



**BUILDING CODE OF AUSTRALIA
ASSESSMENT REPORT**

**EQUINIX SY3
639 GARDENERS ROAD MASCOT NSW**

CITY OF BOTANY BAY

29 SEP 2009

Revision 1
11 September 2009
Project No.: 90257

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REPORT STATUS				
DATE	REVISION	STATUS	AUTHOR	REVIEWED
28.08.2009	0	Draft issued to client for review	TH	SR
11.09.2009	1	Revised incorporating client comments	TH	SR

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1. INTRODUCTION

1.1 BACKGROUND

Blackett Maguire + Goldsmith Pty Ltd (BM+G) have been commissioned by Equinix to undertake building certification services for the proposed commercial development at 639 Gardeners Rd Mascot NSW.

This report comprises an assessment of the proposed development against the deemed-to-satisfy provisions of the Building Code of Australia 2009 (BCA) for the purpose of clause 145 of the *Environmental Planning & Assessment Regulation 2000* and pursuant to clause 18 of the *Building Professionals Regulation 2007*.

1.2 AIM

The aim of this report is to:

- Undertake an assessment of the proposed development against the deemed-to-satisfy provisions of the BCA.
- Identify any BCA compliance issues that require resolution (by way of plan amendments or Alternative Solutions) prior to issue of the Construction Certificate.
- Identify essential fire safety measures applicable to the proposed development.
- Accompany the Development Application submission to enable the Consent Authority to be satisfied that subsequent compliance with the fire & life safety and health & amenity requirements of the BCA, will not necessarily give rise to design changes to the building which may necessitate the submission of an application under Section 96 of the *Environmental Planning and Assessment Act 1979*.

1.3 DOCUMENTATION

The following documentation has been reviewed, referenced and/or relied upon in the preparation of this report:

- Building Code of Australia 2009 (BCA)
- Guide to the Building Code of Australia.
- Architectural plans prepared by Drew Dickson Architects:

<i>Drawing No.</i>	<i>Issue</i>	<i>Date</i>
09026/001	8	07.09.09
09026/010	8	07.09.09
09026/100	8	07.09.09
09026/101	8	07.09.09
09026/102	8	07.09.09
09026/103	8	07.09.09
09026/104	8	07.09.09
09026/200	8	07.09.09
09026/201	8	07.09.09
09026/202	8	07.09.09
09026/300	8	07.09.09

1.4 LIMITATIONS & EXCLUSIONS

The limitations and exclusions of this report are as follows:

- No assessment has been undertaken with respect to the Disability Discrimination Act 1992 (DDA). The building owner should be satisfied that their obligations under the DDA have been addressed.
Please note that whilst the BCA specifies a minimum standard of compliance with AS1428.1 and Part D3 of the BCA for access and facilities for people with disabilities, compliance with such requirements may not necessarily preclude the possibility of a future complaint made under the Disability Discrimination Act 1992 (DDA). The DDA is a complaint based legislation and is presently not identified by the State Building Codes and Regulations. In this regard the building owner should be satisfied that their obligations under the DDA have been addressed.
- The Report does not address matters in relation to the following:
 - i. Local Government Act and Regulations.
 - ii. Occupational Health and Safety Act and Regulations.
 - iii. WorkCover Authority requirements.
 - iv. Water, drainage, gas, telecommunications and electricity supply authority requirements.
 - v. Disability Discrimination Act 1992.
- Blakett Maguire + Goldsmith Pty Ltd cannot guarantee acceptance of this report by Local Council, NSW Fire Brigades or other approval authorities.



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1.5 TERMINOLOGY

Building Code of Australia - Document published on behalf of the Australian Building Codes Board. The BCA is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia and is adopted in NSW under the provisions of the Environmental Planning & Assessment Act & Regulation.

Fire Resistance Level (FRL) - means the grading periods in minutes for the following criteria -

- (a) structural adequacy; and
- (b) integrity; and
- (c) insulation,

and expressed in that order.

Fire Source Feature (FSF) - the far boundary of a road adjoining the allotment; or a side or rear boundary of the allotment; or an external wall of another building on the allotment which is not a Class 10 building.

Open space - means a space on the allotment, or a roof or other part of the building suitably protected from fire, open to the sky and connected directly with a public road.

Performance Requirements of the BCA - A Building Solution will comply with the BCA if it satisfies the Performance Requirements. A Performance requirement states the level of performance that a Building Solution must meet.

Compliance with the Performance Requirements can only be achieved by-

- (a) complying with the Deemed-to-Satisfy Provisions; or
- (b) formulating an Alternative Solution which
 - (i) complies with the Performance Requirements; or
 - (ii) is shown to be at least equivalent to the Deemed-to-Satisfy Provisions; or
- (c) a combination of (a) and (b).

Sole occupancy unit - means a room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier and includes a dwelling.

2. BUILDING CHARACTERISTICS

2.1 PROPOSED DEVELOPMENT

The subject site, known as 636 Gardeners Rd Mascot, is situated on the southern side of Gardeners Rd with vehicular access available from Church Ave at the rear of the site.



Figure 1: Site Location

Source: www.whereis.com.au

There is currently an existing building on site known as Equinix Stage 1 & 2 which is located to the south of the allotment.

The proposed development will be located to the north of the site fronting Gardeners Rd and will comprise the construction of a new three (3) storey commercial building. We understand that the new building, which will be known as Equinix SY3, will be used as an Internet Exchange Facility.

2.2 CLASSIFICATION

The building is classified as follows:

▪ BCA CLASSIFICATION	Class 5 Commercial Building
▪ STOREYS CONTAINED	4
▪ RISE IN STOREYS:	3*
▪ TYPE OF CONSTRUCTION:	Type A [^]
▪ EFFECTIVE HEIGHT:	11.65m
▪ CLIMATE ZONE:	5

* The plant room located at the top storey is not considered a storey for the purpose of rise in storeys in accordance with clause C1.2.

[^] Arising from fire compartment size.



2.3 FLOOR AREA/VOLUME

The floor area and volume of each fire compartment has been determined as follows:

FIRE COMPARTMENT	LOCATION	FLOOR AREA	VOLUME
1	Co-location area and plant level above	Approx. 4,900m ²	Approx. 46,500m ³
2	Southern part of building including reception, loading dock, substations and plant levels above.	Approx. 3,500m ²	Approx. 17,000m ³

Note: The above floor areas and volume are approximates only for the purpose of this assessment only and have been calculated in accordance with the BCA. As such, they should not be relied upon as an accurate representation of the floor area and volume of the subject building for any other purpose.

2.4 FIRE SOURCE FEATURE

The distances from the nearest Fire Source Features are:

LOCATION	FIRE SOURCE FEATURE	DISTANCE TO FIRE SOURCE FEATURE
North	Far boundary of Gardeners Rd	More than 6m
East	Side allotment boundary	3.2m
South	Existing building on the allotment	Less than 6m in part
West	Far boundary of Bourke St	More than 6m

3. SUMMARY OF KEY COMPLIANCE ISSUES

The following comprises a summary of the key compliance issues as identified under the clause-by-clause assessment in Appendix 1 of this report. These matters will require resolution prior to issue of the Construction Certificate.

