MBC MODERN BUILDING CERTIFIERS

Building Code of Australia 2019 Amdt 1

BCA DESIGN COMPLIANCE REPORT

Proposed to construct, fit out and operate a manufacturing facility and associated warehouse facility which will be occupied and operated by Ardex.

657-769 Mamre Road, Kemps Creek NSW (proposed Lot 12)

Prepared for: Frasers Property Industrial
Issue date: 21 October 2021

Contents

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Authorisation

Revision	Comment / Reason for Issue	Issue Date	Prepared by	Reviewed by
03	Description of proposed works updated	05.11.2021		
			Joel Lewis	Seb Howe

Revision History

Revision	Comment / Reason for Issue	Issue Date	Prepared By
01	DA Lodgement	22.09.2021	Joel Lewis
02	DA Lodgement – Updated as per stakeholders comments	21.10.2021	Joel Lewis
03	Description of proposed works updated	05.11.2021	Joel Lewis

Summary of SEARS

SEARs.	Report Reference
No applicable SEARS requirement	*No applicable SEARS requirement*

Commercial in Confidence

1 Executive Summary

Modern Building Certifiers have been commissioned to carry out a detailed assessment of the proposed construct, fit out and operate a manufacturing facility and associated warehouse facility at 657-769 Mamre Road, Kemps Creek (proposed Lot 12) which will be occupied and operated by Ardex located at Lot 12, 657-769 Mamre Road, Kemps Creek, against the requirements of the National Construction Code (NCC) Series (Volume 1) – Building Code of Australia (BCA) 2019 Amdt 1 Deemed to Satisfy (DtS) prescriptive provisions.

The NCC is a performance-based code which allows assessment under the following Assessment Methods, or any combination of them to determine that the performance requirements of the code are met:

a) Evidence to support the use of a material or product, form of construction or design meets a performance requirement or a DtS provision;
b) Verification Methods such as-
    a. The Verification Methods in the NCC (such as a test, inspection, calculation or other method that determines a Performance solution complies with the relevant performance requirements); or
    b. Such other Verification Methods as the appropriate authority accepts for determining compliance with the performance requirements;
c) Expert Judgement from a party with the relevant experience and qualifications to determine compliance with the relevant requirements;
d) Comparison with the DtS provisions.

Due to the size of the development, Fire & Rescue NSW referral is required (under r.144 of EP&A Regulations) if there is an alternative solution relating to Category 2 Fire Safety Provision of the Environmental Planning and Assessment Regulations (2000).

Anticipated Performance Solutions - Fire & Life Safety

The assessment of the design documentation has revealed that the following areas do not meet the relevant Deemed to Satisfy provisions and therefore are required to be assessed against the relevant performance requirements of the BCA. The submission for Construction certificate will need to include verification from a suitably accredited fire engineer for the following aspects:

DTS Clause	Description of Non-Compliance	Performance Requirement
C1.1	Fire resisting construction Roller shutter doorways are located within the fire wall to the dangerous goods room which is required to achieve a FRL.	CP2

	Should roller shutter be provided in the wall requiring to achieve a FRL, the shutters will be required to be addressed against the Performance Requirements of the BCA.	
C2.4	Requirements for open spaces and vehicular access Access for emergency vehicles is not provided within 18m from the external wall of the building to all elevations. Boom gates are located within the perimeter vehicle access. Should vehicular access not be provided in accordance with the deemed-to-satisfy provisions of the BCA, the vehicular access will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	CP9
D1.4 & D1.5	Extended Travel Distances The travel distance to and distance between exits have been assessed to exceed the deemed-to-satisfy provisions of the BCA in the following areas: ▪ 90m to an exit in lieu of 40m to the warehouse ▪ 180m between exits in lieu of 60m to the warehouse Should egress distances not be provided in accordance with the deemed-to-satisfy provisions of the BCA, the egress distances will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	DP4, EP2.2
E1.3 & AS2419.1-2005	External Hydrant System Should hydrant booster assembly or be located within site of the main entry of the building, the hydrant booster will be required to be addressed	EP1.3

