BLACKETT MAGUIRE+ GOLDSMITH

BCA ASSESSMENT REPORT

Jordan Springs Tavern

Lot 3989/DP 1190132

Prepared for:

FDC Construction & Fitout Pty Ltd

Project No.: 200154

Revision 2

Date: 14.07.2020

Address
Suite 2.01,
22-36 Mountain St
Ultimo NSW 2007

Contact
Ph: 02 9211 7777
Fax: 02 9211 7774

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REPORT STATUS				
DATE	**REVISION**	**STATUS**	**AUTHOR**	**REVIEWED**
28.05.2020	0	Preliminary Assessment – For Client & Consultant Review	DG	TJ
11.06.2020	1	Updated Assessment – For Client & Consultant Review	DG	SB
14.07.2020	1	Updated Assessment – For DA Submission	DG	TJ

Prepared by:

[redacted]

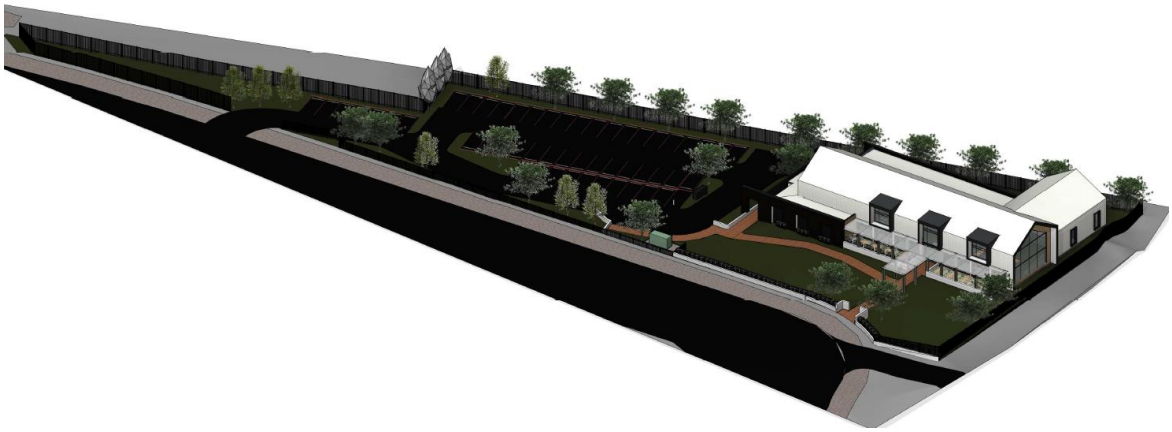
Dean Goldsmith
Director
Blackett Maguire + Goldsmith

1.0 INTRODUCTION

1.1 BACKGROUND/PROPOSAL

Blackett Maguire + Goldsmith Pty Ltd (BM+G) have been commissioned by FDC Construction & Fitout, to undertake a preliminary review of the proposed development, against the deemed-to-satisfy (DTS) provisions of the Building Code of Australia 2019 Amendment 1 (BCA) pursuant to the provisions of clause 145 of the Environmental Planning & Assessment Regulation 2000 and clause 18 of the Building Professionals Regulation 2007.

The proposed development includes the construction of a new pub and restaurant function venue located in the suburb of Jordan Springs. It is noted that the proposed tavern project includes a Ground Floor Gaming, Main Bar & Dining, BoH areas & Kitchen, Outdoor Seating and Beer Garden/Kids Play Area.



Source: Team2 Architects – Site Isometric SK-000

1.2 AIM

The aim of this report is to:

- Undertake an assessment of the proposed pub facility against the Deemed-to-Satisfy (DtS) Provisions of the BCA 2019 Amendment 1.
- Identify any BCA compliance issues that require resolution/attention for the proposed development at the CC Application stage.

1.3 PROJECT TEAM

The following BM+G Team Members have contributed to this Report:

- Dean Goldsmith (Director)
- Tom Johnston (Peer Review Building Surveyor)
- Sabine Blakeman (Junior Building Surveyor)

1.4 DOCUMENTATION

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

- BCA 2019 Amendment 1
- Guide to the BCA 2019 Amendment 1
- Architectural plans prepared by Team2 Architects, as listed below:

Drawing No.	Rev.	Date	Drawing No.	Rev.	Date
930-SK-000	-	-	930-SK-004	4	03.07.2020
930-SK-001	12	01.07.2020	930-SK-005	3	01.07.2020
930-SK-002	16	03.07.2020	930-SK-006	1	01.07.2020

1.5 REGULATORY FRAMEWORK

Pursuant to clause 145 of the Environmental Planning and Assessment (EPA) Regulation 2000 all new building work must comply with the current BCA however the existing features of an existing building need not comply with the BCA unless upgrade is required by other clauses of the legislation.

1.6 LIMITATIONS & EXCLUSIONS

The limitations and exclusions of this report are as follows:

- The following assessment is based upon a review of the architectural documentation.
- No assessment has been undertaken with respect to the Disability Discrimination Act (DDA) 1992. The building owner should be satisfied that their obligations under the DDA have been addressed. In this regard however, the provisions of the DDA Access to Premises – Buildings Standards have been considered as they are generally consistent with the accessibility provisions of the BCA.
- The Report does not address matters in relation to the following:
    i. Local Government Act and Regulations.
    ii. NSW Public Health Act 1991 and Regulations.
    iii. Occupational Health and Safety (OH&S) Act and Regulations.
    iv. Work Cover Authority requirements.
    v. Water, drainage, gas, telecommunications and electricity supply authority requirements.
    vi. DDA 1992.
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1.7 TERMINOLOGY

+ *Alternative/Performance Solution*

  A Building Solution which complies with the Performance Requirements other than by reason of satisfying the DtS Provisions.

+ *Building Code of Australia (BCA)*

  Document published on behalf of the Australian Building Codes Board. The BCA is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia and is adopted in New South Wales (NSW) under the provisions of the EPA Act and Regulation. Building regulatory legislation stipulates that compliance with the BCA Performance Requirements must be attained and hence this reveals BCA's performance based format.

+ *Construction Certificate*

  Building Approval issued by the Certifying Authority pursuant to Part 4A of the EP&A Act 1979.

+ *Construction Type*

  The construction type is a measure of a buildings ability to resist a fire. The minimum type of fire-resisting construction of a building must be that specified in Table C1.1 and Specification C1.1, except as allowed for—
  (i) certain Class 2, 3 or 9c buildings in C1.5; and
  (ii) a Class 4 part of a building located on the top storey in C1.3(b); and
  (iii) open spectator stands and indoor sports stadiums in C1.7.

  Note: Type A construction is the most fire-resistant and Type C the least fire-resistant of the types of construction.

+ *Climatic Zone*

  Is an area defined in BCA Figure A1.1 and in Table A1.1 for specific locations, having energy efficiency provisions based on a range of similar climatic characteristics.

+ *Deemed to Satisfy Provisions (DtS)*

Provisions which are deemed to satisfy the Performance Requirements.

+ *Effective Height*

The vertical distance between the floor of the lowest storey included in the calculation 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)

+ *Fire Resistance Level (FRL)*

The grading periods in minutes for the following criteria-
(a) structural adequacy; and
(b) integrity; and
(c) insulation,
and expressed in that order.

+ *Fire Source Feature (FSF)*

The far boundary of a road which adjoins the allotment; or a side or rear boundary of the allotment; or an external wall of another building on the allotment which is not a Class 10 building.

+ *National Construction Code Series (NCC)*

The NCC was introduced 01 May 2011 by the Council of Australian Governments. The BCA Volume One (Class 2 to 9 Buildings) is now referenced as the National Construction Code Series Volume One — BCA.