3.1 MATTERS REQUIRING PLAN AMENDMENTS OR ADDITIONAL INFORMATION

BCA CLAUSE		DESCRIPTION
1.	C2.7	We note that for the purpose of fire compartmentation, a fire wall will be constructed between the co-location area (and plant above) and the remainder of the building. With respect to the viewing window that is proposed within the fire wall at 'Mezzanine Floor Level', it should be noted that there are no provisions within the BCA that allow protection of window openings within a fire wall. As such, in order to comply with the provisions of BCA clause C2.7, this <u>proposed window must achieve a minimum FRL of -/120/120</u> . (Note: A rating for structural adequacy is not required on the basis that the window is non-loadbearing).
2.	D2.20	The final exit doorway at Gridline J1 does not comply as it does not swing in the direction of egress (i.e. outwards).
3.	D3.5	At least one accessible car space is required to serve the building.
4.	E1.3	We note that the final location of the fire hydrant booster assembly has yet to be determined. In this instance, it should be noted that the booster assembly must be located within sight of the main entry, and: i) A minimum 10m from the building; or ii) Affixed to the building with fire rated construction around the assembly complying with AS 2419.1-2005.

3.2 MATTERS REQUIRING FIRE SAFETY ENGINEERED ALTERNATIVE SOLUTIONS

BCA CLAUSE/S		DESCRIPTION
1.	C3.2 & C3.4	Openings in the western end of the southern elevation will be situated less than 6m from another building on the allotment. Furthermore, there are window openings in the northern external wall of the existing building that will be situated less than 6m from the proposed building. We note that the doorways to the new building and windows in the existing building will be protected in accordance with the BCA DTS provisions. However, we note that an Alternative Solution will be prepared in relation to the louvers in the southern external wall of the new building due to operational requirements.
	D1.5	The maximum distance between alternative exits within the co-location area is 79m in lieu of the DTS prescribed maximum of 60m.

3.3 OTHER MATTERS REQUIRING ALTERNATIVE SOLUTIONS

BCA CLAUSE/S		DESCRIPTION
1.	D3.3	The use of a chair lift at Ground Floor level does not satisfy the deemed-to-satisfy provisions of the BCA. As such, an Alternative Solution from an appropriately qualified access consultant will be required prior to issue of the Construction Certificate.



4. CONCLUSION

This report contains an assessment of the referenced architectural documentation for the proposed three (3) storey Equinix SY3 building located at 636 Gardeners Rd Mascot against the deemed-to-satisfy provisions of the Building Code of Australia 2009 (BCA).

Arising from the assessment, several matters have been identified that require further resolution, either by way of fire engineered Alternative Solutions or plan amendments prior to issue of the Construction Certificate.

Arising from the review, it is considered that the proposed development can readily achieve compliance with the relevant provisions of the BCA, by virtue of compliance with BCA deemed-to-satisfy provisions and Alternative Solutions demonstrating compliance with the relevant BCA Performance Requirements. In this regard, we are of the opinion that any amendments required to the design documentation in order to comply with the BCA will generally be minor. Furthermore, it is considered that these matters could be resolved at Construction Certificate stage without necessarily giving rise to a Section 96 modification.



APPENDIX 1: CLAUSE-BY-CLAUSE BCA ASSESSMENT

KEY:

- **Complies:** The referenced plans show compliance with this clause
- **Does not comply:** The referenced plans do not comply with this clause
- **Further information required:** The referenced plans do not show sufficient information to establish compliance with this clause. Further details and/or design certification, should be submitted with the application for Construction Certificate to the satisfaction of the Accredited Certifier.
- **Noted:** Provisions contained within this BCA clause are provided for guidance, or are to be read in conjunction with other BCA clauses.
- **Not applicable:** This clause is not applicable to the proposed development.

CLAUSE	REFERENCE	COMMENT
SECTION A – GENERAL PROVISIONS		
Part A3.2	Classification	Class 5 Commercial Building
SECTION B – STRUCTURE		
Part B1 Structural Provisions		
B1.2	Determination of individual actions	Structural engineering details prepared by an appropriately qualified structural engineer must be submitted prior to issue of the Construction Certificate.
B1.3	Loads	As above
B1.4	Materials & Forms of Construction	<p>The structural resistance of materials and forms of construction must be determined in accordance with the following, details of which should accompany the Application for Construction Certificate:</p> <ul style="list-style-type: none"> ▪ Masonry (including masonry-veneer, unreinforced masonry and reinforced masonry): AS 3700. ▪ Concrete construction (including reinforced and prestressed concrete): AS 3600. ▪ Steel construction— <ul style="list-style-type: none"> (i) Steel structures: AS 4100. (ii) Cold-formed steel structures: AS/NZS 4600. ▪ Composite steel and concrete: AS 2327.1. ▪ Aluminium construction: AS/NZS 1664.1 or AS/NZS 1664.2. ▪ Timber construction: <ul style="list-style-type: none"> (i) Design of timber structures: AS 1720.1. (ii) Timber structures: AS 1684 Part 2, Part 3 or Part 4. ▪ Piling: AS 2159. ▪ Glazed Assemblies: <ul style="list-style-type: none"> (i) The following glazed assemblies in an external wall must comply with AS 2047: <ul style="list-style-type: none"> (A) Windows excluding those listed in (ii). (B) Sliding doors with a frame. (C) Adjustable louvres. (D) Shopfronts. (E) Window walls with one piece framing. (ii) All glazed assemblies not covered by (i) including the following glazed assemblies must comply with AS 1288 as applicable to the subject development: <ul style="list-style-type: none"> (A) All glazed assemblies not in an external wall. (B) Hinged doors, including French doors and bi-fold

