fire source feature 1.5 – 3m from fire source feature; - more than 3m from a fire source feature.	-/90/90 -/60/60 -/ -/-	-/120/120 -/90/90 -/ -/-	-/180/180 -/180/120 -/ -/-
External Columns - Less than 3m 3m or more	90/-/- -/ -/-	120/-/- -/ -/-	180/-/- -/ -/-
Fire Walls	90/90/90	120/120/120	180/180/180
Stair and Lift Shafts - Loadbearing - Non loadbearing	90/90/90 -/90/90	120/120/120 -/120/120	180/120/120 -/120/120
Internal walls bounding sole occupancy units - Loadbearing - Non loadbearing	90/90/90 -/60/60	120/-/- -/ -/-	180/-/- -/ -/-
Internal walls bounding public corridors, hallways and the like: - Loadbearing - Non loadbearing	90/90/90 -/60/60	120/-/- -/ -/-	180/-/- -/ -/-
Ventilating, pipe garbage and the like shafts: - Loadbearing - Non loadbearing	90/90/90 -/90/90	120/90/90 -/90/90	180/120/120 -/120/120
Other loadbearing internal walls, beams trusses and columns	90/-/-	120/-/-	180/-/-
Floors	90/90/90	120/120/120	180/180/180
Roofs	90/60/30	120/60/30	180/60/30

PART 5 STATEMENT OF COMPLIANCE

5.1 General

The architectural design documentation as referred to in this report has been assessed against the applicable provisions of the Building Code of Australia, (BCA) and it is considered that such documentation complies or is capable of complying (as outlined in Annexure B) with that Code with the exception of the items listed below that will require further consideration and the Construction Certificate (CC) Stage of the development.

Annexure B to this report provides a detailed assessment of the proposal against all relevant Deemed-to-Satisfy Provisions of the BCA.

Note: It is important that Annexure B is read in conjunction with the items below, as some matters may not have had sufficient information provided to allow a detailed assessment to be undertaken.

5.2 Exit Travel Distances Residential Areas – Clause D1.4

Residential units are required to be within 6m of an exit or a point of choice; a number of units, including Units 10.14, 10.15, 12.12, 13.12, 13.13, 21.11 and 21.12, are between 6 and 9m from an exit or point of choice. This increased travel distance is expected to be justifiable under an Alternate Solution at the CC stage.

5.3 Travel via Fire-Isolated Exits – Clause D1.7

It is not proposed to provide the protection from the building to the discharge path of the northern fire-isolated exit discharge path. This will form part of an alternate solution at the CC stage of the development.

5.4 Commercial Stairway – Clauses D1.9

The non-fire-isolated stairway to the northern end of the commercial portion of the building is a required stairway connecting three storeys in a sprinkler protected building. The lowest level of connection is Level 1, in lieu of the ground floor. Occupants using the non-fire-isolated stairway access a fire-isolated stairway on Level 1 to complete their egress of the building. This will form part of an alternate solution at the CC stage of the development.

5.5 Fire Hydrant Booster Location – Clause E1.3

The building is to be provided with fire hydrants in accordance with this clause and AS2419.1.

Regarding the location of the fire hydrant booster there is a technical non-compliance that may be resolved at the CC stage with an alternate solution. The non-compliance is that the booster is not 10m from the building (this includes the upper levels) nor is it proposed to have shielding construction for a distance of 2m either side and 3m above the booster assembly.

Due to the booster location being more than 10m from the building at the ground floor and the portion of the building that is within 10m being the upper levels which are 5.7m above the ground floor level there is scope for an Alternate Solution at the CC stage of the development.

It is also noted that the proposed hydrant and sprinkler pump room is located on the roof. This is to be confirmed at the CC stage as a compliant location.

5.6 Atrium – Part G3

The non-fire-isolated stair forms an atrium as it is not a stairwell within a shaft. Further as the void for the stairway connects three storeys in a sprinkler protected building but does not connect to a level with direct egress to a road or open space Part G3 applies. It is proposed that an alternate solution will be used to justify the non-compliances with this Part at the CC stage.

ANNEXURE A

Design Documentation

This report has been based on the following design documentation.

Architectural Plans Prepared by AJ+C		
Drawing Number	Revision	Title
-	PPR	Level B6 Floor Plan
-	PPR	Level B2 Floor Plan
-	PPR	Level B1 Floor Plan
-	PPR	Ground Level Floor Plan
-	PPR	Level 01 Floor Plan
-	PPR	Level 02 Floor Plan
-	PPR	Level 03 Floor Plan
-	PPR	Level 04 Floor Plan
-	PPR	Levels 05-08 Floor Plan
-	PPR	Level 09 Floor Plan
-	PPR	Level 10 Floor Plan
-	PPR	Level 11 Floor Plan
-	PPR	Level 12 Floor Plan
-	PPR	Levels 13-20 Floor Plan
-	PPR	Level 21 Floor Plan
-	PPR	Level 22 Floor Plan
-	PPR	Level 23 Floor Plan
-	PPR	Level 24 Floor Plan
-	PPR	Level 25 Floor Plan
-	PPR	Roof Plan
-	PPR	East Elevation
-	PPR	North Elevation
-	PPR	South Elevation
-	PPR	West Elevation
-	PPR	Section 1

ANNEXURE B

DETAILED ASSESSMENT OF THE DEEMED-TO-SATISFY PROVISIONS OF BCA2010

BUILDING ASSESSMENT

Outlined below is a detailed assessment of the Deemed-to-Satisfy Provisions of the Building Code of Australia (BCA) including the State variations where applicable.

All Deemed-to-Satisfy clauses that are applicable to the subject building have been referred to below, including a comment adjacent to each clause of the proposal's ability to satisfy each respective clause.

The abbreviations outlined below have been used in the following tables.

