BCA Design Compliance Report

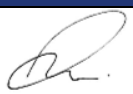
Construction of new warehouse buildings lot 1-8
155-251 & 141-153 Aldington Road Kemps Creek

Prepared for: Frasers Property Australia

Our Ref: 23000583 | Issue date: 14 September 2023

Contents

Authorisation

Revision	Comment / Reason for Issue	Issue Date	Prepared by	Reviewed by
01	DA Lodgment	14 September 2023		
			Bilal `Kurdi	Joel Lewis

Revision History

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01	DA Lodgment	14 September 2023	Bilal Kurdi

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1 Executive Summary

Modern Building Consultants (MBC Group) as the appointed Certifier for the proposed development, have reviewed architectural design documents prepared by Frasers Property (refer appendix A) for compliance with the National Construction Code - Building Code of Australia Volume One 2022.

Warehouses 1 to 8 (Lots 1-8) are the subject buildings assessed within this BCA Design Compliance Report.

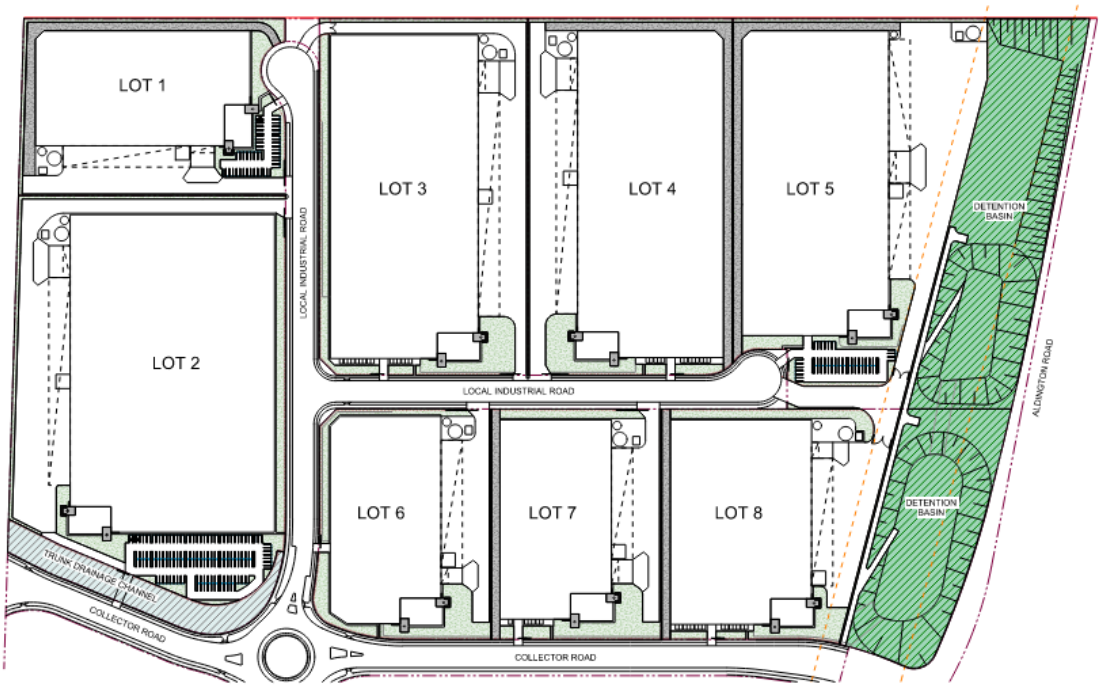

Figure 1 - Excerpt from Site Plan

1.1 Performance Solutions - Fire & Life Safety

The assessment of the design documentation has revealed that the following areas are required to be assessed against the relevant Performance Requirements of the BCA in accordance with Clause 18 of the Building and Development Certifiers Regulation 2020. The submission for a Construction Certificate will need to include verification from a Certifier – Fire Safety, where determined permissible under A2G1 of the BCA, for the following aspects: -

DTS Clause	Description of Non-Compliance	Performance Requirement
C2D2	**Fire resisting construction** Warehouses 3-8 to be provided with Nil FRL in lieu of 120/-/- as per the provisions of Type C construction.	C1P1

DTS Clause	Description of Non-Compliance	Performance Requirement
	Reduction in FRL to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	
C3D5	**Requirements for open spaces and vehicular access** Please see the following BCA Departures in relation to this Clause: Warehouse 1 – Perimeter vehicular is greater than 18m to the Eastern and Southern elevations. Warehouse 2 - Perimeter vehicular is greater than 18m to the Eastern, Western and Southern elevations. Warehouse 3 - Perimeter vehicular is greater than 18m to the Eastern, Western and Southern elevations. Warehouse 4 - Perimeter vehicular is greater than 18m to the Western and Southern elevations. Warehouse 5 - Perimeter vehicular is greater than 18m to the Eastern and Southern elevations. Warehouse 6 - Perimeter vehicular is greater than 18m to all elevations. Warehouse 7 - Perimeter vehicular is greater than 18m to the Northern, Eastern and Southern elevations. ▪ Warehouse 8 - Perimeter vehicular is greater than 18m to the Northern, Eastern and Southern elevations. External Hardstand – Where external stock piling is proposed, the perimeter access roads are to be line marked to ensure they are maintained at all times and the perimeter access roads should be designed with enhances provisions to cater for large emergency services response (e.g. Multiple alarm and multiple agency attendance – including protracted Hazardous extraction response for the containment and removal of contaminated fire water run off). The proposed hardstand areas are to be designed to accommodate the loads of fire brigade appliances or be restricted from access with permanent barriers and signage. Vehicular access will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	C1P9

DTS Clause	Description of Non-Compliance	Performance Requirement
D2D5	**Exit Travel Distances** The travel distances are assumed to exceed the deemed-to-satisfy provisions of the BCA in the following buildings: ▪ Warehouse 1 - 80m to an exit in lieu of 40m ▪ Warehouse 2 - 160m to an exit in lieu of 40m ▪ Warehouse 3 - 110m to an exit in lieu of 40m ▪ Warehouse 4 - 120m to an exit in lieu of 40m ▪ Warehouse 5 - 110m to an exit in lieu of 40m ▪ Warehouse 6 - 70m to an exit in lieu of 40m ▪ Warehouse 7 - 70m to an exit in lieu of 40m ▪ Warehouse 8 - 80m to an exit in lieu of 40m Should the warehouses incorporate racking layouts this will either increase or decrease the distance to required exits and is to be reassessed further as the building design develops. Egress will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	D1P4, E2P2
D2D6 & D2D20	**Distance between alternative exits and measurement of distance** The following areas are assumed to exceed the maximum allowable distance between alternative exits: • Warehouse 1 - 120m between exits in lieu of 60m (warehouse portion) • Warehouse 2 - 180m between exits in lieu of 60m (warehouse portion) • Warehouse 3 - 150m between exits in lieu of 60m (warehouse portion) • Warehouse 4 - 150m between exits in lieu of 60m (warehouse portion) • Warehouse 5 - 150m between exits in lieu of 60m (warehouse portion) • Warehouse 6 - 100m between exits in lieu of 60m (warehouse portion) • Warehouse 7 - 100m between exits in lieu of 60m (warehouse portion)	D1P4, E2P2

DTS Clause	Description of Non-Compliance	Performance Requirement
	• Warehouse 8 - 125m between exits in lieu of 60m (warehouse portion) Should the warehouses incorporate racking layouts this will either increase or decrease the distance between alternative exits and is to be reassessed further as the building design develops. Egress distances will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	
E1D2 / AS2419.1-2021 / AS2118.6-2012	**Fire Hydrants – Warehouses 1 to 8** Fire hydrant booster assembly is not located within site of the main entry of the building. Fire hydrants located under awnings to be treated as external hydrants. The fire hydrant booster system will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	E1P3
E1D3 AS2441-2005	**Fire Hose Reels – Warehouses 1 to 8** 50m fire hose reels are proposed to be utilised to the warehouse areas in lieu of 36m fire hose reels. Hose reels will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	E1P1
E1D4, AS2118.1-2017	**Sprinklers – Warehouses 1 to 8** The sprinkler booster and suction valve is not located adjunct to the fire hydrant booster at the main entry to the site. Sprinkler booster and suction valve location will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	E1P4

DTS Clause	Description of Non-Compliance	Performance Requirement
E2D3	**Smoke Hazard Management – Warehouses 1 to 8** It is proposed; in lieu of the BCA required automatic smoke exhaust system, the warehouse shall be provided with a rationalised automatic smoke exhaust system whereby the exhaust capacity and smoke reservoir areas will be rationalised. Smoke hazard management system will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	E2P2
E4D6 and Spec 25	**Direction Signs – Warehouses 1 to 8** Directional exit signs may be installed up to approximately 4.5m above the finished floor level and will be required to be enlarged in size and illuminated. Actual height to be confirmed through fire modelling. Non-compliance to be addressed by a performance solution certified by a suitably qualified Accredited Practitioner - Fire Safety.	E2P2 & E4P2

Any Performance Solution relating to category 2 items (E1P3, E1P4, E1P6, E2P2) will be subject to consultation and approval by Fire and Rescue NSW as part of the Construction Certificate process.

1.2 Performance Solutions – Accessibility

The assessment of the design documentation has revealed that the following areas are required to be assessed against the relevant Performance Requirements of the BCA in accordance with Clause 18 of the Building and Development Certifiers Regulation 2020. The submission for a Construction Certificate will need to include verification from a Accredited Access Consultant, where determined permissible under A2G1 of the BCA, for the following aspects:

DTS Clause	Description of Non-Compliance	Performance Requirement
	Refer to report prepared by a suitably qualified access consultant	

1.3 Performance Solutions - Non-fire or Access Related

The assessment of the design documentation has revealed that the following areas are required to be assessed against the relevant Performance Requirements of the BCA in accordance with Clause 18 of the Building and Development Certifiers Regulation 2020. The submission for a Construction Certificate will need to include verification from a Accredited Consultant (suitably

qualified in the relevant field), where determined permissible under A2G1 of the BCA, for the following aspects:

DTS Clause	Description of Non-Compliance	Performance Requirement
F3D2, F3D3, F3D4, F3D5	A weatherproofing performance solution is required to address F3P1.	F3P1
Section J	Where DtS compliance is not proposed the ESD consultant may proposed a performance solution to satisfy the performance requirements.	TBA

The application for Construction Certificate shall be assessed under the relevant provisions of the Environmental Planning and Assessment Act 1979 (As Amended) and the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021.

2 Introduction

Modern Building Consultants (MBC) have been engaged by Frasers Property Industrial to conduct a desktop review of architectural details (as listed in Appendix A) against the National Construction Code – Building Code of Australia Volume One 2022.

2.1 Purpose

The purpose of this report is to assess the current design proposal against the Deemed-to-Satisfy (DtS) provisions of the BCA.