CLAUSE	REFERENCE	COMMENT
		<p>doors.</p> <p>(C) Revolving doors.</p> <p>(D) Fixed louvres.</p> <p>(F) Sliding doors without a frame.</p> <p>(G) Shopfront doors.</p> <ul style="list-style-type: none"> Termite Risk Management: Where a primary building element is subject to attack by subterranean termites: AS 3660.1.
SECTION C - FIRE RESISTANCE		
Part C1 Fire Resistance & Stability		
C1.1	Type of Construction	<p>The minimum Type of Construction required is Type B. However, arising from the size of the fire compartments, Type A Construction is required (refer to comments under C2.2 below).</p> <p>As such, building elements are required to achieve the required FRL's nominated under Table 3 of Specification C1.1 (refer to comments below under Specification C1.1 & Appendix 2).</p>
C1.2	Calculation of Rise In Storeys	<p>The building has a Rise in Storeys of 3.</p> <p>In accordance with C1.2(b), the plant room located at the top storey is not considered a storey for the purpose of rise in storeys.</p>
C1.3	Buildings of Multiple Classification	Not Applicable
C1.4	Mixed Types of Construction	Not Applicable
C1.5	Two Storey Class 2, 3 or 9c Buildings	Not Applicable
C1.6	Class 4 Parts of Buildings	Not Applicable
C1.7	Open Spectator Stands & Indoor Sports Stadiums	Not Applicable
C1.8	Lightweight Construction	<p>Lightweight construction must comply with Specification C1.8 if it is used in a wall system that is required to have an FRL.</p> <p>If lightweight construction is used for the fire-resisting covering of a steel column or the like, and if—</p> <ul style="list-style-type: none"> (i) the covering is not in continuous contact with the column, then the void must be filled solid, to a height of not less than 1.2 m above the floor to prevent indenting; and (ii) the column is liable to be damaged from the movement of vehicles, materials or equipment, then the covering must be protected by steel or other suitable material.
C1.9	<i>Repealed</i>	-
C1.10	Early Fire Hazard Properties	<p>The fire hazard properties of any proposed floor or wall finishes, assemblies, or sarking material are to comply with Specification C1.10 and C1.10a.</p> <p>Product data sheets and/or test reports showing the fire hazard properties of materials complying with C1.10 should be submitted prior to issue of the Occupation Certificate.</p>
C1.11	Performance of External Walls	Not applicable as the subject building has a Rise in Stories of more than 2.
C1.12	Non-Combustible Material	Noted. Materials listed in clause C1.12, though combustible or containing combustible fibres, may be used wherever a non-combustible material is required.

CLAUSE	REFERENCE	COMMENT
Part C2 Fire Compartmentation & Separation		
C2.1	Application	Noted
C2.2	General Floor Area Limitations	As identified under section 2.3 of this report, the building contains two fire compartments. The floor area and volume of each fire compartment complies with the limitations prescribed under prescribed under BCA clause C2.2 for a Class 5 building of Type A Construction.
C2.3	Large Isolated Buildings	Not applicable
C2.4	Requirements for open space	Not applicable
C2.5	Class 9a & 9c Buildings	Not applicable
C2.6	Vertical separation of openings in external Walls	The requirements of BCA clause C2.6 do not apply as the building will be sprinkler protected throughout.
C2.7	Separation by fire walls	<p>We note that for the purpose of fire compartmentation, a fire wall will be constructed between the co-location area (and plant above) and the remainder of the building.</p> <p>The fire wall must comply with the following:</p> <ul style="list-style-type: none"> (i) Have the relevant FRL prescribed by Specification C1.1, i.e. minimum 120/120/120 FRL. (ii) Any openings in a fire wall must comply with the Deemed-to-Satisfy Provisions of Part C3. (iii) Building elements, other than roof battens with dimensions of 75 mm x 50 mm or less or sarking-type material, must not pass through or cross the fire wall unless the required fire resisting performance of the fire wall is maintained. (iv) Must extend to the underside of the roof covering with any gaps suitable fire sealed. <p>With respect to the viewing window that is proposed within the fire wall at 'Mezzanine Floor Level', it should be noted that there are no provisions within the BCA that allow protection of window openings within a fire wall. As such, in order to comply with the provisions of BCA clause C2.7, this proposed window must achieve a minimum FRL of -/120/120.</p>
C2.8	Separation of classifications in the same storey	Not applicable
C2.9	Separation of classifications in different storeys	Not applicable
C2.10	Separation of lift shafts	The proposed lift must be separated from the remainder of the building by enclosure in a shaft with an FRL complying with Table 3 of Specification C1.1 (refer to Appendix 2).
C2.11	Stairways and lifts in one shaft	Complies

CLAUSE	REFERENCE	COMMENT
C2.12	Separation of equipment	<p>Equipment must be separated from the remainder of the building with 2hr fire rated construction if the equipment comprises—</p> <ul style="list-style-type: none"> (i) lift motors and lift control panels, except that the separating construction between the lift shaft and the lift motor room need only be 120/-/-; or (ii) emergency generators or central smoke control plant; or (iii) boilers; or (iv) a battery or batteries installed in the building that have a voltage exceeding 24 volts and a capacity exceeding 10 ampere hours. <p>Separating construction must have—</p> <ul style="list-style-type: none"> (i) except as provided by (ii)— <ul style="list-style-type: none"> (A) an FRL as required by Specification C1.1, but not less than 120/120/120; and (B) any doorway protected with a self-closing fire door having an FRL of not less than -/120/30; or (ii) when separating a lift shaft and lift motor room, an FRL not less than 120/-/-. <p>Where on-site fire pumps are required, separation must comply with the requirements of AS2419.1-2005.</p>
C2.13	Electricity supply system	<ul style="list-style-type: none"> ▪ The electricity substations located within the building must be separated from any other part of the building by construction having an FRL of not less than 120/120/120; and have any doorway in that construction protected with a self-closing fire door having an FRL of not less than -/120/30. ▪ Where the proposed switchrooms will sustain emergency equipment operating in the emergency mode it must be separated from any other part of the building by construction having an FRL of not less than 120/120/120; and have any doorway in that construction protected with a self-closing fire door having an FRL of not less than -/120/30. ▪ 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.
C2.14	Public corridors in Class 2 & 3 buildings	Not applicable
Part C3 Protection of Openings		
C3.1	Application of Part	Noted
C3.2	Protection of openings in external walls	<p>Openings in the western end of the southern elevation will be situated less than 6m from another building on the allotment. Furthermore, there are window openings in the northern external wall of the existing building that will be situated less than 6m from the proposed building.</p> <p>We note that the doorways to the new building and windows in the existing building will be protected in accordance with the BCA DTS provisions. However, an Alternative Solution will be prepared in relation to the louvers in the southern external wall of the new building due to operational requirements.</p>
C3.3	Separation of external walls and associated openings in different fire compartments	Complies