+ *Occupation Certificate*

Building Occupation Approval issued by the Principal Certifying Authority pursuant to Part 4A of the EPA Act 1979.

+ *Open Space*

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

+ *Performance Requirements of the BCA*

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

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

+ *Sole Occupancy Unit (SOU)*

A room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier and *includes* a dwelling.

2.0 BUILDING CHARACTERISTICS

2.1 BUILDING CLASSIFICATION

The following table presents a summary of relevant building classification items of the proposed pub development:

BCA Class:	Class 6 (Restaurant) & Class 9b (Function Areas / Bars) Note: The Loading Dock & BoH storage areas are less than 10% of the floor area and as such have not been classified separately in accordance with the exemption under BCA A6.0.
Rise in Storeys:	One (1)
Effective Height:	Effective Height <12m
Type of Construction:	Type C Construction
Climate Zone:	Zone 6
Maximum Floor Area:	Less than 2,000m^2
Maximum Volume:	Less than 12,000m^3

2.2 FIRE SOURCE FEATURE

The distances from the nearest Fire Source Features are:

BOUNDARY	DISTANCE TO FIRE SOURCE FEATURE
Northern Boundary	>6m from the far side of the road
Southern Boundary	1.5m to <3m from the rear allotment boundary
Eastern Boundary	>3m from the side allotment boundary
Western Boundary	1.5m to <3m from the side allotment boundary

3.0 BCA ASSESSMENT

BCA DEEMED-TO-SATISFY COMPLIANCE ISSUES

The following comments have been made in relation to the relevant BCA provisions relating to the compliance issues associated with the proposed pub building.

3.1 SECTION B – STRUCTURE

PART B1 – STRUCTURAL PROVISIONS

Structural engineering details prepared by an appropriately qualified structural engineer to be provided to demonstrate compliance with Part B1. This will include the following Australian Standards (where relevant):

- AS 1170.0 – 2002 General Principles
- AS 1170.1 – 2002, including certification for balustrades (dead and live loads)
- AS 1170.2 – 2011, Wind loads
- AS 1170.4 – 2007, Earthquake loads
- AS 3700 – 2018, Masonry Structures
- AS 3600 – 2018, Concrete Structures
- AS 4100 – 1998, Steel Structures and/or
- AS 4600 – 2018, Cold formed steel Structures.

- AS 2159 – 2009, Piling Design &Installation
- AS 1720 – 2010, Design of Timber Structure
- AS/NZS 1664.1 & 2 – 1997, Aluminium Structures
- AS 2047 – 2014, Windows and External Glazed Doors in buildings.
- AS 1288 – 2006, Glass in buildings.
- AS 3660.1 – 2014, Termite control (or confirmation no primary building elements are timber).

Comments: *Structural design and certification will be required at CC application stage.*

3.2 SECTION C – FIRE RESISTANCE

FIRE RESISTANCE AND STABILITY

+ C1.1 – Type of Construction Required

The minimum type of fire-resisting construction of a building must be that specified in Table C1.1 and Specification C1.1 except as allowed for in this clause.

Comments: *Type C construction applies to the building as it has a rise in storeys of one (1) in a Class 6 and Class 9b Building.*

+ C1.2 – Calculation of Rise in Storeys

The rise in storeys of a building 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 calculated in accordance with the requirements set out in this clause.

Comments: The proposed building has a rise in storeys of one (1).

+ Clause C1.10 – Fire Hazard Properties

The fire hazard properties of the proposed wall, floor & ceiling linings, materials (such as insulation & sarking) and other assemblies in a Class 2 to 9 building must comply with Specification C1.10 and the additional requirements of the NSW Provisions of Spec. C1.10.

Comments: *Architect to note. Details demonstrating compliance to be provided at the Occupation Certificate stage.*

COMPARTMENTATION AND SEPARATION

+ Clause C2.2 – General Floor Area and Volume Limitations

Sets out the parameters for the area and volume of Class 5, 6, 7, 8 & 9 buildings as required by sub-clauses (a), (b) & (c).

Note: Table C2.2 maximum size of Fire Compartments or Atriums.

Comments: *The maximum compartment size permitted to the Class 6 part is 2,000m^2 with a volume of 12,000m^3, and in Class 9b part is 3,000m^2 with a volume of 18,000m^3. Compliance is readily achievable – Architect to confirm exact floor area and volume.*

+ Clause C2.8 – Separation of Classifications in the Same Storey

If a building has parts of different classifications located alongside one another in the same storey, each element must have the required higher FRL for the classifications concerned.

Alternatively, the parts must be separated by a fire wall having the higher FRL for the classifications prescribed in Table 3 or 4 of BCA Specification C1.1 (for Type A or Type B Construction), or Table 5 for Type C Construction.

Comments: The provisions of C2.8(a) can be applied to the entire building as the different classifications have the same FRL requirements under Table 5 of Spec. C1.1.

+ Clause C2.12 – Separation of Equipment

Equipment as listed below must be separated from the remainder of the building with construction complying with (d), if that equipment comprises –

(i) Lift motors and lift control panels; or
(ii) Emergency generators used to sustain emergency equipment operating in the emergency mode; or

(iii) Central smoke control plant; or
(iv) Boilers; or
(v) A battery or batteries installed in the building that have a voltage exceeding 12 volts and a storage capacity exceeding 200kWh.

Note: Separating construction must have –

(A) an FRL as required by Specification C1.1, but not less than 120/120/120/; and
(B) any doorway protected with a self-closing fire door having an FRL of not less than -/120/30.

Comments: Architect to note. Details of the enclosures containing the above equipment (where applicable) are to be noted on the floor plan and enclosed in 120/120/120 FRL construction. Particular attention is drawn to any batteries that may be stored in the Comms Room.

+ Clause C2.13 – Electricity Supply System

(a) An electricity substation, main switchboard which sustains emergency equipment operating in the emergency mode, located within a building must –
(i) Be separated from any other part of the building by construction having an FRL of not less than 120/120/120; and
(ii) Having any doorway in that construction protected with a self-closing fire door having an FRL of not less then -/120/30
(b) A main switchboard located within the building which sustains emergency equipment operating in the emergency mode must—
(i) Be separated from any other part of the building by construction having an FRL of not less than -/120/30.
(ii) Have any doorway in that construction protected with a self-closing fire door having an FRL of not less than -/120/30.
(c) Electrical conductors located within a building that supply

Note: Where emergency equipment is required in a building, all switchboards in the electrical installation, which sustain the electricity supply to the emergency equipment switchgear is separated from the non-emergency equipment switchgear by metal partitions designed to minimise the spread of fault from the non-emergency equipment switchgear.

Comments: Architect to note. Details of the enclosures containing the above equipment (where applicable) are to be noted on the floor plan and enclosed in 120/120/120 FRL construction.

PROTECTION OF OPENINGS

+ Clause C3.2 – Protection of Openings in External Walls

Openings in external walls that are required to have an FRL, which are to be exposed to a fire-source feature, are required to be protected in accordance with C3.2(a) & C3.2(b).

Openings in an external wall that is required to have an FRL must –

(a) If the distance between the opening and the fire-source feature to which it is exposed is less than –
(i) 3 m from a side or rear boundary of the allotment; or
(ii) 6 m from the far boundary of a road, river, lake or the like adjoining the allotment, if not located in a storey at or near ground level; or
(iii) 6 m from another building on the allotment that is not a Class 10, be protected in accordance with C3.4 and if wall-wetting sprinklers are used, they are located externally; and
(b) If the required to be protected under (a), not occupy more than 1/3 of the area of the external wall of the storey in which it is located unless they are in a Class 9b building used as an open spectator stand.