	against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW Should hydrants be located under awnings, the hydrant locations will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	
E1.4 & AS2441-2005	Fire Hose Reels Should 50m fire hose reels be proposed to be utilised to the warehouse areas in lieu of 36m fire hose reels, the hose reels will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	EP1.1
E1.5 & AS2118.1-2017	Sprinkler Booster Location Should the sprinkler booster and suction valve not be located at the main entry to the site and adjacent to the fire hydrant booster, the 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.	EP1.4
E2.2b	Smoke Hazard Management Should the smoke hazard management system not be provided to the buildings in accordance with the deemed-to-satisfy provisions of the BCA, it will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	EP2.2
E4.5 & AS2293.1-2005	Exit Signs Should illuminated exit signs be proposed to be mounted greater than 2.7m from the FFL, the signs will be required to be addressed against the Performance Requirements of the BCA and in consultation with Fire and Rescue NSW.	EP4.2

Anticipated Performance Solutions - Accessibility

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

All areas normally used by occupants are required to be accessible. Plans and specifications are to be provided that detail all changes in levels, door hardware and fixtures and fittings required for use by people with a disability. Areas such as plant rooms may be exempted from the access provisions of D3 and AS 1428.1-2009 in accordance with BCA D3.4.

The project documentation will need further detailing such as construction specifications, services design and manufacturer's product details.

The application for Construction Certificate shall be assessed under the relevant provisions of the Environmental Planning & Assessment Act 1979 (As Amended) and the Environmental Planning & Assessment Regulation 2000.

Regards,

Joel Lewis
Director

2 Introduction

Modern Building Certifiers (MBC) have been engaged by Frasers Property Industrial to conduct a desktop review of architectural details (as listed in Appendix A) against the applicable Deemed to Satisfy (DtS) provisions of the Building Code of Australia (BCA) 2019 Amdt 1.

2.1 Purpose

The purpose of this report is to assess the current design proposal against the Deemed-to-Satisfy Provisions of the BCA, and to outline those areas, if any, where:

- compliance is not achieved,
- areas may warrant redesign to achieve compliance,
- areas may be able to be assessed against the relevant performance 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, H and J (as applicable / relevant) of the BCA

2.3 Limitations

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

- 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 D3 and F2.4 of BCA 2019
- 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.

2.4 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 May 2022, as such this report is based upon the Deemed-to-Satisfy provisions of BCA 2019 Amdt 1.

Should the application for Construction Certificate be made after 1st May 2022, 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 Location and Description

The proposed development consists to construct, fit out and operate a manufacturing facility and associated warehouse facility at 657-769 Mamre Road, Kemps Creek (proposed Lot 12) which will be occupied and operated by Ardex.

The manufacturing facility and associated warehouse facility comprises an office located over two stories, warehouse storage area, manufacturing areas on-grade carparking and landscaping.

The site is located at 657-769 Mare Road, Kemps Creek (proposed Lot 12).