N/A	-	Not Applicable. The Deemed-to-Satisfy clause does not apply to the subject building.
Complies	-	The relevant provisions of the Deemed-to-Satisfy clause have been satisfied by the proposed design.
CRA	-	'COMPLIANCE READILY ACHIEVABLE'. It is considered that there was not enough information included in the documentation to accurately determine strict compliance with the individual clause requirements. However, subject to noting the requirements of each clause, compliance can be readily achieved. This information may be included in other documentation, which was not forwarded to this office for assessment, such as door schedules, electrical, mechanical and hydraulic design documentation or architectural specifications.
FI	-	Further Information is necessary to determine the compliance potential of the building design.
AS	-	Alternative Solution with respect to this Deemed-to-Satisfy Provision is necessary to satisfy the relevant Performance Requirements.
DNC	-	Does Not Comply

DEEMED TO SATISFY CLAUSE ASSESSMENT SUMMARY

Clause	Comment	Status
SECTION B: STRUCTURE		
PART B1 – STRUCTURAL PROVISIONS		
B1.0: Deemed-to-Satisfy Provisions	Noted	-
B1.1: Resistance to Actions	For Information Only – Structural Engineer to certify at CC stage.	CRA
B1.2: Determination of Individual Actions	No details of loads imposed upon the building – Structural Engineer to certify at CC stage.	CRA
B1.4: Determination of Structural Resistance of Materials and Forms of Construction	No details of materials and forms of construction – Structural Engineer, Architect and Manufacturers to certify at CC stage.	CRA
SECTION C: FIRE RESISTANCE		
PART C1 – FIRE RESISTANCE AND STABILITY		
C1.0: Deemed-to-Satisfy Provisions	Noted	-
C1.1: Type of Construction Required	The building is to be of Type A Construction.	CRA
C1.2: Calculation of Rise in Storeys	The building has a rise in storeys of 26.	Noted
C1.3: Buildings of Multiple Classification	The building is to be of Type A Construction.	CRA
C1.4: Mixed Types of Construction	The building is to be of Type A Construction.	CRA
C1.8: Lightweight Construction	Lightweight construction may be used to achieve required fire resistance levels. Should lightweight construction be proposed it is to comply with Specification C1.8.	CRA
C1.10: Fire Hazard Properties	No details of the fire hazard properties of the materials and assemblies in the proposed building. Fire hazard indices to comply with Specification C1.10a for floor materials, floor coverings, wall and ceiling linings and Specification C1.10 for other materials within the building.	CRA
C1.12: Non-combustible Materials	Information only.	Noted
PART C2 - COMPARTMENTATION AND SEPARATION		
C2.0: Deemed-to-Satisfy Provisions	Noted	-
C2.1: Application of Part	Noted	-
C2.2: General Floor Area and Volume Limitations	Fire compartments are capable of complying. Separation assumed between the residential lobby and the rest of the ground floor, separation between the retail and back of house areas on the ground floor and separation between the commercial and the residential levels on Levels 1 – 3.	CRA
C2.6: Vertical Separation of Openings in External Walls	Vertical separation satisfactory as the building is to be fully sprinkler protected.	Complies
C2.7: Separation by Fire Walls	Fire walls may be used to separate classifications. This will be further considered at the CC stage of the development.	CRA
C2.8: Separation of Classifications in the Same Storey	Fire walls may be used to separate classifications, alternatively the classifications may be in the one fire compartment of the higher FRL's. This will be further considered at the CC stage of the development.	CRA
C2.9: Separation of Classifications in Different Storeys	The floors separating the storeys are to have the FRL relative to the storey below, for example the floor above the Class 6 area is required to have a FRL of not less than 180/180/180 and the floor above the Class 7a areas are to have a FRL of not less than 120/120/120.	CRA
C2.10: Separation of Lift Shafts	The lift shafts are to have the FRL as required by Table 3 of Specification C1.1 of the BCA. See Part 4 of this report for further information.	CRA
C2.11: Stairways and Lifts in One Shaft	As required the lifts and the fire-isolated stairways are located within their own shafts.	Complies
C2.12: Separation of Equipment	All lift motor rooms and any boilers contained within the building are to be enclosed in construction possessing a minimum FRL of 120/120/120.	CRA
C2.13: Electricity Supply System	If the main switch room sustains emergency equipment required to operate in emergency mode, the room is	CRA

SECTION C: FIRE RESISTANCE		
	required to be separated from the building with construction having a FRL of 120/120/120.	
C2.14: Public Corridors in Class 2 and 3 Buildings	Where residential corridors exceed 40m in length the corridor is to be separated into lengths of less than 40m with smoke proof walls complying with Clause 2 of BCA Specification C2.5.	CRA
PART C3 – PROTECTION OF OPENINGS		
C3.0: Deemed-to-Satisfy Provisions	Noted	-
C3.1: Application of Part	Noted	-
C3.2: Protection of Openings in External Walls	Openings in external walls are more than 3m from the western site boundary with the exception of the discharge doorway from the fire-isolated stairway at grid-point A12 on the ground floor which will need to be a -/60/30 fire door. It has also been assumed that a blade wall will be constructed to protect the cafe openings on the ground floor from the neighbouring property.	CRA
C3.3: Separation of External Walls and Associated Openings in Different Fire Compartments	At the CC stage consideration will need to be given to any required separation between fire compartments that arises as a result of any fire compartmentalisation. It is noted that the window openings between gridlines F & G on Levels 2 and 3 and windows between gridlines 3 & 4 on Level 3 will need to be protected as these openings are openings in an external wall that adjoins the fire compartments formed by the commercial and residential areas at this level. Protection may be provided with by wall wetting drenchers over fixed glazing or other methods permitted under BCA Clause C3.4.	CRA
C3.4: Acceptable Methods of Protection	Methods of protection are identified in this report.	Noted
C3.5: Doorways in Fire Walls	Any doorways in fire walls are to represent the FRL's of the fire walls in which they are located, ie in a 180/180/180 fire wall the doors are to achieve a FRL of not less than -/180/30	CRA
C3.6: Sliding Fire Doors	No sliding fire doors proposed.	Noted
C3.7: Protection of Doorways in Horizontal Exits	No horizontal exits proposed.	Noted
C3.8: Openings in Fire-isolated Exits	The doorways opening into the fire isolated exits are required to be protected by -/60/30 self-closing fire doors,	CRA
C3.9: Service Penetrations in Fire-isolated Exits	Fire-isolated exits may not be penetrated by any services except electrical wiring for lighting, intercom, and water supply pipes for fire services.	CRA
C3.10: Openings in Fire-isolated Lift Shafts	The lift doors are to have a FRL of no less than -/60/- and are to be in accordance with AS1735.11.	CRA
C3.11: Bounding Construction: Class 2, 3 and 4 Buildings	The doorways from the public corridors into the units, and any other rooms, such as a waste room, that open into a residential public corridor, are to be self-closing -/60/30 fire doors.	CRA
C3.12: Openings in Floors and Ceilings for Services	All services shafts are to have a FRL as specified in Part 4 of this report.	CRA
C3.13: Openings in Shafts	Access to any service shafts is to be through an access panel, or self-closing fire door, having a FRL of not less than -/60/30.	CRA
C3.15: Openings for Service Installations	Installations through fire rated walls, floors and other elements are to be protected via a method having a FRL relative to the wall they are penetrating.	CRA
C3.16: Construction Joints	Joints are to have the required FRL with respect to integrity and insulation relative to the building element they are joining. Structural Engineer to certify at CC stage.	CRA
C3.17: Columns Protected with Lightweight Construction to Achieve an FRL	It is considered that all columns will be of concrete construction and therefore will have sufficient fire resistance without the need for light weight construction to provide a FRL. Structural Engineer to certify at construction stage.	Noted