CLAUSE	REFERENCE	COMMENT
C3.4	Acceptable methods of protection	<p>Where protection is proposed under BCA cl. C3.2 above, doorways, windows and other openings must be protected as follows:</p> <ul style="list-style-type: none"> (i) Doorways: external wall-wetting sprinklers as appropriate used with doors that are self-closing or automatic closing, or –/60/30 fire doors (self-closing or automatic closing). (ii) Windows: external wall-wetting sprinklers as appropriate used with windows that are automatic or permanently fixed in the closed position, –/60/– fire windows (automatic or permanently fixed in the closed position) or –/60/– automatic fire shutters. (iii) Other openings: external wall-wetting sprinklers as appropriate or construction having an FRL not less than –/60/–.
C3.5	Doorways in fire walls	<p>Proposed doorways in the fire wall identified under C2.7 above will require protection by fire doors achieving a minimum –/120/30 FRL.</p> <p>The fire doors must be self-closing, or automatic closing in accordance with the following:</p> <ul style="list-style-type: none"> (i) The automatic closing operation must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located on each side of the fire wall not more than 1.5 m horizontal distance from the opening. (ii) Where any other required suitable fire alarm system, including a sprinkler system complying with Specification E1.5, is installed in the building, activation of the system in either fire compartment separated by the fire wall must also initiate the automatic closing operation.
C3.6	Sliding fire doors	Not Applicable
C3.7	Protection of doorways in horizontal exits	<p>The two double doors providing access to the 'Secure Corridor' have been assessed as horizontal exits.</p> <p>These doorways will require protection in accordance with the provisions contained under BCA clause C3.5 above.</p>
C3.8	Openings in fire isolated exits	<p>Doorways that open into the fire-isolated exit stairways must be protected by –/60/30 FRL fire doors that are self-closing, or automatic-closing in accordance with the following:</p> <ul style="list-style-type: none"> (i) The automatic-closing operation must be initiated by the activation of a smoke detector, or a heat detector if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located not more than 1.5 m horizontal distance from the approach side of the opening. (ii) Where any other required suitable fire alarm system, is installed in the building, activation of the system must also initiate the automatic-closing operation.
C3.9	Service penetrations in fire isolated exits	<p>The fire-isolated exit must not be penetrated by any services other than:</p> <ul style="list-style-type: none"> (a) electrical wiring permitted by BCA cl. D2.7(e) to be installed within the exit; or (b) ducting associated with a pressurisation system if it— <ul style="list-style-type: none"> (i) is constructed of material having an FRL of not less than –/120/60 where it passes through any other part of the building; and (ii) does not open into any other part of the building; or (c) water supply pipes for fire services.

CLAUSE	REFERENCE	COMMENT
C3.10	Openings in fire isolated lift shafts	<p>(a) Doorways: The entrance doorways to the lift shaft must be protected by –/60/– fire doors that comply with AS 1735.11; and are set to remain closed except when discharging or receiving passengers or goods.</p> <p>(b) Lift indicator panels: 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 mm² in area.</p>
C3.11	Bounding construction Class 2, 3 and 4 buildings	Not applicable
C3.12	Openings in floors and ceilings for services	<p>Where a service passes through the new floors, or a ceiling required to have a resistance to the incipient spread of fire, the service must be protected by a shaft complying with Specification C1.1, or in accordance with C3.15.</p> <p>Where a service passes through a floor which is required to be protected by a fire-protective covering, the penetration must not reduce the fire performance of the covering.</p>
C3.13	Openings in shafts	
C3.14	Repealed	-
C3.15	Openings for service installations	Where an electrical, electronic, plumbing, mechanical ventilation, air-conditioning or other service penetrates a building element (other than an external wall or roof) that is required to have an FRL or a resistance to the incipient spread of fire, that installation must comply with clause C3.15.
C3.16	Construction Joints	Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation must be protected in a manner identical with a prototype tested in accordance with AS 1530.4 to achieve the required FRL.
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.
SPEC C1.1 Fire Resistance Construction		
1.	Scope	Noted
2.1	Exposure to fire source feature	Noted
2.2	Fire protection for support of another part	<p>(a) Where a part of a building required to have an FRL depends upon direct vertical or lateral support from another part to maintain its FRL, that supporting part, subject to (b), must—</p> <ul style="list-style-type: none"> (i) have an FRL not less than that required by other provisions of this Specification; and (ii) if located within the same fire compartment as the part it supports have an FRL in respect of structural adequacy the greater of that required— <ul style="list-style-type: none"> (A) for the supporting part itself; and (B) for the part it supports; and (iii) be non-combustible— <ul style="list-style-type: none"> (A) if required by other provisions of this Specification; or (B) if the part it supports is required to be non-combustible. <p>(b) The following building elements need not comply with (a)(ii) and (a)(iii)(B):</p> <ul style="list-style-type: none"> (i) An element providing lateral support to an external wall

CLAUSE	REFERENCE	COMMENT
		<p>complying with Clause 5.1(b) or C1.11.</p> <p>(ii) An element providing support within a carpark and complying with Clause 3.9.</p> <p>(iii) A roof providing lateral support it complies with Clause 3.5(a), (b) or (d);</p> <p>(iv) A column providing lateral support to a wall where the column complies with Clause 2.5(a) and (b).</p> <p>(v) An element providing lateral support to a fire wall or fire-resisting wall, provided the wall is supported on both sides and failure of the element on one side does not affect the fire performance of the wall.</p>
2.3	Lintels	
2.4	Attachments not to impair fire-resistance	<p>(a) A combustible material may be used as a finish or lining to a wall or roof, or in a sign, sunscreen or blind, awning, or other attachment to a building element which has the required FRL if—</p> <p>(i) the material is exempted under C1.10 or complies with the fire hazard properties prescribed in—</p> <p>(A) Clause 2 of Specification C1.10; or</p> <p>(B) Clause 2 and 3 of Specification C1.10a; and</p> <p>(ii) it is not located near or directly above a required exit so as to make the exit unusable in a fire; and</p> <p>(iii) it does not otherwise constitute an undue risk of fire spread via the facade of the building.</p> <p>(b) The attachment of a facing or finish, or the installation of ducting or any other service, to a part of a building required to have an FRL must not impair the required FRL of that part.</p>
2.5	General concessions	Not Applicable.
2.6	Mezzanine floors: Concession	Not Applicable.
2.7	Shafts	<p>Shafts required to have an FRL must be enclosed at the top and bottom by construction having an FRL not less than that required for the walls of a non-loadbearing shaft in the same building, except that these provisions need not apply to—</p> <p>(a) the top of a shaft extending beyond the roof covering, other than one enclosing a fire-isolated stairway or ramp; or</p> <p>(b) the bottom of a shaft if it is non-combustible and laid directly on the ground.</p>
2.8	Carparks in Class 2 & 3 buildings	Not Applicable
2.9	Residential Aged care buildings	Not Applicable

CLAUSE	REFERENCE	COMMENT
3.1	Type A Construction	<p>In a building required to be of Type A construction—</p> <p>(a) each building element listed in Table 3 and any beam or column incorporated in it, must have an FRL not less than that listed in the Table for the particular Class of building concerned; and</p> <p>(b) external walls, common walls and the flooring and floor framing of lift pits must be non-combustible; and</p> <p>(c) any internal wall required to have an FRL with respect to integrity and insulation must extend to—</p> <p>(i) the underside of the floor next above; or</p> <p>(ii) the underside of a roof complying with Table 3; or</p> <p>(iii) if under Clause 3.5 the roof is not required to comply with Table 3, the underside of the non-combustible roof covering and, except for roof battens with dimensions of 75 mm x 50 mm or less or roof sarking, must not be crossed by timber or other combustible building elements; or</p> <p>(iv) a ceiling that is immediately below the roof and has a resistance to the incipient spread of fire to the roof space between the ceiling and the roof of not less than 60 minutes; and</p> <p>(d) 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</p> <p>(e) a non-loadbearing—</p> <p>(i) internal wall required to be fire-resisting; and</p> <p>(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</p> <p>(f) the FRLs specified in Table 3 for an external column apply also to those parts of an internal column that face and are within 1.5 m of a window and are exposed through that window to a fire-source feature.</p>
3.2	Concessions for floors	A floor need not comply with Table 3 if it is laid directly on the ground; or it is an open-access floor (for the accommodation of electrical and electronic services and the like) above a floor with the required FRL.
3.3	Floor loading of Class 5 and 9b buildings: Concession	Not applicable
3.4	Roof superimposed on concrete slab: Concession	Not applicable
3.5	Roof: Concession	As the building will be sprinkler protected throughout, the roof need not have an FRL provided that its covering is non-combustible.
3.6	Rooflights	Not applicable
3.7	Internal columns and walls: Concession	In the storey immediately below the roof, loadbearing internal columns and internal walls (other than fire walls) may have an FRL of 60/60/60.
3.8	Open spectator stands and indoor sports stadiums	Not Applicable
3.9	Carparks	Not Applicable
3.10	Class 2 buildings: Concession	Not Applicable
4	Type B Construction	Not Applicable
5	Type C Construction	Not Applicable