2.2 Methodology

The methodology applied in undertaking this assessment has included: -

- A desktop review of architectural plans, as listed in Appendix A
- Detailed assessment of Sections C, D, E, F, G, and H (as applicable / relevant) of the BCA
- Discussions with the design development team to gain an understanding of the development proposed.

2.3 Limitations

This report does not include or imply any detailed assessment for design, compliance or upgrading for:

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

This report does not include, or imply compliance with:

- the National Construction Code – Plumbing Code of Australia Volume 3
- the Disability Discrimination Act 1992 including the Disability ((Access to Premises – Buildings) Standards 2010 – unless specifically referred to)
- The deemed to satisfy provisions of Part D4 and F4D5 of BCA 2022
- The deemed to satisfy provisions of Section J of BCA 2022
- Demolition Standards not referred to by the BCA;
- Work Healthy and Safety Act 2011;
- An out of cycle change to the Building Code of Australia.
- Requirements of other Regulatory Authorities including, but not limited to, Telstra, Telecommunications Supply Authority, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads and Maritime Services (RMS), Roads and Transport Authority, Local Council, ARTC, Department of Planning and the like; and
- Conditions of Development Consent issued by the Local Consent Authority

This report has been prepared by MBC in the capacity as the appointed Certifier for the proposed development. This report is an assessment of the proposed development against the DtS provisions of the applicable BCA.

2.4 Conflict of Interest

This report prepared by MBC Group was provided as part of MBC Group's contracted scope for this project, which is "Certification Work", as defined in the Building and Development Certifiers Regulation 2020.

Due to the strict requirements and limits in terms of conflicts of interest imposed under that regulation, MBC Group has not and cannot undertake any services other than Certification Work services on this project. Hence, the contents of our report, and any associated correspondence, were provided in the context of a certification assessment, and should not be construed to constitute involvement in building design, the preparation of plans and specifications, the provision of advice on how to amend a plan or specification to ensure that the aspect will comply with legislative or code requirements, or to breach any other restriction or limitation imposed under the conflict of interest provisions of that or any other legislation.

2.5 Current Legislation

The applicable legislation governing the design of buildings in NSW is the Environmental Planning and Assessment Act 1979.

Applicable Building Code of Australia (BCA)

The proposed development will be subject to compliance with the relevant requirements of the BCA as in force at the time that the application for the Construction Certificate is made.

In this regard it is assumed that the Construction Certificate application will be made prior to the 1st March 2025, as such this report is based upon the Deemed-to-Satisfy provisions of BCA 2022.

Should the application for Construction Certificate be made after 1st March 2025, this report will be required to be updated to reflect any changes made and now required by the BCA.

Should an out of cycle change occur to the Building Code of Australia, then this report is required to be updated to reflect any applicable changes made and now required by the BCA.

3 Development Description & Assessment Information

3.1 Proposed Development

The proposed development (Warehouse 1-8) consist of a warehouse and distribution centres including industrial uses and ancillary office space.

3.2 Location and Description

The site is located at, 155-251 & 141-153 Aldington Road Kemps Creek – The Edge Estate.

The subject buildings are situated on Lots 1 to 8. In total there are 8 warehouses that are subject to assessment in this report.

3.3 BCA Classification (Part A6)

The proposed developments (Warehouses 1 -8) shall contain the following classifications: -

- Class 5: being an office building or part
- Class 7b: being a warehouse building or part

It should be noted that the subject buildings are assessed as a storage facility. No manufacturing classification has been considered as part of this assessment.

3.4 Rise in Storeys (Clause C2D3)

The proposed developments has been assessed as the following:

Warehouse #	Rise in Storeys
1	Rise in storeys of one (1).
2	Rise in storeys of two (2).
3	Rise in storeys of three (3).
4	Rise in storeys of three (3).
5	Rise in storeys of three (3).
6	Rise in storeys of three (3).
7	Rise in storeys of three (3).
8	Rise in storeys of three (3).

3.5 Effective Height (Part A1)

Warehouses 1 to 8 are assumed to have an effective height of 0m. (Given they have a RIS of one (1))

Please note the definition of effective height of a building was changed 1 May 2016. The BCA now defines effective height as: -

"Effective height means the vertical distance between the floor of the lowest storey included in a determination of rise in storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift or other equipment, water tanks or similar service units)."

3.6 Type of Construction Required (Clause C2D2 / Table C2D2)

The proposed development is required to be Type C construction. Specification 5 outlines the fire resistance required by certain building elements. This has also been provided in Appendix B.

3.7 Floor Area and Volume Limitations (Clause C3D3 / Table C3D3)

The development is limited to the following floor area and volume compartment limitations:

Class		Type A	Type B	Type C
5, 9b or 9c	Max floor area -	8,000m^2	5,500m^2	3,000m^2
	Max volume -	48,000m^3	33,000m^3	18,000m^3
6, 7, 8 or 9a	Max floor area -	5,000m^2	3,500m^2	2,000m^2
	Max volume -	30,000m^3	21,000m^3	12,000m^3

The warehouse buildings exceed the above compartmentation limitations (Type A), however the buildings may be treated as a Large Isolated Buildings (Type B & C) through a Fire Engineered Performance Solution which aims to rationalize the respective FRLs and address the lack of Perimeter Vehicle Access around the subject building.

The above compartment sizes may be exceeded and treated as a Large Isolated Building (LIB) given the provisions of C3D4 and C3D5 are adhered to as appropriate. This is further detailed under the BCA Assessment section of this report.

3.8 Large Isolated Building Provisions (Clause C3D4, C3D5 & NSW E2D10)

Warehouses 1, 6, 7 & 8 shall have a floor area less than 18,000m^2, and volume in excess of 108,000m^3.

Warehouses 2, 3, 4 & 5 shall have a floor area in excess of 18,000m^2, and volume in excess of 108,000m^3.

As such the building, shall be provided the following: -

1. Sprinkler system complying with Specification 17 of the BCA throughout, and
2. Perimeter vehicular access in accordance with Clause C3D5 of the BCA i.e.
    - must be capable of providing continuous access for emergency vehicles to enable travel in a forward direction from a public road around the entire building; and
    - must have a minimum unobstructed width of 6 m with no part of its furthest boundary more than 18 m from the building and in no part of the 6 m width be built upon or used for any purpose other than vehicular or pedestrian movement; and
    - must provide reasonable pedestrian access from the vehicular access to the building; and
    - must have a load bearing capacity and unobstructed height to permit the operation and passage of fire brigade vehicles (please refer to Appendix C – F&R NSW Guideline for Emergency Vehicle Access – for detail; and
    - must be wholly within the allotment except that a public road complying with (i), (ii), (iii) and (iv) may serve as the vehicular access or part thereof; and
3. Either an automatic smoke exhaust system compliant with Specification 21 OR automatic smoke and heat vents in accordance with Specification 22 of the BCA.

With regards to point 2 above, the existing building is subject of a Performance Solution addressing Performance Requirement CP9 for two aspects of the perimeter vehicular access which does not achieve compliance with the Deemed to Satisfy provisions listed above. Those being:-

- Access for emergency vehicles is not provided within 18m from the external wall of the building to the specified sides listed in Section 1.1 of this report.

- The public access roads serving Warehouses 3 to 8 (Warehouse 1&2 only on the western side) may also serve as perimeter vehicle access through the provision of a Fire Engineered Performance Solution.

With regards to point 3 above, it is anticipated that a performance-based approach will be implemented that considers structural stability and required exits that will demonstrate compliance with Performance Requirement CP1 and EP2.2 is met without the need for a smoke exhaust system or automatic smoke and heat vents.

3.9 Building Data Summary

Part of Development	Class	Floor Area (approx.) m^2	Population
Warehouse 1 (Including awing)	7b	14,520	TBA
Office	5	515	TBA

Part of Development	Class	Floor Area (approx.) m^2	Population
Warehouse 2 (Including awing)	7b	34,280	TBA
Office	5	988	TBA

Part of Development	Class	Floor Area (approx.) m^2	Population
Undercroft carpark	7a	3,497	TBA
Warehouse 3 (Including awing)	7b	25,570	TBA
Office	5	1,007	TBA

Part of Development	Class	Floor Area (approx.) m^2	Population
Undercroft carpark	7a	3,491	TBA
Warehouse 4 (Including awing)	7b	25,610	TBA
Office	5	1,007	TBA

Part of Development	Class	Floor Area (approx.) m^2	Population
Undercroft carpark	7a	1,655	TBA
Warehouse 5 (Including awing)	7b	24,060	TBA
Office	5	1,007	TBA

Part of Development	Class	Floor Area (approx.) m^2	Population
Undercroft carpark	7a	1,835	TBA
Warehouse 6 (Including awing)	7b	12,875	TBA

Office	5	513	TBA

Part of Development	Class	Floor Area (approx.) m^2	Population
Undercroft carpark	7a	1,821	TBA
Warehouse 7 (Including awing)	7b	12,350	TBA
Office	5	513	TBA

Part of Development	Class	Floor Area (approx.) m^2	Population
Undercroft carpark	7a	2,215	TBA
Warehouse 8 (Including awing)	7b	16,025	TBA
Office	5	513	TBA

Notes:

- The occupant numbers provided above are purely indicative and have been calculated under floor area criteria (Clause D2D18). Population numbers to be provided.

Summary of Construction and Building Warehouses 1 to 8	
Use(s)	Warehouse and Office
Classifications(s)	Class 5 & 7b
Number of Storeys contained	Refer to Section 3.4 of this report
Rise in Storeys	Refer to Section 3.4 of this report
Type of Construction	Lots 1-2 - Type C Lots 3-8 - Type B
Effective Height	< 12m
Climate Zone	6
Importance Level	2

4 Proposed Fire Safety Schedule

The following is a draft Fire Safety Schedule for the proposed building, listing the likely measures and standards of performance required, this schedule shall be subject of further development and review as part of the Performance Solutions assessment:

Fire Safety Schedule
Section 78 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021

Premises: Warehouse 1 to 8 – The Edge Estate.
Address: 155-251 & 141-153 Aldington Road Kemps Creek

The following essential fire safety measures shall be implemented in the whole of the building premises and each of the fire safety measures must satisfy the standard of performance listed in the schedule which, for the purposes of Section 78 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021, is deemed to be the current fire safety schedule for the building.