SPECIFICATION C1.1 – FIRE-RESISTING CONSTRUCTION		
2.0: General Requirements	Noted	-
2.1: Exposure to Fire-Source Features	The building is exposed to the western boundary. The remainder of the building is not exposed to any fire source features. Regardless, however, of the level of exposure to a fire source feature all load-bearing elements are to have a FRL as the building is required to be of Type A Construction.	Noted
2.2: Fire Protection for a Support of Another Part	Where a part of a building required to have an FRL depends upon direct vertical or lateral support from another part to maintain its FRL, that supporting part must have an FRL not less than that required by other provisions of this Specification; and if located within the same fire compartment as the part it supports have an FRL in respect of structural adequacy the greater of that required for the supporting part itself; and for the part it supports.	Noted
2.3: Lintels	A lintel must have the FRL required for the part of the building in which it is situated, unless it does not contribute to the support of a fire door, fire window or fire shutter, and it spans an opening in masonry which is not more than 150 mm thick and is not more than 3m wide if the masonry is non- loadbearing; or not more than 1.8m wide if the masonry is loadbearing and part of a solid wall or one of the leaves of a cavity wall or is located in a non-loadbearing part of the Class 2 portion of the building.	CRA
2.4: Attachments Not to Impair Fire-resistance	All attachments proposed to the external façade of the building are to be of non combustible materials that are permitted by this clause. Further details of the attachments to the external façade shown on design documentation to be provided for compliance assessment at CC stage.	CRA
2.5: General Concessions	No concessions applicable to subject development.	N/A
2.6: Mezzanine Floors: Concession	No mezzanines proposed.	N/A
2.7: Enclosure of Shafts	Fire rated shafts are required to be enclosed, at the top and bottom, with construction having a FRL required for the walls of a non-load-bearing shaft in the same building, unless the shaft extends beyond the roof covering, with the exception of fire isolated stair and lift shafts that are to have lids with a FRL regardless.	CRA
2.8: Carparks in Class 2 and 3 Buildings	Concession not available due to mixed use of building.	Noted
3.0: Type A Fire-resisting Construction	Noted	-
3.1: Fire-resistance of Building Elements	For fire resistance levels of the building elements see Part 4 of this report for details on required FRL's.	CRA
3.2: Concessions for Floors	The basement level 6 floor, which is directly on the ground, and floors entirely within residential units (2 storey units) do not required a FRL.	Noted
3.3: Floor Loading of Class 5 and 9b Buildings: Concession	This concession is available, to be further assessed at CC stage.	CRA
3.4: Roof Superimposed on Concrete Slab: Concession	If the roof is super imposed on a concrete slab it will not need a FRL if the superimposed roof is non-combustible and the concrete slab roof complies with Table 3 of Specification C1.1.	Noted
3.5: Roof: Concession	This concession is available, to be further assessed at CC stage.	CRA
3.6: Rooflights	No roof lights currently proposed to development.	N/A
3.7: Internal Columns and Walls: Concession	The loadbearing internal columns and walls, except fire walls and shaft walls, to the areas of building immediately below a roof may have a reduced FRL of 60/60/60 if the roof above complies with the concession granted by Clause 3.5 of Specification C1.1	CRA
3.9: Carparks	This concession is noted; however it is not expected to be used due to the size of the building.	Noted

SECTION D: ACCESS AND EGRESS		
PART D1 – PROVISION FOR ESCAPE		
D1.0: Deemed-to-Satisfy Provisions	Noted	-
D1.1: Application of Part	Noted	-
D1.2: Number of Exits Required	Sufficient exits proposed with two exits to all areas of the building, the exits from the ground floor retail spaces will need to be clarified at the CC stage as currently there is insufficient detail on the openings to the shop fronts.	CRA
D1.3: When Fire-Isolated Stairways and Ramps are Required	All stairways are required to be fire-isolated stairways.	AS See Part 5 of this Report
D1.4: Exit Travel Distances	Exit travel distances are satisfactory subject to appropriate latching to doorways in a path of travel, with the exception of the travel distance to a number of residential units.	AS See Part 5 of this Report
D1.5: Distance Between Alternative Exits	Distances between alternative exits satisfactory subject to appropriate latching to doorways in a path of travel.	CRA
D1.6: Dimensions of Exits and Paths of Travel to Exits	The exits and paths of travel are to be a minimum of 1m in width.	CRA
D1.7: Travel via Fire-Isolated Exits	The discharge of the fire-isolated exit through the ruins will form part of an Alternate Solution at the CC stage of the development.	AS See Part 5 of this Report
D1.9: Travel by Non Fire-Isolated Stairways or Ramps	The non-fire-isolated stairway to the commercial area will be the subject of an Alternate Solution at the CC stage of the development.	AS See Part 5 of this Report
D1.10: Discharge from Exits	Discharge points from exits and external pathways are to be protected from being blocked by vehicles and are to have stairways and where ramped, ramps are to have a gradient of no more than 1:14 ramped if required.	CRA
D1.11: Horizontal Exits	No horizontal exits proposed.	Noted
D1.12: Non-Required Stairways, Ramps or Escalators	No required stairways have been considered as non-fire-isolated.	Noted
D1.13: Number of Persons Accommodated	Based on the floor areas of each area and the ratio give in BCA Table D1.13 the following population loads have been calculated: • Basement Levels – Transitory population from carpark levels, the population of these levels is expected to be less than 200 people per storey moving through these areas. • Ground retail – less than 100 people per tenancy. • Commercial areas – less than 100 people per storey. • Assembly area – less than 100 people. • The population of the residential areas is considered to be less than 100 persons per stair shaft to the residential areas.	Noted
D1.14: Measurement of Distances	Information only.	Noted
D1.15: Method of Measurement	Information only.	Noted
D1.16: Plant Rooms and Lift Motor Rooms: Concession	Plant rooms are located on floor levels therefore this concession is not required with access direct to the plant rooms via compliant stairways.	N/A
D1.17: Access to Lift Pits	Access to the lift pit is assumed to be through the bottom landing doors as the pit is assumed to be less than 3m deep.	CRA
PART D2 – CONSTRUCTION OF EXITS		
D2.0: Deemed-to-Satisfy Provisions	Noted	-
D2.1: Application of Part	Noted	-
D2.2: Fire-Isolated Stairways and Ramps	It is assumed that the fire isolated stairways will be constructed of reinforced concrete and therefore comply. The structural engineer is to certify that the shaft will withstand a local failure at CC stage.	CRA
D2.3: Non-Fire-Isolated Stairways and Ramps	The non-fire-isolated stairway to the commercial area is to comply with this clause.	CRA
D2.4: Separation of Rising and Descending Stair Flights	Rising and descending stairs are separated. Separating construction to comply with this clause.	CRA
D2.7: Installations in Exits and Paths of Travel	Electrical and comms cupboards located in corridors are to be enclosed in non-combustible construction and smoke sealed.	CRA