CLAUSE	REFERENCE	COMMENT
SECTION D - ACCESS AND EGRESS		
PART D1 Provision for Escape		
D1.1	Application	Part D1 applies to the subject building.
D1.2	Minimum number of exits required	Complies
D1.3	When Fire isolated exits are required	<p>We note that the following exits will be constructed as fire isolated exits:</p> <ul style="list-style-type: none"> Three (3) exit stairways serving the southern part of the building. Two (2) exit stairways situated at the north-western and north-western corners of the building.
D1.4	Exit Travel Distances	<p>Exit travel distances comply based on the following:</p> <ul style="list-style-type: none"> The two double doorways adjacent to Gridline G4 serving as an Horizontal exit. The doorways within the proposed partition wall adjacent to Gridline G serving as doors in the path of travel to an exit.
D1.5	Distances between alternative exits	<p>Distances between alternative exits generally comply with the exception of the co-location area where the maximum distance of 79m is proposed in lieu of the DTS prescribed maximum of 60m.</p> <p>We note that this DTS non-compliance will be addressed by way of a fire engineered Alternative Solution to be prepared by Arup Fire prior to issue of the Construction Certificate.</p>
D1.6	Dimensions of exits	<ul style="list-style-type: none"> In a required exit or path of travel to an exit- <ul style="list-style-type: none"> the unobstructed height throughout must be not less than 2m, except the unobstructed height of any doorway may be reduced to not less than 1980 mm; the unobstructed width of each exit or path of travel to an exit, except for doorways, must be not less than 1m; the unobstructed width of a doorway must be not less than the unobstructed width of each exit minus 250mm. <p>While the referenced plans generally comply with the above, it should be noted that a minimum 1m clear width is required through at least one set of speedstiles at Ground Floor Level.</p> <ul style="list-style-type: none"> The aggregate egress width of exits serving each storey complies with the BCA DTS provisions.
D1.7	Travel via fire isolated exits	Travel via fire isolated exits generally comply with the BCA DTS provisions subject to the Service Manlock between Gridlines E & F being constructed as a fire isolated passageway which forms part of the fire isolated stairway.
D1.8	External stairways in lieu of fire-isolated exits	Not Applicable
D1.9	Travel by non fire isolated stairways or ramps	Complies
D1.10	Discharge from exits	Bollards should be provided outside the exit doors where the doorway can be blocked by a vehicle.
D1.11	Horizontal exits	Complies
D1.12	Non-Required stairways ramps or escalators	Not applicable

CLAUSE	REFERENCE	COMMENT
D1.13	Number of persons accommodated	Using Table D1.13, the number of occupants serving each level has been calculated as follows: <ul style="list-style-type: none"> Plant Levels: Less than 5 per storey Ground Floor: Less than 100 at any one time* <i>* To be confirmed prior to issue of the Construction Certificate.</i>
D1.14	Measurement of distances	Noted
D1.15	Method of measurement	Noted
D1.16	Plant rooms & lift motor rooms: Concession	Complies
D1.17	Access to lift pits	Access to lift pits to comply with BCA clause D1.17.
PART D2 Construction of Exits		
D2.1	Application of Part	Noted.
D2.2	Fire-Isolated stairways & ramps	Fire-isolated stairways must be constructed: <ul style="list-style-type: none"> i) Of non-combustible construction; and ii) So that it will not cause structural damage to, or impair the fire-resistance of the shaft, if there is local failure.
D2.3	Non-Fire-Isolated stairways and ramps	The non-fire isolated exits serving the basement carpark levels must be constructed according to D2.2, or only of— <ul style="list-style-type: none"> (a) reinforced or prestressed concrete; or (b) steel in no part less than 6 mm thick; or (c) timber that— <ul style="list-style-type: none"> (i) has a finished thickness of not less than 44 mm; and (ii) has an average density of not less than 800 kg/m³ at a moisture content of 12%; and (iii) has not been joined by means of glue unless it has been laminated and glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue.
D2.4	Separation of rising and descending stair flights	Complies
D2.5	Open access ramps and balconies	Not applicable
D2.6	Smoke lobbies	Not applicable
D2.7	Installations in exits and paths of travel	<ul style="list-style-type: none"> (a) Access to service shafts and services other than to fire-fighting or detection equipment, must not be provided from the fire-isolated stairways. (b) An opening to any chute or duct intended to convey hot products of combustion from a boiler, incinerator, fireplace or the like, must not be located in any part of a required exit or any corridor, hallway, lobby or the like leading to a required exit. (c) Gas or other fuel services must not be installed in a required exit. (d) Services or equipment comprising— <ul style="list-style-type: none"> i. electricity meters, distribution boards or ducts; or ii. central telecommunications distribution boards or equipment; or iii. electrical motors or other motors serving equipment in the building, may be installed in: <ul style="list-style-type: none"> iv. a required exit, except for fire-isolated exits specified in (a); or v. in any corridor, hallway, lobby or the like leading to a