SCHEDULE –BCA Year 2022
Type of Construction C
Effective height = Less than 12m

	Measure	Status	Performance Standard
1.	Automatic fire detection and alarm system	N	BCA 2022 Section E2D10 (C3D4), E2D21 Spec 20 Section S20C2, S20C4, S20C7 Spec 31, AS 1670.1-2018, AS 1603 suite Fire Engineering Report No.XX prepared by XXX, dated XX
2.	Automatic fire suppression system	N	BCA 2022 Section E1D4, Spec 17 AS 2118.1-2017 Fire Engineering Report No.XX prepared by XXX, dated XX
3.	Emergency lighting	N	BCA 2022 Section E4D2, E4D3 E4D4, AS 2293.1-2018
4.	Exit and directional signage	N	BCA 2022 Section E4D5, NSW E4D6 & E4D8, Spec 25 AS 2293.1-2018 Fire Engineering Report No.XX prepared by XXX, dated XX

	Measure	Status	Performance Standard
5.	Emergency evacuation procedures	N	Clause 43 of the Work Health & Safety Regulation 2011. Fire Engineering Report No.XX prepared by XXX, dated XX
6.	Fire hose reel systems	N	BCA 2022 Section E1D3, AS 2441-2005 Fire Engineering Report No.XX prepared by XXX, dated XX
7.	Fire hydrant systems	N	BCA 2022 Section E1D3, AS 2419.1-2021, AS 2118.6-2012 (Combined System) Fire Engineering Report No.XX prepared by XXX, dated XX
8.	Mechanical air handling systems	N	BCA 2022 Section E2D3, Spec 20, 21 & 22 AS/NZS 1668.1-2015, AS 1668.2-2012 Fire Engineering Report No.XX prepared by XXX, dated XX
9.	Occupant warning system	N	BCA 2022 Clause E2D3, S17C8, Spec 20 Clause S20C7, AS 1670.1-2018
10.	Path of travel for stairways, passageway and ramps	N	Part 15 (107-109) of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 Fire Engineering Report No.XX prepared by XXX, dated XX
11.	Perimeter vehicle access for emergency vehicles	N	BCA 2022 Section C3D5 Fire Engineering Report No. XX prepared by Affinity Fire Engineering, dated XX
12.	Portable fire extinguishers	N	BCA 2022 Section E1D14, AS 2444-2001
13.	Smoke exhaust system	N	BCA 2022 Clause E2, Spec 21, AS/NZS 1668.1-2015

	Measure	Status	Performance Standard
14.	Fire Engineering Report No.XX prepared by XXX, dated XX		

Notes
* Indicate whether the measure is new (N), existing (E) or Modified (M)

5 BCA Assessment – Clause by Clause

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
Section B - Structure			
Part B1 - Structural Provisions			
B1D4	Determination of structural resistance of materials and forms of construction	Compliance Readily Achievable	Structural documentation demonstrating that materials and forms of construction will comply with B1D2,B1D3, B1D4 of the NCC and referenced Australian Standards will be required by a suitably qualified engineer. The structural engineer is to nominate any deviations from B1D2, B1D3, B1D4 or Australian Standards applicable to these works. Structural engineer to confirm that the prescribed FRL has been achieved in accordance with Specification 5 of the NCC for all structural components. This is to be nominated on the plans submitted for review and approval. Non-structural elements within the building are to be addressed in accordance with AS 1170.4. Drawings demonstrating compliance will be required prior to issuing the building permit.
Section C - Fire resistance			
Part C2 - Fire resistance and stability			
C2D2	Type of construction required	Performance Solution Proposed	Warehouse 1-2 - Type C Construction Warehouse 3-8 - Type B Construction
C2D3	Calculation of Rise in storeys	Compliance Readily Achievable	The rise in storeys is the sum of the greatest number of storeys at any part of the external walls of the building and any storeys within the roof space— (a) above the finished ground next to that part; or (b) if part of the external wall is on the boundary of the allotment, above the natural ground level at the relevant part of the boundary. The building is noted to have the following rise in stories: ▪ Warehouse 1 – 1 ▪ Warehouse 2 - 2 ▪ Warehouse 3 - 3 ▪ Warehouse 4 – 3

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
			▪ Warehouse 5 - 3 ▪ Warehouse 6 - 3 ▪ Warehouse 7 –3 ▪ Warehouse 8 –3
C2D4	Buildings of Multiple classification	Compliance Readily Achievable	In a building of multiple classifications, the Type of construction required for the building is the most fire-resisting Type resulting from the application of Table C2D2 on the basis that the classification applying to the top storey applies to all Stories.
C2D9	Lightweight Construction	Further Details Required	Lightweight construction must comply with Specification 6 if it is used in a wall system— (a) that is required to have an FRL; or (b) for a lift shaft, stair shaft or service shaft or an external wall bounding a public corridor including a non-fire isolated passageway or non-fire-isolated ramp, in a spectator stand, sports stadium, cinema or theatre, railway station, bus station or airport terminal If lightweight construction is used for the fire-resisting covering of a steel column or the like, and if— (a) 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 (b) 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. The following will be required to demonstrate compliance - Architectural drawings detailing compliance in accordance C2D9 where applicable. - Wall schedule nominating FRL and tested system where lightweight construction is being used to achieve an FRL. - Architectural design compliance statement.
C2D11	Fire Hazard Properties	Further Details Required	The fire hazard properties of walls, ceilings, floor coverings and mechanical ductwork will need to comply with Specification 7 of the NCC. The following requirements apply: a) Floor Coverings – Critical radiant Flux not less than 2.2kW/m2 for the office portion and 1.2kW for warehouse & manufacturing portions and a maximum smoke development rate of 750 percent-minutes b) Wall and Ceiling Linings – Material Group No. 1,2 in public corridors/spaces and group 1,2,3 allowed in other areas with a smoke growth rate index not more than 100, or an average specific extinction area less than 250m2/kg c) Other Materials – Spread of Flame Index not exceeding 9 and Smoke Developed Index not exceeding 8 (if

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
			Spread of Flame if >5) Rigid and flexible air handling ductwork must comply with AS4254 parts 1 & 2 Floor linings and floor coverings used in lift cars must have a critical radiant flux not less than 2.2kW/m2 with lift wall and ceiling linings having a Group rating of 1 or 2.
C2D12	Performance of external walls in fire	Further Details Required	Concrete external walls that could collapse as complete panels (e.g. tilt-up and pre-cast concrete), in a building having a rise in storeys of not more than 2, must comply with Specification 8. Structural engineers design statement required prior to issue of the construction certificate referencing C2D12.
C2D14	Ancillary elements	Further Details Required	An ancillary element must not be fixed, installed, attached to or supported by the internal space within or external face of an external wall that is required to be non-combustible unless it is one of the following: • An ancillary element that is non-combustible. • A gutter, downpipe or other plumbing fixture or fitting. • A flashing. • A grate or grille not more than 2 m^2 in area associated with a building service. • An electrical switch, socket-outlet, cover plate or the like. • A light fitting. • A required sign. • A sign other than one provided under (a) or (g) that— i) achieves a group number of 1 or 2; and ii) does not extend beyond one storey; and iii) does not extend beyond one fire compartment; and iv) is separated vertically from other signs permitted under (h) by at least 2 storeys. v) An awning, sunshade, canopy, blind or shading hood other than one provided under (a) that— i) meets the relevant requirements of S7C7 as for an internal element; and ii) serves a storey— at ground level; or (A) immediately above a storey at ground level; and (B) does not serve an exit, where it would render the exit unusable in a fire. • A part of a security, intercom or announcement system. • Wiring • Waterproofing material applied to the floor surface of external balconies, terraces or the like, and a 250 mm

<table>
<tr><th>BCA Clause</th><th>Compliance Provisions</th><th>Status</th><th>MBC Assessment Report Commentary</th></tr>
<tr><td></td><td></td><td></td><td>upturn above the floor level
• A gasket, caulking, sealant or adhesive.
Test reports demonstrating compliance with AS 1530.1 will be required for the external wall elements and attachments will be required as the design develops.</td></tr>
<tr><td colspan="4">Part C3 - Compartmentation and Separation</td></tr>
<tr><td>C3D3</td><td>General Floor area and volume limitations</td><td>Compliance Readily Achievable</td><td>The subject building exceeds Type A limitations set out in this Clause. This may be addressed against the relevant performance requirements to enable the building to be treated as a large, isolated building.
<table>
<tr><th colspan="2" rowspan="2">Classification</th><th colspan="3">Type of Construction</th></tr>
<tr><th>A</th><th>B</th><th>C</th></tr>
<tr><td rowspan="2">5, 9b or 9c aged care building</td><td>max floor area—</td><td>8 000 m^2</td><td>5 500 m^2</td><td>3 000 m^2</td></tr>
<tr><td>max volume—</td><td>48 000 m^3</td><td>33 000 m^3</td><td>18 000 m^3</td></tr>
<tr><td rowspan="2">6, 7, 8 or 9a (except for patient care areas)</td><td>max floor area—</td><td>5 000 m^2</td><td>3 500 m^2</td><td>2 000 m^2</td></tr>
<tr><td>max volume—</td><td>30 000 m^3</td><td>21 000 m^3</td><td>12 000 m^3</td></tr>
</table></td></tr>
<tr><td>C3D4</td><td>Large isolated buildings</td><td>Performance Solution Proposed</td><td>The size of a fire compartment in a building may exceed that specified in Table C3D3 where—
(a) the building does not exceed 18 000 m2 in floor area nor exceed 108 000 m3 in volume, if—
- the building is Class 7 or 8 and—
(A) contains not more than 2 storeys; and
(B) is provided with open space complying with C3D5(1) not less than18 m wide around the building; or
- the building is Class 5, 6, 7, 8 or 9 and is—
(A) protected throughout with a sprinkler system complying with Specification 17; and
(B) provided with a perimeter vehicular access complying with C3D5(2); or
(b) The building is Class 5, 6, 7, 8 or 9 and exceeds 18 000 m2 in floor area or 108 000 m3 (b) in volume, if it is—
(i) protected throughout with a sprinkler system complying with Specification 17; and
(ii) provided with a perimeter vehicular access complying with C3D5(2); or
(c) there is more than one building on the allotment and—
(i) each building complies with (a) or (b); or</td></tr>
</table>

