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BUILDING CODE OF AUSTRALIA ASSESSMENT REPORT

Project:	1 Lawson Square, Redfern

Client: Lawson Square P/L
Report: re121957.03
Date: 2 December 2015

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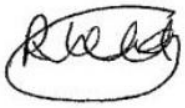
Report Revision History
Report No: **re121957.03**

Revision	Date Issued	Comment	Prepared By	Verified By
00	31.10.12	Draft issue for comment	Alison Domenici	Brendan Bennett
01	02.11.12	Issued Report	Alison Domenici 	Brendan Bennett 
02	12.12.12	Revised Report issued	Alison Domenici 	Brendan Bennett 
03	03.12.15	Revised Report for s96 submission	Rachael Telling 	Brendan Bennett 

1.0 INTRODUCTION

1.1 General

The subject site has two existing buildings known as Tower 1 and Tower 2, 1 Lawson Square, Redfern. The two buildings have previously been approved to separate the two towers apart from basement level, provided a new vehicle ramp to the basement carpark and add an additional six storeys to each tower.

This report serves as an assessment for compliance with the Building Code of Australia for the proposed amendments within the assessed Section 96 drawing package including:

- Revised facades and floorplate to retain and reuse the existing structure. Unit layouts, mix and areas have been amended to reflect these changes
- Revised articulation and materiality to facades. Northern elevation to comprise of balconies spanning between concrete and marble-clad blades, glazing and glass reinforced concrete infill panels are proposed to the east, west and south facades
- Existing substation to be replaced by dual substation chambers at ground floor
- Revised carpark driveway and building entrances at ground floor
- Revised levels to match existing building levels (overall building height will remain unchanged)

1.2 Purpose of the Report

This report has been prepared, on behalf of Lawson Square P/L, to establish compliance to the Building Code of Australia and relevant Acts and Regulations of the development application documentation for the proposed works.

1.3 Report Basis

This report is based on:

i. Architectural plans prepared by Candalepas Associates & Wendy Lewin, as identified in the attached Appendix 1.
ii. The Building Code of Australia 2015, inclusive of NSW variations (See Note 1).
iii. Environmental Planning and Assessment Act 1979.
iv. Environmental Planning and Assessment Regulation 2000.

Notes (1) Building Code of Australia (BCA) 2015 was adopted in NSW on 1 May 2015. The amendment of the BCA in force at the date of lodgement of a Construction Certificate is the version called up by Clause 98 of the Environmental Planning & Assessment Regulation 2000 for the purpose of the building design. Therefore comments may be subject to changes to comply with updated versions of the Building Code of Australia.

1.4 Exclusions & Limitations

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

i. Structural design.
ii. The Disability Discrimination Act 1992 (access for people with disabilities has been assessed in accordance with Part D3 of the BCA, however additional measures may be required to be provided subject to the Disability Discrimination Act 1992)
iii. Disability (Access to Premises – Building) Standards 2010.

2.0 BUILDING CODE OF AUSTRALIA ASSESSMENT

2.1 Classification (A3.2)

The proposed building consists of;

	TOWER 1	TOWER 2
Basement:	Class 7a Carpark	Class 7a Carpark
Ground:	Class 6 Retail	Class 6 Commercial
Level 1:	Class 1 Residential	Class 6 Commercial
Levels 2-4	Class 2 Residential	Class 6 Commercial
Levels 5-17	Class 2 Residential	Class 2 Residential

2.2 Effective Height (A1.1)

The proposed building will have an effective height of greater than 25m.

2.3 Rise in Storeys (C1.2)

The proposed building will consist of a rise in storeys of eighteen (18).

2.4 Type of Construction (C1.1)

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

3.0 BUILDING CODE OF AUSTRALIA ASSESSMENT

3.1 Structure (BCA Section B)

BCA Clause	Title	Assessment and Comment	Status
B1.1	Resistance to actions	The resistance of the building must be greater than the most critical action effects resulting from different combinations of actions.	Note
B1.2	Determination of individual actions	The building is to be designed and constructed to accommodate the magnitude of individual actions generally covering; (a) Permanent actions (b) Imposed actions (c) Wind, snow and ice and earthquake actions (d) Other specified actions A structural engineer is to provide design certification at the Construction Certificate stage that the new building has been designed to the relevant structural standards and maintain appropriate supervision during construction to certify that the structure has been constructed in accordance with the design. A structural engineer is to provide design certification at the Construction Certificate stage that the existing building is capable of supporting the additional storeys that are proposed.	The proposed building is capable of complying
B1.4	Determination of structural resistance of materials & forms of construction	The structural resistance of the following materials and forms of construction must be determined; (a) Masonry (b) Concrete construction (c) Steel construction (d) Composite steel and concrete (e) Aluminium construction (f) Timber construction (g) Piling (h) Glazing assemblies (i) Termite risk management (j) Roof construction (k) Particleboard structural flooring (l) Lift shafts not required to have an FRL A structural engineer is to provide design certification at the Construction Certificate stage that the building has been designed to the relevant structural standards and maintain appropriate supervision during construction to certify that the structure has been constructed in accordance with the design. The existing building structure is to be suitably certified at Construction Certificate stage.	The proposed building is capable of complying
B1.5	Structural software	Design software under this clause is not applicable to this building.	Not Applicable
B1.6	Construction of buildings in flood hazard areas	A Class building in a flood hazard area must comply with the ABCB Standard for Construction of Buildings in Flood Hazard Areas.	Note

3.2 Fire Resistance (BCA Section C)

BCA Clause	Title	Assessment and Comment	Status
C1.1	Type of construction required	The type of fire resisting construction applicable is Type A construction. Type A construction is the highest of the fire resistant of the types of construction. The minimum FRL's are to be achieved as specified in Specification C1.1 and detailed in Section 3.3 of this report.	The proposed building is capable of complying
C1.2	Calculation in rise in storeys	The rise in storeys is the sum of the greatest number of storeys at any part of the external wall of the building. The building contains a RIS of 18 storeys.	Note
C1.8	Lightweight construction	Any proposed lightweight construction shall be designed and installed to comply with the provisions of Specification C1.8 and satisfy the relevant tests.	The proposed building is capable of complying
C1.10	Fire hazard properties	Proposed floor materials, floor coverings, wall and ceiling lining materials are to be selected to comply with the required fire hazard properties of Specification C1.10 & C1.10a. Evidence of compliance (test certificates) shall be obtained from the supplier or manufacturer.	The proposed building is capable of complying
C1.11	Performance of external wall in fire	The building has a rise in storeys of more than 2 and the requirements of this provision do not apply.	Not Applicable
C1.12	Non-combustible materials	Materials identified within this clause may be used wherever a non-combustible material is required.	Note
C2.2	General floor area and volume limitations	The building complies with the general floor area and volume limitations identified by this clause. The Class 6 space spaning from ground to Level 4 within Tower 2 is less than 5000m2 and 30000m3 volume.	The proposed building complies
C2.6	Vertical separation of openings in external walls	Sprinkler protection is provided throughout the building therefore spandrel protection not applicable.	Not Applicable
C2.7	Separation by fire walls	The two towers, if proposed to subdivide the buildings to act as two separate buildings, the buildings will be required to be fire separated by a fire wall at the basement. The fire wall should have the FRL indicated under C1.1 and continue to the roof formed by the podium between the two buildings at ground floor. Alternatively a fire engineered solution may be sought to justify the basement roof (horizontal fire separation) being used as a fire wall to provide the separation between the two buildings. Construction documentation should demonstrate compliance.	The proposed building is capable of complying with the performance requirements of the BCA.
C2.8	Separation of classifications in the same storey	The proposed commercial tenancy to the ground floor of Tower 2 has a lesser FRL requirement than the adjacent retail area. Either it should be fire separated by a fire wall of 180/180/180 or FRL's thoughout the ground floor should be increase to achieve the higher FRLs required by retail use.	The proposed building is capable of complying
C2.9	Separation of classifications in different stories	The floors between parts of different classifications must have an FRL of not less than that prescribed in Specification C1.1 for the classification of the lower storey. The existing floor FRL's are not known at this point. Where required a fire engineered solution may be able to justify the existing floor FRL, if a lesser FRL, with meeting the performance requirements of the BCA.	The proposed building is capable of complying with the performance requirements of the BCA.