D2.8: Enclosure of Space Under Stairs and Ramps	No enclosures proposed beneath any stairs.	Complies
D2.9: Width of Stairways	The stairways are to be a minimum of 1m in clear width.	CRA
D2.10: Pedestrian Ramps	Ramps are to comply with AS1428.1 and have a non-slip finish.	CRA
D2.11: Fire-Isolated Passageways	The fire-isolated passageways at the bottom of the fire-isolated stairways are to have a FRL of no less than that required for the fire-isolated stairway that they serve. The FRL may be measured from the outside of the passageway only.	CRA
D2.12: Roof as Open Space	The small area of roof to the north of the building that forms open space is to have a FRL of not less than 120/120/120 and there are to be no openings through the roof as open space areas can within 3m from the path of travel in these areas.	CRA
D2.13: Goings and Risers	Stair geometry to all stairs throughout the development to comply with Table D2.13.	CRA
D2.14: Landings	Landings are to have a non-slip finish.	CRA
D2.15: Thresholds	No details of thresholds. Thresholds to comply with this clause.	CRA
D2.16: Balustrades or Other Barriers	Balustrades are required to be 1m above the floor of any balcony, path or the like. Details of the dimensions and configurations of the balustrading to the stairways and balconies have not been supplied at this stage.	CRA
D2.17: Handrails	Handrails are to be provided to a least one side of all stairways and both sides where required for disabled access.	CRA
D2.18: Fixed Platforms, Walkways Stairways and Ladders	Plant rooms are located on floor levels or accessible roof level therefore this concession is not required.	Noted
D2.19: Doorways and Doors	Exit doors are shown to be swinging doors generally. Any automatic sliding doors forming required exits to the building are to comply with this clause, to be confirmed at CC stage.	CRA
D2.20: Swinging Doors	Swinging doors shown to swing in the direction of egress.	Complies
D2.21: Operation of Latch	Latching mechanisms to required exit doors are to be readily openable with a single handed downward or pushing motion, as are the latches to doors in a path of travel and are to comply with this clause.	CRA
D2.22: Re-entry from Fire-Isolated Exits	Re-entry from the fire-isolated stairway to comply with this clause, to be confirmed at the CC stage.	CRA
D2.23: Signs on Doors	Required signage is to be located on all fire and smoke doors stating "Fire Safety, Do Not Obstruct, Do Not Keep Open" and the discharge door from the fire isolated stairways are to state "Fire Safety Door – Do Not Obstruct" in capital letters not less than 20mm in height.	CRA
PART D3 - ACCESS FOR PEOPLE WITH DISABILITIES		
D3.0: Deemed-to-Satisfy Provisions	Noted	-
D3.1: Application of Part	Noted	-
D3.2: General Building Access Requirements	Access for people with disabilities to be provided under the current BCA to the retail, commercial and assembly areas of the building.	CRA
D3.3: Parts of Buildings to be Accessible	The building is capable of being compliant, to be further assessed at the CC stage of the development.	CRA
D3.4: Concessions	Concessions noted.	Noted
D3.5: Car Parking	1 accessible carparking space is proposed per 50 carparking spaces provided.	Complies
D3.6: Identification of Accessible Facilities, Services and Features	Braille and tactile signage complying with Specification D3.6 and incorporating the international symbols as appropriate must identify each sanitary facility and all accessible entrances where an entrance is not accessible.	CRA
D3.8: Tactile Indicators	Tactile indicators are to be located at the top and bottom of all stairways and ramps, except the fire-isolated stairways.	CRA

SECTION E: SERVICES AND EQUIPMENT		
PART E1 – FIRE FIGHTING EQUIPMENT		
E1.0: Deemed-to-Satisfy Provisions	Noted	-
E1.3: Fire Hydrants	The building is to be provided with fire hydrants in accordance with this clause and AS2419.1. Hydraulic engineer to certify at the CC stage. Regarding the location of the fire hydrant booster there is a technical non-compliance that may be resolved at the CC stage with an alternate solution.	CRA/ AS See Part 5 of this Report
E1.4: Fire Hose Reels	The building is to be provided with fire hose reels in accordance with this clause and AS2441. Hydraulic engineer to certify at the CC stage. Fire hose reels are to be within 4m of an exit, this is to be confirmed at the CC stage of the development.	CRA
E1.5: Sprinklers	The entire building is to be provided with sprinklers due to the number of vehicles accommodated and the effective height.	CRA
E1.6: Portable Fire Extinguishers	The building is to be provided with extinguishers in accordance with this clause and AS2444.	CRA
E1.8: Fire Control Centres	The building is to be provided with a fire control centre compliant with Specification E1.8. Due to the height of the building the fire control centre is to be a room. A fire control room is shown to the ground floor adjacent to the central residential lobby.	CRA
E1.9: Fire Precautions During Construction	Information only. Whilst the building is under construction there is to be not less than one fire extinguisher provided at all times to each storey. Once the building has reached an effective height of over 12m the hydrants and hose reels and booster connections must be operational to all levels except the 2 uppermost storeys under construction.	Noted
PART E2 – SMOKE HAZARD MANAGEMENT		
E2.0: Deemed-to-Satisfy Provisions	Noted	-
E2.1: Application of Part	Noted	-
E2.2: General Requirements (including Tables E2.2a and E2.2b)	The fire-isolated stairways to all levels are to be pressurised in accordance with AS1668.1. Under Clause E1.5 the entire building is to be sprinkler protected. The residential areas are to be provided with an automatic smoke detection and alarm system compliant with Specification E2.2a. The retail, commercial and assembly spaces are to be provided with a zone smoke control system in accordance with AS1668.1. The air-conditioning to the Class 9b portion of Level 1 is to automatically shut down on fire trip. The carparking levels are to have a mechanical system in accordance with AS1668.2 and Section 5 of AS1668.1 except as modified by this clause in the BCA. All to be confirmed at the CC stage of the development.	CRA
PART E3 – LIFT INSTALLATIONS		
E3.0: Deemed-to-Satisfy Provisions	Noted	-
E3.2: Stretcher Facility in Lifts	At least one emergency lift is to have a stretcher facility.	CRA
E3.3: Warning Against Use of Lifts in Fire	Warnings against using the lifts in the event of a fire must be provided in accordance with this clause.	CRA
E3.4: Emergency Lifts	Emergency lifts to be provided in accordance with this clause.	CRA
E3.5: Landings	Lift landing dimensions are satisfactory.	Complies
E3.6: Facilities for People with Disabilities	The lifts are required by the BCA to comply with AS1735.12 for disabled access.	CRA
E3.7: Fire Service Controls	Fire services controls are required to the residential lifts if the building has an effective height exceeding 12m.	CRA