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
			(ii) if the buildings are closer than 6 m to each other they are regarded as one building and collectively comply with (a) or (b) **The warehouse buildings exceed the above compartmentation limitations (Type A), however the buildings may be treated as a Large Isolated Building (Type C) through a Fire Engineered Performance Solution which aims to rationalize the respective FRLs and address the lack of Performance Vehicle Access around the subject building.**
C3D5	Requirements for open spaces and vehicular access	Performance Solution Proposed	(1) An open space required by C3D4 must— (a) be wholly within the allotment except that any road, river, or public place adjoining the allotment, but not the farthest 6 m of it may be included; and (b) include vehicular access in accordance with C3D5(2); and (c) not be used for the storage or processing of materials; and (d) not be built upon, except for guard houses and service structures (such as electricity substations and pump houses) which may encroach upon the width of the space if they do not unduly impede fire-fighting at any part of the perimeter of the allotment or unduly add to the risk of spread of fire to any building on an adjoining allotment (2) Vehicular access required by this Part— (a) must be capable of providing continuous access for emergency vehicles to enable travel in a forward direction from a public road around the entire building; and (b) must have a minimum unobstructed width of 6 m with no part of its furthest boundary more than 18 m from the building and in no part of the 6 m width be built upon or used for any purpose other than vehicular or pedestrian movement; and (c) must provide reasonable pedestrian access from the vehicular access to the building; and (d) must have a load bearing capacity and unobstructed height to permit the operation and passage of fire brigade vehicles; and (d) must be wholly within the allotment except that a public road complying with (a), (b), (c) and (d) may serve as the vehicular access or part thereof (e) must be wholly within the allotment except that a public road complying with (a), (b), (c) and (d) may serve as the vehicular access or part thereof. External Hardstand – Where external stock piling is proposed, the perimeter access roads are to be line marked to ensure they are maintained at all times and the perimeter access roads should be designed with enhances provisions to cater for large emergency services response (e.g. Multiple alarm and multiple agency attendance

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			– including protracted Hazardous extraction response for the containment and removal of contaminated fire water run off). The proposed hardstand areas are to be designed to accommodate the loads of fire brigade appliances or be restricted from access with permanent barriers and signage. **Access for emergency vehicles is not provided within 18m from the external wall of the building to the following locations:** Warehouse 1 – Perimeter vehicular is greater than 18m to the Eastern and Southern elevations. ▪ Warehouse 2 - Perimeter vehicular is greater than 18m to the Eastern, Western and Southern elevations. ▪ Warehouse 3 - Perimeter vehicular is greater than 18m to the Eastern, Western and Southern elevations. ▪ Warehouse 4 - Perimeter vehicular is greater than 18m to the Western and Southern elevations. ▪ Warehouse 5 - Perimeter vehicular is greater than 18m to the Eastern and Southern elevations. ▪ Warehouse 6 - Perimeter vehicular is greater than 18m to all elevations. Warehouse 7 - Perimeter vehicular is greater than 18m to the Northern, Eastern and Southern elevations. ▪ Warehouse 8 - Perimeter vehicular is greater than 18m to the Northern, Eastern and Southern elevations. **The public access roads serving Warehouses 3 to 8 (Warehouse 1&2 only on the western side) may also serve as perimeter vehicle access through the provision of a Fire Engineered Performance Solution.**
C3D8	Separation by fire walls	Compliance Readily Achievable	Where fire walls are required, the fire walls between each fire compartment must be constructed in accordance with C3D8 and specification 5. (a) The fire wall has the relevant FRL prescribed by Specification 5 for each of the adjoining parts, and if these are different, the greater FRL, except where S5C18(c), S5C21(3) and S5C24(3) permit a lower FRL on the carpark side (b) Any openings in a fire wall must not reduce the FRL required by Specification 5 for the fire wall, except where permitted by the Deemed-to-Satisfy Provisions of Part C4 (c) Building elements, other than roof battens with dimensions of 75 mm x 50 mm or less or sarking-type

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
			material, must not pass through or cross the fire wall unless the required fire-resisting performance of the fire wall is maintained. Separation of buildings - A part of a building separated from the remainder of the building by a fire wall may be treated as a separate building for the purposes of the Deemed-to-Satisfy Provisions of Sections C, D and E if it is constructed in accordance with C3D8.
C3D9	Separation of classifications in the same storey	Compliance Readily Achievable	If a building has parts of different classifications located alongside one another in the same storey— (a) each building element in that storey must have the higher FRL prescribed in Specification 5 for that element for the classifications concerned; or (b) the parts must be separated in that storey by a firewall
C3D11	Separation of Lift Shafts	Noted	Any lift connecting more than 2 storeys, or more than 3 storeys if the building is sprinklered, (other than lifts which are wholly within an atrium) must be separated from the remainder of the building by enclosure in a shaft in which— (a) in a building required to be of Type A construction — the walls have the relevant FRL prescribed by Specification5; and (b) in a building required to be of Type B construction — the walls— (i) if loadbearing, have the relevant FRL prescribed by Tables S5C21a to S5C21f of Specification 5; or (ii) if non-loadbearing, be of non-combustible construction. Openings for lift landing doors and services must be protected in accordance with the Deemed-to-Satisfy Provisions of Part C4. **At this stage in design, there are no lifts indicated on the plans.**
C3D13	Separation of equipment	Further Details Required	The following equipment is required to be fire separated from the remainder of the building with construction achieving an FRL of 120 minutes: § lift motors and lift control panels; or § emergency generators used to sustain emergency equipment operating in the emergency mode; or § central smoke control plant; or § boilers; or § a battery system installed in the building that has a total voltage of 12 volts or more and a storage capacity of 200 kWh or more.

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			Separating construction must have— (i) an FRL as required by Specification 5, but not less than 120/120/120; and (ii) any doorway protected with a self-closing fire door having an FRL of not less than –/120/30; or (iii) when separating a lift shaft and lift motor room, an FRL not less than 120/–/–.
C3D14	Electricity supply system	Compliance Readily Achievable	An electricity substation located within a building must— (a) be separated from any other part of the building by construction having an FRL of not less than 120/120/120; and (b) have any doorway in that construction protected with a self-closing fire door having an FRL of not less than –/120/30. A main switchboard located within the building which sustains emergency equipment operating in the emergency mode must— (a) be separated from any other part of the building by construction having an FRL of not less than120/120/120; and (b) have any doorway in that construction protected with a self-closing fire door having an FRL of not less than –/120/30. Where emergency equipment is required in a building, all switchboards in the electrical installation, which sustain the electricity supply to the emergency equipment, must be constructed so that emergency equipment switchgear is separated from non-emergency equipment switchgear by metal partitions designed to minimise the spread of a fault from the non-emergency equipment switchgear. Emergency equipment includes but is not limited to the following: - Fire hydrant booster pumps. - Pumps for automatic sprinkler systems, water spray, chemical fluid suppression systems or the like. - Pumps for fire hose reels where such pumps and fire hose reels form the sole means of fire protection in the building. - Air handling systems designed to exhaust and control the spread of fire and smoke. - Emergency lifts. - Control and indicating equipment. - Emergency warning and intercom systems.

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
			It has been identified in design that the relevant emergency equipment is proposed to be fire rated in accordance with the above requirements.
Part C4 - Protection of Openings			
C4D2	Application of Part	Noted	Openings are not believed to be exposed to fire source features by less than the dimensions prescribed by the BCA.
C4D5	Acceptable methods of protection	Noted	Where protection is required, doorways, windows and other openings must be protected as follows: Doorways— (i) internal or external wall-wetting sprinklers as appropriate used with doors that are self-closing or automatic closing; or (ii) –/60/30 fire doors that are self-closing or automatic closing. Windows— (i) internal or external wall-wetting sprinklers as appropriate used with windows that are automatic closing or permanently fixed in the closed position; or (ii) –/60/– fire windows that are automatic closing or permanently fixed in the closed position; or (iii) –/60/– automatic closing fire shutters Other openings- (i) excluding voids - internal or external wall-wetting sprinklers, as appropriate; or (ii) construction having an FRL not less than -/60/- Fire doors, fire windows and fire shutters must comply with Specification 12
C4D6	Doorways in fire walls	Compliance Readily Achievable	The aggregate width of openings for doorways in a fire wall, which are not part of a horizontal exit, must not exceed 1/2 of the length of the fire wall Doors in firewalls must achieve an FRL of not less than that required by Specification 5 for the fire wall except that each door have an insulation level of at least 30. i.e. 90/90/30. Fire doors in firewalls must be self-closing or automatic closing. Automatic closing must be triggered by activation of smoke detection system in both fire compartments the fire wall is separating. **Any doorways in the wall separating the office part form the warehouse part are required to be in accordance with the provisions of this Clause.**
C4D8	Protection of doorways in horizontal exits	Noted	Horizontal exits - (a) shall be protected by a single fire door that has a FRL of not less than that required by Specification 5 for the fire wall, except that the door shall have a insulation level of at least 30; or

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			(b) in a Class 7 or 8 building must be protected by — 2 fire doors, one on each side of the doorway, each with an FRL of not less than ½ that required by Specification 5 for the fire wall except that each door must have an insulation level of at least 30. Each door must be self-closing or automatic-closing as detailed in C4D6. **No horizontal exits indicated on the plans at this stage.**
C4D13	Openings in floors and ceilings for services	Noted	(1) where a service passes through - (a) a floor that is required to have a FRL with respect to integrity or insulation; or (b) a ceiling required to have a resistance to the incipient spread of fire, the service must be installed in accordance with (a) in a building of Type A construction - a shaft complying with Specification 5; or (b) in a building of Type B or C construction - a shaft that will not reduce the fire performance of the building elements it penetrates
C4D14	Openings in shafts	Noted	Openings in shafts are required to be protected by a self-closing --/60/30 fire door or hooper or an access panel having an FRL of --/60/30.
C4D15	Openings for service installations	Noted	Any new proposed penetrations must comply with provisions of C4D15 and Spec. 13. The penetration shall comply with the tested system identical with a prototype that has been tested in accordance with AS1530.4 and AS4072 and achieves the required FRL
C4D17	Columns protected with lightweight construction to achieve an FRL	Noted	Any lightweight construction must be with a method and materials identical with a tested prototype which has achieved the required FRL. **Details of the tested system to be submitted demonstrating compliance prior to CC.**
Specifications			
Specification 5	Fire-Resisting Construction	Further Details Required	Refer to specification. Warehouses 3-8 to be provided with Nil FRL in lieu of 120/-/- as per the provisions of Type C construction. Reduction in FRL to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.
Specification 6	Structural Tests for Lightweight Construction	Further Details Required	Refer to specification

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Specification 7	Fire Hazard Properties	Further Details Required	Refer to specification -All floor, wall and ceiling lining materials shall comply with C2D11 and Specification 7 Design Compliance Statement to be provided by relevant architect prior to issue of CC.
Specification 8	Performance of External Walls in Fire	Further Details Required	Refer to specification
Section D - Access and Egress			
Part D2 - Provision for Escape			
D2D3	Number of exits required	Compliance Readily Achievable	All buildings — Every building must have at least one exit from each storey. Class 2 to 8 buildings — In addition to any horizontal exit, not less than 2 exits must be provided from the following: (a) In addition to any horizontal exit, not less than 2 exits must be provided from the following: (i) Each storey if the building has an effective height of more than 25 m. (ii) A Class 2 or 3 building subject to C2D6. Access to exits — Without passing through another sole-occupancy unit every occupant of a storey or part of a storey must have access to— an exit; or at least 2 exits if 2 or more exits are required.
D2D4	When fire-isolated stairways and ramps are required	Compliance Readily Achievable	▪ Class 2 or 3 - The following applies: (a) Subject to (b), every stairway or ramp serving as a required exit must be fire-isolated unless it connects, passes through or passes by not more than— (i) 3 consecutive storeys in a Class 2 building; or (ii) 2 consecutive storeys in a Class 3 building. (b) Notwithstanding (a), one extra storey of any classification may be included if— (i) it is only for the accommodation of motor vehicles or for other ancillary purposes; or (ii) the building has a sprinkler system (other than a FPAA101D system) complying with Specification 17 installed throughout; or (iii) the required exit does not provide access to or egress for, and is separated from, the extra storey by construction having— (A) an FRL of –/60/60, if non-loadbearing; and (B) an FRL of 90/90/90, if loadbearing; and (2) Class 5, 6, 7, 8 or 9 buildings — Every stairway or ramp serving as a required exit must be fire-