BCA Clause	Title	Assessment and Comment	Status
C2.10	Separation of lift shafts	The lift shaft is required to be separated from the rest of the building with walls having an FRL of not less than that required by Table 3 of Specification C1.1. The new arrangements are able to comply. The existing FRL's of the lift construction is not known. Generally the proposed change of use to the levels attract a lesser FRL requirement than the use was previously however the only area which attracts a higher FRL due to its change of use is the ground storey on Tower 2 which has partly changed its classification to a Class 6 (retail) from a Class 9b (college). The existing lifts FRL to the ground level to Tower 2 to be assessed by a suitably qualified fire engineer to ensure that the new retail use which attracts a higher FRL classification of 180/180/180 than the previous college, is able to achieve this FRL. Alternatively a fire engineered solution may be able to justify a lesser FRL meeting the performance requirements of the BCA.	The proposed building is capable of complying with the performance requirements of the BCA.
C2.11	Stairways and lifts in one shaft	The stairs and lift shaft are located in different shafts and the requirements of this provision do not apply.	The building complies
C2.12	Separation of equipment	The following rooms are required to be fire separated from the remainder of the building by 120/120/120 FRL construction: • Lift motor rooms and lift control panels. • Emergency Generators. • Central smoke control plant. • Hydrant pumps. • Boilers. • Battery rooms.	The proposed building is capable of complying
C2.13	Electricity supply system	Where a new enclosure is proposed to the electricity substation, it is required to be fire separated from the remainder of the building. The BCA requires 2 hr separation however the electricity authority generally requires 3 hr separation. Any main switchboard located in the building which sustains emergency equipment operating in emergency mode, is required to be fire separated from the remainder of the building by 2 hr fire resisting construction. Construction should achieve an FRL of 120/120/120, doorways are required achieve an FRL of -/120/30 and to be self-closing and all penetrations in enclosures are to be appropriately fire stopped. All switchboards in the electrical distribution system, which sustain the electricity supply to the emergency equipment, must provide full segregation by way of enclosed metal partitions designed to prevent the spread of any fault from non-emergency equipment switchgear to the emergency equipment switchgear. Electrical conductors and switchboards are required to comply with this clause. Construction documentation should demonstrate compliance.	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
C2.14	Public corridors in Class 2 & 3 buildings	Both tower buildings have proposed naturally ventilated corridors to the residential components. These corridors are open at either end (East and West) to voids partly enclosed by external cladding. These voids connect: • Tower 1: L6 to L17 – East and West voids • Tower 2 L1 – L17 – East and West voids This therefore provides a corridor extension vertically and horizontally at every level it connects without adequate smoke separation at 40m. Evidence of compliant smoke separation to be provided for at Construction Certificate stage.	The proposed building is capable of complying
C3.2	Protection of openings in external walls	Openings in external walls which are located less than 3m from a side or rear boundary of an allotment, or 6m from the far boundary of a road adjoining the allotment, or 6m from another building on the allotment, require protection in accordance with Clause C3.4, or an alternative solution prepared by a qualified fire engineer could be prepared justifying compliance with the Performance Requirements of the BCA. At present there are no openings affected within the building as the Towers are surrounded by roads. If a subdivision was proposed between the two towers the only likely area to be affected would the SW corner of Tower 2 and SE part of Tower 1, which falls within 6 metres of each other. The building currently complies.	The proposed building complies
C3.3	Separation of external walls and associated openings in different fire compartments	The separate fire compartments which are applicable to this clause complies.	The proposed building complies
C3.4	Acceptable method of protection	Windows requiring protection must be protected by one of the means; • External wall-wetting sprinklers with windows that are automatically or permanently fixed in the closed position. • -/60/- fire windows (Automatic or permanently fixed in the closed position) • -/60/- automatic fire shutters • Doorways which require protection can be protected externally with wall wetting sprinklers with doors that are self closing or automatic closing, or • -/60/30 fire doors which are self closing or automatic closing. Fire doors, fire windows and fire shutters are required to comply with Specification C3.4.	The proposed building is capable of complying
C3.5	Doorways in fire walls	There are no firewalls at present proposed.	Not Applicable
C3.6	Sliding fire doors	There are no sliding doors proposed.	Not Applicable
C3.8	Openings in fire isolated exits	The fire-isolated exits are required to be protected by -/60/30 self closing fire doors. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
C3.9	Service penetrations in fire isolated exits	Services are not to penetrate through fire isolated exits unless permitted by this clause. Construction documentation should demonstrate compliance.	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
C3.10	Fire isolated lift shafts	The lift doors are required to be -/60/- fire doors and comply with this provision. A lift call panel, indicator panel or other panel in the wall of a fire-isolated lift shaft must be backed by construction having an FRL of not less than -/60/60 if it exceeds 35 000 mm^2 in area. Construction documentation should demonstrate compliance	The proposed building is capable of complying
NSW C3.11	Bounding construction	Doors from sole occupancy units opening into enclosed public corridors are required to be protected by -/60/30 self closing fire doors. A doorway from any other room not within a SOU, must be protected by -/60/30 self closing fire doors if it opens to a public corridor, public lobby or the like within the residential portion of the building. Doorways for garbage room enclosure within the public corridors would also be required to comply with the above requirements. Construction documentation to demonstrate compliance.	The proposed building is capable of complying
C3.12	Openings in floors and ceilings for services.	Fire separation between floors is required to be maintained where services penetrate though floors unless the services are located in fire rated shafts. It is expected that due to the extent of building works, the existing service penetrations would be upgraded to comply. Construction documentation to demonstrate compliance.	The proposed building is capable of complying
C3.15	Openings for service installations	Services that penetrate a building element that is required to have an FRL must be protected utilising one of the options listed under this clause. Where polybutyelene (plastic) pipes are proposed for domestic water supply, or UPVC pipes and fire collars for mechanical sub-ducts, they must be supported by the appropriate test data from a registered laboratory demonstrating compliance with C3.15 (a). It is expected that due to the extent of building works, the existing service penetrations would be upgraded to comply.	The proposed building is capable of complying
C3.16	Construction joints	Construction joints in building elements required to be fire resistant are required to be protected in accordance with this clause.	The proposed building is capable of complying
C3.17	Columns protected with lightweight construction to achieve an FRL	A column protected by lightweight construction to achieve an FRL which passes through a building element that is required to have an FRL or a resistance to the incipient spread of fire, must be installed using a method and materials identical with a prototype assembly of the construction which has achieved the required FRL or resistance to the incipient spread of fire. Details are to be provided with the construction documentation.	The proposed building is capable of complying

3.3 Fire-Resisting Construction (Specification C1.1)

BCA Clause	Title	Assessment and Comment	Status
2.1	Exposure to fire source features	The requirements of this provision apply to the subject building.	Note
2.2	Fire protection for support of another part	When determining FRL's applicable to a particular building element, the requirements of this clause are required to be complied with.	The proposed building is capable of complying
2.3	Lintels	Lintels are to be protected as required by the requirements of this clause.	The proposed building is capable of complying
2.4	Attachment not to impair fire resistance	Any attachments such as louvres over windows, external wall cladding to the façade or any type of combustible material must comply with this requirement and not be installed directly above or near an exit, will not constitute a risk of fire spread via the façade and must comply with C1.10 above. Where timber screens, ground floor awnings or other sunscreen/blinds are proposed to the building facades these are to be reviewed in detailed and where required should be justified under an alternative solution meeting the performance requirements of this clause in relation to the potential of fire spread externally along the facade of the building.	The proposed building is capable of complying with the performance requirements of the BCA.
2.5	General concessions	A non-combustible structure situated on a roof need not comply with the other provisions of Specification C1.1 if it only contains- (i) Lift motor equipment; or (ii) One or more of the following:- (A) Hot water or other water tanks (B) Ventilating ductwork, ventilating fans and their motors. (C) Air-conditioning chillers, (D) Window cleaning equipment, (E) Other service units that are non-combustible and do not contain flammable or combustible liquids or gases.	Note
2.6	Mezzanine floors: concession	The building does not contain mezzanine's that are subject to this provision.	Not Applicable
2.7	Enclosure of shafts	The shafts are to be enclosed at the top and bottom in accordance with the requirements of this clause.	The proposed building is capable of complying
3.1	Fire resistance of building elements	Generally building elements listed in Table 3 are required to achieve an FRL of 90 minutes for the Class 2 parts, 120 minutes for the commercial tenancy and carpark parts and 180 minutes for the retail elements. In addition, the following requirements apply; • External walls, common walls and the flooring and floor framing of lift pits must be non-combustible; • a loadbearing internal wall and a loadbearing fire wall (including those that are part of a loadbearing shaft) must be of concrete or masonry; and • a non-loadbearing— (i) internal wall required to be fire-resisting; and (ii) lift, ventilating, pipe, garbage, or similar shaft that is not for the discharge of hot products of combustion, must be of non-combustible construction; and • the FRL's in Table for an external column apply also to those parts of an internal column that face and are within	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
		1.5m of a window and are exposed through that window to a fire-source feature. Carpark: 2 hrs Office: 2 hrs Residential: 1 ½ hrs Retail: 3 hrs	
3.5	Roof: Concession	The roof is not required to achieve an FRL as the building has a sprinkler system complying with Specification E1.5 installed throughout	Note
3.6	Roof lights	There are no roof lights proposed to the building. .	Not Applicable
3.7	Internal wall and column concession	Not applicable as building has effective height of over 25m.	Not Applicable
3.9	Carpark	The basement carpark can be assessed under the concessions offered under this clause if fire separated from the commercial or retail areas by 120/120/120 or 180/180/180 construction respectively (floor) as outlined in Table 3.9 of Spec C1.1. This is also relying on sprinkler protection provided throughout.	Note

3.4 Access & Egress (BCA Section D)

BCA Clause	Title	Assessment and Comment	Status
D1.2	Number of exits required	The building is required to be provided with a minimum of two exits from each storey as the building has an effective height of more than 25 metres. Without passing through another sole-occupancy unit every occupant of a storey or part of a storey must have access to at least 2 exits. The following areas do not appear to have access to two exits but may be able to be justified by a performance solution by a suitably qualified fire engineer: • Services rooms off fire stairs to both towers from ground to Level 17 Details are to be provided with the construction documentation.	The proposed building is capable of complying with the performance requirements of the BCA.
D1.3	When fire isolated exits are required	Every required exit serving a building must be fire isolated if the exit stair connects and/or pass through more than 3 consecutive storeys. The subject building is required to have both fire stairs serving the towers acting as fire isolated stairs. There are a number of openings into these required fire-isolated stairs that are to be addressed as detailed under D1.7 and C3.8.	The proposed building is capable of complying
D1.4	Exit travel distances	Class 2 part - The entrance doorway of any sole-occupancy unit must be not be more than 6m from an exit or from a point from which travel in different directions is available or 20m from a single exit serving the storey at the level of egress to a road or open space. No point on the floor of a room which is not in a sole-occupancy unit must be more than 20m from an exit or from a point at which travel in different directions to 2 exits is available. Class 5, 6 and 7a parts - No point on a floor must be more than 20 m from an exit, or a point from which travel in different	The proposed building is capable of complying with the performance requirements of the BCA.