SECTION E: SERVICES AND EQUIPMENT		
PART E4 – EMERGENCY LIGHTING, EXIT SIGNS AND WARNING SYSTEMS		
E4.0: Deemed-to-Satisfy Provisions	Noted	-
E4.2: Emergency Lighting Requirements	Emergency lighting is to be installed in accordance with this clause. Electrical engineer to certify at CC stage.	CRA
E4.3: Measurement of Distance	Information only.	Noted
E4.4: Design and Operation of Emergency Lighting	Emergency lighting is to comply with AS 2293.1-2005. Electrical engineer to certify at CC stage.	CRA
E4.5: Exit Signs	Exits signs are to be provided above or adjacent to a door providing egress to a required exit. Electrical engineer to certify at CC stage.	CRA
E4.6: Direction Signs	Where an exit is not readily apparent a directional sign is to be installed indicating the direction of egress.	CRA
E4.7: Class 2 and 3 Buildings and Class 4 Parts: Exemptions	The doorways to each SOU are exempt from E4.5 of the BCA.	Noted
E4.8: Design and Operation of Exit Signs	Exit and directional signage is to comply with AS 2293.1-2005. Electrical engineer to certify at CC stage.	CRA
E4.9: Sound Systems and Intercom Systems for Emergency Purposes	A SSISE is required in the building.	CRA

SECTION F: HEALTH AND AMENITY		
PART F1 – DAMP AND WEATHERPROOFING		
F1.0: Deemed-to-Satisfy Provisions	Noted	-
F1.1: Stormwater Drainage	Stormwater drainage to comply with AS 3500.3.2.	CRA
F1.5: Roof Coverings		
F1.6: Sarking	The sarking is to comply with AS 4200.	CRA
F1.7: Water Proofing of Wet Areas in Buildings	Waterproofing to wet areas to comply with AS 3740.	CRA
F1.9: Damp-proofing	Moisture is to be prevented from reaching the walls above a damp-proof course, and the underside of the suspended floors.	CRA
F1.10: Damp-proofing of Floors on the Ground	A vapour barrier in accordance with AS 2870 must be installed.	CRA
F1.11: Provision of Floor Wastes	In the residential units the bathrooms are to be graded to a floor waste.	CRA
F1.13: Glazed Assemblies	Glazed assemblies are to comply with AS 2047 and AS 1288.	CRA
PART F2 – SANITARY AND OTHER FACILITIES		
F2.0: Deemed-to-Satisfy Provisions	Noted	-
F2.1: Facilities in Residential Buildings (including Table F2.1)	Sufficient facilities indicated.	Complies
F2.2: Calculation of Number of Occupants and Facilities	Noted.	Noted
F2.3: Facilities in Class 3 to 9 Buildings (including Table F2.3)	Numbers of facilities have not been indicated at this stage. To be confirmed at the CC stage.	CRA
F2.4: Facilities for People with Disabilities (including Table F2.4)	Numbers of facilities have not been indicated at this stage. To be confirmed at the CC stage.	CRA
F2.5: Construction of Sanitary Compartments	Where the pans to the bathroom areas are within 1.2m of the doorway with the doorway swinging inwards. In these instances the doors are to be removable from outside the bathroom.	CRA
F2.6: Interpretation: Urinals and Washbasins	For Information only.	Noted
PART F3 – ROOM SIZES		
F3.0: Deemed-to-Satisfy Provisions	Noted	-
F3.1: Height of Rooms and Other Spaces	Habitable room heights are to be a minimum of 2.4m, to the kitchen, laundry and passageways 2.1m, in the residential areas of the building. The commercial, retail and assembly areas are to have a minimum ceiling height of 2.4m. The carparking area is to have a minimum ceiling height of 2.5m to meet the increased height for disabled access where accessible parking is available and 2.1 in other areas. To be confirmed at the CC stage of the development.	CRA

PART F4 – LIGHT AND VENTILATION		
F4.0: Deemed-to-Satisfy Provisions	Noted	-
F4.1: Provision of Natural Light	Natural light is required to all habitable areas within the residential units.	CRA
F4.2: Methods and Extent of Natural Lighting	Natural light is to be provided through windows that have an aggregate light transmitting area of 10% of the floor area of the room. To be confirmed at the CC stage of the development.	CRA
F4.3: Natural Light Borrowed From Adjoining Room	Natural light may be borrowed from adjoining rooms within the same unit.	CRA
F4.4: Artificial Lighting	Lighting to all areas is to comply with AS 1680.0.	CRA
F4.5: Ventilation of Rooms	Natural or mechanical ventilation, complying with AS1668.1, will be provided to the residential areas and mechanical ventilation is assumed to be provided to the ground floor level shops to comply with AS 1668.2.	CRA
F4.6: Natural Ventilation	Natural ventilation where proposed is to be provided via windows having an aggregate opening of not less than 5% of the floor area of the room.	CRA
F4.7: Ventilation Borrowed From Adjoining Room	Ventilation may be borrowed from adjoining rooms.	Noted
F4.8: Restriction on Position of Water Closets and Urinals	It is assumed that all bathrooms, ensuites and WC's will be mechanically exhausted.	CRA
F4.9: Airlocks	It is assumed that all bathrooms, ensuites and WC's will be mechanically exhausted.	CRA
F4.11: Carparks	Ventilation complying with AS 1668.2-1991 is to be provided to the carpark.	CRA
F4.12: Kitchen Local Exhaust Ventilation	The fitout of any commercial kitchens are not within the scope of these works. The requirements of this clause are to be considered in the fitout of the commercial kitchens.	N/A
PART F5 – SOUND TRANSMISSION AND INSULATION		
F5.0: Deemed-to-Satisfy Provisions	Noted	-
F5.1: Application of Part	This part is applicable to the Class 2 portions of the building.	Noted
F5.2: Determination of Airborne Sound Insulation Ratings	Information only	Noted
F5.3: Determination of Impact Sound Insulation Ratings	A wall requiring an impact sound insulation rating is to be of non-continuous construction in the Class 2 portions of the building. To be certified the acoustic engineer at CC stage.	Noted
F5.4: Sound Insulation Rating of Floors	The floors must have a $R_w + C_{tr}$ (airborne) not less than 50 and an $L_{n,w} + C_1$ (impact) of not more than 62. To be certified at CC stage.	CRA
F5.5: Sound Insulation Rating of Walls	The walls separating the units must have a $R_w + C_{tr}$ (airborne) not less than 50 and where a kitchen backs onto a habitable room the wall is to comply with Clause F5.3, to be specified on the drawings. To be certified at CC stage.	CRA
F5.6: Sound Insulation Rating of Services	If a soil or waste pipe passes through more than one unit the pipe must be separated from the rooms with construction that has a $R_w + C_{tr}$ (airborne) not less than 40 if adjacent to a habitable room, or 25 if adjacent to a kitchen or other room. To be certified at CC stage.	CRA
F5.7: Sound Isolation of Pumps	A flexible coupling must be used at the point of connection between the service pipes and any circulation or other pump. To be certified at CC stage.	CRA
SECTION G: ANCILLARY PROVISIONS		
PART G1 - MINOR STRUCTURES AND COMPONENTS		
G1.0: Deemed-to-Satisfy Provisions	Noted	-
G1.1: Swimming Pools	Swimming pools in NSW are to provided with safety fencing as required by the Swimming Pools Act 1992, and a water recirculation system in a swimming pool must comply with AS1926.3, with the exception of spas which must comply with AS1926.3 except that the specified distance between two outlets connected to a common line may be not less than 600mm. To be assessed at the CC stage.	CRA