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
			isolated unless— (a) in a Class 9a health-care building — it connects, or passes through or passes by not more than 2 consecutive storeys in areas other than patient care areas; or (b) it is part of an open spectator stand; or (c) in any other case, except in a Class 9b early childhood centre or a Class 9c building, it connects, passes through or passes by not more than 2 consecutive storeys and one extra storey of any classification may be included if— (i) the building has a sprinkler system (other than a FPAA101D system) complying with Specification 17 installed throughout; or (ii) the required exit does not provide access to or egress for, and is separated from, the extra storey by construction having— (A) an FRL of –/60/60, if non-loadbearing; and (B) an FRL of 90/90/90 for Type A construction or 60/60/60 for Type B or C construction, if loadbearing; and (C) no opening that could permit the passage of fire or smoke.
D2D5	Exit travel distances	Performance Solution Proposed	Travel distance shall be as follows: Class 5, 6, 7, 8 or 9 portions except 9a buildings: - 20m to a point of choice - 40m total distance to an exit -30m to a single exit serving a storey at the level of egress to the road or open space for class 5 and 6 portions **The travel distances are assumed to exceed the deemed-to-satisfy provisions of the BCA in the following buildings:** • **Warehouse 1 - 80m to an exit in lieu of 40m** • **Warehouse 2 - 160m to an exit in lieu of 40m** • **Warehouse 3 - 110m to an exit in lieu of 40m** • **Warehouse 4 - 120m to an exit in lieu of 40m** • **Warehouse 5 - 110m to an exit in lieu of 40m** • **Warehouse 6 - 70m to an exit in lieu of 40m**

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			• **Warehouse 7 - 70m to an exit in lieu of 40m** • **Warehouse 8 - 80m to an exit in lieu of 40m** **Should the warehouses incorporate racking layouts this will either increase or decrease the distance to required exits and is to be reassessed further as the building design develops.** **Egress will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.**
D2D6	Distance between alternative exits	Performance Solution Proposed	Exits must not be less than 9m apart; and note more than: Class 5, 6, 7, 8 or 9 - 60m apart; and Located so that alternative paths of travel do not converge such that they become less than 6 m apart. **The following areas are assumed to exceed the maximum allowable distance between alternative exits:** • **Warehouse 1 - 120m between exits in lieu of 60m (warehouse portion)** • **Warehouse 2 - 180m between exits in lieu of 60m (warehouse portion)** • **Warehouse 3 - 150m between exits in lieu of 60m (warehouse portion)** • **Warehouse 4 - 150m between exits in lieu of 60m (warehouse portion)** • **Warehouse 5 - 150m between exits in lieu of 60m (warehouse portion)** • **Warehouse 6 - 100m between exits in lieu of 60m (warehouse portion)** • **Warehouse 7 - 100m between exits in lieu of 60m (warehouse portion)** • **Warehouse 8 - 125m between exits in lieu of 60m (warehouse portion)** **Should the warehouses incorporate racking layouts this will either increase or decrease the distance between alternative exits and is to be reassessed further as the building design develops.** **Egress distances will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.**
D2D7	Height of exits, paths of travel to exits and doorways	Compliance Readily Achievable	In a required exit or path of travel to an exit the unobstructed height throughout must be not less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1980 mm.

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D2D8 & NSW D2D9	Width of exits and paths of travel to exits	Compliance Readily Achievable	The unobstructed width of each required exit or path of travel to an exit, except for ladders provided in accordance with D2D21, D3D23 or I3D5, and doorways, must be not less than 1m (3) If the storey, mezzanine or open spectator stand accommodates more than 200 persons, the aggregate unobstructed width of each required exit or path of travel to an exit, except for doorways, must be not less than— (a) 2 m plus 500 mm for every 60 persons (or part) in excess of 200 persons if egress involves a change in floor level by a stairway or ramp with a gradient steeper than 1 in 12; or (b) in any other case, 2 m plus 500 mm for every 75 persons (or part) in excess of 200.
D2D10	Exit width not to diminish in direction of travel	Noted	The unobstructed width of a required exit must not diminish in the direction of travel to a road or open space, except where the width is increased in accordance with D2D8(1)(b) or D2D9(a)(i).
D2D14	Travel by non-fire-isolated stairways or ramps	Not applicable	(1) A non-fire-isolated stairway or non-fire-isolated ramp serving as a required exit must provide a continuous means of travel by its own flights and landings from every storey served to the level at which egress to a road or open space is provided. In a Class 5, 6, 7, 8 or 9 building, the distance from any point on a floor to a point of egress to a road or open space by way of a required non-fire-isolated stairway or non-fire-isolated ramp must not exceed 80 m. In a Class 5 to 8 or 9b building, a required non-fire-isolated stairway or non-fire-isolated ramp must discharge at a point not more than— (a) 20 m from a doorway providing egress to a road or open space or from a fire-isolated passageway leading to a road or open space; or (b) 40 m from one of 2 such doorways or passageways if travel to each of them from the non-fire-isolated stairway or non-fire-isolated ramp is in opposite or approximately opposite directions.
D2D15	Discharge from exits	Further Details Required	An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit, or access to it. If the required exit leads to open space, the required width of the path of travel to the road must be maintained (the minimum width of the required exit or 1m whichever is the greater). Discharge points must be as far apart as practical. The number of persons accommodated must be calculated according to D2D18. **Bollards to be indicated on plans at the required exits in the subject building.**

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D2D18	Number of persons accommodated	Further Details Required	For the purposes of the Deemed-to-Satisfy Provisions, the number of persons accommodated in a storey, room or mezzanine must be determined with consideration to the purpose for which it is used and the layout of the floor area by— (a) calculating the sum of the numbers obtained by dividing the floor area of each part of the storey by the number of square meters per person listed in Table D2D18 according to the use of that part, excluding spaces set aside for— (i) lifts, stairways, ramps and escalators, corridors, hallways, lobbies and the like; and (ii) service ducts and the like, sanitary compartments or other ancillary uses; or (b) reference to the seating capacity in an assembly building or room; or (c)any other suitable means of assessing its capacity. Table D2D18 area per person according to use
D2D21	Plant rooms, lift machine rooms and electricity network substations: Concession	Further Details Required	Ladders may be provided to plants rooms and the like if the floor area is not more than 100m2. Plant room stairways to achieve compliance with AS 1657. **Further details are required to determine compliance within the manufacturing and warehouse portions.**
Part D3 - Construction of Exits			
D3D4	Non-fire-isolated stairways and ramps	Compliance Readily Achievable	In a building having a rise in storeys of more than 2, required stairs and ramps (including landings and any supporting building elements) which are not required to be within a fire-resisting shaft, must be constructed according to D3D3, or only of— (c) reinforced or prestressed concrete; or (d) steel in no part less than 6 mm thick; or (e) (c) timber that— (i) has a finished thickness of not less than 44 mm; and has an average density of not less than 800 kg/m3 (ii) 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.
D3D8	Installations in exits and paths of travel	Noted	Services or equipment comprising— (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— (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 required exit,

<table>
<tr><th>BCA Clause</th><th>Compliance Provisions</th><th>Status</th><th>MBC Assessment Report Commentary</th></tr>
<tr><td></td><td></td><td></td><td>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.</td></tr>
<tr><td>D3D14</td><td>Goings and risers</td><td>Further Details Required</td><td>Risers and goings must comply with D3D14 and have slip resistance as per table D3D15.

Table D3D14: Riser and going dimensions
<table><tr><th rowspan="2">Stairway location</th><th colspan="2">Riser (R)</th><th colspan="2">Going (G)[Note 3]</th><th colspan="2">Quantity (2R + G)</th></tr><tr><th>Max</th><th>Min</th><th>Max</th><th>Min</th><th>Max</th><th>Min</th></tr><tr><td>Public</td><td>190</td><td>115</td><td>355</td><td>250</td><td>700</td><td>550</td></tr></table>
Detailed drawings will be required as the design develops. Architect to cover in Design Compliance Statement.</td></tr>
<tr><td>D3D15</td><td>Landings</td><td>Compliance Readily Achievable</td><td>In a stairway—
(a) 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—
(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 surface with a slip-resistance classification not less than that listed in Table D3D15 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 D3D15 when tested in accordance with AS 4586, where the edge leads to a flight below
Landings have been reviewed and appear compliant. Detailed drawings will be required as the design develops.</td></tr>
<tr><td>D3D16</td><td>Thresholds</td><td>Compliance Readily Achievable</td><td>The threshold of a doorway in an accessible building must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless the door opens to a road and open space or is provided with a threshold ramp or step ramp in accordance with AS 1428.1.</td></tr>
<tr><td>D3D17</td><td>Barriers to prevent falls</td><td>Further Details Required</td><td>A Barrier to prevent falls is required where the surface below is greater than 1m. Balustrade design is required to be in accordance with D3D18, D3D19, D3D20.

Detailed drawings of the balustrades will be required as the design develops.</td></tr>
</table>

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
D3D18	Height of Barriers	Noted	The height of a barrier required by D3D17 must be not less than the following: (a) For stairways or ramps with a gradient of 1:20 or steeper — 865 mm. (b) For landings to a stair or ramp where the barrier is provided along the inside edge of the landing and does not exceed 500 mm in length — 865 mm (c) In front of fixed seating on a mezzanine or balcony within an auditorium in a Class 9b building, where the horizontal projection extends not less than 1 m outwards from the top of the barrier — 700 mm. (d) For all other locations — 1 m.
D3D19	Openings in barriers	Noted	Openings in a required barrier must not allow a 125 mm sphere to pass through. The maximum 125 mm barrier opening for a stairway, such as a non fire-isolated stairway, is measured above the nosing line of the stair treads. Where a barrier is fixed to the face of a landing, balcony, deck or the like, the opening between the barrier and the face must not permit a 40 mm sphere to pass through
D3D20	Barrier climbability	Noted	A barrier required by D3D17, located on a floor more than 4 m above the surface beneath, must not incorporate horizontal or near horizontal elements that could facilitate climbing between 150 mm and 760 mm above the floor. A climbable element is considered a horizontal elements or a protrusion of 20mm or more. Further review will be required as the design develops.
D3D22	Handrails	Further Details Required	Handrails must— (a) be located along at least one side of the ramp or flight; and (b) be located along each side if the total width of the stairway or ramp is 2 m or more; and (c) in a Class 9b building used as a primary school or early childhood centre— (i) have one handrail fixed at a height of not less than 865 mm; and (ii) have a second handrail fixed at a height between 665 mm and 750 mm; and (d) in any other case, be fixed at a height of not less than 865 mm; and (e) be continuous between stair flight landings and have no obstruction on or above them that will tend to break a hand-hold; and (f) in a required exit serving an area required to be accessible, be designed and constructed to comply with clause 12 of AS 1428.1, except that clause 12(d) does not apply to a handrail required by (1)(c)(ii).