BCA Clause	Title	Assessment and Comment	Status
		directions to 2 exits is available, in which case the maximum distance to one of those exits must not exceed 40m. In a Class 5 or 6 building the distance to a single exit serving a storey at the level of access to a road or open space may be increased to 30m. Where travel distance exceed DtS Provisions, these non-compliances are to be addressed by an Alternative Solution. For example; Level 1 Unit 1.05 and 1.06 is greater than 6m to the exit or point of choice to the alternate exit. The carpark potentially exceeds 20m to a point of choice from the commercial carspaces area. Construction documentation to clearly demonstrate any obstructions such as walls.	
D1.5	Distance between alternative exits	Exits that are required to serve as alternative means of egress must not be more than 45m apart in a residential building and not more than 60m in all other parts. The distance between alternative exits comply. Exits required as alternative means of egress must be located not less than 9m apart and located so that the alternative paths of travel do not converge such that they become less than 6m apart. Tower 1 and Tower 2 alternate exits on the residential levels are measured 7.3m apart and do not comply.	The proposed building is capable of complying with the performance requirements of the BCA.
NSW D1.6	Dimensions of exits and paths of travel to exits	A required exit or path of travel to an exit are required to be a minimum unobstructed height of not less than 2m and minimum width of 1m. A site inspection would be required to verify compliance.	The building appears to comply.
D1.7	Travel via fire isolated exits	A doorway from a room must not open directly into a stairway, passageway or ramp that is *required* to be fire-isolated unless it is from— (i) a public corridor, public lobby or the like; or (ii) a sole-occupancy unit occupying all of a storey; or (iii) a sanitary compartment, airlock or the like. There are openings indicated in the following areas that need to be addressed: • Services from ground to L17 opening onto fire stairs to both towers • Fire control centre to tower 1 and 2 on the ground opens directly to the stair • Electrical switch room to ground on Tower 2 The location of these rooms directly off the fire stair may be amended (except fire control room) or alternatively may be able to be justified by a suitably qualified fire engineered solution. Each fire-isolated stairway must provide independent egress from each storey served and discharge directly, or by way of its own fire-isolated passageway to a road or open space; Where a path of travel from the point of discharge of a fire-isolated exit necessitates passing within 6 m of any part of an external wall of the same building, measured horizontally at right angles to the path of travel, that part of the wall must have an FRL of not less than 60/60/60 and any openings protected internally in accordance with C3.4, for a distance of 3 m above	The proposed building is capable of complying with the performance requirements of the BCA.

BCA Clause	Title	Assessment and Comment	Status
		or below, as appropriate, the level of the path of travel, or for the height of the wall, whichever is the lesser. It is noted that there are glazed openable doors from the retail of Tower 2 and the residential entry which are located within 6m of the discharge of the fire-isolated stair which may not be able to meet deemed to satisfy requirements. It is considered that a suitable fire engineered solution may be provided to justify the position of these glazed elements in relation to the discharge of the stair. Detailed construction drawings to be assessed for other areas to be reviewed by the Fire Engineer.	
D1.8	External Stairs or ramps in lieu of Fire-isolated exits	External stairs are not provided in lieu of fire isolated exits.	Not Applicable
D1.9	Travel via non-fire-isolated stairways or ramps	A non fire-isolated stair serving as a required exit must provide a continuous means of travel by its own flights and landings to a level at which egress to a road or open space is available. Travel from the non-fire isolated stairs from the basement complies with the requirements of this provision.	The proposed building complies
D1.10	Discharge from exits	The discharge point of the fire isolated exits is required to be connected to the road by a minimum 1 m wide path and where there is a change of level, the path must contain a complying stair or ramp.	The proposed building is capable of complying
D1.11	Horizontal exits	Horizontal exits are not proposed.	Not Applicable
D1.12	Non-required stairways, ramps or escalators	Non-required stairways, ramps or travelators are not proposed.	Not Applicable
D1.13	Number of persons accommodated	Populations have been assessed in accordance with Table D1.13 and are shown to be adequate for the proposed tenancy fitouts although the commercial and fitout tenancy fitouts will be subject to a separate building approval.	Note
D1.16	Plant rooms and lift rooms: concession	A ladder may be used in lieu of a stairway to provide egress from – (i) a plant room with a floor area of not more than 100 m^2; or (ii) all but one point of egress from a plant room or a lift machine room with a floor area of not more than 200 m^2. A ladder permitted in accordance with the above – (i) may form part of an exit provided that in the case of a fire-isolated stairway it is contained within the shaft; or (ii) may discharge within a storey in which case it must be considered as forming part of the path of travel; and (iii) must comply with AS1657 for a plant room; and AS1735.2 for a lift machine room. Details are to be provided with the construction documentation.	The proposed building is capable of complying
D1.17	Access to lift pits	Access to lift pits must, where the pit depth is not more than 3m, may be through the lowest landing doors; or where the pit depth is more than 3 m, be provided through an access doorway complying with the following: (i) In lieu of D1.6, the doorway must be level with the pit floor and not be less than 600 mm wide by 1980 mm high clear opening, which may be reduced to 1500 mm where it is necessary to comply with (ii). (ii) No part of the lift car or platform must encroach on the pit doorway entrance when the car is on a fully compressed buffer. (iii) Access to the doorway must be by a stairway complying with A1657. (iv) In lieu of D2.21, doors fitted to the doorway must be—	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
		(a) of the horizontal sliding or outwards opening hinged type; and (b) self-closing and self-locking from the outside; and (c) marked on the landing side with the letters not less than 35 mm high: "DANGER LIFTWELL – ENTRY OF UNAUTHORIZED PERSONS PROHIBITED – KEEP CLEAR AT ALL TIMES" Details are to be provided with the construction documentation.	
D2.2	Fire-isolated stairways and ramps	A stairway or ramp (including any landings) that is required to be within a fire-resisting shaft must be constructed of non-combustible materials and so that if there is local failure it will not cause structural damage to, or impair the fire-resistance of, the shaft. Details are to be provided with the construction documentation.	The proposed building is capable of complying
D2.3	Non-fire isolated stairs and ramps	The non fire isolated stairs are required to be designed in accordance with the requirements of this provision. Details are to be provided with the construction documentation.	The proposed building is capable of complying
D2.4	Separation of rising and descending stair flights	If a stairway serving as an exit is required to be fire-isolated there must be no direct connection between— (ii) a flight rising from a storey below the lowest level of access to a road or open space; and (ii) a flight descending from a storey above that level	The proposed building is capable of complying
D2.6	Smoke lobbies	Any smoke lobbies provided as required by D1.7 must comply with this clause.	The proposed building is capable of complying
D2.7	Installation in exits and paths of travel	Existing and/or proposed services or equipment comprising electricity meters, distribution boards, central telecommunication distribution boards / equipment, electrical motors or other motors serving equipment in the building, can be installed in the existing corridors or the like leading to a required exits if the services or equipment are enclosed with non-combustible construction or appropriate fire-protective covering and doorways suitably sealed against smoke spread from the enclosure. Gas or other fuel services are not permitted in a required exit. NB: The internal part of a SOU is excluded from this provision. Details are to be provided with the construction documentation.	The proposed building is capable of complying
D2.8	Enclosure of space under stairs and ramps	The space below the required fire-isolated stairways must not be enclosed to form a cupboard or similar enclosed space.	The proposed building complies
D2.9	Width of stairways	The required width of a stairway must be measured clear of all obstructions such as handrails, projecting parts of balustrades or other barriers and the like and extend without interruption, except for ceiling cornices, to a height not less than 2 m vertically above a line along the nosings of the treads or the floor of the landing.	Note
D2.11	Fire-isolated passageways	The enclosing construction of any fire-isolated passageways to comply with this clause. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
D2.12	Roof as open space	The roof above the basement forms a podium between the two towers that is seen as roof as open space (where an exit discharges to a roof). The construction needs to have an FRL of not less than 120/120/120 and not have any rooflights or other openings within 3m of the path of travel of persons using the exit to reach road or open space.	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
NSW D2.13	Goings & risers	New goings and risers are to be designed to comply with this clause, including opening sizes, going and riser dimensions and non-slip finish or non-skid nosings. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
D2.14	Landings	Landings are to be designed in accordance with this clause. The current documentation does not contain this level of detail. Note: NCC 2015 requires the surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; or a strip at the edge of the landing with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586, where the edge leads to a flight below. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
NSW D2.15	Thresholds	New thresholds to the towers to comply. Construction documentation should also demonstrate compliance.	The proposed building is capable of complying
NSW D2.16	Balustrades and other barriers	Balustrades are to be designed to comply with this clause. The current documentation does not contain this level of detail. Considering the extent of the proposed building work, it is considered that upgrade to the existing balustrades to comply. Construction documentation should also demonstrate compliance.	The proposed building is capable of complying
D2.17	Handrails	Handrails are required along at least one side of the stairways or ramps, or on both sides of stairs or ramps with a total width of more than 2m, in accordance with this clause. Considering the extent of the proposed building work, it is considered that upgrade to the existing handrails to comply. Construction documentation should also demonstrate compliance.	The proposed building is capable of complying
NSW D2.19	Doorways and doors	A doorway serving as a required exit or forming part of a required exit must not be fitted with a revolving door, roller shutter or tilt-up door. Sliding doors must also not be fitted unless it leads directly to a road or open space and the door provided that it is capable of being opened manually under a force of not more than 110 N. A doorway serving as a required exit or forming part of a required exit is fitted with a door which is power-operated— (a) it must be able to be opened manually under a force of not more than 110 N if there is a malfunction or failure of the power source; and (b) if it leads directly to a road or open space it must open automatically if there is a power failure to the door or on the activation of a fire or smoke alarm anywhere in the fire compartment served by the door. Construction documentation should also demonstrate compliance.	The proposed building is capable of complying
D2.20	Swinging doors	A swinging door in a required exit or forming part of a required exit must not encroach at any part of its swing by more than 500mm on the required width (including any landings) of a required stairway, ramp or passageway if it is likely to impede the path of travel of the people already using the exit; and when fully open, by more than 100 mm on the required width of the required exit. The measurement of encroachment in each case is to include	The proposed building is capable of complying with the performance requirements of the BCA.

