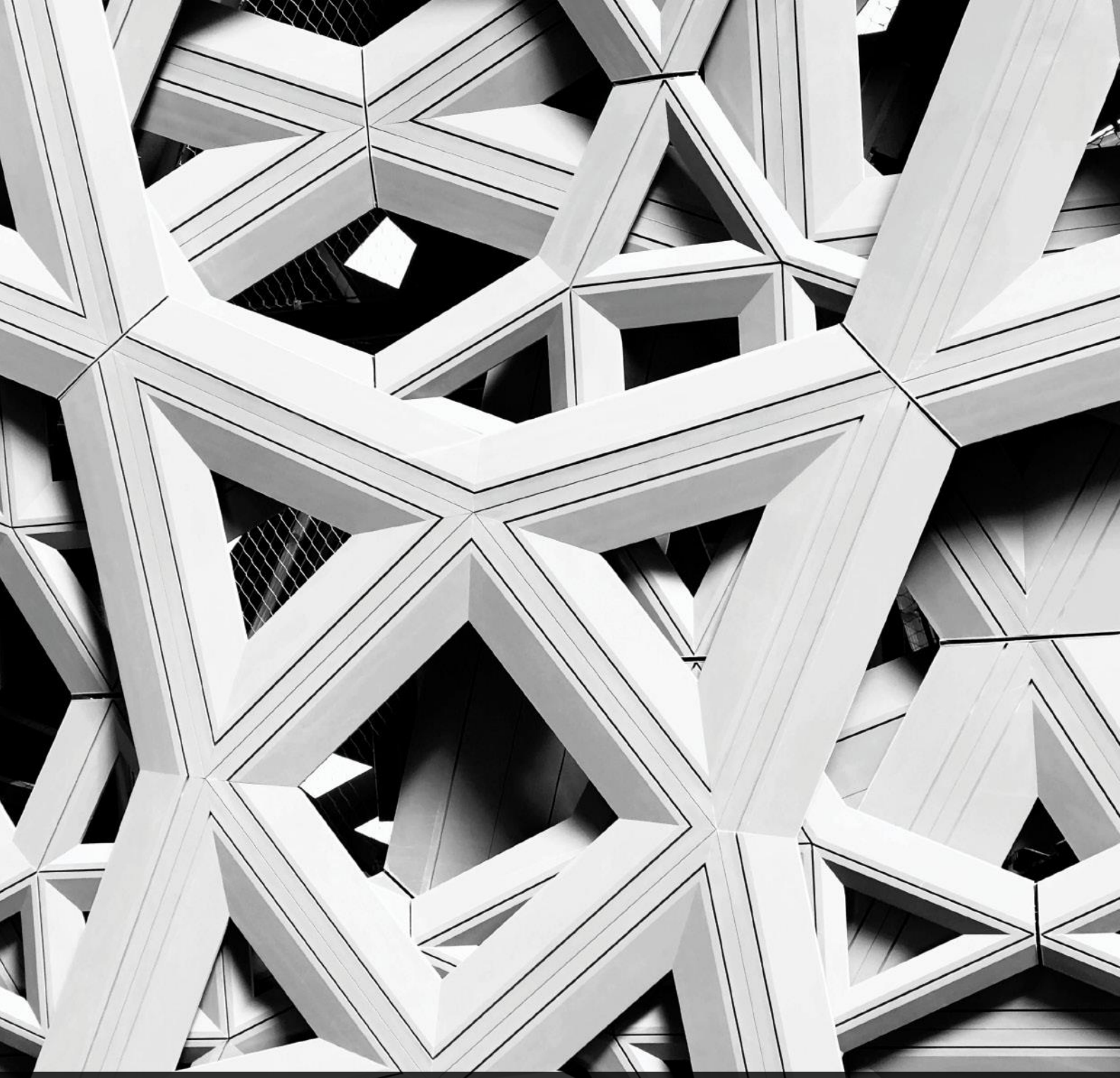

# BCA Capability Statement

Indoor Padel Courts
Unit 2, 4-10 Inman Road, Cromer

**Prepared for:**
Indoor Padel

**Revision 0**
28 July, 2023
Reference: 230246

bmplusg.com.au

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# BCA Capability Statement

| | |
|---|---|
| + To | Indoor Padel |
| + Attention | Catarina Segorbe |
| + Email | csegorbe@indoorpadel.com.au |
| + From | Tony Heaslip |
| + Subject | Issued for client review |
| + Project No. | 230246 |
| + Date | 28 July 2023 |
| + Pages | 20 |

This statement has been prepared to verify that Blackett Maguire + Goldsmith Pty Ltd have undertaken a review of the architectural documentation that will accompany the Development Application (DA) to Northern Beaches Council for the proposed construction of an indoor recreation facility (padel courts) against the Building Code of Australia 2022 (BCA).