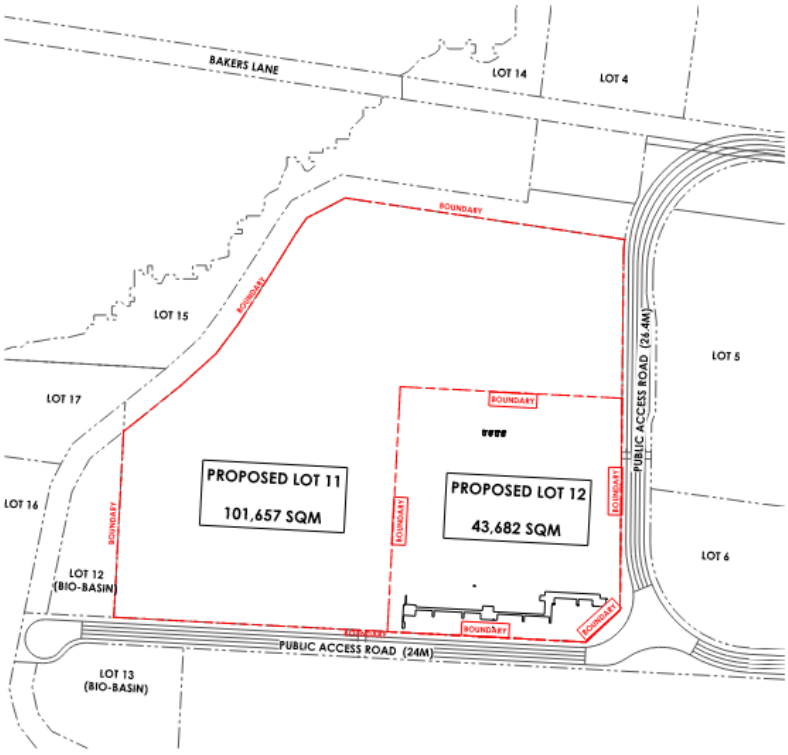

Figure 1: Estate Plan Lot 10, 657-769 Mamre Road, Kemps Creek

3.2 Building Data Summary

Part of Development	Use	Class	Floor Area (approx.) m^2	Population
Ground Floor	Warehouse	7b	18,796	TBA
Ground Floor	Factory	8	7,430	TBA
Ground & First Floor	Office & dock office	5	2,580	TBA
Ground Floor	Training Area	9b	500	TBA

Note: awnings have been included in the calculated floor area

Summary of Construction and Building	
Use(s)	Office, warehouse &factory
Classification(s)	5, 7b & 8
Number of Storeys contained	Two (2)*
Rise in Storeys	Two (2)*
Type of Construction	C
Effective Height	<12m

* It is noted that numerous levels are contained within the high bay area. Levels that are for maintenance only have been determined in the rise in stories.

3.3 BCA Classification (Clause A3.2)[1]

The proposed development shall contain the following classifications:

- Class 5: being the office areas
- Class 7b: being the warehouse areas

- Class 8: being the manufacturing or processing areas
- Class 9b:

3.4 Rise in Storeys (Clause C1.2)

The building has been assessed to have a *rise in storeys* of two (2).

It is noted that numerous levels are contained within the high bay area. Levels that are for maintenance only have been determined in the rise in stories.

3.5 Effective Height (Clause A1.1)

The building is assumed to have an *effective height* of less than 12m, this is measured from the lowest storey in the calculation of rise in storeys (C1.2) and the floor of the topmost storey.

3.6 Type of Construction Required (Clause C1.1 / Table C1.1)

The proposed development is required to be Type C construction. Specification C1.1 outlines the fire resistance required by certain building elements. The required FRLs have been provided in Appendix B.

3.7 Floor Area and Volume Limitations (Clause C2.2 / Table C2.2)

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 buildings exceeds the above compartmentation limitations.

The above compartment sizes may be exceeded and treated as a Large Isolated Building (LIB) given the provisions of C2.3 and C2.4 are adhered to as appropriate. This is further detailed under the BCA Assessment section of this report.

4 BCA Assessment

4.1 Structural Provisions

Any new structural works are to comply with the applicable requirements of BCA Part B and the applicable referenced documents of Schedule 4 including the AS 1170 suite.

The building is assessed as being of importance level 2 in accordance with AS 1170, the structural engineer should confirm.

Any glazing, including external glazed assemblies, shall comply with AS1288-2006 – Glass in Buildings – Selection and Installation, including Amendments 1, 2 and 3.

Any external glazed assemblies shall also comply with AS2047-2014 – Windows and external glazed doors in buildings.

Fire Resistance Levels (FRLs) of building elements as specified in Table 3 of the BCA for Type C construction are to be confirmed by a structural engineer in accordance with Schedule 5 of BCA 2019.

Prior to the issue of the relevant Construction Certificate, structural certification is required to be provided confirming the building is structurally adequate for the proposed works and the structural design complies with the requirements of Section B & Parts C1, C2, C3 of the BCA.

It is noted roller shutter doorways are located within the fire wall to the dangerous goods room which is required to achieve a FRL. Should it be proposed that the shutters are located in a wall with construction requiring to FRL, the construction will be required to be addressed as part of the fire engineering against Performance Requirement CP2 of the BCA.