BCA Clause	Title	Assessment and Comment	Status
		door handles or other furniture or attachments to the door. The door must swing in the direction of egress unless it is fitted with a device for holding it in the open position serving a part not more than 200m^2, and is the only required exit from the building or part. The following building parts are provided with alternatives exits (D1.2), and/or have doors not provided in the direction of egress: • Tower 2 - Commercial tenancy entry • Tower 1 & 2 – Small retail rooms with display windows An alternative fire engineered solution may be able to justify compliance with the performance provisions of the BCA in this respect.	
NSW D2.21	Operation of latch	All the doors in the required exits, or doors forming part of the required exits, must be readily openable without a key from the side that faces a person seeking egress, by a single hand downward or pushing action on a single device which is located between 900mm and 1.1m from the floor. The above provision would not apply to sole occupancy unit doors or doors fitted with a fail-safe device which automatically unlocks the door upon the activation of any sprinkler or detection system installed in the building. Construction documentation should also demonstrate compliance.	The proposed building is capable of complying
D2.22	Re-entry from fire-isolated exits	Doors of a fire-isolated exit must not be locked from the inside a fire-isolated exit serving any storey above an effective height of 25 m, throughout the exit. This requirement does not apply to a door fitted with a fail-safe device that automatically unlocks the door upon the activation of a fire alarm and— (i) on at least every fourth storey, the doors are not able to be locked and a sign is fixed on such doors stating that re-entry is available; or (ii) an intercommunication system, or an audible or visual alarm system, operated from within the enclosure is provided near the doors and a sign is fixed adjacent to such doors explaining its purpose and method of operation. It is considered that due to the extent of the proposed building work, that an upgrade would be provided to the existing building. Construction documentation should also demonstrate compliance.	The proposed building is capable of complying
D2.23	Signs on doors	A sign, to alert persons that the operation of certain doors must not be impaired, must be installed where it can readily be seen on, or adjacent to the following; • A required fire door providing direct access to a fire-isolated exit, • A required smoke door, • A fire door forming part of a horizontal exit; • A smoke door that swings in both directions; • door leading from a fire isolated exit to a road or open space, Signage is required to be in capital letters not less than 20 mm high in a colour contrasting with the background and state—	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
		(i) for an automatic door held open by an automatic hold-open device— "FIRE SAFETY DOOR—DO NOT OBSTRUCT"; or (ii) for a self-closing door— "FIRE SAFETY DOOR DO NOT OBSTRUCT DO NOT KEEP OPEN"; or (iii) for a door discharging from a fire-isolated exit— "FIRE SAFETY DOOR—DO NOT OBSTRUCT". Construction documentation should demonstrate compliance.	
D2.24	Protection of openable windows	A window opening must be provided with protection, if the floor below the window is 2 m or more above the surface beneath in a bedroom in a Class 2 part of the building. Where the lowest level of the window opening is less than 1.7 m above the floor, a window opening covered above must comply with the following: (i) The openable portion of the window must be protected with— (A) a device capable of restricting the window opening; or (B) a screen with secure fittings Construction documentation should demonstrate compliance.	The proposed building is capable of complying
D3.1	General building access requirements	Access is required to be provided to and within all areas normally used by occupants in accordance with the requirements of this provision and AS1428.1-2009. The following access requirements apply to the Class 2 component of the development. • 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. • Where a ramp complying with AS 1428.1 or a passenger lift is installed— o to the entrance doorway of each sole-occupancy unit; and o to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp In respect of the Class 5 (offices), Class 6 (retail) components: To and within all areas normally used by the occupants. Door clearances on the residential entry doors are to comply with AS1428.1, the mailboxes are within the door circulation areas. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
D3.2	Access to buildings	An accessway must be provided to a building required to be accessible— i. from the main points of a pedestrian entry at the allotment boundary; and ii. from another accessible building connected by a pedestrian link; and iii. from any required accessible carparking space on the allotment. In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance (except for pedestrian entrances serving only areas exempted by D3.4), i. through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
		ii. in a building with a total floor area more than 500 m^2, a pedestrian entrance which is not accessible must not be located more than 50 m from an accessible pedestrian entrance, Where a pedestrian entrance required to be accessible has multiple doorways— i. if the pedestrian entrance consists of not more than 3 doorways — not less than 1 of those doorways must be accessible; and ii. if a pedestrian entrance consists of more than 3 doorways, not less than 50% of those doorways must be accessible. Where a doorway on an access way has multiple leaves, (except an automatic opening door) one of those leaves must have a clear opening width of not less than 850 mm in accordance with AS 1428.1-2009. In respect to this requirement, the drawings are to be developed to clarify that a level or appropriate ramp approach is provided to the entries identified below in accordance with AS1428.1-2009: Tower 1: • To the commercial tenancy at ground level; • Entry lobby and concierge at ground level Tower 2: • Retail entrances at ground level • Entry lobby and concierge at ground The basement carpark is to be accessible by lift from the ground floor as there is no other specific pedestrian entry. Construction documentation should demonstrate compliance. Considering the extent of the proposed building work, it is considered that upgrade to the existing balustrades to comply.	
D3.3	Parts of building to be accessible	Every ramp and stairway (except for ramps and stairways in areas exempted by D3.4) must comply with— i. for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and ii. for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; and iii. for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1-2009. Every passenger lift must comply with E3.6; and Accessways must have— i. passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an accessway where a direct line of sight is not available; and ii. turning spaces complying with AS 1428.1— (A) within 2 m of the end of accessways where it is not possible to continue travelling along the accessway; and (B) at maximum 20 m intervals along the accessway; and An intersection of accessways satisfies the spatial requirements for a passing and turning space; and a passing space may serve as a turning space; The entries to the buildings identified above should have the	The building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
		entry door and level approach at the following locations be addressed to ensure adequate compliance with AS1428.1-2009: • Ground Floor commercial tenancy entrance to Tower 2 • Residential entries to both towers • Retail to tower 2 at Ground floor In addition to the above, Clause 7.4.1(a) of AS 1428.1 does not apply and is replaced with 'the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm'; and The carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in figure 8 of AS 1428.1 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively. Construction documentation should demonstrate compliance.	
D3.3	Parts of building to be accessible	Every passenger lift must comply with clause E3.6; The building works proposed to the towers by virtue of their change of use and additional storeys, are extensive. Access to the affected parts throughout the towers is required to be provided by passenger lifts. Therefore it would be expected that at least one passenger lift be upgraded if necessary to comply with Table E3.6 of the BCA and Disability (Access to Premises – Buildings) Standards 2010. A concession is available in respect of the floor plate size of the lift (under the Disability (Access to Premises – Buildings) Standards 2010. Considering the extent of the proposed building work, it is considered that upgrade to the existing balustrades to comply. Construction documentation should demonstrate compliance.	The building is capable of complying
D3.4	Exemptions	The following areas are not required to be accessible: (a) An area where access would be inappropriate because of the particular purpose for which the area is used. (b) An area that would pose a health or safety risk for people with a disability. (c) Any path of travel providing access only to an area exempted by (a) or (b).	Note
D3.5	Car parking	Accessible carparking spaces are required and must comply with AS/NZS 2890.6-2009. The following requirements apply: Class 5 (commercial) 1 space for every 100 carparking spaces or part thereof provided. Class 6 (retail) 1 space for every 50 carparking spaces or part thereof provided. Allocation of spaces to the retail, residential or commercial has yet to be determined. One accessible space and one adaptable carspace is currently indicated on the drawings provided. Construction documentation should demonstrate compliance.	The building is capable of complying
D3.6	Signage	Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access or	The building is capable of

BCA Clause	Title	Assessment and Comment	Status
		deafness, as appropriate, in accordance with AS 1428.1 must identify each— i. sanitary facility, and ii. a space with a hearing augmentation system; Signage in accordance with AS 1428.1 must be provided for accessible unisex sanitary facilities to identify if the facility is suitable for left or right handed use. Signage to identify an ambulant accessible sanitary facility in accordance with AS 1428.1 must be located on the door of the facility. Where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access, in accordance with AS 1428.1 must be provided to direct a person to the location of the nearest accessible pedestrian entrance. Where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, directional signage incorporating the international symbol of access in accordance with AS 1428.1 must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex sanitary facility. Construction documentation should demonstrate compliance.	complying
D3.7	Hearing augmentation	A hearing augmentation is not required to the building.	Not Applicable
D3.8	Tactile indicators	Tactile ground surface indicators are required to be provided to warn people who are blind or have a vision impairment that they are approaching— (i) a stairway, other than a fire-isolated stairway; and (ii) an escalator; and (iii) a passenger conveyor or moving walk; and (iv) a ramp other than a fire-isolated ramp, step ramp, kerb ramp or swimming pool ramp; and (v) in the absence of a suitable barrier— (A) an overhead obstruction less than 2 m above floor level, other than a doorway; and (B) an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building, excluding a pedestrian entrance serving an area referred to in D3.4, if there is no kerb or kerb ramp at that point, except for areas exempted by D3.4. Tactile ground surface indicators required are required to comply with sections 1 and 2 of AS/NZS 1428.4.1. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
D3.10	Swimming Pools	There are no proposed swimming pools.	Not Applicable
D3.11	Ramps	A series of connected ramps must not have a combined vertical rise of more than 3.6 m and a landing for a step ramp must not overlap a landing for another step ramp or ramp. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
D3.12	Glazing on an accessway	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1. Construction documentation should demonstrate compliance.	The proposed building is capable of complying