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
D3D23	Fixed platforms, walkways, stairways and ladders	Further Details Required	A fixed platform, walkway, stairway, ladder and any going and riser, landing, handrail or barrier attached thereto may comply with AS 1657 in lieu of D3D14, D3D16, D3D17, D3D18, D3D19, D3D20, D3D21 and D3D22 if it only serves— (a) machinery rooms, boiler houses, lift-machine rooms, plant-rooms, and the like; or (b) non-habitable rooms, such as attics, storerooms and the like that are not used on a frequent or daily basis in the internal parts of a sole-occupancy unit in a Class 2 building or Class 4 part of a building.
D3D24	Doorways and doors	Further Details Required	Doors serving as required exits or forming part of required exits must be swinging (in the direction of egress) or power operated. If fitted with a door which is power-operated— (i) 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 (ii) 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 Note: Exemptions apply to Class 6, 7 & 8 buildings with floor areas < 200m2. Please refer to D3D24
D3D25	Swinging doors	Compliance Readily Achievable	A swinging door in a required exit or forming part of a required exit must not encroach— (i) at any part of its swing by more than 500 mm 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 (ii) when fully open, by more than 100 mm on the required width of the required exit; and Must swing in the direction of egress unless— it serves a building or part with a floor area not more than 200 m2 it is the only required exit from the building or part and it is fitted with a device for holding it in the open position.
D3D26	Operation of latch	Compliance Readily Achievable	A door in a required exit, forming part of a required exit or in the path of travel to a required exit must be readily openable without a key from the side that faces a person seeking egress, by— (a) a single hand downward action on a single device which is located between 900 mm and 1.1 m from the floor and if serving an area required to be accessible by Part D4— - be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch; and - have a clearance between the handle and the back plate or door face at the centre grip section of the handle of not less than 35 mm and not more than 45 mm; or

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
			(b) a single hand pushing action on a single device which is located between 900 mm and 1.2 m from the floor.
D3D28	Signs on doors	Compliance Readily Achievable	Signage to be provided on exit and fire door; for a self-closing door— “FIRE SAFETY DOOR DO NOT OBSTRUCT DO NOT KEEP OPEN”; or, for a door discharging from fire-isolated exit "FIRE SAFETY DOOR—DO NOT OBSTRUCT"
Part D4 - Access for People with a Disability			
D4D2	General building access requirements	Further Details Required	Buildings and part of buildings must be accessible as required by this clause: Class 5, 6, 7, 7b, 8 and 9a Access must be provided to and within all areas normally used by the occupants. A D4D5 exemption is feasible for a the manufacturing & warehouse portions. Class 7a Access must be provided to and within any level containing accessible carparking spaces. **Access consultant to provide an accessibility report based upon detailed review of CC plans.**
D4D3	Access to buildings	Noted	(a) 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 & (ii) from another accessible building connected by a pedestrian link; and (iii) from any required accessible carparking space on the allotment. **Access consultant to provide an accessibility report based upon detailed review of CC plans.**
D4D4	Parts of buildings to be accessible	Noted	Access is to be provided to and within all areas normally used by occupants in accordance with AS 1428.1-2009. **Access consultant to provide an accessibility report based upon detailed review of CC plans.**

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
D4D5	Exemptions	Noted	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).
D4D6	Accessible carparking	Noted	Class 5, 7, 8 or 9c buildings 1 accessible space for every 100 carparking spaces or part thereof. **Access consultant to provide an accessibility report based upon detailed review of CC plans.**
D4D7	Signage	Noted	To be provided throughout in accordance with details in D3.6. i.e. tactile and braille indicating levels, sanitary facilities etc.
D4D9	Tactile indicators	Noted	To be provided in accordance with AS 1428 throughout: (i) a stairway, other than a fire-isolated stairway (iv) a ramps, step ramp, kerb ramp TGSI are also required in the absence of suitable barrier to protect from over head obstructions or an accessway meeting a vehicular way adjacent to an pedestrian entrance to a building.
D4D12	Ramps	Noted	On an accessway— (a) a series of connected ramps must not have a combined vertical rise of more than 3.6 m; and (b) a landing for a step ramp must not overlap a landing for another step ramp or ramp.
D4D13	Glazing on an access way	Noted	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 AS1428.1.
Specifications			
Specification 14	Non-Required Stairways, Ramps and Escalators	Noted	This Specification contains the requirements to allow non-required stairways, ramps or escalators to connect any number of storeys in a Class 5 or 6 building. This specification shall be understood in detail should it be utilised in the design of a non-required stairway, ramp or escalator. A compliance statement shall be provided by the architect prior to the issuance of the CC.
Specification 15	Braille and Tactile Signs	Noted	This Specification sets out the requirements for the design and installation of braille and tactile signage as required by D2.21, D3.6 and Specification F2.9.

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
			A compliance statement shall be provided by the architect prior to the issuance of the CC.
Section E - Services and Equipment			
Part E1 - Fire Fighting Equipment			
E1D2	Fire hydrants	Performance Solution Proposed	A fire hydrant system must be provided to serve a building with a total floor area of more than 500m2. The hydrant system shall comply with the provisions of E1D2 and AS2419.1-2021 Where internal hydrants are provided, they shall serve only the storey on which they are located Booster assemblies are to be located in accordance with the provisions of Clause 7.3.1 of AS2419.1-2021 Further details of the proposed hydrant system is to be provided demonstrating compliance with this clause and any applicable Fire Engineering requirements **The Fire hydrant booster assembly is not located within site of the main entry of the buildings. Any fire hydrants are located under awnings are to be treated as external hydrants. Building exceeds 108,000m² and therefore exceeds the provisions of AS2419.1-2021. The required 90/90/90 FRL protected wall at each external hydrant is to be omitted with the design complying with AS2419.1:2021.** **All of the above non-compliances have been identified by the fire engineer and are to form part of a performance solution certified by a suitably qualified Accredited Practitioner - Fire Safety**
E1D3	Fire hose reels	Performance Solution Proposed	A fire hose reel system must be provided - (a) to serve the whole building where one or more internal fire hydrants are installed; or (b) where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500m2 Fire hose reels shall comply with E1D3 and AS2441-2005 In achieving system coverage, one or a combination of the following criteria for individual internally located fire hose reels must be met in determining the layout of any fire hose reel system: (a) Fire hose reels must be located adjacent to an internal fire hydrant (other than one within a fire-isolated exit), except that a fire hose reel need not be located adjacent to every fire hydrant, provided system coverage can be achieved. (b) fire hose reels must be located within 4m of an exit, except that a fire hose reel need not be located adjacent to every exit, provided system coverage. (c) Where system coverage is not achieved by compliance with (a) and (b), additional fire hose reels may be

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
			located in paths of travel to an exit to achieve the required coverage **Due to the large floor areas of the buildings, hose reels with a length of 50m (in lieu of 36m) are proposed to be used within the warehouse areas. Further details of the proposed fire hose reel system is to be provided demonstrating compliance with this clause and the applicable performance solution certified by a suitably qualified Accredited Practitioner - Fire Safety**
NSW E1D4	Sprinklers	Performance Solution Proposed	Sprinkler systems must be installed with the following where applicable: (a) E1D5 to E1D12 (b) Specification 17 and Specification 18 **The sprinkler booster assembly is not located within sight of the main entrance of the buildings but is considered adjacent to one of two principle vehicular access points to the site and situated on the site boundary. Sprinkler non-compliance to be addressed by a performance solution certified by a suitably qualified Accredited Practitioner - Fire Safety. Details of the proposed system are to be provided for further review**
E1D13	Where sprinklers are required: Occupancies of excessive hazard	Noted	Buildings which contain any of the below noted items shall be provided with sprinkler protection to fire compartments which have a floor area more than 2000m2 or a volume of more than 12000m3. (a) hazardous process or storage of hazardous items (b) combustible goods with an aggregate volume exceeding 1000m3 and stored to a height greater than 4m
E1D14	Portable fire extinguishers	Noted	Portable Fire Extinguishers shall be provided as follows: To serve a class 5 building where one or more internal fire hydrants are provided, or to serve any fire compartment with a floor area greater than 500m2. Portable fire extinguishers must be provided in accordance with Clause E1D14 and AS2444 and the associated fire risks prescribed under these standards Compliance achievable - further details of all PFE locations to be provided for review in accordance with this clause, any relevant Fire Engineering Report and EFSG guidelines
E1D15	Fire control centres	Compliance Readily Achievable	A fire control centre facility in accordance with Specification 19 must be provided for - (a) a building with an effective height of more than 25m; and (b) a Class 6, 7, 8 or 9 building with a total floor area of more than 18,000m2 Compliance achievable. Further details of the proposed FCC are to be provided for review

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
E1D17	Provision for special hazards	Further Details Required	Suitable additional provision must be made if special problems of fighting fire could arise because of - (a) the nature or quantity of materials stored, displayed or used in a building or on the allotment; or (b) the location of the building in relation to a water supply for fire-fighting purposes Due to the special nature of the proposed building it has been determined that provisions for special hazards must be adopted. A registered Certifier - Fire Safety shall provide a report outlining the measures proposed to mitigate the special hazard and satisfy the requirements of Clause E1D17 of the BCA
Part E2 - Smoke Hazard Management			
E2D3	Air handling system other than as part of a smoke hazard management system	Performance Solution Proposed	An air-handling system which does not form part of a smoke hazard management system in accordance with this Part 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, subject to (2), be designed and installed— (a) to operate as a smoke control system in accordance with AS 1668.1; or (b) such that it— - incorporates smoke dampers where the air-handling ducts penetrate any elements separating the fire compartments served; and - is 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 7.5 of AS 1670.1 Miscellaneous air-handling systems covered by Sections 5 and 6 of AS 1668.1 serving more than one fire compartment (other than a carpark ventilation system) and not forming part of a smoke hazard management system must comply with that Section of the Standard. **Should it be proposed to have a ceiling height greater than 12m, an automatic smoke exhaust system in accordance with Specification E2.2b is to be provided. The system is to be designed and certified by a Mechanical Engineer.** **Alternatively, the omission of an automatic smoke exhaust system shall be addressed by a Performance Solution (prepared by a Fire Safety Engineer) against the relevant performance requirements of the BCA in consultation with FRNSW.**
E2D9	Buildings not more than 25m in effective	Noted	(1) A building not more than 25 m in effective height that— (a) is a Class 5 or 9b school building or part of a building having a rise in storeys of more than 3; or (b) is Class 6, 7b, 8 or 9b building (other than a school) or part of a building having a rise in storeys of more