4.2 Fire Resistance

4.2.1 **Large Isolated Buildings**

Due to the large sizes of the buildings and its fire compartments, to assist in fire safety, a fire suppression system in the form of a sprinkler system designed and installed to BCA Spec E1.5 provisions (including AS 2118.1-2017 design) and perimeter vehicular access is required to be provided according to C2.4 (b).

Where ancillary buildings are located within 6m of the building, these are regarded to be part of the building and are regarded as one building (for the purposes of the provisions of large isolated buildings) which should collectively be sprinkler protected and provided with perimeter vehicular access.

Vehicular access is required to satisfy the following provisions:

- Provide a continuous access road for emergency vehicles to enable travel in a forward direction from a public road around the entire perimeter.
- Be min 6m width with no part of its boundary >18m from the building.
- Must not be built upon (except for guard houses and service structures (such as substations/ pump rooms as long as they are designed to not unduly add to the risk of fire spread or unduly impede fire-fighting activity).
- Have loadbearing capacity to support a fire tender.
- Be wholly within the allotment or part of a public road that satisfies the above.

It is noted that access from emergency vehicles has not been provided within 18m from the external walls of the building to all elevations and boom gates are located within the perimeter vehicle access.

Vehicular access is required to be provided in accordance with the deemed-to-satisfy provisions of the BCA or addressed against the performance requirements of the BCA and in consultation with Fire and Rescue NSW.

4.2.2 Protection of Openings

From the information provided the building appears to be set back more than

- 3m from a neighbouring lot boundary not bound by a road,
- 6m from another Class 2-9 building on the allotment,
- 6m from the far boundary of a road.

The building appears to comply with the deemed-to-satisfy provisions of the BCA.

4.2.3 Fire Hazard Properties

The fire hazard properties of all lining materials including fixed surface linings and mechanical ductwork will also need to be addressed within the detailed documentation phase pursuant to specification C1.10 Building Code of Australia.

4.3 Egress

The egress provisions from the proposed buildings are assumed will be provided by:

- Perimeter exits around each elevation of the building and
- Internal stair cores leading from upper levels to ground.

Further detailing of the exits should be undertaken a Construction Certificate stage including:

- Door Hardware
- Exit door operation
- Any internal and/ or external change in levels to the point of connection to the road.

4.3.1 Exit Travel Distances

The locations of the proposed exits would appear to indicate that the deemed to satisfy provisions in terms of exit travel distances are exceeded for the building, as detailed below.

Class 5, 7a, 7b

- 20m to a single exit or point of choice and where two exits are provided, a maximum of 40m to one of those exits; and
- Distance between exits shall not be more than 60m apart and not closer than 9m.

It is anticipated that the following areas will exceed the maximum allowable travel distance:-

- 90m to an exit in lieu of 40m to the warehouse
- 180m between exits in lieu of 60m to the warehouse

Travel distances are required to be provided in accordance with the deemed-to-satisfy provisions of the BCA or addressed against performance requirements of the BCA and in consultation with Fire and Rescue NSW.

4.3.2 Dimensions of Exits

Minimum dimensions of 1000mm and 2000mm height to be provided within exits, the paths of travel should provide a minimum width of 1000mm.

The following table summarises the exit widths required for the ground floor of each warehouse. The mezzanine levels may accommodate up to 100 staff members with a single 1m clear width exit.

Warehouse	Exit Width Provided (m)	Approx. Number of people	Exit Width required (m)
Warehouse	TBA	TBA	TBA

The aggregate exit width caters for the maximum number of occupants when the population is determined in accordance with D1.13. Maximum occupant numbers are required to be confirmed to finalise the assumptions referred to with the D1.13 calculations undertaken.

The following doors are required to be designed to swing in the direction of egress:

- External exit doors

Doorways are permitted to contain a clear opening width of 750mm with a height of 1980mm as part of egress requirements. Access for persons with disabilities however requires a clear doorway opening width of 850mm (i.e. minimum 920 mm doors).