Comments: The sanitary facility windows on the western elevation wall will require protection in accordance with C3.4 below. Details are to be provided at CC Application Stage.

Note: Any other openings along the portions of the western and southern external walls that are within 3m of the side / rear allotment boundaries will also require protection in accordance with C3.4.

+ Clause C3.4 – Acceptable Methods of Protection

(a) Where protection is required, doorways, windows and other openings must be protected as follows:
(i) Doorways –
(A) Internal or external wall-wetting sprinklers as appropriate used with doors that are self-closing or automatic closing; or

(B) -/60/30 fire doors that are self-closing or automatic closing.

(ii) Windows –

(A) Internal or external wall-wetting sprinklers as appropriate used with windows that are automatic closing or permanently fixed in the closed position; or

(B) -/60/- automatic closing fire shutters.

(iii) Other openings –

(A) Excluding voids – internal or external wall-wetting sprinklers, as appropriate; or

(B) Construction having FRL not less than -/60/-.

(b) Fire doors, fire windows and fire shutters must comply with **Specification C3.4.**

Comments: The openings identified under Clause C3.2 above are required to be protected in accordance with this Clause. Details demonstrating compliance are to be submitted with the CC Application plans.

Note: Consideration may be given to a Performance Solution from the Fire Engineer to rationalise the protection requirements of C3.2 & C3.4.

+ Clause C3.15 – Openings for Services Installations

All opening for services installations in building elements required to be fire-resisting with respect to integrity and insulation must be protected in accordance with the provisions of Spec. C3.15.

Comments: Note.

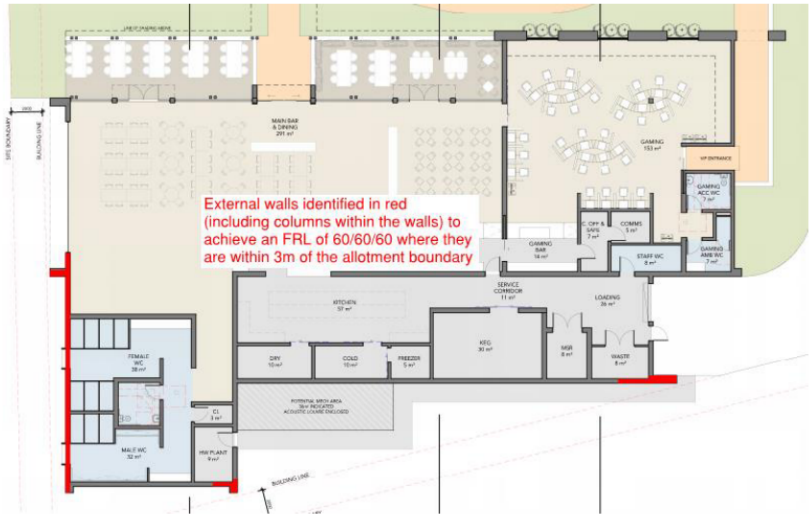
SPECIFICATIONS

+ Specification C1.1 – Fire Resisting Construction

The new building works are required to comply with the requirements detailed under Table 5 of Specification C1.1 for Type C Construction. In this regard the proposed building elements are required to comply.

Comments: The building will be subject to compliance with the Type C Construction provisions of Table 5 of Spec. C1.1 – see Appendix 1. The building elements that will need to achieve an FRL in accordance with Table 5 are as follows:

- *Any external wall (including any column and other building element incorporated within it) as identified in red in the below mark-up which are within 3m from the western and southern allotment boundaries – required FRL of 60/60/60.*
- *Any external columns (not incorporated in the external wall) within 3m from the western or southern allotment boundaries as identified in red in the below mark-up – required FRL of 60/-/-*



+ Specification C1.10 – Fire Hazard Properties.

This Specification sets out requirements in relation to the fire hazard properties of linings, materials and assemblies in Class 2 to 9 buildings as set out in the Tables.

Comments: Design team to note. Materials test reports and specifications will need to be provided to allow for further assessment to ensure compliance with the above.

3.3 SECTION D – ACCESS & EGRESS

PROVISION FOR ESCAPE

+ Clause D1.2 - – Number of Exits Required

This clause requires the provision of sufficient exits to enable safe egress in case of an emergency. D1.2 provides that all buildings must have at least one exit from each storey and sets out circumstances in which more than one exit may be required (particularly in relation to Class 9 buildings).

Note 1: Not less than 2 exits must be provided from each storey if the building has an effective height of more than 25m.

Note 2: Not less than 2 exits must be provided from any storey that involves a vertical rise within the building of more than 1.5m unless the floor area of the storey is not more than 50m^2 and the distance of travel from any point on the floor to a single exit is not more than 20m.

Comments: *Not less than two exits are required from the proposed Class 6 & Class 9b building as it will accommodate more than 50 people – the proposed number of exits complies with the above requirements.*

+ Clause D1.4 – Exit Travel Distances

This clause specifies the permitted travel distances allowable from Class 2 to Class 9 buildings. Sub-clauses (a) to (f) specify the maximum distances to be taken into account for the various uses in each Class of building.

Comments: *Exit travel distances within the building are considered to be non-compliant with the requirements of Clause D1.4 in the following areas:*

- *BoH Area (Dry Store) – 28m to the nearest exit (this can be addressed by providing a 1m unobstructed egress path through the BoH bar and into the FoH areas).*
- *Male WC – 22m to a point of choice between exits.*

In this regard the above non-compliance issues will be required to be addressed via design changes or as a Performance Solution by the Fire Engineer to demonstrate compliance with Performance Requirements DP4 & EP2.2.

+ Clause D1.5 – Distances Between Alternative Exits

Exits required as alternative exits must be –

(a) not less than 9m apart; and
(b) not more than – 60m apart.
(c) Located so that the alternative paths of travel do not converge such that they become less than 6m apart.

Comments: *The distances between alternative exits in the proposed building are considered to be compliant with the requirements of Clause D1.5.*

+ Clause D1.6 – Dimensions of Exits

This clause details the minimum dimensions such as height and width of paths of travel from Class 2 to 9 buildings. It also specifies the minimum dimensions of doorways from the various compartments and the width of exit doors from buildings depending on the uses and functions carried out within them.

Comments: *Exit corridors and other paths of travel are to be a minimum 1m in width and 2m in height clear of any obstructions. The unobstructed height of any doorway may be reduced to not less than 1980mm and the width may be reduced by 250mm from the required exit dimensions listed below.*

The population numbers have been determined in accordance with D1.13 below and as a result the following minimum exit widths area required from each floor as follows:

- *Ground Floor (290 persons = 3m required) – 3.5m provided (Complies)*

+ Clause D1.10 – Discharge from Exits

Requires that an exit must not be blocked at the point of discharge. Barriers such as bollards must be installed to prevent vehicles from blocking the discharge from exits.

This clause also provides the methods of construction, location and separation, at exit discharge points for all building Classes.

Comments: *The pathways from exit discharge points around the site to the public road are to be detailed to comply with the requirements of this clause at Construction Certificate Application stage. Noting where a change in level is present, compliant stairways or ramps not steeper than 1:14 are required.*

Note: The VIP Entrance discharge is required to have a clear unobstructed pathway from the point of discharge to the carpark and onto the public road.

+ Clause D1.13 – Number of Persons Accommodated

Clause D1.13 and Table D1.13 are used to calculate the anticipated number of people in particular types of buildings so that minimum exit widths and the required number of sanitary and other facilities can be calculated. This clause and table are not to be used for non-BCA purposes.