# 1.0 Introduction

The proposed development comprises the use of Unit 2, 4-10 Inman Road in Cromer NSW for an indoor recreation facility (padel courts) allowing for 4 courts.

## 1.1 Capability Statement Objectives

The objectives of this statement are to:

- confirm that the DA architectural documentation has been reviewed by an appropriately qualified Building Surveyor and Accredited Certifier.
- confirm that the proposed new building works can readily achieve compliance with the BCA pursuant to section 19 of the *Environmental Planning & Assessment (Development Certification & Fire Safety) Regulation 2021*.
- accompany the Development Application submission to enable the Consent Authority to be satisfied that subsequent compliance with the fire & life safety and health & amenity requirements of the BCA, will not necessarily give rise to design changes to the building which may necessitate the submission of an application under Section 4.55 of the *Environmental Planning and Assessment Act 1979*.

It should be noted that it is not the intent of this statement to identify all BCA provisions that apply to the subject development. The development will be subject further assessment following receipt of more detailed documentation at Construction Certificate stage.

## 1.2 Relevant Version of the BCA

Pursuant to Section 19 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 the proposed building is subject to compliance with the relevant requirements of the BCA as in force at the day on which the application for the Construction Certificate is made. The current version of the BCA is BCA 2022 with the next revision of the BCA coming into effect 1 May 2025. As the Construction Certificate application will be lodged after 1 May 2023, this report assesses the design against compliance with the requirements of BCA 2022.

Where the building is a multi-storey building and multiple Construction Certificates will be issued under the same development consent, the relevant version of the BCA may be 'locked in' based on the day in which the application is made for the Construction Certificate which involves the entrance floor.

## 1.3 Referenced Documentation

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

- Building Code of Australia 2022 (BCA)
- Construction Certificate No. 20/1851/03 (Base Building)
- BCA Assessment Report (Ref: 112290-BCA-r1) prepared by BCA Logic dated 23 September 2021 (Base Building)
- FER (212018_FER_05) prepared by Affinity Fire Engineering dated 30 May 2023 (Base Building)
- DA architectural plans prepared by Archi Spectrum:

| Drawing No. | Revision | Date |
|---|---|---|
| DA01.01 | - | 28 June 2023 |
| DA02.01 | - | 28 June 2023 |
| DA02.02 | - | 28 June 2023 |
| DA03.01 | - | 28 June 2023 |
| DA03.02 | - | 28 June 2023 |
| DA04.01 | - | 28 June 2023 |

## 1.4 Building Classification

The new building works have been classified as follows (as applicable to Unit 2):

| | Existing | Proposed |
|---|---|---|
| **BCA Classification** | Class 7b (Warehouse)<br>Class 5 (Office) | Class 9b (Padel Tennis Courts)<br>Class 5 (Office) |
| **Rise in Storeys** | 2 | 2 |
| **Storeys Contained** | 2 | 2 |
| **Type of Construction** | Type A Construction | Type A Construction |
| **Sprinkler Protected Throughout** | Yes | Yes |
| **Effective Height** | Less than 12m | Less than 12m |
| **Max. Fire Compartment Size** | 5,000m$^2$ & 30,000m$^3$ | 8,000m$^2$ & 48,000m$^3$ |
| **Climate Zone** | Zone 5 | Zone 5 |

# 2.0 BCA Assessment – Key Issues

We note the following BCA compliance matters with relation to proposed building works are capable of complying with the BCA. Please note that this is not a full list of BCA clauses, they are the key requirements that relate to the proposed work and the below should be read in conjunction with the BCA.