SECTION G: ANCILLARY PROVISIONS		
NSW G1.101: Provision for Cleaning of Windows	Provision for the safe cleaning of the windows is required to be provided to levels 3 and above. To be further assessed at CC stage.	CRA
PART G3 - ATRIUM CONSTRUCTION		
G3.1: Atriums Affected by this Part	The non-fire-isolated stair forms an atrium as it is not a stairwell within a shaft. Further as the void for the stairway connects three storeys in a sprinkler protected building but does not connect to a level with direct egress to a road or open space Part G3 applies. It is proposed that an alternate solution will be used to justify the non-compliances with this Part at the CC stage.	AS See Part 5 of this Report

SECTION I: MAINTENANCE		
PART I1 – EQUIPMENT AND SAFETY INSTALLATIONS		
I1.0: Deemed-to-Satisfy Provisions	Noted	-
NSW I1.1: Essential Fire Safety Measures	Essential fire or other safety measures must be maintained and certified on an ongoing basis.	Noted

SECTION J: ENERGY EFFICIENCY (Non-Residential Areas)		
PART J0 – ENERGY EFFICIENCY		
J0.1: Application of Section J	Noted	-
J0.2: Heating & Cooling Loads of SOU's to Class 2 & 4 parts	Not applicable in NSW.	Noted
J0.3: Ceiling Fans	Not applicable in NSW.	Noted
PART J1 – BUILDING FABRIC		
J1.0: Deemed-to-Satisfy Provisions	Noted	-
J1.1: Application of Part	This part is applicable to the Class 6 retail areas, Class 9b areas and the Class 5 commercial areas. The thermal envelope of the conditioned areas include all floors, walls and ceilings where shared with the outside and any unconditioned areas of the building such as the lift shaft, etc.	Noted
J1.2: Thermal Construction General	No details insulation must comply with AS4859.1 and be installed as per this clause. To be further assessed at CC Stage.	CRA
J1.3: Roof and Ceiling Construction	No details, the R-value as specified in Table J1.3 is to be provided, the minimum R-value will be 3.2 but may be increased based on adjustment factors of Table J1.3b. To be further assessed at CC stage.	CRA
J1.4: Roof Lights	No rooflights proposed.	CRA
J1.5: Walls	The walls forming part of the thermal envelope are to comply with Table J1.5. This will require an r-value of up to 2.8 in the walls. To be further assessed at CC stage.	CRA
J1.6: Floors	The slab separating the ground floor commercial area from the basement level carparks forms part of the thermal envelope of these areas, the floor will require an r-value of up to 2. To be further assessed at CC stage.	CRA
PART J2 – GLAZING		
J2.0: Deemed-to-Satisfy Provisions	Noted	-
J2.1: Application of Part	This part is applicable to the Class 6 retail areas, Class 9b areas and the Class 5 commercial areas. The thermal envelope of the conditioned areas include all floors, walls and ceilings where shared with the outside and any unconditioned areas of the building such as the lift shaft, etc.	Noted
J2.4: Glazing	Insufficient details of glazing proposed for use at this stage, to be further assessed at CC stage.	FI
J2.5: Shading	Shading is to be considered were applicable.	Noted

PART J3 – BUILDING SEALING		
J3.0: Deemed-to-Satisfy Provisions	Noted	-
J3.1: Application of Part	This part is applicable to the Class 6 retail areas, Class 9b areas and the Class 5 commercial areas. The thermal envelope of the conditioned areas include all floors, walls and ceilings where shared with the outside and any unconditioned areas of the building such as the lift shaft, etc.	Noted
J3.2: Chimneys and Flues	No chimneys or flues proposed.	N/A
J3.3: Roof Lights	No rooflights proposed.	N/A
J3.4: External Windows and Doors	The windows and doors must be sealed, or the windows may comply with AS2047. Main entry doors to the commercial areas are to be self-closing.	CRA
J3.5: Exhaust Fans	The exhaust fans to the sanitary facilities in the this portion of the building, and any other miscellaneous exhaust fans to other conditioned spaces, are to pre-fitted with a sealing device, such as a self-closing damper of the like.	CRA
J3.6: Construction of Roofs, Walls and Floors	The roof, walls, floors and any other openings, such as window or doors, are to be constructed to minimise air leakage by being enclosed by internal lining systems that are close fitting at ceiling, wall and floor junctions or are sealed by caulking, skirting, architraves, cornices or the like.	CRA
J3.7: Evaporative Coolers	Evaporative coolers are not proposed to be used in these buildings.	CRA
PART J4 – AIR MOVEMENT		
Deleted	Part J4 deleted in BCA2010	-
PART J5 – AIR-CONDITION AND VENTILATION SYSTEMS		
J5.0: Deemed-to-Satisfy Provisions	Noted	-
J5.2: Air-conditioning and Ventilation Systems	Air-conditioning and mechanical ventilation systems to comply with this clause, certification to be provided by mechanical engineer at the CC stage.	CRA
J5.3: Time Switch	Air-conditioning and mechanical ventilation systems to comply with this clause, certification to be provided by mechanical engineer at the CC stage.	CRA
J5.4: Heating and Chilling Systems	Air-conditioning to comply with this clause, certification to be provided by mechanical engineer at the CC stage.	CRA
J5.5: Miscellaneous Exhaust Systems	Exhaust systems to comply with this clause, certification to be provided by mechanical engineer at the CC stage.	CRA
PART J6 – ARTIFICIAL LIGHTING AND POWER		
J6.0: Deemed-to-Satisfy Provisions	This part applies to all non-residential areas.	Noted
J6.2: Artificial Lighting	Interior artificial lighting is to comply with this clause. Electrical engineer to certify at the CC stage.	CRA
J6.3: Interior Artificial Lighting and Power Control	Lighting controls are to be in accordance with this clause, which sets requirements on location of switching and sets limits on floor areas controlled by a switch.	CRA
J6.4: Interior Decorative and Display Lighting	Lighting falling under this clause is to be separately switched from other lighting, be under a manual switch and controlled with a time switch.	CRA
J6.5: Artificial Lighting Around the Perimeter of a Building	Perimeter lighting is to be controlled by a daylight sensor or time switch and where it exceeds 100W have an average light source density of 60 Lumens/W or be controlled by a motion sensor complying with Specification J6.	CRA
J6.6: Boiling Water and Chilled Water Storage Units	The power supply to a fixed boiling water or chilled water storage unit must be controlled by a time switch in accordance with Specification J6.	CRA
PART J7 – HOT WATER SUPPLY		
J7.0: Deemed-to-Satisfy Provisions	Noted	-
J7.2: Hot Water Supply	The hot water supply systems must be designed and installed in accordance with Section 8 of AS3500.4.	CRA
J7.3: Swimming Pool Heating and Pumping	Any heating for a swimming pool must be in accordance with this clause which sets out requirements for heating sources.	CRA