Comments: The Patron population numbers below are based upon population numbers that have been provided by Team2 Architects via email dated 09.07.2020, while the Staff population numbers have been calculated based on the floor area of the BoH areas:

- *Ground Floor FoH (Patrons) = Population of 212 persons*
- *Northern shaded seating area (Patrons) = Population of 60 persons*
- *Ground Floor BoH (Staff)= Population of 18 persons*
- *Total = Population of 290 persons*

The Staff population has been calculated based on the provisions of Table D1.13, as follows:

- *Kitchen, Bar Service and Office areas calculated at 1 staff per 10sqm = 14 persons.*
- *Loading Dock, Storage and ancillary BoH Areas calculated at 1 staff per 30sqm = 4 persons.*

Note: The above populations are required to be confirmed by the owner / operator at CC application stage.

CONSTRUCTION OF EXITS

+ Clause D2.7 – Installations in Exits & Paths of Travel

This clause restricts the installation of certain services in fire-isolated exits, non-fire-isolated exits and certain paths of travel to exits. It prescribes which services shall not be installed as well as the circumstances in which certain services may be installed in fire-isolated and non-fire-isolated exits. If installed in a path of travel to an exit, electrical distribution boards, communication cupboards and the like containing motors, etc are to be enclosed with non-combustible construction, and doors are to be provided with smoke seals to the perimeter.

Comments: Architect to note. Details are to be provided with the Construction Certificate documentation.

+ Clause D2.13 – Goings & Risers

This clause sets out the detailed requirements for the construction and geometry of the goings and risers in required stairways. These details are set out in sub-clauses (a) to (c) and Table D2.13 Riser and Going Dimensions.

Comments: Any stairs are to be designed with compliant dimensions per Table D2.13 below, have solid risers, and are to have contrasting nosings, slip resistant surfaces throughout in accordance with clause 11 of AS1428.1-2009. Refer to the slip resistance for stairs below under Clause D2.14 also. Details to be confirmed with the Occupation Certificate documentation.

Riser and Going Dimensions (mm)			
	Riser (R)	**Going (G)**	**Quantity (2R + G)**
Maximum	190	355	700
Minimum	115	250	550

+ Clause D2.14 – Landings

The dimensions and gradients of landings in stairways are set out in this clause; the configuration will depend on the proposed use of a building. Sub-clause (b) details the layout for a Class 9a building to allow for the movement of a stretcher.

Comments: Details to be confirmed with the Occupation Certificate documentation.

Application	Surface conditions	
	Dry	Wet
Ramp steeper than 1:14	P4 or R11	P5 or R12
Ramp steeper than 1:20 but not steeper than 1:14	P3 or R10	P4 or R11
Tread or landing surface	P3 or R10	P4 or R11

+ Clause D2.15 – Thresholds

The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless –

(i) the doorway opens to a road or open space, external stair landing or external balcony; and
(ii) the door sill is not more than 190mm above the finished surface of the ground, balcony, or the like, to which the doorway opens.

Comments: *Architect to note. Details demonstrating compliance will be required to be included in the CC plans.*

+ Clause D2.16 – Balustrades or Other Barriers

This clause details where balustrades are required to be provided and sets out in specific detail the construction requirements in sub-clauses (a) to (i) and Tables D2.16(a), D2.16(b) & D2.16(c). Typically, the following will apply to this class of building:

- *Balustrades are required where the fall to the level below is more than 1m in height. The minimum height of a balustrade is 1m above the floor of the landing, walkway or the like; and 865mm above the floor of a stairway or a ramp.*
- *For a fall of more than 4m to the surface level below, a window sill must be a minimum of 865mm in height above the height of eth floor surface.*
- *Where the floor is more than 4m above the surface beneath the balustrade any horizontal or near horizontal members between 150mm and 760mm above the floor must not could facilitate climbing.*
- *Balustrades must be constructed so as to not permit a sphere of 125mm diameter to pass through. The exception to this is within fire isolated exits within the building, or within a class 7 or 8 building, where the rails can be positioned a maximum of 460mm apart, so long as a bottom rail is located so a sphere of 150mm cannot pass through the opening between the nosing of the stair treads and the rail or between the floor of the landing, balcony or the like.*

Comments: *Details of any proposed balustrades are to be provided with the application for the Construction Certificate for assessment detailing the above.*

+ Clause D2.17 – Handrails

This Clause sets out the requirements regarding the location, spacing and extent of handrails required to be installed in buildings.

Comments: *Details of any proposed handrails are to be provided for assessment with the application for the Construction Certificate. See also parts of this report relating to Part D3 for the additional requirements for handrails.*

+ Clause D2.19 – Doorways and Doors

This clause applies to all doorways and refers to the types of doors that cannot be used in buildings of prescribed uses, the use of power operated doors and the force required to operate sliding doors.

If the door is also power operated, it must be opened manually under a force of not more than 110N if there is a malfunction or failure to the power source; or upon the activation of a fire or smoke alarm anywhere in the fire compartment served by the door.

Comment: *Architect to note. Details demonstrating compliance will be required to be included in the CC plans.*

+ Clause D2.20 – Swinging Doors

A swinging door in a required exit or forming part of a required exit must be installed to the requirements of sub-clauses (a), (b) & (c). This clause only applies to swinging doors in doorways serving a required exit or forming part of a required exit. It does not apply to other doorways – see notes in the Guide to the BCA.

Comments: *Compliance with the requirements of this Clause is readily achievable.*

+ Clause D2.21 – Operation of Latch

A door in a required exit or forming part of a required exit and in a 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 single downward action or pushing action on a single device which is located between 900mm & 1.1m from the floor. This clause prohibits the use of devices such as deadlocks and knobs where knobs must be operated in a twisting motion in accordance with sub-clauses (a) & (b). D2.21 also sets out exceptions in relation to buildings where special security arrangements are required in relation to the uses carried out.

Comments: *Architect to note. Details demonstrating compliance will be required to be included in the CC plans.*

Note: In accordance with NSW D2.21(c), doors in a required exit or in a path of travel to a required exit that serve a Class 9b area with a population of more than 100 persons must be readily openable by a single hand pushing action on a single device such as a panic bar or emergency push button.

ACCESS FOR PEOPLE WITH A DISABILITY

+ Clause D3.1 - General Building Access Requirements.

The extent of access required depends on the classification of the building. Buildings and parts of buildings must be accessible as set out in Table D3.1 unless exempted by Clause D3.4.

Comments: *Compliant access is required to and within all areas normally used by the occupants (except those areas exempted under D3.4 - see notes below). It is understood that an Access Consultant's Report is to be obtained for this project and as such reference should be made to that report in relation to compliance with the provisions of Part D3*

+ Clause D3.2 –Access to Buildings

This part requires accessways to be provided to accessible buildings from the main points of pedestrian entry at the allotment boundary and any accessible car parking space or accessible associated buildings connected by a pedestrian link.

Comments: *AS 1428.1-2009 compliant access is required to be provided from the main points of pedestrian entry at the allotment boundary and from the accessible parking space to the main entry points of the building. It is understood that an Access Consultant's Report is to be obtained for this project and as such reference should be made to that report in relation to compliance with the provisions of Part D3.*

+ Clause D3.3 – Parts of the Building to be Accessible

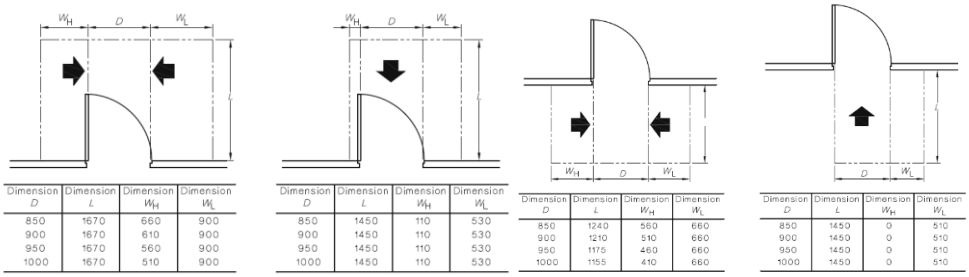
This part specifies the requirements for accessways within buildings and where the requirements of AS 1428.1-2009 are applicable.