3.5 Services & Equipment (BCA Section E)

BCA Clause	Title	Assessment and Comment	Status
E1.3	Fire hydrants	A fire hydrant system must be provided in accordance with this clause to serve the whole building and must also be installed in accordance with AS2419.1. Where internal hydrants are provided, they must only serve the storey in which they are located. The locations of hydrant boosters and pumps have not been detailed and the construction documentation should demonstrate compliance. It is likely that the existing hydrant system would be brought fully into compliance considering the nature of the works proposed. Fire Services consultant to document in Construction Certificate documentation stage. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
E1.4	Fire hose reels	Hose reels are not required to serve the residential areas of the building however are still required to protect the commercial/retail and carpark areas. The hose reel system must be installed in accordance with this clause and AS2441. It is likely that the existing hose reel system would be brought fully into compliance considering the nature of the works proposed. Fire Services consultant to document in Construction Certificate documentation stage. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
E1.5	Sprinklers	A sprinkler system must be installed throughout the whole building and must comply with Specification E1.5. Construction documentation should demonstrate compliance including identifying the location of the sprinkler valve room. It is likely that any non-conformities in the existing sprinkler system would be brought fully into compliance considering the nature of the works proposed. Fire Services consultant to document in Construction Certificate documentation stage. If it is proposed that the sprinkler valve room is part of the pump room located in basement of both towers an alternative solution would be required to justify the lack of direct access to a road or opens space. Construction documentation should demonstrate compliance	The proposed building is capable of complying with the performance requirements of the BCA.
E1.6	Portable fire extinguishers	Portable fire extinguishers are to comply with this provision and sections 1, 2, 3 and 4 of AS2444. Note: Portable fire extinguishers are to be used in lieu of the fire hose reels which has been removed from the BCA in 2014. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
E1.8	Fire control centres	A fire control centre in accordance with Specification E1.8 must be provided, which is currently located on ground in Tower 1. The fire control centre for a building of effective height of above 50 m will be required to comply with Specification E1.8. Construction documentation should demonstrate compliance with Specification E1.8.	The proposed building is capable of complying
E1.9	Fire precautions during construction	In a building under construction— (a) not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
		stairway or exit; and (b) after the building has reached an effective height of 12 m— (i) the required fire hydrants and fire hose reels must be operational in at least every storey that is covered by the roof or the floor structure above, except the 2 uppermost storey's; and (ii) any required booster connections must be installed.	
E2.2	General requirements	An air-handling system which does not form part of a smoke hazard management system in accordance with Table E2.2a and which recycles air from one fire compartment to another fire compartment or operates in a manner that may unduly contribute to the spread of smoke from one fire compartment to another fire compartment must— • be designed and installed to operate as a smoke control system in accordance with AS/NZS 1668.1; or • incorporate smoke dampers where the air-handling ducts penetrate any elements separating the fire compartments served; and • be arranged such that the air-handling system is shut down and the smoke dampers are activated to close automatically by smoke detectors complying with Clause 4.10 of AS/NZS 1668.1; and for the purposes of this provision, each SOU in the Class 2 part is treated as a separate fire compartment. Miscellaneous air-handling systems covered by Sections 5 and 11 of AS/NZS 1668.1 serving more than one fire compartment (other than a car park ventilation system) and not forming part of a smoke hazard management system must comply with that Section of the Standard. A smoke detection system must be installed in accordance with Clause 5 of Specification E2.2a to operate AS/NZS 1668.1 systems that are provided for zone smoke control and automatic air pressurisation for fire-isolated exits. Required fire-isolated stairways, passageways or ramps serving any storey above an effective height of 25m must be provided with an automatic air pressurisation system for fire-isolated exits in accordance with AS/NZS1668.1. The automatic air pressurisation system must be applied to the whole exit and therefore, all required fire-isolated stairways are to be pressurised. The Class 2 part of the building must be provided with an automatic smoke detection and alarm system complying with Specification E2.2a & AS1670.2004 and AS3786-1993. The detection system is required to activate a building occupant warning system installed in accordance with Spec E2.2a (Clause 6) & of AS1670.1-2004 (Clause 3.22). The Class 5 & 6 parts of the building must be provided with a zone smoke control system in accordance with AS/NZS 1668.1. Alternatively it may be suitable to justify the deletion of this smoke hazard management system by a fire engineered solution meeting the performance provisions of the BCA. The mechanical ventilation system in the Class 7a carpark must comply with Clause 5.5 of AS/NZS 1668.1 except that fans with metal blades suitable for operation at normal temperature may be used and the electrical power and control cabling need not be fire rated.	The proposed building is capable of complying
E3.2	Stretcher facility	A stretcher facility must be provided in accordance with the	The proposed

BCA Clause	Title	Assessment and Comment	Status
	in lifts	requirements of this clause to at least one emergency lift and must be above to accommodate a raised stretcher with a patient lying on it horizontally by providing a clear space not less than 600 mm wide x 2000 mm long x 1400 mm high above the floor level. Construction documentation should demonstrate compliance.	building is capable of complying
E3.3	Warning against use of lifts in fire	Warning signs must be displayed near every call button for a passenger lift or group of lifts throughout the building in accordance with this clause and must comply with the details and dimensions of Figure E3.3.	The proposed building is capable of complying
E3.4	Emergency lifts	At least two emergency lifts complying with this clause and AS1735.2 or Appendix A of AS1735.1 are required be installed within the building. It is assumed due to the level of works proposed to the building that an upgrade to existing lifts will be provided and compliance with this clause is to be provided. Lift consultant to provide full details in Construction Certificate documentation.	The proposed building is capable of complying
E3.5	Landings	The provisions of Clause 12.2 “Access” of AS1735.2 do not apply. The provisions of Clause A3.2 —"Access to landings" of Appendix A of AS1735.1 do not apply. Access and egress to and from lift well landings must comply with the Deemed-to-Satisfy Provisions of Section D.	The proposed building is capable of complying
E3.6	Facilities for people with disabilities	Every passenger lift must comply with the requirements of this provision. It is assumed due to the level of works proposed to the building that an upgrade to existing lifts will be provided and compliance with this clause is to be provided. Lift consultant to provide full details in Construction Certificate documentation. Please note there are concessions available under the Disability (Access to Premises – Buildings) Standards 2010. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
E3.7	Fire service controls	Fire service controls are required to every lift serving any storey above an effective height of 12m. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
E4.2	Emergency lighting requirements	Emergency lighting must be provided in accordance with this clause. Emergency lighting is required to comply with AS2293.1-2005. It is assumed due to the level of works proposed to the building that an upgrade to emergency lighting will be provided and compliance with this clause is to be provided. Fire services consultant to provide full details in Construction Certificate documentation. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
E4.5	Exit signs	An exit signage must be provided in accordance with this clause. Exit signage is required to comply with AS2293.1-2005 and be clearly visible at all times. It is assumed due to the level of works proposed to the building that an upgrade to exit signs will be provided and compliance with this clause is to be provided. Fire services consultant to provide full details in Construction Certificate documentation. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
NSW E4.6	Direction signs	If an exit is not readily apparent to persons occupying or visiting the building then exit signs must be installed in appropriate positions in corridors, hallways, lobbies, and the	The proposed building is capable of

BCA Clause	Title	Assessment and Comment	Status
		like, indicating the direction to a required exit. Construction documentation should demonstrate compliance.	complying
E4.7	Class 2 building exemptions	Note: E4.5 does not apply to— (a) a Class 2 building in which every door referred to is clearly and legibly labelled on the side remote from the exit or balcony— (i) with the word "EXIT" in capital letters 25 mm high in a colour contrasting with that of the background; or (ii) by some other suitable method; and (b) an entrance door of a sole-occupancy unit in a Class 2 part of a building.	Note
E4.8	Design and operation of exit signs	Every required exit sign must comply with— (a) AS 2293.1; or (b) for a photoluminescent exit sign, Specification E4.8; and be clearly visible at all times when the building is occupied by any person having the right of legal entry to the building.	Note
E4.9	Sound systems and intercom systems for emergency purposes	A sound system and intercom system for emergency purposes complying where applicable with AS1670.4-2004 must be installed in the building. It is assumed due to the level of works proposed to the building that an upgrade to the sound systems and intercom systems for emergency purposes will be provided and compliance with this clause is to be provided. Fire services consultant to provide full details in Construction Certificate documentation. Construction documentation should demonstrate compliance.	The proposed building is capable of complying

3.6 Health & Amenity (BCA Section F)

BCA Clause	Title	Assessment and Comment	Status
F1.0	Deem to satisfy provisions	Performance requirement FP1.4, for the prevention of the penetration of water through the new external walls, is required to be complied with. Both tower buildings have proposed naturally ventilated corridors to the residential components. These corridors are open at either end (East and West) to voids partly enclosed by external cladding. These voids connect: • Tower 1: L6 to L17 – East and West voids • Tower 2 L1 – L17 – East and West voids • Tower 1: L6 to L17 – North voids This therefore provides a potential issue in respect of weatherproofing. Evidence of how this clause is complied with to be provided with Construction Certificate documentation.	The proposed building is capable of complying with the performance requirements of the BCA.
F1.1	Stormwater drainage	Stormwater drainage is required to be designed to comply with AS/NZS3500.3. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
F1.5	Roof coverings	Roof coverings to comply with the relevant Standard identified in this clause. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
F1.6	Sarking	Sarking-type materials used for weatherproofing of roofs and walls are required to comply with AS/NZS 4200 Parts 1 and 2. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
F1.7	Waterproofing of	Waterproofing of wet areas are required to comply with this	The proposed