CLAUSE	REFERENCE	COMMENT
		<p>required exit,</p> <p>if the services or equipment are enclosed by non-combustible construction or a fire-protective covering with doorways or openings suitably sealed against smoke spreading from the enclosure.</p> <p>(e) Electrical wiring may be installed in a fire-isolated exit if the wiring is associated with a lighting, detection, or pressurisation system serving the exit; or a security, surveillance or management system serving the exit; or the monitoring of hydrant or sprinkler isolating valves.</p>
D2.8	Enclosure of space under stairs and ramps	<p>(a) Fire-isolated stairways -If the space below a required fire-isolated stairway is within the fire-isolated shaft, it must not be enclosed to form a cupboard or similar enclosed space.</p> <p>(b) Non fire-isolated stairway -The space below a required non fire-isolated stairway must not be enclosed to form a cupboard or other enclosed space unless-</p> <p>(i) the enclosing walls and ceilings have an FRL of not less than 60/60/60; and</p> <p>(ii) any access doorway to the enclosed space is fitted with a self-closing -/60/30 fire door.</p>
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.
D2.10	Pedestrian ramps	Not applicable.
D2.11	Fire isolated passageways	<p>(a) The enclosing construction of a fire-isolated passageway (i.e. the Service Manlock referred to under D1.7 above) must have an FRL when tested for a fire outside the passageway in another part of the building of not less than that required for the fire isolated stairway.</p> <p>(b) Notwithstanding (a)(ii), the top construction of a fire-isolated passageway need not have an FRL if the walls of the fire-isolated passageway extend to the underside of-</p> <p>(i) a non-combustible roof covering; or</p> <p>(ii) a ceiling having a resistance to the incipient spread of fire of not less than 60 minutes separating the roof space or ceiling space in all areas surrounding the passageway within the fire compartment.</p>
D2.12	Roof as open space	Not applicable
D2.13	Treads and risers	<p>Stairways must have—</p> <p>(a) not more than 18 nor less than 2 risers in each flight.</p> <p>(b) except as permitted by (i), going (G), riser (R) and quantity (2R + G) in accordance with Table D2.13.</p> <p>(c) except as permitted by (i), goings and risers that are constant throughout in one flight.</p> <p>(d) risers which do not have any openings that would allow a 125 mm sphere to pass through between the treads.</p> <p>(e) treads which have a non-slip finish or an adequate non-skid strip near the edge of the nosings.</p> <p>(f) not more than 36 risers in consecutive flights without a change in direction of at least 30°.</p> <p>(g) in the case of a required stairway, no winders in lieu of a landing.</p>

CLAUSE	REFERENCE	COMMENT
D2.14	Landings	<p>In a stairway landings having a maximum gradient of 1:50 may be used in any building to limit the number of risers in each flight and each landing must:</p> <ul style="list-style-type: none"> (i) be not less than 750 mm long, and where this involves a change in direction, the length is measured 500 mm from the inside edge of the landing; and (ii) have a non-slip finish throughout or an adequate non-skid strip near the edge of the landing where it leads to a flight below.
D2.15	Thresholds	<p>The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf, unless the doorway opens to a road or open space, external stair landing or external balcony; and the door sill is not more than 190mm above the finished surface of the ground, balcony, or the like, to which the doorway opens.</p>
D2.16	Balustrades	<ul style="list-style-type: none"> ▪ Balustrades must be a minimum 1m above FFL, with a maximum opening of 125mm. ▪ For balustrades within the fire stair the space between balusters or the width of any opening must not be more than 300 mm. Where rails are used, a rail must be provided at a height of not more than 150 mm above the nosings of the stair treads or the floor of the landing, or the like and the space between rails must not be more than 460 mm. ▪ For floors more than 4 m above the surface beneath, any horizontal or near horizontal elements between 150mm and 760mm above the floor must not facilitate climbing.
D2.17	Handrails	<p>Handrails must be provided along at least one side of all stairways, and to at least both sides where the stairway exceeds 2m in width.</p> <p>Please note that the required minimum clear width of 1m is measured clear of handrails or any other obstructions.</p> <p>Further details demonstrating compliance with the above will be required prior to issue of the Construction Certificate.</p>
D2.18	Fixed platforms, walkways stairways and ladders	<p>A fixed platform, walkway, stairway, ladder and any going and riser, landing, handrail, balustrade or other barrier attached thereto may comply with AS 1657 in lieu of BCA clauses D2.13, D2.14, D2.16 and D2.17 if it only serves lift-motor rooms, plant-rooms, and the like.</p>
D2.19	Doorways and doors	<p>The referenced plans generally comply with the doorway provision of BCA clause D2.19.</p> <p>Please note that the power operation sliding doors at the main entry must comply with the following:</p> <ul style="list-style-type: none"> ▪ 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 ▪ 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.
D2.20	Swinging doors	<p>Generally complies, with the exception of the final exit doorway at Gridline J1.</p>

CLAUSE	REFERENCE	COMMENT
D2.21	Operation of latch	<p>All doors in a required exit, forming part of a required exit or in the path of travel to a required exit must:</p> <ul style="list-style-type: none"> be readily openable without a key from the side that faces a person seeking egress, by a single hand downward action or pushing action on a single device which is located between 900mm and 1100mm from the floor; or fitted with a fail-safe device which automatically unlocks the door upon the activation of any sprinkler system complying with Specification E1.5 or smoke, or any other detector system deemed suitable in accordance with AS 1670.1 installed throughout the building.
D2.22	Re-entry from fire isolated exits	Not applicable
D2.23	Signs on doors	<p>A sign, to alert persons that the operation of certain doors must not be impaired, must be installed where it can readily be seen on, or adjacent to, a-</p> <p>(a) required fire door providing direct access to the fire isolated exit on the side of the door that faces a person seeking egress; and</p> <p>(b) door leading from a fire isolated exit to a road or open space, on each side of the door.</p> <p>The signs must be in capital letters not less than 20 mm high in a colour contrasting with the background and state-</p> <p>(i) for an automatic door held open by an automatic hold-open device-</p> <p>"FIRE SAFETY DOOR-DO NOT OBSTRUCT "; or</p> <p>(ii) for a self-closing door-</p> <p>"FIRE SAFETY DOOR DO NOT OBSTRUCT DO NOT KEEP OPEN "; or</p> <p>(iii) for a door discharging from a fire-isolated exit-</p> <p>"FIRE SAFETY DOOR-DO NOT OBSTRUCT ".</p>
PART D3 Access for people with disabilities		
D3.1	Application of part	Noted
D3.2	Access to building	<p>External access to the building must be provided:</p> <ul style="list-style-type: none"> from the allotment boundary at the main points of entry; and from any accessible carparking space on the allotment; and through the principal public entrance.
D3.3	Parts of building to be accessible	<p>Access, finishes and fittings, including ramps, signs, doorways and other parts of the building must comply with the provisions of AS 1428.1.</p> <p>The use of a chair lift at Ground Floor level does not satisfy the deemed-to-satisfy provisions of the BCA. As such, an Alternative Solution from an appropriately qualified access consultant will be required prior to issue of the Construction Certificate.</p>
D3.4	Concessions	Noted
D3.5	Car Parking	<p>Table D3.5 requires at least 1 accessible car space for every 50 car spaces provided, or part thereof.</p> <p>The accessible car space must comply with AS 2890.1.</p>