Comments: *It is understood that an Access Consultant's Report is to be obtained for this project and as such reference should be made to that report in relation to compliance with the provisions of Part D3. Notwithstanding, the following is a summary of some of the key matters which need to be considered to ensure compliance with the requirements of Part D3 and AS 1428.1-2009 have been achieved:*

- *Access for persons with disabilities must be provided, at a minimum, to and within all areas normally used by the occupants, which is readily achievable.*

Accessways and Doors

- *The minimum width of an accessible doorway must have a clear opening width of not less than 850mm in accordance with AS1428.1.*
- *All doorways on a continuous path of travel shall have a minimum luminance contrast of 30% provided between: door leaf and door jamb; or door leaf and adjacent wall; or architrave and wall; or door leaf and architrave; or door jamb and adjacent wall. The minimum width of the area of luminance contrast shall be 50mm.*
- *In accordance with Clause D3.3; non-fire-isolated stairways must comply with Clause 11 & 12 of AS 1428.1-2009.*
- *Clause D3.3(g) and (h) requires that the pile height or pile thickness shall not exceed 11mm and the carpet backing thickness shall not exceed 4mm. Moreover, the carpet pile height or pile thickness dimension shall not exceed 11mm, the carpet backing thickness dimension shall not exceed 4mm and their combined dimension shall not exceed 15mm.*
- *Circulation space to the doorways that are required to be accessible are to comply with Section 13 of AS1428.1-2009, as detailed below. The circulation space at the doors circled in red below does not comply with Section 13 in AS1428.1-2009 – Access Consultant to provide further advice.*

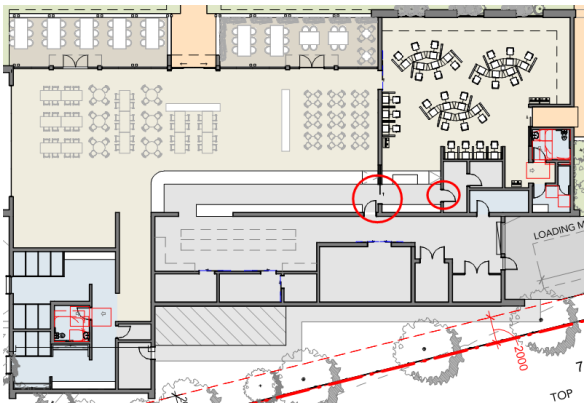


Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1670	660	900
900	1670	610	900
950	1670	560	900
1000	1670	510	900

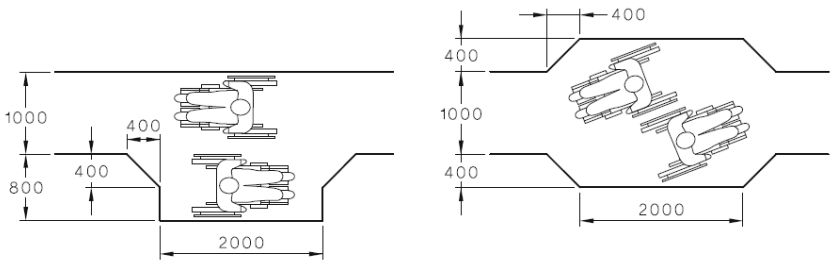
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1450	110	530
900	1450	110	530
950	1450	110	530
1000	1450	110	530

Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1240	560	660
900	1210	510	660
950	1175	460	660
1000	1155	410	660

Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1450	0	510
900	1450	0	510
950	1450	0	510
1000	1450	0	510

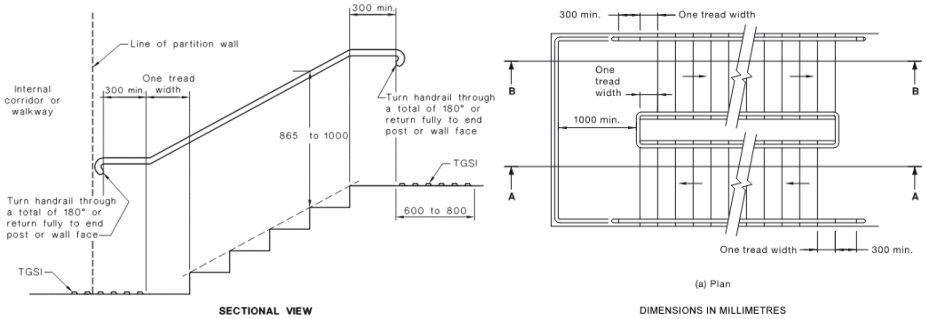


- *Turning Spaces and Passing Spaces in all areas are required to be provided in accordance with Clauses 6.4 & 6.5 of AS 1428.1-2009.*

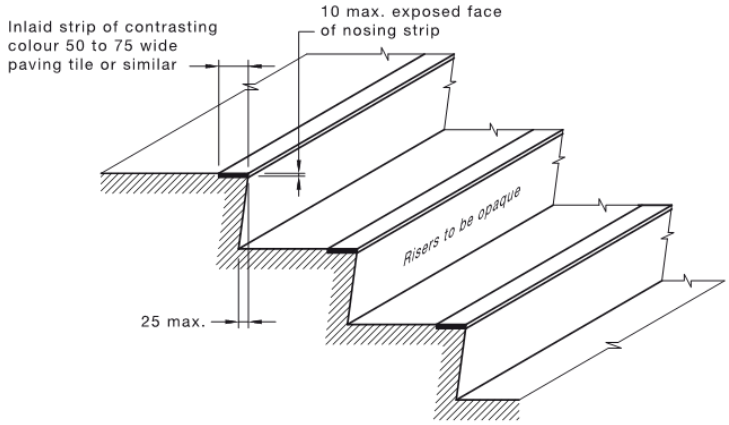


Stairways

- *Every common area stairway must be constructed in accordance with Clause 11 of AS1428.1, except if they are within a fire isolated exit (which need to comply with Clause 11.1f & g only) or serve the areas in the building that a D3.4 Exemption has been applied to. Details will need to be confirmed on the plans for CC.*



- *Stairs shall have opaque risers (i.e. Solid)*
- *Stair nosing's shall comply with the following diagram, which achieve a colour contrast luminance of 30% to the background (tread):*



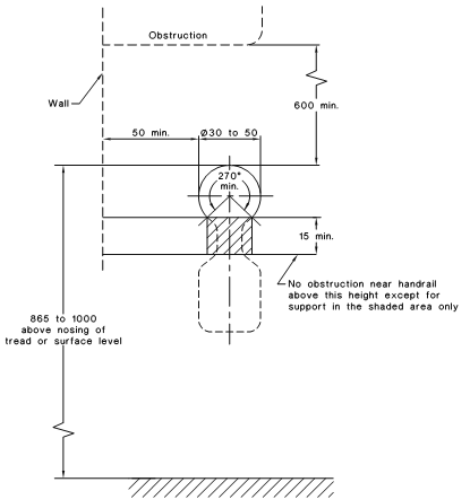
DIMENSIONS IN MILLIMETRES

Stairway nosing requirements

- *Stairways are to be served by Tactile Ground Surface Indicators in accordance with AS1428.4.1, except if they are within a fire isolated exit.*

Handrails

- *Handrails shall be installed along stairways as follows:*
  - *Shall be continuous through the flight and where practicable, around landings and have no obstruction on or above up to a height of 600mm,*
  - *Installed along both sides of the stairway (giving consideration also to 1m unobstructed width),*
  - *Shall have a compliant hand clearance in accordance with Figure 29 of AS 1428.1-2009.*



(a) Circular

DIMENSIONS IN MILLIMETRES

FIGURE 29 (in part) HANDRAILS

+ Clause D3.4 – Exemptions

This part provides exemptions to the Deemed-to-Satisfy provisions for access by people with a disability. This part provides details on buildings or parts of buildings not required to be accessible under the BCA where providing access would be inappropriate because of the nature of the area or the tasks undertaken.