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
	height: Class 5, 6, 7b, 8 and 9b buildings		than 2; or (c) has a rise in storeys of more than 2, and contains— (i) a Class 5 or 9b school part; and (ii) a Class 6, 7b, 8 or 9b (other than a school) part, must meet the requirements of (2). (2) A building referred to in (1) must be provided with— (a) in each required fire-isolated stairway, including any associated fire-isolated passageway or fire-isolated ramp, an automatic air pressurisation system for fire-isolated exits in accordance with AS 1668.1; or (b) a zone pressurisation system between vertically separated fire compartments in accordance with AS 1668.1, if the building has more than one fire compartment; or (c) an automatic smoke detection and alarm system complying with Specification 20; or (d) a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. (3) For the purposes of (2), vertically separated fire compartments are fire compartments above and below each other, and not fire compartments within the same storey.
E2D10	Buildings not more than 25m in effective height: large isolated buildings subject to C3D4.	Performance Solution Proposed	(1) In a Class 7 or 8 building of not more than 25 m in effective height, and which does not exceed 18 000 m2 in floor area nor exceed 108 000 m3 in volume, the building must be provided with— (a) a sprinkler system complying with Specification 17, and provided with perimeter vehicular access complying with C3D5(2); or (b) an automatic fire detection and alarm system complying with AS 1670.1 and monitored in accordance with S20C8; or (c) an automatic smoke exhaust system in accordance with Specification 21; or (d) automatic smoke-and-heat vents in accordance with Specification 22; or (e) natural smoke venting, with ventilation openings distributed as evenly as practicable and comprising permanent openings at roof level with a free area not less than 1.5% of floor area and low level openings which may be permanent or readily openable with a free area not less than 1.5% of floor area. (2) In a Class 5, 6, 7, 8 or 9 building of not more than 25 m in effective height, and which exceeds 18 000 m2 in floor area or 108 000 m3 in volume, the building must be provided with— (a) if the ceiling height of the fire compartment is not more than 12 m— (i) an automatic smoke exhaust system in accordance with Specification 21; or (ii) automatic smoke-and-heat vents in accordance with Specification 22; or (b) if the ceiling height of the fire compartment is more than 12 m, an automatic smoke exhaust system in accordance with Specification 21. (3) For the purposes of (1) and (2), reference to 'the building' being provided with specified measures, means

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
			to the nominated classes within the building. **The building is design to comply with the provisions of a Large Isolated Building. However, the DtS provisions are rationalised by way of a performance solution certified by a suitably qualified Accredited Practitioner - Fire Safety.**
E2D21	Provision for special hazards	Further Details Required	Additional smoke hazard management measures may be necessary due to the— (a) special characteristics of the building; or (b) special function or use of the building; or (c) special type or quantity of materials stored, displayed or used in a building; or (d) special mix of classifications within a building or fire compartment, which are not addressed in E2D4 to E2D20. **Depending on the nature of the goods beings stored, provisions for special hazards may be required.** **A registered Certifier - Fire Safety shall provide a report outlining any applicable measures proposed to mitigate the special hazard and satisfy the requirements this Clause**
Part E3 - Lift Installations			
E3D2	Lift installations	Compliance Appears Achieved	An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification 24.
E3D4	Warning against use of lifts in fire	Noted	Warning signs must be displayed; “DO NOT USE LIFTS IF THERE IS A FIRE”. No less than 10mm high that are incised, inlaid or embossed on a metal, wood, plastic or similar plate securely & permanently attached to the wall or provided directly into the surface material of the wall. These shall be near every call button for a passenger lift or group throughout the building. Details demonstrating compliance shall be provided.
E3D6	Landings	Noted	Access and egress to and from lift landings shall comply with Section D2, D3, and D4 of the BCA. Details demonstrating compliance shall be provided
E3D7	Passenger lifts	Noted	In an accessible building, every passenger lift shall comply with the limitations of Clause E3D7 of the BCA, be provided accessible features as required by Clause E3D7 of the BCA and not rely upon a constant pressure device for its operation if the lift car is fully enclosed. Details demonstrating compliance shall be provided
E3D8	Accessible features required for passenger lifts	Noted	In an accessible building, every passenger lift shall comply with the limitations of Clause E3D7 of the BCA, be provided accessible features as required by Clause E3D7 of the BCA and not rely upon a constant pressure device for its operation if the lift car is fully enclosed. Details demonstrating compliance shall be provided
Part E4 - Emergency Lighting, Exit Signs and Warning Systems			

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
E4D2	Emergency lighting requirements	Further Details Required	Emergency Lighting to be provided to the building in accordance with E4 and AS 2293.1-2018. Design Certification to be provided prior to CC.
E4D4	Design and operation of emergency lighting	Further Details Required	Design and operation of emergency lighting to be provided to the building in accordance with E4 and AS 2293.1-2018. Design Certification to be provided prior to CC.
E4D5	Exit signs	Further Details Required	Exit Signage to be provided to the building in accordance with E4 and AS 2293.1-2018. Design Certification to be provided prior to CC.
E4D6	Direction signs	Performance Solution Proposed	Direction Signs to be provided to the building in accordance with E4 and AS 2293.1-2018. Design Certification to be provided prior to CC. **Directional exit signs may be installed up to approximately 4.5m above the finished floor level and will be required to be enlarged in size and illuminated. Actual height to be confirmed through fire modelling. Non-compliance to be addressed by a performance solution certified by a suitably qualified Accredited Practitioner - Fire Safety.**
Section F - Health and Safety			
Part F1 - Damp and Weatherproofing			
F1D1	Deemed-to-Satisfy Provisions	Compliance Readily Achievable	There are not Deemed-to-Satisfy Provisions for Performance Requirement FP1.4 (The prevention of the penetration of water through external walls) This must be addressed by way of Performance Solution
F1D3	Stormwater drainage	Compliance Readily Achievable	Stormwater drainage shall comply with AS 3500.3-2018. Details of the proposed Stormwater Management System shall be provided. This detail shall be certified by a suitably qualified and Chartered Engineer
F1D6	Damp-proofing	Compliance Readily Achievable	Moisture from the ground must be prevented from reaching the structure of the building. Where a damp-proof course is provided it must comply with AS 2904-1995 or impervious sheet material in accordance with AS3660.1-2014. Details demonstrating compliance shall be provided
F1D7	Damp-proofing of floors on the ground	Noted	Floors laid on ground shall be provided a vapour barrier in accordance with AS 2870-2011. Details demonstrating compliance shall be provided
F1D8	Subfloor ventilation	Noted	Subfloor spaces must be provided with openings in external walls and internal subfloor walls in accordance with Table F1.12. Details demonstrating compliance shall be provided
Part F3 - Roof and wall cladding			
F3D1	Deemed-to-Satisfy Provisions	Noted	There are not Deemed-to-Satisfy Provisions for Performance Requirement F1P2 (Preventing rainwater from entering buildings) This must be addressed by way of Performance Solution
F3D2	Roof coverings	Compliance Readily Achievable	The roof must be covered with one of the following materials, concrete roof tiles, terracotta roof tiles, cellulose cement corrugated sheeting, metal sheet roofing, plastic sheet roofing or shingles made of

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
			terracotta, fibre cement, timber or slate. Compliance with fire resisting construction and non-combustible construction of Part C must also be achieved as applicable.
F3D3	Sarking	Noted	Sarking-type material used for weatherproofing of rood and walls must comply with AS 4200.1- 2017 and AS 4200.2-2017. Compliance with fire resisting construction and non-combustible construction of Part C must also be achieved as applicable
F3D4	Glazed assemblies	Noted	Glazed assemblies in an external wall shall comply with AS 2047-2014. The following glazed assemblies need not comply revolving doors, fixed louvres, skylights / roof lights, sliding and swinging doors without a frame, heritage windows or second hand windows, windows constructed onsite which are not design tested. Details demonstrating compliance shall be provided
Part F4 - Sanitary and Other Facilities			
F4D3	Calculation of number of occupants and facilities	Noted	Where it cannot be more accurately determined, the number of occupants shall be determined by the application of Clause D1.10 of the BCA
F4D4	Facilities in Class 3 to 9 buildings	Noted	Facilities in accordance with Table F4D4a shall be provided for the classification and use concerned. Separate sanitary facilities for males and females shall be provided except as permitted by the exemptions of Clause F4D4. Employees and the public may share the same facilities in a Class 6 and / or 9b building (Other than a school or early childhood centre) provided the number of facilities is not less than the total number required for both. Adequate means of disposal of sanitary products must be provided in sanitary facilities for females. Access consultant to review design and provide accessibility report prior to the CC.
F4D5	Accessible sanitary facilities	Noted	Accessible sanitary facilities compliant with AS 1428.1-2009 shall be provided in accordance with Clause F4D5 and Table F4D4a for the classification and use concerned. Access consultant to review design and provide accessibility report prior to the CC.
Part F5 Room Heights			
F5D2	Height of rooms and other spaces	Noted	Floor to ceiling heights compliant with Clause F5D2 of the BCA shall be achieved throughout the development. Details demonstrating compliance shall be provided.
Part F6 - Light and Ventilation			
F6D5	Artificial lighting	Noted	Artificial lighting shall be provided to all rooms that are frequently occupied, all spaces required to be accessible, all corridors, lobbies, internal stairways, other circulation spaces and paths of egress. Artificial lighting shall comply with AS/NZS 1680.0.
F6D6	Ventilation of rooms	Noted	Natural ventilation or mechanical ventilation to be provided. Mechanical Engineer to confirm compliance with F4.5 and AS 3666.1. If compliance with DtS not achievable a Performance Solution demonstrating compliance with FP4.3 and FP4.4 may be more appropriate.