## 2.1 Section B – Structure

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|---|---|
| **Part B1** | **Structural Provisions:**<br>+ New building works are to comply with the structural provisions of the BCA 2022 and referenced standards including AS 1170.<br>+ The structural engineer will need to certify that the structural capacity of any will not be reduced as a result of the new works and that the building is considered structurally adequate for its intended use.<br>+ The Importance Level provisions of BCA (Section B) are to be acknowledged by the Structural Engineer and addressed to the degree necessary.<br>+ Seismic Restraint of new parts and components is required in accordance with Section 8 of AS 1170.4 (refer to section 8.1.4 for specific parts and components that are subject to these provisions). Architect, Electrical, Mechanical and Fire Services Consultant to note and ensure that their respective design documentation complies accordingly. |

## 2.2 Section C – Fire Resistance

| | |
|---|---|
| **C2D2 / Spec 5** | **Type of Construction Required:** The building is required to comply with the requirements of as stated within Specification 5 as applicable to Type A Construction. Refer to Table of Appendix 1 for the FRL requirements new building elements.<br>Note: Class 7b FRL's will apply to the new works where there is no fire wall separating the proposed Class 9b and adjoining Class 7b warehouse unit |
| **C2D10 / C2D14** | **Non-Combustible Building Elements:** All new materials and or components incorporated in an external wall or fire-rated wall must be non-combustible. This includes but not limited to:<br>+ Any external wall claddings.<br>+ Any framing or integral formwork systems. I.e. timber framing, sacrificial formwork, etc.<br>+ Any external linings or trims. I.e. external UPVC window linings, timber window blades, etc.<br>+ Any sarking or insulation contained within the wall assembly.<br>This is not an exhaustive list, and any element incorporated within any external wall assembly must be identified and approved prior to the issue of a Construction Certificate.<br>Refer to Table 1 in Appendix 1 for the elements required to be non-combustible.<br>**Ancillary Elements:** An ancillary element must not be fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible, unless it is in accordance with this clause. |

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| **C2D11 & Spec. 7** | **Fire Hazard Properties:** A schedule of all wall, floor, and ceiling linings along with associated test reports are to be provided for review to ensure compliance with the fire hazard property requirements of the BCA. Noting:<br>+ Minimum Group Numbers apply to wall and ceiling linings. AS 5637 test reports must be provided to determine compliance.<br>+ Minimum Critical Radiant Flux values apply to floor linings. AS ISO 9239.1 test reports must be provided to determine compliance<br>Refer to Table 3 and 4 in Appendix 2 below for the required fire hazard properties. |
| **C3D3** | **General Floor Area and Volume Limitations:** Unit 1 and Unit 2 comprise a single fire compartment as per Figure 6-20 of the base building FER prepared by Affinity Fire.<br>The proposed new works do not result in any changes to the existing fire compartmentation as outlined within the base building Fire Engineering Report. Furthermore, the proposed change of use from Class 7b to 9b results in an increase in permitted fire compartment size for the compartment as outlined in section 1.4 of this report.<br>The floor area and volume of the fire compartment in which the subject Unit 2 is located is within the fire compartment limitations under the DtS provisions. |
| **C3D9/ C3D10** | **Separation of Classifications:** It is noted that Unit 2 (proposed 9b) is separated by a fire wall from the adjoining Unit 3 (Class 7b).<br>It is understood that Unit 1 comprises Class 9b and as such separation of classifications is not required as both Units 1 & 2 will comprise Class 9b. |

## 2.3 Parts D – Provision for Escape and Construction of Exits

| | |
|---|---|
| **D2D3** | **Number of Exits Required:** The building is required to be provided with one exit to each storey.<br>The number of required exits to the building are compliant with this clause. |
| **D2D5** | **Exit Travel Distances:** Exit travel distances within the building are required to be not more than 20m to a point of choice between alternative exits and 40m to the nearest one from Class 5 and 9 areas.<br>A Fire Safety Engineered Performance Solution is required to allow for a maximum distance to an exit of 43m in lieu of the DtS 40m. |
| **D2D6** | **Distance Between Alternative Exits:** The maximum distance permitted between alternative exits in Class 5 and 9 areas is 60m. This must be measured back through the point of choice. Alternative egress paths are not permitted to converge to less than 6m, and alternative exits must be located more than 9m apart.<br>A Fire Safety Engineered Performance Solution is required to allow for alternative exits to be a minimum of 8m distance between alternative exits. |
| **D2D7/ D2D8/ D2D9/ D2D10/ D2D11** | **Dimensions of Paths of Travel to an Exit:** The minimum clear height through all egress paths is required to be no less than 2m, and a minimum of 1m wide (this width dimension is measured clear of any obstructions such as handrails and joinery). Aggregate exit widths must be achieved which are driven by occupancy numbers of each floor. |
| **D2D14** | **Travel Via Non-Fire Isolated Required Stairways:** A non-fire-isolated stairway or non-fire-isolated ramp serving as a required exit must provide a continuous means of travel by its own |