Comments: *It is recommended that advice be obtained from an accredited Access Consultant at the CC Application stage, however, it is noted that any concessions to be applied under D3.4 will need to be the subject of an application by the owner with the CC Application. Confirmation from the owner will be required that includes a request for concession, where this would be applied and the reasons why it would be*

inappropriate for access for people with disabilities within the facility. The most likely areas where D3.4 may be applied are the plantrooms, loading dock area and the back-of-house kitchen areas.

+ Clause D3.5 – Accessible Carparking

This part provides details of the number of accessible carparking spaces required in a carpark depending on the classification of the building.

Comments: *Accessible compliant carparking is required to be provided at the following rates:*

- *Class 6 & 9b – 1 accessible compliant space per 50 parking spaces provided on site.*

Note: Compliance is readily achievable – Design details to be provided at Construction Certificate Application stage.

+ Clause D3.6 – Signage

This section provides requirements for signage in buildings required to be accessible By Part D3.

Comments: *Signage will be required to identify exits, accessible facilities, an ambulant accessible facility and the paths to accessible pedestrian entries (where required). It is noted that an Access Consultant's Report is being obtained for this project and as such reference should be made to that report in relation to compliance with the provisions of Part D3.*

+ Clause D3.7 – Hearing Augmentation

This part provides requirements for provision of hearing augmentation in accessible buildings, i.e. to be provided where an in-built amplification system (other than one used for emergencies), is installed:

- In a room in a Class 9b building;
- In an auditorium, conference room, meeting room, or room for judiciary purposes;
- At any ticket office, teller's booth, reception area or the like where the public is screened from the service provider.

Comments: *A Hearing Augmentation System will be required to be installed where an inbuilt amplification system is installed. It is noted that an Access Consultant's Report is being obtained for this project and as such reference should be made to that report in relation to compliance with the provisions of Part D3.*

+ Clause D3.8 – Tactile Indicators

This clause provides for the installation of tactile indicators in buildings required to be accessible and must be provided to warn people who are blind or have a vision impairment that they are approaching a stairway, escalator, passenger conveyor, ramp, overhead obstruction or an accessway meeting a vehicular way, except for areas exempted by D3.4.

Comments: *Any proposed stairways and ramps serving the building along with any overhead obstructions less than 2m in height, will need to be provided with Tactile Ground Surface Indicators in accordance with AS1428.4. It is noted that an Access Consultant's Report is being obtained for this project and as such reference should be made to that report in relation to compliance with the provisions of Part D3.*

+ Clause D3.11 – Ramps

Ramps may be used as part of an accessway where there is a change of level and must comply with the requirements set out in AS1428.1.

Comments: *Architect to note. Details demonstrating compliance for any proposed ramps will be required to be included in the CC plans. It is noted that an Access Consultant's Report is being obtained for this project and as such reference should be made to that report in relation to compliance with the provisions of Part D3.*

+ Clause D3.12 – Glazing on an Accessway

This part requires the provision of a contrasting strip, chair rail, handrail or transom across all frameless or fully glazed doorways and surrounding glazing capable of being mistaken for an opening.

Comments: *Glazing capable of being mistaken for an opening as listed above must be clearly marked for its full width with a solid and non-transparent contrasting line being not less than 75mm wide and the lower edge must be located between 900mm and 1000mm above the plane of the finished floor level.*

It is noted that an Access Consultant's Report is being obtained for this project and as such reference should be made to that report in relation to compliance with the provisions of Part D3.

3.4 SECTION E – SERVICES AND EQUIPMENT

FIRE FIGHTING EQUIPEMENT

+ Clause E1.3 - Fire hydrants

E1.3(a) – A fire hydrant system must be provided to serve a building having a total floor area greater than 500m² and where a fire brigade is available to attend a building fire.

E1.3(b) – Requires that the fire hydrant system must be installed in accordance with the provisions of AS2419.1 and also details where internal hydrants must be located.

Comments: *The proposed building is required to be served by a compliant hydrant system. Details demonstrating compliance with the provisions of E1.3 and AS 2419.1-2005 are required to be provided at CC Application stage.*

It is noted that a Performance Solution is proposed by the Fire Engineer to address the booster location as it is not located at the boundary of the site and within sight of the main entrance of the building, noting the relevant Performance Requirement is EP1.3.

Note: The booster assembly must be located not less than 10m from the substation.

+ Clause E1.4 – Fire hose reels

A fire hose reel system must be provided to serve a building where one or more internal fire hydrants are installed or in a building with a floor area greater than 500m².

This clause requires that the fire hose reel system must be installed in accordance with AS 2441 and sets out the detail for location and uses of fire hose reels.

Comments: *The proposed building is required to be served by a fire hose reel system. It is understood that a Performance Solution is proposed by the Fire Engineer to address the omission of fire hose reels throughout the building, noting the relevant Performance Requirement is EP1.3.*

+ Clause E1.5 – Sprinklers

A sprinkler system must be installed in a building or part of a building when required by Table E1.5 and comply with Specification E1.5. Table E1.5 sets out which types of building occupancies and Classes which are required to have sprinkler systems installed in them.

Specification E1.5 sets out requirements for the design and installation of sprinkler systems.

Comments: *The building is not required to be sprinkler protected.*

+ Clause E1.6 – Portable fire extinguishers

Portable fire extinguishers must be provided as listed in Table E1.6 and must be selected, located and distributed in accordance with Sections 1, 2, 3 and 4 of AS 2444.

Comments: *Fire extinguishers will be required to be installed in the proposed building in accordance with Table E1.6 and AS 2444-2001.*

SMOKE HAZARD MANAGEMENT

+ Clause E2.2 – General Requirements

Class 2 to 9 buildings must comply with the provisions of this Clause to remove smoke during a fire, to control the operation of air handling systems and to prevent the spread of smoke between compartments.

Buildings must comply with the provisions of **Table E2.2a**, as applicable to Class 2 to 9 buildings. It deals with the design and construction of air handling systems that are part of a smoke hazard management system and air handling system that are not part of a smoke hazard management system.

The details relating to the installation and operation of the systems are set out in **Specifications E2.2a**, **E2.2b** and **E2.2c**.