BCA Clause	Title	Assessment and Comment	Status
	wet areas in buildings	clause. Construction documentation should demonstrate compliance.	building is capable of complying
F1.9	Damp-proofing	Any new damp proof course is required to be provided to walls to comply with this clause.	The proposed building is capable of complying
F1.10	Damp-proofing of floor on ground	Any new damp-proofing is required to be provided in accordance with the requirements of this provision.	The proposed building is capable of complying
F1.11	Provision of floor wastes	The floor of each bathroom and laundry in the residential sole occupancy units are to be provided with a floor waste.	The proposed building is capable of complying
F1.12	Sub-floor ventilation	There is no new sub-floor space being provided.	Not Applicable
F1.13	Glazed assemblies	All new glazed assemblies to comply with AS 2047 as applicable.	The proposed building is capable of complying
F2.1	Facilities in residential buildings	The residential portion of the building is to be provided with appropriate facilities in accordance with Table F2.1. Generally provision of the following facilities within each unit will comply. • A bath or shower; and • A closet pan & wash basin. • Kitchen • Wash tub and space for washing machine and drier The position of a separate laundry washtub and space for washing machine and drier to be clarified for each residential unit on Construction Certificate drawings. A caretaker's facility comprising a closet pan and wash pan is required to be provided at or near the ground level and should be clarified on Construction Certificate drawings.	The proposed building is capable of complying
F2.3	Facilities in Class 3 to 9 buildings	Sanitary facilities for the retail and commercial parts must be provided in accordance with this clause and Table F2.3. The facilities proposed have not been detailed but compliant details to be provided as part of Construction Certificate documentation or as part of the individual tenancy fitout building approvals.	The proposed building is capable of complying
F2.4	Facilities for people with disabilities	Unisex sanitary compartments must be provided on every storey containing sanitary facilities and where a storey has more than 1 bank of sanitary compartments, at not less than 50% of these banks in accordance with AS1428.1-2009. In addition to the unisex sanitary compartment, each bank of toilets must be provided with a sanitary compartment suitable for a person with an ambulant disability in accordance with AS 1428.1 and must be provided for use by males and females. An accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels. The circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4(a) and Table F2.4(b) must comply with the requirements of AS 1428.1; and Access to unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only. Where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right handed mirror	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
		image facilities must be provided as evenly as possible, Accessible unisex showers must be provided where required by Table F2.4(b) Notes: Where male sanitary facilities are provided at a separate location to female sanitary facilities, accessible unisex sanitary facilities are only required at one of those locations; Facilities, proposed and existing, contained in the building have not been clarified on drawings provided. Construction documentation should demonstrate compliance.	
F2.5	Construction of sanitary compartments	The construction of sanitary compartments is required to comply with this requirement. Doorways located less than 1.2m from the closet pan are required to swing outwards, slide or be capable of being removed from the outside (lift off hinges). Construction documentation should demonstrate compliance.	The proposed building is capable of complying
F2.6	Interpretation: Urinals and washbasins	A urinal may be—an individual stall or wall-hung urinal; or each 600 mm length of a continuous urinal trough, or a closet pan used in place of a urinal. A washbasin may be an individual basin or a part of a hand washing trough served by a single water tap.	Note
F3.1	Height of rooms and other spaces	The minimum ceiling height requirements are to comply with the requirements of this provision. Generally the building shows compliance however full construction documentation is to demonstrate compliance.	The proposed building is capable of complying
F4.1	Provision of natural light	Natural lighting must be provided in all habitable rooms of the residential units. This includes bedrooms, living rooms, lounge rooms, television rooms, study, playroom dining room, kitchen and sunroom. There are a number of areas identified under F4.2 below that will require further clarification or an alternative solution to justify the provision of natural light. Construction documentation should demonstrate compliance.	The proposed building is capable of complying with the performance requirements of the BCA.
F4.2	Methods and extent of natural lighting	Required natural lighting must be provided by:- i. Windows that have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 10% of the floor area of the room; and that are open to the sky or face a court or other space open to the sky; ii. In a class 2 building part of a building a required window that faces a boundary of an adjoining allotment or a wall of the same building or another building on the allotment, must not be less than a horizontal distance from that boundary or wall that is the greater of generally – 1m; and 50% of the square root of the exterior height of the wall in which the window is located, measured in metres from its sill. Calculations are required to be submitted with construction documentation demonstrating compliance and where natural lighting is not achieved an alternative solution may justify the design.	The proposed building is capable of complying with the performance requirements of the BCA.
F4.4	Artificial lighting	Artificial lighting is to be provided in accordance with AS/NZS1680.0 and in accordance with this clause.	The proposed building is capable of

BCA Clause	Title	Assessment and Comment	Status
			complying
F4.5	Ventilation of rooms	Ventilation is to be provided by natural or mechanical means in accordance with this provision and Clause F4.6. Where natural ventilation is proposed opening sizes to the same areas identified as needing clarification for natural lighting purposed under F4.2 above, need to be confirmed as having 5% of the room size affected complied with or alternatively a performance solution may be able to sought. Construction Certificate documents to provide details.	The proposed building is capable of complying with the performance requirements of the BCA.
F4.6	Natural ventilation	Natural ventilation must consist of permanent openings, windows, doors or other devices which can be opened- • With an aggregate opening or openable size not less than 5% of the floor area of the room required to be ventilated; and • open to a suitably sized court, or space open to the sky; or an open verandah, carport, or the like; or an adjoining room in accordance with F4.7	The proposed building is capable of complying
F4.8	Restriction on the position of water closets and urinals	A room containing a closet pan or urinal must not open directly into a room used for public assembly or a workplace normally occupied by more than one person. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
F4.9	Airlocks	If the room containing a closet pan or urinal must not open directly into rooms identified in F4.8 above then an airlock of not less than 1.1 m^2 and fitted with self-closing doors at all access doorways or the room containing the closet pan or urinal must be provided with mechanical ventilation and the doorway to the room adequately screened from view. Mechanical ventilation of the bathrooms is to be provided.	The proposed building is capable of complying
F4.11	Car park exhaust	The carpark must have a system of ventilation complying with AS1668.2 or an adequate system of permanent natural ventilation.	The proposed building is capable of complying
F4.12	Kitchen local exhaust	No commercial kitchens are provided.	Not Applicable
F5.1	Application of part	The sound insulation requirements of F5.2, F5.3, F5.4, F5.5, F5.6 & F5.7 only apply to the Class 2 component of the building.	Note
F5.2	Determination of airborne sound insulation ratings	A form of construction required to have an airborne sound insulation rating must- (i) have the required value for weighted sound reduction index (R_w) or weighted sound reduction index with spectrum adaptation term ($R_w + C_{tr}$) determined in accordance with AS/NZS 1276.1 or ISO 717.1 using results from laboratory measurements; or (ii) an acceptable form of construction under Spec F5.2.	The proposed building is capable of complying
F5.3	Determination of impact sound insulation ratings	A floor in a building required to have an impact sound insulation rating must— (i) have the required value for weighted normalised impact sound pressure level with spectrum adaptation term ($L_{n,w} + C_I$) determined in accordance with AS/ISO 717.2 using results from laboratory measurements; or (ii) comply with Specification F5.2. A wall in a building required to have an impact sound insulation rating in the Class 2 part must be of discontinuous construction. For the purposes of this Part, discontinuous construction	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
		means a wall having a minimum 20 mm cavity between 2 separate leaves, and (i) for masonry, where wall ties are required to connect leaves, the ties are of the resilient type; and (ii) for other than masonry, there is no mechanical linkage between leaves except at the periphery. Construction documentation should demonstrate compliance.	
F5.4	Sound insulation rating of floor	Floors in the Class 2 part of the building must have an $R_w + C_{tr}$ (airborne) not less than 50 and an $L_{n,w} + C_l$ (impact) not more than 62 if it separates— (i) sole-occupancy units; or (ii) a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification. Any existing floor construction should be upgraded to comply. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
F5.5	Sound insulation of walls	The walls in the Class 2 part of the building must; i. have an $R_w + C_{tr}$ (airborne) not less than 50 if it separates SOU's; and ii. have an $R_w + C_{tr}$ (airborne) not less than 50 if it separates a SOU from a plant room, public corridor, public lobby or the like; and iii. have complying discontinuous construction if it separates a bathroom, sanitary compartment, laundry or kitchen in one SOU from a habitable room (other than a kitchen) in another, or a SOU from a plantroom. A door may be incorporated in a wall that separates a SOU from a stairway, public corridor, public lobby or the like, provided the door assembly has an R_w not less than 30. The doors opening to the external balconies are not required to have sound insulation rating. Where a wall required to have sound insulation has a floor above, the wall must continue to the underside of the floor above or a ceiling that provides the sound insulation required for the wall. Where a wall required to have sound insulation has a roof above, the wall must continue to the underside of the roof above or a ceiling that provides the sound insulation required for the wall. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
F5.6	Sound insulation rating of services	Services that serves or pass through more than one SOU must achieve the required ratings specified by this clause. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
F5.7	Sound isolation of pumps	A flexible coupling must be installed at the point of connection between service pipes in a building and any circulating or other pump. Construction documentation should demonstrate compliance.	The proposed building is capable of complying