| | |
|---|---|
| | flights and landings from every storey served to the level at which egress to a road or open space is provided.<br><br>The distance from any point on the floor to a point of road or open space must not exceed 80m. The stair must discharge at a point not more than 20m to a point of road or open space, or from a fire-isolated passage, or 40m from one of two such points.<br><br>Compliance is achieved in this regard. |
| **D2D15** | **Discharge from Exits:** The path of travel to the road from a required exit leading to open space must have an unobstructed exit width of that of the required exit, or if larger, 1m. |
| **D2D18** | **Number of persons accommodated:** The number of persons accommodated in a storey, room or mezzanine must be determined with consideration to the purpose for which it is used and the layout of the floor area by –<br>+ calculating the sum of the numbers obtained by dividing the floor area of each part of the storey by the number of square metres per person listed in Table D2D18 according to the use of that part, excluding spaces set aside for—<br>- lifts, stairways, ramps and escalators, corridors, hallways, lobbies and the like; and<br>- service ducts and the like, sanitary compartments or other ancillary uses; or<br>+ reference to the seating capacity in an assembly building or room; or<br>+ any other suitable means of assessing its capacity.<br>The proposed facilities are to accommodate 16 participants and 4 staff members, based on 4 people per court and a total of 4 courts. Client to advise **BM+G** if these numbers are altered. |
| **D3D14/ D3D15/ D3D16/ D3D20/ D3D22** | **Stairways, Balustrades, and Handrails:**<br><br><u>Stairways:</u><br><br>+ A stairway must have no more than 18, nor less than 2, risers in each flight.<br><br>+ Landings must be not less than 750mm in length.<br><br>+ In a Class 9b building, not more than 36 risers in consecutive flights without a change in direction of at least 30°.<br><br><u>Balustrades:</u><br><br>+ All balustrades must achieve a minimum height of 1m above finished floor level.<br><br>+ Balustrades (except for fire-isolated stairs) must not permit a 125mm sphere to pass through any opening.<br><br>+ Balustrades in fire-isolated exits must comprise no gap larger than 150mm between nosing line (or landing) and bottom rail. Other openings in the balustrade must not exceed 460mm. If the fire-isolated exit also functions as a circulation stair, the 125mm gap requirement applies in lieu of these reduced provisions.<br><br>+ A barrier required by D3D17, located on a floor more than 1m above the surface beneath, must not incorporate horizontal or near horizontal elements that could facilitate climbing between 150mm and 760mm above the floor.<br><br>This does not apply to fire isolated stairways, fire-isolated ramps and other areas used primarily for emergency purposes, <u>other than</u> –<br><br>- external stairways; and<br><br>- external ramps; and<br><br><u>Handrails:</u><br><br>+ Handrails must be located on both sides of all stairways and ramps except for fire-isolated stairs. Handrails must comply with AS 1428.1 as relevant. |

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|---|---|
| | + Handrails must fixed at a minimum height of 865mm and be continuous between stair flight landings and have no on or above them that may break the hand hold. If in a required exit serving an accessible area, must comply with AS 1428.1.<br><br>Details are to be provided prior to the issue of Construction Certificate. |
| **D3D25/ D3D26** | **Doors and Latching:** All egress doorways must swing in the direction of egress and must be readily openable without a key from the side that faces a person seeking egress, by a single handed downward or pushing action on a single device which is located between 900mm and 1100mm from the floor.<br><br>Detail are to be provided prior to the issue of Construction Certificate. |
| **Part D4** | **Access for People with a Disability:** 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 D4D5. The new building works are required to comply with AS1428.1-2009.<br><br>It is noted that the Mezzanine level is to be accessible by participants and therefore Class 9b applies to this level and the exemption under BCA Clause D4D4 (f) can not be applied. In this regard an Access Consultant is to document a Performance Solution to allow omission of passenger lift access to the Mezzanine level.<br><br>Other than the above, we are of the opinion that compliance with the BCA DtS access provision is readily achievable, detailed documentation is to be provided at Construction Certificate stage. |