Comments: *In accordance with NSW Table E2.2a, the building must be provided with automatic shutdown of any air-handling system (other than non-ducted individual room units with a capacity of not more than 1000 L/s and miscellaneous exhaust air systems installed in accordance with Section 5 and 6 in AS1668.1) which does not form part of a smoke hazard management system on the activation of smoke detectors installed in accordance with Clause 6 of Spec. E2.2a.*

EMERGENCY LIGHTING, EXIT SIGNS AND WARNING SYSTEMS

+ Clause E4.2 – Emergency Lighting Requirements

This clause details when emergency lighting must be installed in Class 2 to 9 buildings. The requirements for buildings and parts of buildings are detailed in sub-clauses (a) to (i) and each sub-clause must be considered as more than one may apply to any single building

Comments: *Emergency Lighting is required throughout the building in accordance with E4.2, E4.4 and AS/NZS 2293.1-2018. Design details shall be provided with the documentation provided with the Occupation Certificate application.*

+ Clause E4.4 – Design & Operation of Emergency Lighting

Every required emergency lighting system must comply with AS2293.1.

Comments: *Electrical Consultant to note.*

+ Clause E4.5 – Exit Signs

An exit sign must be clearly visible to persons approaching the exit and must be installed on, above or adjacent to each door providing egress from a building. Sub-clauses (a) to (d) set out the situations where exit signs are required to be installed.

Comments: *Electrical Consultant to note. Details demonstrating compliance will be required to be included in the CC plans.*

+ Clause E4.6 – Direction Signs

If an exit is not readily apparent to persons occupying or visiting the building then exit signs must be installed in appropriate positions in corridors, hallways, lobbies, and the like, indicating the direction to a required exit.

Comments: *Electrical Consultant to note. Details demonstrating compliance will be required to be included in the CC plans.*

+ Clause E4.8 – Design & Operation of Exit Signs

Every required exit sign must comply with AS/NZS 2293.1 and be clearly visible at all times when the building is occupied by any person having the legal right of entry into the building.

Comments: *Electrical Consultant to note. Details demonstrating compliance will be required to be included in the CC plans.*

3.5 SECTION F – HEALTH & AMENITY

DAMP AND WEATHERPROOFING

+ Performance Requirement FP1.4

A roof and external wall (including openings around windows and doors) must prevent the penetration of water that could cause

a) Unhealthy or dangerous conditions, or loss of amenity for occupants; and
b) Undue dampness or deterioration of building elements.

Note 1: There are no Deemed-to-Satisfy provisions for this Performance Requirement in respect to External Walls.

Note 2: Refer to Clause F1.5 for roof coverings.

Comments: Design statement and a documented Performance Solution is to be provided with the Construction Certificate application, either by using:

- *The Verification Methods in Clause FV1; or*
- *Other verification methods deemed acceptable by the Certifier; or*
- *Evidence to support that the use of the material or product, form of construction or design meets the Performance Requirements or the DTS provisions, such as a Certificate of Conformity (eg. CodeMark); or*
- *By way of Expert Judgement.*

+ Clause F1.1 – Stormwater drainage

Stormwater drainage must comply with AS/NZ 3500.3-2018.

Comments: *Details of stormwater disposal, from a suitably qualified consultant are required to be submitted with documentation for the CC.*

+ Clause F1.5 – Roof Coverings

This clause details the materials and appropriate standards, with which roofs must be covered with. The roofing requirements are set out in sub-clauses (a), (b) (c), (d), (e) & (f) which set out the types of materials that may be used and the adopted Australian Standards that apply to their quality and installation.

Comments: *Note – design certification required at CC Application stage.*

+ Clause F1.6 – Sarking

Sarking-type materials used for weatherproofing of roofs must comply with AS/NZS 4200 parts 1 and 2.

Comments: Note.

+ Clause F1.7 – Waterproofing of Wet Areas

This clause requires that wet areas in Class 2 to 9 buildings must be waterproofed. It prescribes the standards to which the work must be carried on the construction of rooms containing urinals and their installation.

Comments: Note – design certification required at CC Application stage.

+ Clause F1.13 – Glazed Assemblies

Glazed assemblies in an external wall must comply with AS2047 requirements for resistance to water penetration for windows, sliding doors with a frame, adjustable louvres, shop fronts and windows with one-piece framing

Comments: *Note – design certification required at CC Application stage.*

SANITARY AND OTHER FACILITIES

+ Clause F2.2 – Calculation of Numbers of Occupants & Facilities

This clause sets out the requirements for the calculation of the number of occupants and the number of sanitary facilities required to be installed in Class 2 to 9 buildings. The parameters for the calculation are set out in sub-clauses (a) to (d).

Comments: See comments under Clause D1.13.

+ Clause F2.3 – Facilities in Class 3 to 9 Buildings

This clause provides the requirements for sanitary facilities to be installed in Class 3, 5, 6, 7, 8 and 9 buildings in accordance with **Table F2.3**. The requirements and variations are set out in sub-clauses (a)-(h).

Comments: *The required sanitary facilities for the proposed building have been calculated as follows, based upon the population numbers detailed in D1.13 above:*

Patrons (Population: 272 – 136M/F Split) -

- *Male: 2 WC's, 3 Urinals, 2 Wash Basins; and Female:4 WC's, 2 Wash Basins*

Staff (Population: 18 – 9M/F Split) -

- *Male: 1 WC, 1 Wash Basin; and Female:1 WC, 1 Wash Basin*

Note 1: Compliance with the above requirements is readily achievable.

Note 2: The staff WC in the BoH area must be a unisex accessible compartment if it is to be shared by Male and Female staff or separate male and female compartments must be provided. Alternatively, if not more than 10 people are employed within the building, that facility can be used by Males and Females in accordance with F2.3(c), which would require confirmation from the owner / operator at CC stage.

+ Clause F2.4 – Accessible Sanitary Facilities

Accessible unisex sanitary compartments must be provided, in accordance with **Table F2.4(a)** and unisex showers must be provided in accordance with **Table F2.4(b)**, in buildings or parts that are required to be

accessible. The details for the provision of disable facilities and the standard, AS 1428.1, are set out in sub-clauses (a) to (i).

Comments: *Accessible compliant toilets are required on every storey containing sanitary facilities, and where a storey has more than 1 bank of sanitary facilities, at not less than 50% of those banks. In addition to an Accessible unisex sanitary compartment at that bank of toilets, an ambulant sanitary facility is required to be provided for use by male and female persons per AS 1428.1-2009. In this regard separate male and female ambulant cubicles are required in the Gaming area or a Performance Solution is required from the Access Consultant.*

+ Clause F2.5 – Construction of Sanitary Compartments

Other than in an early childhood centre, sanitary compartments must have doors and partitions that separate adjacent compartments and extend –

- *from floor level to the ceiling in the case of a unisex facility; or*
- *a height of not less than 1.5m above the floor if primary school children are the principal users; or*
- *1.8m above the floor in all other cases.*

The door to a fully enclosed sanitary compartment must open outwards; or slide: or be readily removable from the outside of the sanitary compartment, unless there is a clear space of at least 1.2m, measured in accordance with Figure F2.5 between the closet pan within the sanitary compartment and the doorway.

Comments: *Architect to note.*

ROOM HEIGHTS

+ Clause F3.1 – Height of Rooms and other spaces

The ceiling heights in Class 2 to 9 buildings must not be less than required in sub-clauses (a) to (f) of this clause.

The ceiling minimum heights for a Class 5, 6, 7 or 9b building are as follows:

- *2,4m; and*
- *Corridor, passageway or the like – 2.1m; and*
- *A bathroom, shower room, sanitary compartment, other than an accessible adult change facility, airlock, tea preparation room, pantry, store room, garage, car parking area, or the like – 2.1m; and*
- *Above a stairway, ramp, landing or the like – 2m measured vertically above the nosing line of stairway treads or the floor surface of the ramp, landing or the like; and*
- *A commercial kitchen – 2.4m; and*
- *A required accessible adult change facility – 2.4m.*

Comments: Architect to ensure compliance. Ceiling heights to be reviewed at the Construction Certificate stage with the detailed section drawings.