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
F6D7	Natural ventilation	Noted	Natural ventilation provided in accordance with F6D7 (a) must consist of openings, windows, doors or other devices which can be opened— (i) with a ventilating area not less than 5% of the floor area of the room required to be ventilated; and (ii) open to— (A) a suitably sized court, or space open to the sky; or (B) an open verandah, carport, or the like; or (C) an adjoining room in accordance with F6D7. (b) The requirements of (a)(i) do not apply to a Class 8 electricity network substation.
F6D10	Airlocks	Noted	If a sanitary compartment is prohibited under F6D10 from opening directly to another room— (a) in a Class 5, 6, 7, 8 or 9 building (which is not an early childhood centre, primary school or open spectator stand)— (i) access must be by an airlock, hallway or other room with a floor area of not less than 1.1 m2 and fitted with self-closing doors at all access doorways; or (ii) the sanitary compartment must be provided with mechanical exhaust ventilation and the doorway to the room adequately screened from view.
F6D12	Kitchen local exhaust ventilation	Noted	A commercial kitchen must be provided with a kitchen exhaust hood complying with AS 1668.1 and AS 1668.2 where— (a) any cooking apparatus has— (i) a total maximum electrical power input exceeding 8 kW; or (ii) a total gas power input exceeding 29 MJ/h; or (b) the total maximum power input to more than one apparatus exceeds— (i) 0.5 kW electrical power; or (ii) 1.8 MJ/hour gas, per m2 of floor area of the room or enclosure.
Part G6 - Occupiable outdoor areas			
G6D1	Application of Part	Noted	(a) The Deemed-to-Satisfy Provisions of this Part apply to buildings containing an occupiable outdoor area in addition to the other Deemed-to-Satisfy Provisions of the BCA. (b) The Deemed-to-Satisfy Provisions of this Part take precedence where there is a difference to The Deemed-to-Satisfy Provisions of Sections C, D, E, F and G. (c) Except for G6.2, The Deemed-to-Satisfy Provisions of this Part do not apply to- (i) an occupiable outdoor area of a sole-occupancy unit in a Class 2 or 3 building, class 9c building or Class 4 part of a building; or (ii) an occupiable outdoor area with an area less than $10m^2$.

BCA Clause	Compliance Provisions	Status	MBC Assessment Report Commentary
G6D2	Fire hazard properties	Noted	(a) subject to (b), a lining, material or assembly in an occupiable outdoor area must comply with C2D11 as fir an internal element. (b) The following fire hazard properties of a lining, material or assembly in an occupiable outdoor area are not required to comply with C2D11: (i) Average specific extinction area. (ii) Smoke-Developed Index (iii) Smoke development rate (iv) Smoke growth rate index (SMOGRArc)
Section J - Energy Efficiency			
J2D1	Deemed-to-Satisfy Provisions	Noted	Part J Report to be provided by Architect or ESD Consultant. ESD Consultant or Architect to certify CC Plans achieve compliance with Part J.

6 Appendix A – Architectural Plans Reviewed

The following documentation, prepared by HLA Architects was used in the assessment and preparation of this report: -

Drawing No. / Revison / Title
SP1-ES-DA- A 000 A TITLE SHEET
SP1-ES-DA- A 100 A SITE ANALYSIS PLAN
SP1-ES-DA- A 101 A ESTATE PLAN
SP1-ES-DA- A 102 A LOT SUBDIVISION PLAN
SP1-ES-DA- A 103 A TREE & DEMOLITION PLAN
SP1-ES-DA- A 104 A PERMEABLE AREA PLAN
SP1-ES-DA- B 100 A SITE / WAREHOUSE PLAN (WAREHOUSE 1)
SP1-ES-DA- B 101 A SHADOW DIAGRAMS (WAREHOUSE 1)
SP1-ES-DA- B 102 A WAREHOUSE ELEVATIONS (WAREHOUSE 1)
SP1-ES-DA- B 103 A WAREHOUSE SECTIONS (WAREHOUSE 1)
SP1-ES-DA- C 100 A SITE / WAREHOUSE PLAN (WAREHOUSE 2)
SP1-ES-DA- C 101 A SHADOW DIAGRAMS (WAREHOUSE 2)
SP1-ES-DA- C 102 A WAREHOUSE ELEVATIONS (WAREHOUSE 2)
SP1-ES-DA- C 103 A WAREHOUSE SECTIONS (WAREHOUSE 2)
SP1-ES-DA- D 100 A SITE / WAREHOUSE & UNDERCROFT PARKING PLANS (WAREHOUSE 3)
SP1-ES-DA- D 101 A SHADOW DIAGRAMS (WAREHOUSE 3)
SP1-ES-DA- D 102 A WAREHOUSE ELEVATIONS (WAREHOUSE 3)
SP1-ES-DA- D 103 A WAREHOUSE SECTIONS (WAREHOUSE 3)
SP1-ES-DA- E 100 A SITE / WAREHOUSE & UNDERCROFT PARKING PLANS (WAREHOUSE 4)
SP1-ES-DA- E 101 A SHADOW DIAGRAMS (WAREHOUSE 4)
SP1-ES-DA- E 102 A WAREHOUSE ELEVATIONS (WAREHOUSE 4)
SP1-ES-DA- E 103 A WAREHOUSE SECTIONS (WAREHOUSE 4)
SP1-ES-DA- F 100 A SITE / WAREHOUSE & UNDERCROFT PARKING PLANS (WAREHOUSE 5)
SP1-ES-DA- F 101 A SHADOW DIAGRAMS (WAREHOUSE 5)
SP1-ES-DA- F 102 A WAREHOUSE ELEVATIONS (WAREHOUSE 5)
SP1-ES-DA- F 103 A WAREHOUSE SECTIONS (WAREHOUSE 5)

7 Appendix B

7.1 Specification 5 – Type C Construction

Table S5C24a: Type C construction: FRL of parts of external walls

Distance from a *fire-source feature*	**FRL (in minutes): *Structural adequacy/ Integrity / Insulation***			
	Class 2, 3 or 4 part	**Class 5, 7a or 9**	**Class 6**	**Class 7b or 8**
Less than 1.5m	90/90/90	90/90/90	90/90/90	90/90/90
1.5 to less than 3 m	–/–/–	60/60/60	60/60/60	60/60/60
3 m or more	–/–/–	–/–/–	–/–/–	–/–/–

Table S5C24b: Type C construction: FRL of external columns not incorporated into an external wall

Distance from a *fire-source feature*	**FRL (in minutes): *Structural adequacy/ Integrity / Insulation***			
	Class 2, 3 or 4 part	**Class 5, 7a or 9**	**Class 6**	**Class 7b or 8**
Less than 1.5m	90/–/–	90/–/–	90/–/–	90/–/–
1.5 to less than 3 m	–/–/–	60/–/–	60/–/–	60/–/–
3 m or more	–/–/–	–/–/–	–/–/–	–/–/–

Table S5C24c: Type C construction: FRL of common walls and fire walls

Wall type	**FRL (in minutes): *Structural adequacy/ Integrity / Insulation***			
	Class 2, 3 or 4 part	**Class 5, 7a or 9**	**Class 6**	**Class 7b or 8**
Loadbearing or non-*loadbearing*	90/90/90	90/90/90	90/90/90	90/90/90

Table S5C24d: Type C construction: FRL of internal walls

Location	**FRL (in minutes): *Structural adequacy/ Integrity / Insulation***			
	Class 2, 3 or 4 part	**Class 5, 7a or 9**	**Class 6**	**Class 7b or 8**
Bounding *public corridors*, public lobbies and the like	60/60/60	–/–/–	–/–/–	–/–/–

Between or bounding *sole-occupancy units*	60/60/60	–/–/–	–/–/–	–/–/–
Bounding a stair if *required* to be rated	60/60/60	60/60/60	60/60/60	60/60/60

Table S5C24e: Type C construction: FRL of roof

Location	FRL (in minutes): *Structural adequacy/ Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Roofs	–/–/–	–/–/–	–/–/–	–/–/–

7.2 Specification 5 – Type A Construction

Table S5C11a: Type A construction: FRL of loadbearing parts of external walls

Distance from a fire-source feature	FRL (in minutes): Structural adequacy/ Integrity / Insulation			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5 m	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 m or more	90/60/30	120/60/30	180/120/90	240/180/90

Table S5C11b: Type A construction: FRL of non-loadbearing parts of external walls

Distance from a *fire-source feature*	FRL (in minutes): *Structural adequacy/ Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
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	–/–/–	–/–/–	–/–/–	–/–/–

Table S5C11c: Type A construction: FRL of external columns not incorporated in an external wall

Column type	FRL (in minutes): *Structural adequacy/ Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8

Loadbearing	90/–/–	120/–/–	180/–/–	240/–/–
Non-*loadbearing*	–/–/–	–/–/–	–/–/–	–/–/–

Table S5C11d: Type A construction: FRL of common walls and fire walls

Wall type	**FRL (in minutes): *Structural adequacy/ Integrity / Insulation***			
	Class 2, 3 or 4 part	**Class 5, 7a or 9**	**Class 6**	**Class 7b or 8**
Loadbearing or non-*loadbearing*	90/90/90	120/120/120	180/180/180	240/240/240

Table S5C11e: Type A construction: FRL of loadbearing internal walls

Distance from a *fire-source feature*	**FRL (in minutes): *Structural adequacy/ Integrity / Insulation***			
	Class 2, 3 or 4 part	**Class 5, 7a or 9**	**Class 6**	**Class 7b or 8**
Fire-resisting lift and stair *shafts*	90/90/90	120/120/120	180/120/120	240/120/120
Bounding *public corridors*, public lobbies and the like	90/90/90	120/–/–	180/–/–	240/–/–
Between or bounding *sole-occupancy units*	90/90/90	120/–/–	180/–/–	240/–/–
Ventilating, pipe, garbage, and like *shafts* not used for the discharge of hot products of combustion	90/90/90	120/90/90	180/120/120	240/120/120

Table S5C11f: Type A construction: FRL of non-loadbearing internal walls

Location	**FRL (in minutes): *Structural adequacy/ Integrity / Insulation***			
	Class 2, 3 or 4 part	**Class 5, 7a or 9**	**Class 6**	**Class 7b or 8**
Fire-resisting lift and stair *shafts*	–/90/90	–/120/120	–/120/120	–/120/120
Bounding *public corridors*, public lobbies and the like	–/60/60	–/–/–	–/–/–	–/–/–
Between or bounding *sole-occupancy units*	–/60/60	–/–/–	–/–/–	–/–/–
Ventilating, pipe, garbage, and like *shafts* not used for the discharge of hot products of combustion	–/90/90	–/90/90	–/120/120	–/120/120

Table S5C11g: Type A construction: FRL of other building elements not covered by Tables S5C11a to S5C11f

Building element	FRL (in minutes): *Structural adequacy/ Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
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

Disclaimer

This report is based upon a single site inspection only. No testing of any fire safety measures was conducted. This report is a summary of non-compliances with the applicable parts of C, D and E of the BCA that are able to be visually sighted ONLY. Aspects excluded from this report include structural design, general building services, DDA, Part B, Part F, Part G, Part H, Part J and the requirements of service or utility providers such as phone, gas, water and energy.


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