## 2.4 Section E – Services and Equipment

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|---|---|
| **E1D1** | **Fire Hydrants:** Fire hydrant coverage is required to be provided to the building in accordance with AS2419.1 – 2021.<br>Fire hydrant coverage plans are to be provided based on the new works from the hydraulic consultant. |
| **E1D3** | **Fire Hose Reels:** Fire hose reels are required to be provided to areas other than school classrooms and associated corridors in a Class 9b school building, and any Class 5/9c buildings / parts. Where required to be provided, fire hose reels are to comply with AS 2441 – 2005.<br><br>Fire hose reel coverage plans are to be provided based on the new works from the hydraulic consultant. |
| **E1D4** | **Sprinklers:** It is noted that the building is currently sprinkler protected throughout. Sprinkler coverage will need to be extended to the proposed conversion of the warehouse and office area in accordance with AS 2118.1-2017. Fire service design certification (including endorsement by CFSP) will be required prior to issue of the Construction Certificate. |
| **E2D4/ E2D9/ E2D11/ E2D12/ E2D13** | **Smoke Hazard Management:** The following smoke hazard management systems are to be installed to the building and will be required throughout:<br><br>+ An Automatic Fire Detection and Alarm System complying with AS 1670.1 – 2018 and S20C6.<br>+ The Building Occupant Waring System and Emergency Warning Intercom System in accordance with AS 1670.4 & AS 2220.1 & 2.<br>+ Mechanical Air Handling System in accordance with AS 1668.1.<br><br>It is noted that the proposed conversion of the warehouse comprises a floor area of more than 2000m$^2$ requiring additional smoke hazard management systems under Table E2D20. However, the current sprinkler system is sufficient to satisfy these provisions. |
| **E4D2 - E4D8** | **Emergency Lighting and Exits Signs:** Emergency lighting and exit signage to be provided in accordance with E4D2 - E4D5 complying with AS 2293.1 – 2018. |

## 2.5 Section F – Health and Amenity

| | |
|---|---|
| **Part F1** | **Damp and Weatherproofing:** Damp and weatherproofing to comply with the prescriptive requirements of this Part. |
| **Part F4** | **Sanitary Facilities:** Sanitary facilities must be provided to comply with the requirements of this part. Students and staff must not share sanitary facilities, each sanitary compartment must be clearly designated for the specific user it is provided for.<br><br>Class 9b theatres and sporting venues must be provided with one shower for each 10 participants or part thereof.<br><br>The referenced plans show an adequate number of facilities. |
| **Part F5** | **Ceiling Heights:** The floor to ceiling heights must be as follows:<br><br>The minimum ceiling heights in a Class 5 / 6 / 7 / 8 building are as follows:<br>+ Generally – 2.4m.<br>+ Corridor, passageways, or the like – 2.1m.<br><br>The minimum ceiling heights in a Class 9b building are as follows:<br>+ School classroom, or other assembly building or part accommodating not more than 100 persons – 2.4m.<br>+ Theatre, public hall, or other assembly building or part accommodating more than 100 persons – 2.7m.<br><br>In any building:<br>+ Bathrooms, sanitary compartments, tea preparations rooms, pantries, store rooms or the like – 2.1m,<br>+ A commercial kitchen – 2.4m,<br>+ Above a stairway, ramp, landing or the like – 2m.<br><br>Reflected Ceiling Plans are to be provided for BM+G to review. |
| **Part F6** | **Light and Ventilation:** Artificial lighting systems are required to comply with Clause F4.4 and AS 1680. All mechanical or air-conditioning installations must be undertaken in accordance with Clauses F6D6 and AS 1668.2.-2012. |