4.4 Access for Persons with a Disability

In accordance with D3.1 and Table D3.1 of the BCA, access for people with a disability is to be provided to and within areas normally used by the occupants.

BCA D3.4 details when buildings are not required to be accessible; when access would be inappropriate because of the particular purpose for which the building is used. Areas such as plant rooms may be exempted from access provisions on this basis.

The accessible path of travel from any accessible car bays and the lot boundary to the building's entrances in accessible areas is to meet the requirements of AS 1428.1-2009, including any changes in levels including door thresholds.

Details are to demonstrate compliance at Construction Certificate stage.

4.5 Fire Suppression Services & Equipment

The following fire services will need to be provided throughout the building:

- Fire hydrants in accordance with Clause E1.3 of the BCA and AS 2419.1-2005,
- Fire hose reels in accordance with Clause E1.4 of the BCA and AS 2441-2005,
- Fire sprinklers in accordance with Clause E1.5 of the BCA and AS2118.1-2017,
- Portable Fire Extinguishers in accordance with clause E1.6 of the BCA and AS 2444-2001 (Class AE or E type Portable fire extinguishers are to be located to cover emergency switchboard areas).

A fire safety schedule has been drafted in Appendix C, the schedule lists buildings required the fire safety measures and their standards of performance. The schedule is subject to change as design development continues and will be finalised once a Construction Certificate is issued.

4.5.1 **Fire Hydrants**

A fire hydrant system is required to be provided as the buildings have a floor area exceeding 500m2. This system is required to comply with the requirements of BCA Clause E1.3 and AS2419.1-2005.

A booster assembly will be required to be provided as part of the fire hydrant system requirements. The booster is required to be located within the site of the main entry of the building. If remote from the building at the main vehicle entry or within sight of the main entry of the building within 20m of a hardstand area.

Should it be proposed that the booster is not located within site of the main entry of the building, the booster location will be required to be assessed against the Performance Requirements of the BCA and will be required to be developed in consultation with Fire and Rescue NSW.

Should it be proposed that for hydrants to be located under an awning, (and used as an external hydrant for the purposed of coverage), the hydrant locations will be required to be assessed against the Performance Requirement EP1.3 of the BCA and will be required to be developed in consultation with Fire and Rescue NSW.

Design documentation is to be provided by a Competent Fire Safety Practitioner to confirm compliance.

4.5.2 Fire Hose Reels

A fire hose reel system is required to be provided as the buildings have a floor area exceeding 500m2. This system is required to comply with the requirements of BCA Clause E1.4 and AS 2441-2005.

Fire hose reels are to be located within 4m of exits and provide coverage within the building based on a 36m hose length.

Should it be proposed that 50m fire hose reels be utilised in lieu of 36m fire hose reel lengths, or fire hose reels be proposed to be located greater than 4m from an exit, the hose reel locations will be required to be assessed against the Performance Requirements of the BCA and will be required to be developed in consultation with Fire and Rescue NSW.

4.5.3 Fire Sprinklers

An Automatic Fire Suppression system is required to be provided to Specification E1.5 and AS2118.1-2017 throughout the buildings.

An occupant warning system that is triggered upon activation of the sprinkler system is required to be provided in accordance with BCA Specification E1.5.

Should it be proposed for the sprinkler booster and suction point to not be located adjacent to the fire hydrant booster and within sight of the main entrance of the building, the sprinkler booster and suction point location will be required to be assessed against the Performance Requirements of the BCA and will be required to be developed in consultation with Fire and Rescue NSW.

Please note that access to the sprinkler booster and suction point are required to be provided in accordance with Fire & Rescue NSW Policy 5. Should access not be provided in accordance with Fire & Rescue NSW Policy 5, this will be required to be assessed against the Performance Requirements of the BCA and will be required to be developed in consultation with Fire and Rescue NSW.

4.5.4 Portable Fire Extinguishers

Portable Fire Extinguishers are required in accordance with clause E1.6 of the BCA and AS2444-2001 throughout the buildings.