CLAUSE	REFERENCE	COMMENT
D3.6	Identification of access facilities	Clear and legible Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access in accordance with AS 1428.1 must identify each sanitary facility; and each accessible entrance; and the path of travel from the principal public entrance to these features and facilities where their location is not apparent to the building occupant.
D3.7	Hearing augmentation-listening system	Not applicable
D3.8	Tactile Indicators	Tactile ground surface indicators must be provided to warn people with a vision impairment that they are approaching a stair or ramp (other than a step ramp and kerb ramp) <u>used by the public</u> . Tactile ground surface indicators required above must be Type B indicators in accordance with AS 1428.4.
SECTION E - SERVICES AND EQUIPMENT		
PART E1	Fire fighting equipment	
E1.3	Fire Hydrants	Required to serve the whole building. Design and installation to comply with BCA clause E1.3 & AS 2419.1-2005. In particular, please note the following: iii) External hydrants located within 10m of the external walls of the building must be protected in accordance with AS 2419.1-2005. iv) Any fixed on-site pumpset which is located within the building must be in a clearly indicated room and have direct egress to a road or open space. v) We note that the final location of the fire hydrant booster assembly has yet to be determined. In this instance, it should be noted that the booster assembly must be located within sight of the main entry, and: ▪ A minimum 10m from the building; or ▪ Affixed to the building with fire rated construction around the assembly complying with AS 2419.1-2005.
E1.4	Hose Reels	Required to serve whole building. Design and installation to comply with BCA clause E1.4 & AS 2441. Fire hose reels must be located within 4m of exits.
E1.5	Sprinklers	Not required under the BCA deemed-to-satisfy provisions, however we note that the building will be sprinkler protected throughout as part of the proposed development. Installation to comply with BCA Specification E1.5 and AS 2118.1-1999.
E1.6	Portable Extinguishers	Required to cover Class AE or E fire risks associated with emergency services switchboards and Class F fire risks involving cooking oils and fats in kitchens. To comply with clause E1.6 and AS 2444.
E1.7	Repealed	-
E1.8	Fire Control Centres	Not Applicable.
E1.9	Fire precautions during construction	In a building under construction, not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit.
E1.10	Provision for special hazards	Not Applicable

CLAUSE	REFERENCE	COMMENT
PART E2 Smoke Hazard Management		
E2.1	Application of Part	Noted
E2.2	General requirements (including Tables E2.2a & b)	The proposed sprinkler system satisfies the smoke hazard management provisions of BCA clause E2.2.
E2.3	Provision for special hazard	Not applicable
PART E3 Lift Installations		
E3.1	Repealed	-
E3.2	Stretcher facility in lifts	Not applicable as the building has an Effective Height of not more than 12m.
E3.3	Warning against use of lifts in fire	Warning sign will be required adjacent to entry to the lift in accordance with clause E3.3.
E3.4	Emergency lifts	Not applicable
E3.5	Landings	Not applicable. We note that the proposed lift is a goods lift only.
E3.6	Facilities for people with disabilities	Not applicable. We note that the proposed lift is a goods lift only.
E3.7	Fire Service Controls	Not applicable. We note that the proposed lift is a goods lift only.
E3.8	Aged Care Buildings	Not applicable
PART E4 Emergency lighting, exit signs and warning systems		
E4.1	Repealed	-
E4.2	Emergency Lighting	Required to serve the whole building.
E4.3	Measurement of distances	Noted.
E4.4	Design and operation of emergency lighting	Design and installation to comply with E4.2 & AS/NZS 2293.1.
E4.5	Exit signs	Exit signs to be provided to identify exit locations in accordance with E4.5.
E4.6	Direction signs	If an exit is not readily apparent to persons occupying or visiting the building then exit signs must be installed in appropriate positions in corridors, hallways, lobbies, and the like, indicating the direction to a required exit.
E4.7	Class 2 and 3 Buildings and Class 4 parts exemptions	Not Applicable
E4.8	Design and operation of exit signs	Design and installation to comply with E4.2 & AS/NZS 2293.1.
E4.9	Sound Systems and Intercom Systems for Emergency Purposes (SSISEP)	Not applicable
SECTION F - HEALTH AND AMENITY		
PART F1 Damp & Weatherproofing		
F1.1	Stormwater drainage	Stormwater drainage engineering details prepared by an appropriately qualified engineer are to be submitted with the application for Construction Certificate and are to comply with AS 3500 & Council requirements where applicable.
F1.2	Repealed	-
F1.3	Repealed	-
F1.4	Repealed	-
F1.5	Roof coverings	Metal sheet roofing complying with AS 1562.1.

CLAUSE	REFERENCE	COMMENT
F1.6	Sarking	New sarking-type materials used for weatherproofing of roofs and walls to comply with AS/NZS 4200 Parts 1 and 2.
F1.7	Waterproofing of wet areas in buildings	Water proofing of new wet areas to comply with the relevant parts of AS 3740.
F1.8	Repealed	-
F1.9	Damp-proofing	Damp-proofing to be provided in accordance with clause F1.9.
F1.10	Damp-proofing of floors on the ground.	Not applicable to new building works
F1.11	Provision of floor wastes	Not applicable
F1.12	Sub-floor ventilation	Not applicable
F1.13	Glazed assemblies	Glazed assemblies in an external wall to comply with AS 2047 requirements for resistance to water penetration.
PART F2 Sanitary & Other facilities		
F2.1	Facilities in residential buildings	Not Applicable
F2.2	Calculation of number of occupants and fixtures	Noted. An accessible toilet facility can be counted once for each sex on each level.
F2.3	Facilities in Class 3 to 9 Buildings, Table F2.3	The referenced plans show an adequate number of sanitary facilities based on the number of occupants identified under BCA clause D1.13 above.
F2.4	Facilities for people with disabilities	The construction and layout of all facilities provided in accordance with Table F2.4 must comply with AS 1428.1.
F2.5	Construction of sanitary compartments	The door to a fully enclosed sanitary compartment must— (i) open outwards; or (ii) slide; or (iii) be readily removable from the outside of the sanitary compartment, unless there is a clear space of at least 1.2m between the closet pan within the sanitary compartment and the nearest part of the doorway.
F2.6	Interpretation: urinals and wash basins	(a) A urinal may be— (i) an individual stall or wall-hung urinal; or (ii) each 600 mm length of a continuous urinal trough; or (iii) a closet pan used in place of a urinal. (b) A washbasin may be— (i) an individual basin; or (ii) a part of a hand washing trough served by a single water tap.
F2.7	Microbial control	Clause F2.7 does not apply in NSW.
F2.8	Waste management	Not applicable
PART F3 Room Sizes		
F3.1	Height of rooms	The ceiling height must be not less than: (i) Generally: 2.4m. (ii) A corridor, passageway, or the like: 2.1 m (iii) A sanitary compartment, airlock, tea preparation room, pantry, store room, or the like: 2.1 m
PART F4 Light & Ventilation		
F4.1	Provision of Natural light	Not Applicable