## 2.6 Section J – Energy Efficiency

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|---|---|
| **Part J** | **Energy Efficiency:** The new building works subject to compliance with the Energy Efficiency Provisions of BCA 2022 Section J relating to:<br><br>+ J1: Energy Efficiency Performance Requirements<br>+ J2: Energy Efficiency<br>+ J4: Building Fabric<br>+ J5: Building Sealing<br>+ J6: Air-Conditioning and Ventilation<br>+ J7: Artificial Lighting and Power |

+ **J9:** Energy Monitoring and On-Site Distributed Energy Resources

The Construction Certificate documentation from the architect, mechanical, electrical, and hydraulic engineers are to incorporate details demonstrating compliance with the above provisions (as applicable to their respective disciplines).

# 3.0 Statutory Upgrade Requirements

## 3.1 BCA Fire and Life Safety

The following statutory upgrade triggers apply to the subject building works:

+ **Clause 64 of the Environmental Planning and Assessment Regulation 2021**

In determining a Development Application, Clause 64 of the Environmental Planning & Assessment Regulation 2021 requires the Consent Authority is to take into consideration whether it would be appropriate to require the existing building to be brought into total or partial conformity with the Building Code of Australia where (in the case of the subject building):

(a) the proposed building work, together with any other building work completed or authorised within the previous 3 years, represents more than half the total volume of the building, as it was before any such work was commenced, measured over its roof and external walls;
or

(b) the measures contained in the building are inadequate:
  (i) to protect persons using the building, and to facilitate their egress from the building, in the event of fire, or
  (ii) to restrict the spread of fire from the building to other buildings nearby.

Given the extent of the works proposed works and the base building is a new building currently under construction, it is anticipated that clause 64 will not apply to the subject development.

In any case, it is considered that the proposed new works and change of use will incorporate adequate measures to satisfy the life safety and health & amenity provisions of the BCA (i.e. Sections C, D, E, F2, F3, G & H as applicable to the new works).

+ **Pursuant to Section 14 of the Environmental Planning and Assessment (Development Certification & Fire Safety) Regulation 2021**

A certifier must not issue a construction certificate for building work that authorises a change of building use unless; the fire protection and structural capacity of the building will be appropriate to its new use, and the building will comply with such off the Category 1 fire safety provisions as are applicable to the new use.

Note: Category 1 fire safety measures mean the following:

| | | |
|---|---|---|
| ▪ Fire Hydrants (E1P3) | ▪ Fire Detection and Alarm Systems (E2D3) | ▪ Safe Evacuation Routes (E2P2) |
| ▪ Sprinklers Systems (E1P4) | ▪ Fire Control Centres (E1P6) | ▪ Emergency Lifts (E3P2) |

The following commentary is provided with respect to the above requirements:

a) Fire Protection & Category 1 Fire Safety Provisions: The following Category 1 Fire Safety Measures are applicable to the new use:

- Fire hydrants (E1P3): The building will be served by a fire hydrant system as part of the new works.

- Sprinkler system (E1P4): The subject building is currently sprinkler protected throughout. The existing system will be modified as appropriate to ensure compliance coverage is maintained.
- Fire Detection & Alarm System (E2D3): Smoke detection and alarm system is typically only required to a single storey class 9b building to activate automatic shutdown of ducted mechanical air handling systems. The proposed conversion of the warehouse part of the subject building does not include the installation of any ducted mechanical air handling systems. On this basis, smoke detection is not considered necessary under the BCA DtS provisions.
- Safe Evacuation Routes (E2P2): The building will be served by a sprinkler system which satisfies the BCA DtS provisions for smoke hazard management under E2.2 for the proposed class 9b use.
- Fire Control Centre (E1P6): The building will be served by a fire control centre and will not be modified as part of these works.

E1P6 and E3P2 does not apply to the subject building as the building is below the threshold that would require a Fire Control Centre and Emergency Lifts.

A certificate is to be obtained from a Structural Engineer prior to issue of the Construction Certificate certifying that the structural capacity of the building is suitable for the new use.