3.7 Ancillary Provisions (Section G)

BCA Clause	Title	Assessment and Comment	Status
G1.1	Swimming Pools	There are no swimming pools proposed.	Not Applicable
G1.2	Refrigerated chambers, strongrooms & vaults	Refrigerated chambers, strongrooms & vaults to comply with the requirements of this provision. Construction documentation should demonstrate compliance.	The proposed building is capable of complying
NSW G1.101	Provision for the cleaning of windows	The method of provision for the cleaning of windows is required to be in accordance with this clause (windows 3 or more storeys above the ground). Details are to be provided with the construction documentation submitted with the construction certificate.	The proposed building is capable of complying
G5.2	Protection in bushfire prone areas	Not applicable.	Not Applicable

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

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

3.7.1 External fabric (Part J1)

BCA Clause	Title	Assessment and Comment	Status
J1.2	Thermal Construction General	Required insulation, reflective insulation and bulk insulation is to be installed in accordance with this clause and AS/NZS 4859.1.	The proposed building is capable of complying
J1.3	Roof and Ceiling Construction	A roof or ceiling that is part of the envelope must achieve the Total R-Value specified in Table J1.3a for the direction of heat flow. Climate Zone 5 requires a minimum total R-Value of 3.2 measured downwards. A roof that— (i) is required to achieve a minimum Total R-Value; and (ii) has metal sheet roofing fixed to metal purlins, metal rafters or metal battens; and (iii) does not have a ceiling lining or has a ceiling lining fixed directly to those metal purlins, metal rafters or metal battens (see Specification J1.3 Figure 2(c) and (f)), must have a thermal break, consisting of a material with an R-Value of not less than R0.2, installed between the metal sheet roofing and its supporting member. Detail of the roof construction and Total R-Value is to be provided with the construction documentation to demonstrate compliance.	The proposed building is capable of complying
J1.4	Roof Lights	There are no proposed rooflights.	Not Applicable
J1.5	Walls	Each part of an external wall that is part of the envelope must satisfy one of the options in Table J1.5a. Generally walls are required to achieve a total R-Value of 2.8. Any internal wall forming part of the *envelope* must achieve the total R-value in Table J1.5b. Generally walls are required to achieve a total R-Value of 1.0 or 1.8. A wall that— (i) is required to achieve a minimum Total R-Value; and (ii) has lightweight external cladding such as weatherboards, fibre cement or metal sheeting fixed to a metal frame; and (iii) does not have a wall lining or has a wall lining that is fixed directly to the metal frame, must have a thermal break, consisting of a material with an R-Value of not less than R0.2, installed between the external cladding and the metal frame. Detail of the wall construction and Total R-Value is to be provided with the construction documentation to demonstrate compliance.	The proposed building is capable of complying
J1.6	Floors	(a) A floor that is part of the envelope of the building, including a floor above or below a car park or a plant room— (i) must achieve the Total R-Value specified in Table J1.6; and (ii) with an in-slab heating or cooling system, must be insulated around the vertical edge of its perimeter with insulation having an R-Value of not less than 1.0.	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
		(b) The minimum Total R-Value required in (a) may be reduced by R0.5 provided R0.75 is added to the Total R-Value required for the roof and ceiling construction. Floor construction is deemed to have the thermal properties listed in Specification J1.6. Documentation to demonstrate compliance is to be provided.	

3.7.2 External Glazing (Part J2)

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

3.7.3 Building Sealing (Part J3)

BCA Clause	Title	Assessment and Comment	Status
J3.2	Chimneys and flues	Solid fuel burning appliances are not proposed and the requirements of this provision do not apply.	Not Applicable
J3.3	Roof Light	Roof lights are not proposed.	Not Applicable
J3.4	Windows and doors	Windows and doors forming part of the envelope are required to be sealed to restrict air infiltration. The requirements of this provision do not apply to, 1. Windows complying with AS2047, 2. A fire or smoke door, 3. Roller shutter doors. The bottom edge of a swing door required to be sealed must have a draft protection device and the other edges of doors or windows must have a foam or rubber compression strip, fibrous seal or the like. An entrance to a building, if leading to a conditioned space must have an airlock, self-closing door, revolving door or the like, other than where the conditioned space has a floor area of not more than 50 m^2. The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying
J3.5	Exhaust Fans	A miscellaneous exhaust fan must be fitted with a sealing device such as a self-closing damper or the like when serving a; (a) conditioned space; or (b) a habitable room in climate zone 4, 6, 7 & 8. The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
J3.6	Construction of roofs, walls and floors	Roofs, ceilings, walls, floors and any openings are required to be designed and constructed to minimise air leakage in accordance with this clause. The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying
J3.7	Evaporative Coolers	Evaporative coolers are not proposed.	Not Applicable

3.7.4 Air Conditioning and Ventilation Systems (Part J5)

BCA Clause	Title	Assessment and Comment	Status
J5.2	Air Conditioning and Ventilating system	Any proposed air-conditioning systems and mechanical ventilation systems must; i. Be capable of being deactivated when the SOU or part of the building served is not occupied; and ii. When the air flow rate is greater than 1000 L/s, be designed so that the total fan power of the fans in the system is in accordance with Table J5.2, except as permitted. The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying
J5.3	Time Switch	The mechanical ventilation system and air conditions system design would is required to be provided with a time switch in accordance with Spec J6. The requirement does not apply to an air-conditioning system that serves only one SOU. The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying
J5.4	Heating and chilling systems	Heating a space other than via water, must be i. A solar heater; or ii. A gas heater; or iii. An oil heater if reticulated gas is not available at the allotment boundary; and iv. A heat pump heater; or v. A heater using reclaimed heat from another process such as reject heat from refrigeration plant; or vi. A combination of 2 or more Package air-conditioning equipment with a capacity of not less than 65 kWr, including a split unit and a heat pump, must have an energy efficiency ratio complying with Table J5.4c when tested in accordance with AS/NZS 3823.1.2 at test condition T1.	The proposed building is capable of complying
J5.5	Miscellaneous exhaust system	A miscellaneous exhaust system with an air flow rate of more than 1000 L/s, that is associated with equipment having a variable demand such as a stove in a commercial kitchen or a chemical bath in a factory is required to be design to comply with this clause. The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying

3.7.5 Artificial Lighting and Power (Part J6)

BCA Clause	Title	Assessment and Comment	Status
J6.2	Artificial lighting	The requirements of this provision relate to the illumination load and power of artificial lighting. Artificial lighting is to be designed in accordance with this provision. The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying
J6.3	Interior artificial lighting and power control	Artificial lighting and power control are to be designed and provided in accordance with this provision. An occupant activated device such as a security device, motion detector is required to be provided to the residential units (class 3) to cut the power to lighting, air-conditioner, local exhaust or bedroom heater when the suites are not occupied.	The proposed building is capable of complying
J6.4	Interior decorative and display lighting	Interior decorative and display lighting, such as for foyer mural or art display, must be controlled in accordance with this clause. i. Individually operated; ii. An occupant activation device to activate artificial lighting, air-conditioning, local exhaust fans and bathroom heaters when SOU is not occupied; iii. An artificial lighting switch must be located in a visible position; The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying
J6.5	Artificial lighting around the perimeter of a building	Artificial lighting around the perimeter of a building must be designed to comply with this clause. i. Controlled by a daylight sensor; ii. A time switch at variable pre-programmed times and on variable pre-programmed days; and iii. When the total perimeter lighting exceeds 100 W it must have an average light source efficacy of not less than 60 lumens/W or be controlled by a motion detector; The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying
J6.6	Boiling water and chilled water storage units	Power supply to a boiling water or chilled water storage unit is required to be controlled by a time switch in accordance with Spec J6. The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying

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

BCA Clause	Title	Assessment and Comment	Status
J7.2	Hot Water Supply	A hot water supply system for food preparation and sanitary purposes, other than a solar hot water supply system in climate zones 1, 2 and 3, must be designed and installed in accordance with Section 8 of AS/NZS 3500.4.	The proposed building is capable of complying
J7.3	Swimming pool heating and pumping	A swimming pool is not proposed.	Not Applicable
J7.4	Spa pool heating and pumping	A spa pool is not proposed.	Not Applicable

3.7.7 Hot Water Supply (Part J8)

BCA Clause	Title	Assessment and Comment	Status
NSW J8.2	Access for maintenance	Access for maintenance must be provided to services, equipment and other building elements identified in this clause is required to be provided in accordance with this clause. The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying
J8.3	Facilities for energy monitoring	A building is required to have a facility to record the consumption of gas and electricity. In addition, the building is required to have a facility to record individually the energy consumption of— (i) *air-conditioning* plant including, where appropriate, heating plant, cooling plant and air handling fans; and (ii) artificial lighting; and (iii) appliance power; and (iv) central hot water supply; and (v) internal transport devices including lifts, escalators and travelators where there is more than one serving the building; and (vi) other ancillary plant. The construction documents are to have details demonstrating compliance.	The proposed building is capable of complying

3.8 Energy Efficiency – (Section J – Class 2 & 4 buildings)

The provisions of this Section J(A) are designed to complement the requirements of BASIX which are implemented via a Development Consent or Complying Development as applicable. BASIX is a web-based planning tool design to assess the potential performance of certain residential buildings against a range of sustainability indices.