CLAUSE	REFERENCE	COMMENT
F4.2	Methods and extent of natural lighting	Not Applicable
F4.3	Natural light borrowed from adjoining room	Not Applicable
F4.4	Artificial lighting	Artificial lighting to comply with AS/NZS 1680.0 and provided to stairways and passageways, and all rooms that are frequently occupied, other circulation spaces and paths of egress.
F4.5	Ventilation of rooms	Habitable rooms, sanitary compartments, and any other room occupied by a person for any purpose must have natural ventilation complying with F4.6; or mechanical ventilation or air-conditioning system complying with AS 1668.2.
F4.6	Natural ventilation	Noted
F4.7	Ventilation borrowed from adjoining rooms	Noted
F4.8	Restriction on position of water closets and urinals	Complies
F4.9	Airlocks	Complies
F4.10	Repealed	-
F4.11	Carparks	Not applicable
F4.12	Kitchen local exhaust ventilation	Not applicable
PART F5 Sound Transmission & Installation		
F5.1	Application of Part	Not Applicable
SECTION G - ANCILLARY PROVISIONS		
G1.1	Swimming pools	Not applicable
G1.2	Coolrooms, strongrooms etc.	Not applicable
G1.101	Provision for cleaning of windows	The building must provide for a safe manner of cleaning any windows located 3 or more storeys above ground level. In this instance, compliance will be achieved where the windows can be cleaned wholly from within the building; or provision is made for the cleaning of the windows by a method complying with the Construction Safety Act 1912 and regulations made under that Act.
G2	Heating Appliances	Not Applicable
G3	Atriums	
G3.1	Application of Part	Not Applicable.
SECTION H - SPECIAL USE BUILDINGS		
H101.1	Application of Part	Not applicable
SECTION I - MAINTENANCE		
I1.1 (NSW)	Safety Measures	The provisions of BCA Section I apply following completion of the development. Essential Fire Safety Measures must be maintained in accordance with the provisions of the Environmental Planning & Assessment Regulations 2000.

CLAUSE	REFERENCE	COMMENT
SECTION J - ENERGY EFFICIENCY		
		<p>The building is subject to compliance with the Energy Efficiency Provisions of BCA Section J relating to:</p> <ul style="list-style-type: none"> - J1: Building Fabric - J2: External Glazing - J3: Building Sealing - J5: Air-conditioning and ventilation systems - J6: Artificial lighting and power - J7: Hot water supply - J8: Access for maintenance <p>The final Construction Certificate documentation from the architect, mechanical, electrical, and hydraulic engineers are to incorporate details demonstrating compliance with the above provisions (as applicable to their respective disciplines). In this instance, we note that a 'Section J Energy Efficiency' Report will be prepared prior to issue of the Construction Certificate.</p>

APPENDIX 2: TABLE 3 SPECIFICATION C1.1 (TYPE A CONSTRUCTION)

Building element	Class of building—FRL: (in minutes)			
	<i>Structural adequacy/Integrity/Insulation</i>			
	2, 3 or 4 part	5, 7a or 9	6	7b or 8
EXTERNAL WALL (including any column and other building element incorporated therein) or other external building element, where the distance from any <i>fire-source feature</i> to which it is exposed is—				
For <i>loadbearing</i> parts—				
less than 1.5m	90/ 90/ 90	120/120/120	180/180/180	240/240/240
1.5 to less than 3 m	90/ 60/ 60	120/ 90/ 90	180/180/120	240/240/180
3 or more	90/ 60/ 30	120/ 60/ 30	180/120/ 90	240/180/ 90
For <i>non-loadbearing</i> parts—				
less than 1.5 m	- / 90/ 90	- /120/120	- /180/180	- /240/240
1.5 to less than 3 m	- / 60/ 60	- / 90/ 90	- /180/120	- /240/180
3 m or more	- / - / -	- / - / -	- / - / -	- / - / -
EXTERNAL COLUMN not incorporated in an <i>external wall</i> , where the distance from any <i>fire-source feature</i> to which it is exposed is—				
less than 3 m	90/ - / -	120/ - / -	180/ - / -	240/ - / -
3 m or more	- / - / -	- / - / -	- / - / -	- / - / -
COMMON WALLS and FIRE WALLS—	90/ 90/ 90	120/120/120	180/180/180	240/240/240
INTERNAL WALLS—				
<i>Fire-resisting lift and stair shafts—</i>				
<i>Loadbearing</i>	90/ 90/ 90	120/120/120	180/120/120	240/120/120
<i>Non-loadbearing</i>	- / 90/ 90	- /120/120	- /120/120	- /120/120
<i>Bounding public corridors, public lobbies and the like—</i>				
<i>Loadbearing</i>	90/ 90/ 90	120/ - / -	180/ - / -	240/ - / -
<i>Non-loadbearing</i>	- / 60/ 60	- / - / -	- / - / -	- / - / -
<i>Between or bounding sole-occupancy units—</i>				
<i>Loadbearing</i>	90/ 90/ 90	120/ - / -	180/ - / -	240/ - / -
<i>Non-loadbearing</i>	- / 60/ 60	- / - / -	- / - / -	- / - / -
<i>Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of combustion—</i>				
<i>Loadbearing</i>	90/ 90/ 90	120/ 90/ 90	180/120/120	240/120/120
<i>Non-loadbearing</i>	- / 90/ 90	- / 90/ 90	- /120/120	- /120/120
OTHER LOADBEARING INTERNAL WALLS, INTERNAL BEAMS, TRUSSES and COLUMNS—				
	90/ - / -	120/ - / -	180/ - / -	240/ - / -
FLOORS	90/ 90/ 90	120/120/120	180/180/180	240/240/240
ROOFS	90/ 60/ 30	120/ 60/ 30	180/ 60/ 30	240/ 90/ 60



APPENDIX 3: PRELIMINARY FIRE SAFETY SCHEDULE

Statutory Fire Safety Measure	Design/Installation Standard
Automatic Fail Safe Devices	BCA Clause D2.21
Automatic Fire Detection & Alarm System (VESDA)	AS 1670.1-2004
Automatic Fire Suppression Systems	AS 2118.1-1999 (TBC)
Emergency Lighting	BCA Clause E4.4 & AS 2293.1 - 2005
Exit Signs	BCA Clauses E4.5, E4.6 & E4.8 and AS 2293.1 - 2005
Fire Dampers	BCA Clause C3.15, AS 1668.1 - 1998 & AS 1682.1 & 2 - 1990
Fire Doors	BCA Clause C2.12, C2.13, C3.2, C3.4, C3.5, C3.8 and AS 1905.1 – 2005
Fire Hose Reels	BCA Clause E1.4 & AS 2441 – 2005
Fire Hydrant Systems	Clause E1.3 & AS 2419.1 - 2005
Fire Seals	BCA Clause C3.15, AS 1530.4 & AS4072.1 - 2005
Fire Shutters (TBC)	BCA Spec. C3.4 & AS 1905.2 – 2005
Fire Windows	BCA clause C2.7 and BCA Spec. C3.4
Lightweight Construction	BCA Clause C1.8 & AS 1530.3 – 1999
Paths of Travel	EP & A Regulation Clause 186
Portable Fire Extinguishers	BCA Clause E1.6 & AS 2444 – 2001
Required Exit Doors (power operated)	BCA Clause D2.19(b)
Warning & Operational signs	Section 183 of the EP&A Regulations 2000, AS 1905.1 - 2005, BCA Clause D2.23 and E3.3

Notes:

1. The above comprises a preliminary Fire Safety Schedule only which has been based on a review of the documentation provided to date.
2. The above schedule will need to be amended to incorporate any fire engineered Alternative Solutions prior to issue of the Construction Certificate. .

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