# 4.0 Summary of Performance Solutions

## A. Matters requiring fire safety engineered performance solutions:

| + BCA (DTS) Clause | | + Description |
|---|---|---|
| 1. | D2D5 | To allow for a maximum distance to an exit of 43m in lieu of the DtS 40m. |
| 2. | D2D6 | To allow for alternative exits to be a minimum of 8m distance between alternative exits. |

## B. Other matters requiring performance solutions:

| + BCA (DTS) Clause | | + Description |
|---|---|---|
| 1. | D4D4 | To allow omission of passenger lift access to the Mezzanine level. |

# 5.0 Preliminary Fire Safety Schedule

The following table is a list of the required fire safety measures within the building. These measures may be subject to further change pending the outcomes of the final compliance review.

| + Statutory Fire Safety Measure | + Design/Installation Standard | + Existing | + Proposed |
|---|---|---|---|
| Access to Lift Pits<br>+ Located at lowest level or if >3m provided through an access door | BCA 2019 D1.17 (Access to Lift Pits) | ✓ | |
| Alarm Signalling Equipment | AS 1670.3 – 2018 | ✓ | |
| Automatic Fail Safe Devices | BCA 2019 D2.21 (Operation of Latches)<br>AS 1670.1:2018 (Fire) | ✓ | |
| Automatic Fire Detection & Alarm System<br>+ Incorporating a thermal detection system in the basement carpark<br>Note: If there is a SSISEP or EWIS applies different dB(A) i.e. At bedhead not SOU | BCA 2019 E2.2, NSW Table E2.2a, Spec E2.2a<br>Spec E2.2a - Clause 4 (Smoke detection system) Spec E2.2a - Clause 7 (BOWS)<br>AS 1670.1:2018 (Fire) – Section 4 and 5 (Detectors)<br>AS 1670.4:2018 (EWIS) | ✓ | |
| | BCA 2022 Spec. 20 & AS 1670.1 – 2018 | | ✓ |
| Automatic Fire Suppression Systems<br>+ General Sprinklers<br>+ Combined Sprinklers | BCA 2019 E1.5<br>AS 2118.1:2017 (Sprinklers)<br>AS 2118.6:2012 (Combined Sprinklers/Hydrant) | ✓ | |
| | BCA 2022 Spec. 17 & AS 2118.1 – 2017 | | ✓ |
| Building Occupant Warning System activated by the Sprinkler System | BCA 2022 Spec. 17<br>Clause 8 and / or Clause 3.22 of AS 1670.1 – 2018 | ✓ | |
| Emergency Lighting | BCA 2019 E4.2, E4.4<br>AS/NZS 2293.1:2018 | ✓ | |
| | BCA 2022 Clause E4D2 & E4D4<br>AS 2293.1 – 2018 | | ✓ |
| Exit Signs | BCA 2019 E4.5 (Exit Signs)<br>BCA 2019 E4.6 (Direction Signs)<br>BCA 2019 E4.8 (Design and Operation - Exits)<br>AS/NZS 2293.1:2018 | ✓ | |
| | BCA 2022 Clauses E4D5 & E4D8<br>AS 2293.1 – 2018 | | ✓ |

| + Statutory Fire Safety Measure | + Design/Installation Standard | + Existing | + Proposed |
|---|---|---|---|
| Fire Blankets | AS2444 – 2001 | ✓ | |
| Fire Dampers | BCA 2019 E2.2, Spec E2.2a, Spec E2.2b<br>BCA2019 C3.15<br>AS 1668.1:2015 (Amdt 1) AS 1682.1:2015 & AS 1682.2:2015 | ✓ | |
| Fire Doors | BCA 2019 C2.12 (Separation of Equipment)<br>BCA 2019 C3.4 (Acceptable methods of Protection) BCA2019 C3.5 (Doors in Fire Walls) AS1735.11- 1986<br>BCA 2019 C3.13 (Opening in Shafts) Spec C3.4 AS1905.1: 2015 &<br>Proposed Fire Engineering Performance Solution Report | ✓ | |
| Fire Hose Reels | BCA 2019 E1.4<br>AS 2441:2005 | ✓ | |
| Fire Hydrant Systems<br>(External Hydrants)<br>(Street Hydrants)<br>+ NSW Storz Couplings | BCA 2019 E1.3<br>BCA 2019 C2.12 (Separation of Equipment)<br>AS 2419.1:2005<br>FRNSW Technical Sheet D15/45534.V9 issued 10.01.19, 'Compatible Hose Connections'<br>Proposed Fire Engineering Performance Solution Report | ✓ | |
| Fire Seals | BCA 2019 C3.15 (Openings for service installations)<br>BCA 2019 C3.16 (Construction joints)<br>BCA 2019 Spec C3.15<br>AS1530.4:2014 & AS4072.1-2005 | ✓ | |
| Fire Shutters | BCA 2019 C3.4 (Acceptable methods of protection)<br>BCA 2019 Spec. C3.4 AS1905.2-2005<br>Proposed Fire Engineering Performance Solution Report | ✓ | |
| Lightweight Construction | BCA 2019 C1.1, Spec. C1.1<br>BCA 2019 C1.8, Spec C1.8<br>BCA 2019 C2.7 (Fire Walls)<br>BCA 2019 C2.8 (Separation – same storey)<br>BCA 2019 C2.12 (Separation of Equipment)<br>AS1530.4:2014 | ✓ | |