3.8.1 Building Fabric (NSW Part J(A)1)

BCA Clause	Title	Assessment and Comment	Status
NSW J(A)1.1	Application of part	The Deemed-to-Satisfy Provisions of this Part apply to thermal insulation in a Class 2 building or Class 4 part of a building where a development consent or environmental planning instrument requires it.	Note
NSW J(A)1.2	Thermal construction	Thermal insulation is required to be installed in accordance with AS/NZS 4859.1 and the general requirements the J1.2 (national provisions) where a development consent or environmental planning instrument requires it. In addition, a thermal break is required to be provided between external cladding and framing in accordance with J1.3(e) and J1.5(f) as appropriate (national provision). Details are to be provided with the construction documentation submitted with the construction certificate.	The proposed building is capable of complying

3.8.2 Building Sealing (NSW Part J(A)2)

BCA Clause	Title	Assessment and Comment	Status
NSW J(A)2.1	Application of part	The Deemed-to-Satisfy Provisions of this Part apply to a Class 2 building and a Class 4 part of a building, but exclude the following: (a) a building in climate zones 2 and 5 where the only means of air-conditioning is by using an evaporative cooler; and (b) a building ventilation opening that is necessary for the safe operation of a gas appliance. (c) parts of those buildings that cannot be fully enclosed	Note
NSW J(A)2.2	Compliance with BCA provisions	The following national provisions apply to the requirements of this clause; i. J3.2 Chimneys and flues ii. J3.3 Roof Lights iii. J3.4 External Doors and windows iv. J3.5 Exhaust fans v. J3.6 Construction of roofs, walls and floors	The proposed building is capable of complying
J3.2	Chimneys and Flues	Where provided, chimneys are required to be provided with a damper or flap to seal the chimney of flue. Details are to be provided with the construction documentation submitted with the construction certificate.	The proposed building is capable of complying
J3.3	Roof lights	There are no proposed rooflights.	Not Applicable
J3.4	External doors and windows	External windows and doors are required to be sealed to restrict air infiltration. The requirements of this provision do not apply where external windows and doors are designed in accordance with AS2047, to fire doors or louvered windows or doors. Details are to be provided with the construction documentation submitted with the construction certificate.	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
J3.5	Exhaust fans	An exhaust fan must be fitted with a sealing device to prevent air infiltration in a conditioned space and in climate zones 4, 6, 7 and 8. Details are to be provided with the construction documentation submitted with the construction certificate.	The proposed building is capable of complying
J3.6	Construction of roofs, walls and floors	Roofs, external walls, external floors and any openings are required to be designed and constructed to minimise air leakage. Both tower buildings have proposed naturally ventilated corridors to the residential components. These corridors are open at either end (East and West) to voids partly enclosed by external cladding (jail blockwork screens). These voids connect: • Tower 1: L6 to L17 – East and West voids • Tower 2 L1 – L17 – East and West voids • Tower 1: L6 to L17 – North voids This therefore provides a potential for significant air leakage. Evidence of how this clause is complied with to be provided with Construction Certificate documentation.	The proposed building is capable of complying

3.8.3 Services (NSW Part J(A)3)

BCA Clause	Title	Assessment and Comment	Status
NSW J(A)3.1	Application of part	The Deemed-to-Satisfy Provisions of this Part apply to a Class 2 building and a Class 4 part of a building.	Note
NSW J(A)3.2	Compliance with BCA provisions	Class 2 buildings and Class 4 parts of buildings must comply with the following national BCA provisions; i. J5.2 Air conditioning and ventilating systems ii. J5.3 Time Switches iii. J5.4 Heating and cooling systems iv. J5.5 Ancillary exhaust systems	The proposed building is capable of complying
J5.2	Air conditioning and ventilation systems	The mechanical design would be required to be designed in accordance with the requirements of this provision. Details are to be provided with the construction documentation submitted with the construction certificate.	The proposed building is capable of complying
J5.3	Time switch	The mechanical design would be required to be designed in accordance with the requirements of this provision. Details are to be provided with the construction documentation submitted with the construction certificate.	The proposed building is capable of complying
J5.4	Heating and cooling systems	The mechanical design would be required to be designed in accordance with the requirements of this provision. Details are to be provided with the construction documentation submitted with the construction certificate.	The proposed building is capable of complying
J5.5	Ancillary exhaust systems	The mechanical design would be required to be designed in accordance with the requirements of this provision. Details are to be provided with the construction documentation submitted with the construction certificate.	The proposed building is capable of complying

3.8.4 Services (NSW Part J(A)4)

BCA Clause	Title	Assessment and Comment	Status
NSW J(A)4.1	Application of part	The Deemed-to-Satisfy Provisions of this Part apply to a Class 2 building and a Class 4 part of a building.	Note
NSW J(A)4.2	Compliance with the BCA provisions	Class 2 buildings and Class 4 parts of buildings must comply with the national BCA provisions of J7.2	The proposed building is capable of complying
J7.2	Hot water supply	A hot water supply system, other than a solar hot water supply system in *climate zones* 1, 2 and 3, must be designed and installed in accordance with Section 8 of AS/NZS 3500.4.	The proposed building is capable of complying

3.8.5 Access for Maintenance (NSW Part J(A)5)

BCA Clause	Title	Assessment and Comment	Status
NSW J(A)5.1	Application of part	The Deemed-to-Satisfy Provisions of this Part apply to a Class 2 building except within a sole occupancy unit.	Note
NSW J(A)5.2	Access for maintenance	Access for maintenance must be provided to— (a) all *services* and their components, including— (i) time switches and motion detectors; and (ii) room temperature thermostats; and (iii) plant thermostats such as on boilers or refrigeration units; and (iv) motorized air dampers and control valves; and (v) reflectors, lenses and diffusers of light fittings; and (vi) heat transfer equipment; (vii) adjustable or motoristed shading devices (viii) An on-site renewable energy sources, or another process as reclaimed energy. (b) adjustable or motorised shading devices.	

4.0 FIRE SAFETY SCHEDULE

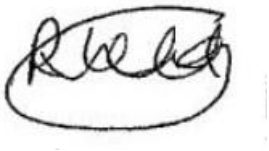
The following table is a list of the required fire safety measures for this development. This list is to be treated as a guide as to what the buildings are considered to require.

FIRE SAFETY MEASURES	PROPOSED STANDARD OF PERFORMANCE
Access panels, doors and hoppers to fire resisting shaft	BCA2015 C3.13 & AS1905.1-2005, AS1905.2-2005
Automatic fail safe devices	BCA2015 D2.21
Automatic fire detection and alarm system	BCA2015 E2.2, Spec E2.2a & AS1670.1-2004, AS3786-1993
Automatic fire suppression system	BCA2015 E1.5, Spec E1.5 & AS2118.1-1999, AS2118.6-1995
Building occupant warning system	BCA 2015 Spec E2.2a (Clause 6) & of AS1670.1-2004 (Clause 3.22)
Emergency lighting	BCA2015 E4.2, E4.4 & AS2293.1-2005
Emergency Lifts	BCA2015 E3.4 & AS1735.2-2001
Sound systems & intercom systems for emergency purposes	BCA2015 E4.9 & AS1670.4-2004
Exit signs	BCA2015 E4.5, E4.6, E4.8 & AS2293.1-2005
Exit signs (non-illuminated)	BCA2015 Clause E4.7
Fire blankets	AS2444-2001
Fire control centres and rooms	BCA2015 E1.8 & Spec E1.8
Fire dampers	BCA2015 C3.12, C3.15 & AS/NZS1668.1-1998, AS1668.2-1991, AS1682.1-1990, AS1682.2-1990
Fire doors	BCA2015 Spec C3.4 & AS1905.1-2005
Fire rated lift landing doors	BCA 2015 C3.10 & AS1735.11-1986
Fire hydrant systems	BCA2015 E1.3 & AS2419.1-2005
Fire seals protecting openings in fire resisting components of the building	BCA2015 C3.12, C3.15 & Spec C3.15
Fire shutters	BCA2015 C3.4 & Spec C3.4
Fire windows	BCA2015 Spec C3.4
Hose reel system	BCA2015 E1.4 & AS2441-2005
Lightweight construction	BCA2015 C1.8 & Spec C1.8
Mechanical air handling system	BCA2015 E2.2, Spec E2.2a & AS/NZS1668.1-1998
Portable fire extinguishers	BCA2015 E1.6 & AS2444-2001
Pressurising system	BCA2015 Clause E2.2 & AS/NZS1668.1-1998

Required automatic exit doors	BCA2015 C3.4, C3.7 & C3.8
Smoke detectors and heat detectors	BCA2015 E2.2, Spec E2.2a & AS3786-1993
Wall wetting sprinkler and drencher systems	BCA2015 C3.4
Warning and operational signs	EPA Regulation (reg 183), BCA2015 E3.3 (lifts), BCA2015 D2.23 Signs on exit doors
Zone smoke control system	BCA2015 E2.2 & AS/NZS1668.1-1998

6.0 CONCLUSION

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



Rachael Telling

For and on behalf of City Plan Services Pty Ltd

APPENDIX 1

Assessed plans prepared by Candalepas Associates & Wendy Lewin

Plan Title	Drawing No	Rev	Date
Cover Sheet	S96-0000	P7	02/12/15
Site Context Analysis	S96-1001	P7	02/12/15
Streetscape Elevation	S96-1002	P7	02/12/15
Site Plan	S96-1101	P7	02/12/15
Basement & Ground Floor Plan	S96-1102	P7	02/12/15
Level 1 & Typical Plan Levels 2-4 Plans	S96-1103	P7	02/12/15
Typical Level 5-11 & Level 12 Plans	S96-1104	P7	02/12/15
Level 13-14 & Level 15 Plans	S96-1105	P7	02/12/15
Level 16-17 & Roof Plan	S96-1106	P7	02/12/15
Sections – Sheet 1 Sections AA & BB	S96-1201	P7	02/12/15
Sections – Sheet 2 Section CC	S96-1202	P7	02/12/15
Elevations Sheet 1 North Elevation	S96-1301	P7	02/12/15
Elevations Sheet 2 Tower 1 – East & West Elevations	S96-1302	P7	02/12/15
Elevations Sheet 3 Tower 2 – East & West Elevations	S96-1303	P7	02/12/15
Elevations Sheet 4 South Elevation	S96-1304	P7	02/12/15