J7.4: Spa Pool Heating and Pumping	Spa pool heating and pumping is required to be in accordance with this clause.	CRA
PART J8 – ACCESS FOR MAINTENANCE		
J8.0: Deemed-to-Satisfy Provisions	Noted	-
J8.1: Application of Part		
NSW J8.2: Access for Maintenance	Access for maintenance must be provided to all services and their components including time switches, motion detectors, thermostats, outside air dampers, reflectors, lenses and diffusers of light fittings, heat transfer equipment and adjustable or motorised shading devices.	CRA
J8.3: Facilities for Energy Monitoring	A building with a floor area of more than 500m ² must have an energy monitoring facility to record the consumption of gas and electricity. A building with a floor area of more than 2500m ² must have the facility to individually record the consumption of air conditioning plant, artificial lighting, appliance power, central hot water supply, lifts, escalators and other ancillary plant.	CRA

SECTION J: ENERGY EFFICIENCY (Residential Area)		
NSW PART J(A)1 – BUILDING FABRIC		
NSW J(A)1.0: Deemed-to-Satisfy Provisions	Noted	-
NSW J(A)1.1: Application of Part	Applies to Class 2 Part where thermal insulation is required as a DA Condition.	Noted
NSW J(A)1.2: Compliance with BCA Provisions	To be included in the specification to AS/NZS4859.1 and Clause J1.2, for the Class 2 portion of the building. The installation certified by an appropriate consultant.	CRA
NSW PART J(A)2 – BUILDING SEALING		
NSW J(A)2.0: Deemed-to-Satisfy Provisions	Noted	-
NSW J(A)2.1: Application of Part	This part is applicable to the Class 2 portions of the building, excluding any rooms where a building ventilation opening is necessary for the safe operation of a gas appliance and portions of the building that cannot be fully enclosed.	Noted
NSW J(A)2.2: Compliance with BCA Provisions	Compliance is to be achieved with Clauses J3.2, J3.4, J3.5 and J3.6.	Noted
J3.2: Chimneys and Flues	No chimneys or flues currently proposed.	N/A
J3.3: Roof Lights	Rooflights are to be sealed.	CRA
J3.4: External Windows and Doors	The windows must be sealed, or comply with AS2047, and it is assumed that the doors to entry lobbies are self-closing doors.	CRA
J3.5: Exhaust Fans	No details, exhaust fans must be provided with a self-closing damper or the like.	CRA
J3.6: Construction of Roofs, Walls and Floors	Roofs, walls and floors must be sealed to minimise air leakage in accordance with this clause.	CRA
NSW PART J(A)3 – AIR-CONDITIONING AND VENTILATING SYSTEMS		
NSW J(A)3.0: Deemed-to-Satisfy Provisions	Noted	-
NSW J(A)3.1: Application of Part	Noted	-
NSW J(A)3.2: Compliance with BCA Provisions	Compliance is to be achieved with Clauses J5.2, J5.3, J5.4 and J5.5.	Noted
J5.2: Air-conditioning and Ventilation Systems	Air-conditioning to comply with this clause, certification to be provided by mechanical engineer at the CC stage.	CRA
J5.3: Time Switch	Air-conditioning to comply with this clause, certification to be provided by mechanical engineer at the CC stage.	CRA
J5.4: Heating and Chilling Systems	Air-conditioning to comply with this clause, certification to be provided by mechanical engineer at the CC stage.	CRA
J5.5: Miscellaneous Exhaust Systems	Exhaust systems to comply with this clause, certification to be provided by mechanical engineer at the CC stage.	CRA

NSW PART J(A)4 – HOT WATER SUPPLY		
NSW J(A)4.0: Deemed-to-Satisfy Provisions	Noted	-
NSW J(A)4.1: Application of Part	Noted	-
NSW J(A)4.2: Compliance with BCA Provisions	The hot water supply system must comply with Clause J7.2.	Noted
J7.2: Hot Water Supply	The hot water supply systems must be designed and installed in accordance with Section 8 of AS3500.4.	CRA
NSW PART J(A)5 – ACCESS FOR MAINTENANCE		
NSW J(A)5.0: Deemed-to-Satisfy Provisions	Noted	-
NSW J(A)5.1: Application of Part	Access for maintenance of equipment is to be provided within common areas.	CRA
NSW J(A)5.2: Access for Maintenance	Access for maintenance of equipment is to be provided within common areas.	CRA

ANNEXURE C

BCA2011 ACCESS FOR PEOPLE WITH A DISABILITY NOTICE OF CHANGES

ANNEXURE C – BCA2011 ACCESS FOR PEOPLE WITH A DISABILITY – BCA2011 PART D3

1.0 Introduction

As of 1st May 2011 both the provisions of the Disability (Access to Premises – Buildings) Standards 2010 and the updated 2011 version of the Building Code of Australia on 1 May 2011 will take effect.

The Disability Standard commonly known as the “Premises Standards” will take effect subject to amendments to the *Disability Discrimination Act*, 1992 which are listed to take effect on the 1st of May 2011.

The Premises Standards requires that a building certifier, building developer or building manager of a relevant building must ensure that the building complies with the provisions of the *Access Code*.