LIGHT AND VENTILATION

+ Clause F4.4 – Artificial Lighting

Artificial lighting is required where it is necessary to minimise the hazard to occupants during an emergency evacuation. Sub-clauses (a), (b) & (c) sets out the places where artificial lighting is always required in all classes of buildings and the standard to which it must be installed.

Comments: *Design certification to be submitted at CC Application Stage for the building.*

+ Clause F4.5 – Ventilation of Rooms

A habitable room, office, shop, factory, workroom, sanitary compartment, bathroom, shower room, laundry and any other room occupied by a person for any purpose must have natural ventilation complying with F4.6 **or** a mechanical or air-conditioning system complying with AS1668.2 and AS/NZS 3666.1.

Note: NSW F4.5(b) a mechanical ventilation or air-conditioning system complying with AS 1668.2 – the reference to AS/NZS 2666.1 is deleted from the BCA in NSW as the need to comply with this standard is regulated under the relevant section of the Public Health Act 1991.

Comments: *Design certification from the Mechanical Consultant to be submitted at CC Application Stage for the building.*

+ Clause F4.8 – Restriction on Position of Water Closets & Urinals

A room containing a water closet pan or urinal must not open directly into a kitchen or pantry, public dining room or restaurant, a dormitory in a Class 3 building, a room used for public assembly (which is not an early childhood centre, primary school or open spectator stand) or a workplace normally occupied by more than 1 person.

Comments: *Compliance readily achievable.*

+ Clause F4.9 – Airlocks

If a room containing a closet pan or urinal is prohibited under F4.8 form opening directly into another room then the provisions of sub-clauses (a) & (b) apply relating to the requirements of airlocks and mechanical ventilation standards

Comments: *Compliance readily achievable.*

+ Clause F4.12 – Kitchen Local Exhaust Ventilation

A commercial kitchen must be provided with a kitchen exhaust hood complying with AS/NZS 1668.1 and AS 1668.2 in accordance with the provisions of sub-clauses (a) and (b).

Comments: *Design certification shall be provided from the mechanical consultant for the proposed Kitchen Exhaust Design.*

3.6 SECTION G – ANCILLARY PROVISIONS

+ Clause G1.2 – Refrigerated Chambers, Strong Rooms and Vaults

A coolroom, vault or equivalent in a building must be provided with a door being capable of opened from the inside without a key, internal lighting controls inside at the entry, interior lighting indicator lamp, internal alarm device that achieves a 90dB(A) within 3m of the entry door, and a minimum 600mm wide by 1500mm high door opening.

Comments: *Design certification demonstrating compliance is to be provided with the Construction Certificate Application for the Cold & Freezer Rooms.*

3.7 SECTION J – ENERGY EFFICIENCY

+ Part J1 – Building Fabric

The provision of insulation of the building envelope will be required in the proposed Building, in accordance with **Clauses J1.0 to J1.6**, and the **Tables therein**, including Thermal Construction General, Roof and Ceiling Construction, Rooflights, Walls & Glazing, and Floors. Design details and/or certification of design will be required to be provided in this regard.

Comments: Design details and/or certification of building envelope design will be required to be submitted with the application for a Construction Certificate.

+ Part J3 – Building Sealing

The proposed building envelope will be required to be sealed to prevent air infiltration in accordance with the requirements of **Clauses J3.0 to J3.6**. Details or certification that the proposed building design complies with the requirements of **Part J3** is required to be provided.

*Comments: This section applies to any air-conditioned spaces proposed within the proposed building. Details or certification that the proposed design complies with the requirements of **Part J3** will need to be submitted with the application for a Construction Certificate.*

+ Part J5 – Air-Conditioning & Ventilation Systems

Details and/or design certification which confirm that any proposed air-conditioning system or unit within the proposed building achieves compliance with the relevant requirements of **Part J5** will be required to be provided from the mechanical engineer.

Comments: Details or certification demonstrating compliance will need to be submitted with the application for a Construction Certificate for the building.

+ Part J6 – Artificial Light & Power

Details and/or design certification which confirm that all artificial lighting, power control, and boiling/chilled water units within the proposed building achieves compliance with the relevant requirements of **Part J6** will be required to be provided from the electrical engineer.

Comments: Details or certification demonstrating compliance will need to be submitted with the application for a Construction Certificate for the building.

+ Part J7 – Hot Water Supply, & Swimming Pool & Spa Pool Plant

Details and/or design certification which confirm that any proposed hot water supply system within the proposed building achieves compliance with the relevant requirements of **Part J7** (Section 8 of AS 3500.4) will be required to be provided from the hydraulic engineer.

Comments: Details or certification demonstrating compliance will need to be submitted with the application for a Construction Certificate for the building.

+ Part J8 – Facilities for Energy Monitoring

Provision for monitoring of energy consumption must be provided to a building where the floor area exceeds 500m², and must be capable of recording the consumption of gas and electricity. In addition, where the floor area of the building exceeds 2,500m² the energy monitoring facilities must be capable of individually recording air-conditioning, lighting, appliance power, central hot water supply, lifts/escalators, and other ancillary plant.

Comments: Details or certification demonstrating compliance will need to be submitted with the application for a Construction Certificate.

4.0 CONCLUSION

This report contains an assessment of the referenced architectural documentation for the proposed pub and restaurant function venue located in Jordan Springs against the Deemed-to-Satisfy Provisions of the BCA 2019 Amendment 1. Arising from the review, it is considered that the proposed development can readily achieve compliance with the relevant provisions of the BCA. Where compliance matters are proposed to comply with the performance requirements (rather than DTS Provisions), the development of a Performance Solution Report will be required prior to the issue of the Construction Certificate.

The following essential fire safety measures will be required for the building;

Essential Fire and Other Safety Measures	Standard of Performance
Emergency Lighting	BCA Clause E4.4 & AS 2293.1 - 2005
Exit Signs	BCA Clauses E4.5, E4.6 & E4.8 and AS 2293.1 – 2005
Fire Blankets	AS 3504 – 2006 & AS2444 – 2001
Fire Dampers (TBC)	BCA Clause C3.15, AS 1668.1 – 2015 & AS 1682.1 & 2 – 2015 and manufacturer's specification
Fire Doors (TBC)	BCA Clause C2.12, C2.13 and AS 1905.1 – 2005
Fire Hose Reels	BCA Clause E1.4 & AS 2441 – 2005
Fire Hydrant Systems	Clause E1.3 & AS 2419.1 - 2005
Fire Seals (TBC)	BCA Clause C3.15 & AS 1530.4 – 2014 & AS 4072.1 – 2005
Fire Windows (TBC)	BCA Spec C3.4
Lightweight Construction (TBC)	BCA Clause C1.8 & AS 1530.4 – 2014
Mechanical Air Handling Systems (including auto shutdown)	BCA Clause E2.2, AS/NZS 1668.1 - 2015 & AS 1668.2 – 2012
Paths of Travel	EP & A Regulation Clause 186
Portable Fire Extinguishers	BCA Clause E1.6 & AS 2444 – 2001
Required Exit Doors (power operated)	BCA Clause D2.19(b)
Smoke and/or Heat Detectors (auto shutdown)	Clause 6 of BCA Spec E2.2a and AS 1668.1 - 2015
Warning & Operational signs	Section 183 of the EP & A Regulations 2000, AS 1905.1 – 2005 & BCA Clause D3.6

Note the above fire safety schedule is indicative only and could be subject to change as result of design changes.

5.0 APPENDIX 1 – SPEC. C1.1 FRL REQUIREMENTS

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	–/–/–	–/–/–	–/–/–	–/–/–