- Kitchen areas to cover Class F fire risks involving cooking oils and fats
- Emergency services switchboards (if installed) to cover class AE or E fire risks

4.5.5 Emergency Lighting and Exit Signage

The buildings are required to have emergency lighting and exit signage to guide occupants towards the safety of the external assembly points which should be an area of unlimited tenability, directly connected to the road.

Emergency exit signage details should be provided to demonstrate egress paths throughout the building to the point of connection of open space to the road.

Design documentation is to be provided to confirm compliance at Construction Certificate stage.

4.6 Smoke Hazard Management

Smoke hazard management shall be provided throughout the building by means of the following systems:

- Smoke exhaust system in accordance with the requirements of clause E2.2, Spec E2.2b of the BCA and AS 1668.1-2015

Should a smoke exhaust system be proposed to not be provided to the buildings in accordance with the deemed-to-satisfy provisions of the BCA, the omission of the smoke exhaust will be required to be assessed against the Performance Requirements of the BCA and will be required to be developed in consultation with Fire and Rescue NSW.

A fire indicator panel is required as part of the detection system. This panel is to be located within the main entry and a block plan complying with the requirements of Clause 3.10 of AS1670.1 2015 should be provided beside the FIP.

Throughout the development the provision of natural or mechanical ventilation is required to all habitable rooms in accordance with F4.5 Building Code of Australia and AS 1668 and AS/NZS 3666.1.

4.7 Sanitary Facilities

Sanitary provisions are required to be installed in accordance with the provisions of BCA Part F2. This includes the provision of a unisex accessible sanitary facility designed and installed in accordance with AS 1428.1-2009 requirements. An ambulant cubicle is required in both the male and the female toilet blocks.

From the documentation provided the sanitary facilities appear to be within the office and ancillary support areas on each level. Each toilet block appears to be of a similar design and therefore will accommodate a similar number of occupants. For the purposes of this

report, sanitary facilities have been calculated based on staff requirements for the class 7b storage use based on a 50/50 gender split, male/ female.

Sanitary facilities layout to be provided for further assessment.

4.8 Light and Ventilation

Throughout the development, the provision of natural or mechanical ventilation is required to all habitable rooms in accordance with F4.5 Building Code of Australia and AS 1668.2 - 2012 and AS/NZS 3666 (as regulated in the Public Health Regulations 2012).

Artificial light must be provided to all habitable rooms in accordance with AS 1680.0-2009.

4.9 Energy Efficiency

The proposed development shall comply with Part J of the BCA as required by NSW J(A) and J(B) provisions. To achieve compliance, certification from a suitably qualified energy consultant should be provided at Construction Certificate stage.

Access for maintenance is to be provided to the building in accordance with the requirements of BCA Part J8.

The proposed site will be located in a climate zone 6.

Certification from an appropriately qualified engineer should be provided with report and/or computations outlining how compliance is achieved.

Appendix A – Design Documentation

The following documentation was used in the assessment and preparation of this report

Title	Drawing No.	Prepared by.	Date	Revision/ Issue
SITE PLAN	DA 200	PACE ARCHITECTS	06.09.21	6
WAREHOUSE PLAN	DA 201	PACE ARCHITECTS	06.09.21	3
OFFICE PLANS	DA 204	PACE ARCHITECTS	06.09.21	3
ROOF PLAN	DA 208	PACE ARCHITECTS	06.09.21	1
SIGNAGE PLAN	DA 500	PACE ARCHITECTS	06.09.21	3
WAREHOUSE ELEVATION SHT 1	DA 601	PACE ARCHITECTS	06.09.21	3
WAREHOUSE ELEVATION SHT 2	DA 602	PACE ARCHITECTS	06.09.21	3
OFFICE ELEVATION	DA 603	PACE ARCHITECTS	06.09.21	3
POWDER SILO TOWER	DA 610	PACE ARCHITECTS	06.09.21	3
WAREHOUSE SECTIONS	DA 651	PACE ARCHITECTS	06.09.21	1
3D PERSPECTIVE	DA901	PACE ARCHITECTS	06.09.21	1

Appendix B – Fire Resistance Levels (FRL)