The Building Code of Australia 2011 (BCA2011) has been released in draft format for public comment and it is expected that the provisions of the “Premises Standards” will be incorporated into BCA2011 as detailed in the draft for public comment. Should you require it a copy of the draft for public comment of BCA2011 is available on the Australian Building Codes website, or alternatively a copy can be requested from our office.

On this basis it is expected that all developments subject to application for a Construction Certificate after 1st May 2011 will therefore need to comply with the provisions of the Premises Standards, the Access Code and the updated version of BCA2011 which will contain updated access requirements.

In addition to the above likely amendments to the BCA2011, it is also confirmed that the 2009 version of AS1428.1 (AS1428.1-2009) will be referenced within BCA2011. AS1428.1-2009 contains increased requirements from the 2001 version of AS1428.1 which will also require further consideration for future building developments.

The following is a brief summary of the proposed changes to the BCA in regards to access for people with a disability as detailed in the draft for public comment of BCA2011 and the “Premises Standards”.

2.0 General Building Access Requirements

2.1 Buildings to Which Standards Apply

The provisions of the Premises Standards apply to new buildings and only parts of existing buildings that are affected by the proposed development works.

The Premises Standard will generally apply to all classes of building except:-

- a) Internal Parts of a class 2 sole occupancy building (within meaning of the Access Code)
- b) Class 10 buildings where associated with a class 1 building or class 4 part of building

2.2 Access Provisions – Clause D3.1

The likely access provisions to be incorporated within the provisions of BCA2011 include the following amendments to these classes of buildings:-

Class 1b

Where more than 4 dwellings are located on the one allotment used for short term holiday accommodation – to and within at least 1 dwelling and increasing with number of dwellings

Within boarding houses, B&Bs, guest houses etc to and within one(1) bedroom and associated sanitary facility and to within common areas.

Class 2 – Residential Buildings

From a pedestrian entrance *required* to be *accessible* to the common areas of at least 1 floor containing *sole-occupancy units* and to not less than 1 of each type of room or space for use in common by the residents, such as a cooking facility, sauna, gymnasium, *swimming pool*, common laundry, games room, individual shop, eating area, or the like.

Where a passenger lift or ramp is installed access it to be provided to the entrance doorway of each *sole-occupancy unit*; and to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp.

Class 3 and 9c – Common Areas

From a pedestrian entrance *required* to be *accessible* to at least 1 floor containing *sole-occupancy units* and to the entrance doorway of each *sole-occupancy unit* located on that level. To and within rooms or spaces for use in common by the residents and any facility required to be accessible; and located on the levels served by the lift or ramp.

Where a ramp complying with AS 1428.1 or a passenger lift is installed access is required to the entrance doorway of each *sole-occupancy unit*; and the common areas on the storey incorporating the principal public entrance.

Class 3 and 9c– Sole Occupancy Units

Increased requirements have been applied to the provision of accessible *sole occupancy units* which include increased required numbers of accessible units and that accessible units are to be spread out across the building and room types.

Class 5-9

Access is required to and within all areas and levels used by the occupants.

Note: There is no requirement to provide access for people with a disability to all levels (other than to the entrance level) to a class 5, 6, 7b or 8 building containing less than 3 storeys and where the upper levels have a floor area of not more than 200m²

Class 10a Building

To and within buildings containing an accessible sanitary facility, change room facility, public shelter or the like.

Class 10b – Swimming Pool

To and into *swimming pools* with a total perimeter greater than 40m, associated with a Class 1b, 2, 3, 5, 6, 7, 8 or 9 building that is *required* to be *accessible*, but not *swimming pools* for the exclusive use of occupants of a Class 1b building or a *sole-occupancy unit* in a Class 2 or Class 3 building.

3.0 Access Requirements to Buildings

Access – Clauses D3.2 and D3.3

Where a building is required to be accessible, access must be provided to the principal pedestrian entrance and through not less than 50% of all entrances. Furthermore, in a building with a floor area of more than 500m², a pedestrian entrance which is not accessible must not be located more than 50m from an accessible entrance.

Doorways must have a clear opening width of not less than 850 mm in accordance with AS 1428.1-2009.

Accessways within a building must have passing spaces at maximum 20m intervals in accordance with AS1428.1-2009 and have turning spaces provided within 2m of the end of accessways where it is not possible to continue along the accessway.

Signage – Clause D3.6

Updated signage requirements throughout the building.

Hearing Augmentation – Clause D3.7

Updated hearing augmentation system requirements for class 9b buildings that are proposed to have an inbuilt amplification system. A hearing augmentation system will now be required to have increased coverage to not less than 80% of floor area of the building. (Where an induction loop system is used)

Tactile Indicators – Clause D3.8

Updated requirements for installation of tactile ground surface indicators throughout the building.

Wheelchair seating spaces within class 9b Assembly Buildings – Clause D3.9

New requirements for location of wheelchair seating spaces, such as they must not all be located in the front row of seats where there are less than 300 seats.

Swimming Pools – Clause D3.10

Where a swimming pool has a perimeter of more than 70m in length, access must be provided by a fixed or moveable ramp, zero depth entry or a platform swimming pool lift and aquatic wheelchair.

Ramps – Clause D3.11

A series of connected ramps must not have a combined vertical rise of more than 3.6 metres.

Lifts – Clause E3.6

All passenger lifts within a building are required to be an accessible lift, however the BCA now allows under the DTS provisions the use of more types of lifts, other than only passenger lifts, to provide accessibility. New lifts permitted include stairway platform lifts and inclined lifts.

Sanitary Facilities – Clause F2.4

Updated and increased requirements for accessible sanitary facilities form part of the proposal for BCA2011. These include:

- An ambulant disabled facility must be provided at each bank of toilets in addition to an accessible unisex sanitary compartment.
- An accessible sanitary facility must have a shelf or benchtop.
- Where two or more accessible sanitary facilities are provided they must be both left hand and right hand facilities.
- Accessible sanitary facilities must be provided on each level of a building where a bank of sanitary facilities is provided.
- In a Class 5-9 building where a storey has more than 1 bank of sanitary compartments, containing male and female sanitary compartments, an accessible sanitary facility is to be provided at not less than 50% of those banks.
- In a Class 2 building where a caretaker's toilet facility is provided it must be an accessible sanitary facility.

Carparking – Clause D3.5

AS2890.6 will be called up in BCA2011. Further a disabled accessible carparking space will now be required to have a shared area of 2400mm width adjacent to the disabled accessible carspace, therefore a total minimum width of 4800mm x 5400mm length is required. Where a second disabled accessible carspace is provided, it may also use the shared area between car spaces.