This table outlines the FRLs required in accordance with Spec. C1.1 of BCA 2019:

Table 5 TYPE C CONSTRUCTION: FRL OF BUILDING ELEMENTS

Building element	Class of building—FRL: (in minutes) Structural adequacy/Integrity/Insulation			
	2, 3 or 4 part	5, 7a or 9	6	7b or 8
EXTERNAL WALL (including any column and other building element incorporated therein) or other external building element, where the distance from any fire-source feature to which it is exposed is—				
Less than 1.5 m	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	–/–/–	–/–/–	–/–/–	–/–/–
EXTERNAL COLUMN not incorporated in an external wall, where the distance from any fire-source feature to which it is exposed is—				
Less than 1.5 m	90/–/–	90/–/–	90/–/–	90/–/–
1.5 to less than 3 m	–/–/–	60/–/–	60/–/–	60/–/–
3 m or more	–/–/–	–/–/–	–/–/–	–/–/–
COMMON WALLS and FIRE WALLS—	90/ 90/ 90	90/ 90/ 90	90/ 90/ 90	90/ 90/ 90
INTERNAL WALLS-				
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
ROOFS	–/–/–	–/–/–	–/–/–	–/–/–

Appendix C – Draft Fire Safety Schedule

This table outlines the draft fire safety schedule for the building. Note this will change as design development continues.

	Essential Fire Safety Measures	Standard of Performance
1.	Access panels, doors and hoppers to fire-resisting shafts	BCA 2019 C3.13, AS 1905.1-2015.
2.	Automatic fail-safe devices	BCA 2019 D2.21, BCA D2.22, BCA Spec C3.4, AS 2118.1-2017, AS 1670.1-2018
3.	Automatic fire detection and alarm system	BCA 2019 C2.3, E1.5, Spec E1.5, Spec E2.2 cl. 6., 7, AS 1670.1-2018 Fire Engineering Report No.XXXX prepared by XXXXX, dated XXXX
4.	Automatic fire suppression system	BCA 2019 C2.3, Spec E1.5 AS2118.1-2017 Fire Engineering Report No.XXXX prepared by XXXXX, dated XXXX
5.	Building occupant warning system	BCA 2019 E2.2, Spec E2.2a cl.7
6.	Emergency lighting	BCA 2019 E4.2, BCA 2019 E4.3, BCA 2019 E4.4, AS 2293.1-2018
7.	Exit signs	BCA 2019 E4.5, NSW E4.6, BCA 2019 E4.8, AS 2293.1-2018 Fire Engineering Report No.XXXX prepared by XXXXX, dated XXXX
8.	Emergency evacuation procedures	Clause 43 of the Work Health & Safety Regulation 2011. Fire Engineering Report No.XXXX prepared by XXXXX, dated XXXX

	Essential Fire Safety Measures	Standard of Performance
9.	Fire hose reel systems	BCA 2019 Clause E1.4, AS 2441-2005 Fire Engineering Report No.XXXX prepared by XXXXX, dated XXXX
10.	Fire hydrant systems	BCA 2019 Clause E1.3, AS 2419.1-2005 Fire Engineering Report No.XXXX prepared by XXXXX, dated XXXX
11.	Mechanical air handling systems	BCA 2019 Clause E2.2 AS/NZS 1668.1-2015, AS 1668.2-2012 Fire Engineering Report No.XXXX prepared by XXXXX, dated XXXX
12.	Path of travel for stairways, passageway and ramps	Clauses 183-186 of the Environmental Planning and Assessment Regulation 2000 Fire Engineering Report No.XXXX prepared by XXXXX, dated XXXX
13.	Perimeter vehicle access for emergency vehicles	BCA 2019 Clause C2.3 & C2.4 Fire Engineering Report No.XXXX prepared by XXXXX, dated XXXX
14.	Portable fire extinguishers	BCA 2019 Clause E1.6, AS 2444-2001
15.	Fire Engineering Report No.XXXX prepared by XXXXX, dated XXXX	

MBC MODERN BUILDING CERTIFIERS

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BCA DESIGN COMPLIANCE REPORT