| + Statutory Fire Safety Measure | + Design/Installation Standard | + Existing | + Proposed |
|---|---|---|---|
| Mechanical Air Handling Systems (Automatic Shutdown)<br>Mechanical ventilation to Carpark | BCA2019 E2.2, Table E2.2a<br>AS 1668.1:2015 (Amdt 1)<br>Note: 5.5.3 Override control<br>To enable manual control by attending emergency services personnel, fans that are not required to shut down on initiation of fire mode in the car park shall be provided with a control switch at the designated building entry point. Note: Signage should be located at the car park entry indicating the location of the control switches. | ✓ | |
| Portable Fire Extinguishers | BCA 2019 E1.6<br>AS 2444–2001 | ✓ | |
| Required Exit Doors<br>(Power Operated) | D2.19 (Doorways and Doors) | ✓ | |
| Swing of Exit Doors | D2.20 (Swinging Doors) | ✓ | |
| System Monitoring<br>Monitoring required for any:<br>+ Any Sprinkler System | BCA2019 E1.5, Spec E1.5<br>AS2118.1-2017<br>AS 1670.3:2018 | ✓ | |
| Warning & Operational Signs | BCA 2019 D2.23 (Signs on Fire Doors)<br>BCA 2019 D3.6 (Braille Exit Signs) (Note: E4.5 (Exit Signs))<br>BCA 2019 E3.3 (Lift Signs) | ✓ | |
| Fire Engineered Performance Solutions relating to:<br>1. External steel columns of office mezzanines<br>2. Fire-rating of external warehouse columns<br>3. Combustible roof lights<br>4. Construction of fire walls<br>5. External walls of adjacent fire compartments<br>6. External walls of different buildings on the same allotment<br>7. Fire rating doors in fire walls<br>8. Extended travel distances<br>10. Exit to roof as open space<br>11. Fire hydrant system design<br>12. Location of fire control centre, fire hydrant & fire sprinkler booster assembly<br>13. Fire hose reel design<br>14. Fire sprinkler system in lower ground storage tenancies | BCA 2022 Performance Requirements CP1, CP2, CP8, DP4, EP1.1, EP1.3, EP1.4, EP1.4, EP1.6, EP2.2<br>Fire Safety Engineering Report prepared by Affinity Fire Report No. 212018_FER_05 Revision 5 dated 30 May 2023 | ✓ | |

Please note that the above schedule will need to be revised prior to issue of the Construction Certificate to reference any proposed Fire Engineering Report and incorporate any additional measures required by the proposed Performance Solutions.

# 6.0 Conclusion

This report contains an assessment of the referenced architectural documentation for the proposed indoor recreation facility (padel) development located at Unit 2, 4-10 Inman Road in Cromer NSW, against the Deemed-to-Satisfy provisions and Performance Requirements of the National Construction Code Series (Volume 1) Building Code of Australia 2022.

In view of the above assessment we can confirm that subject to the above measures being appropriately addressed by the project design team, compliance with the provisions of the BCA is readily achievable.

In addition, it is considered that such matters can adequately be addressed in the preparation of the Construction Certificate documentation without giving rise to any inconsistencies with the Development Approval.

Should you require further assistance or clarification please do not hesitate to contact the undersigned on 02 9211 7777 or

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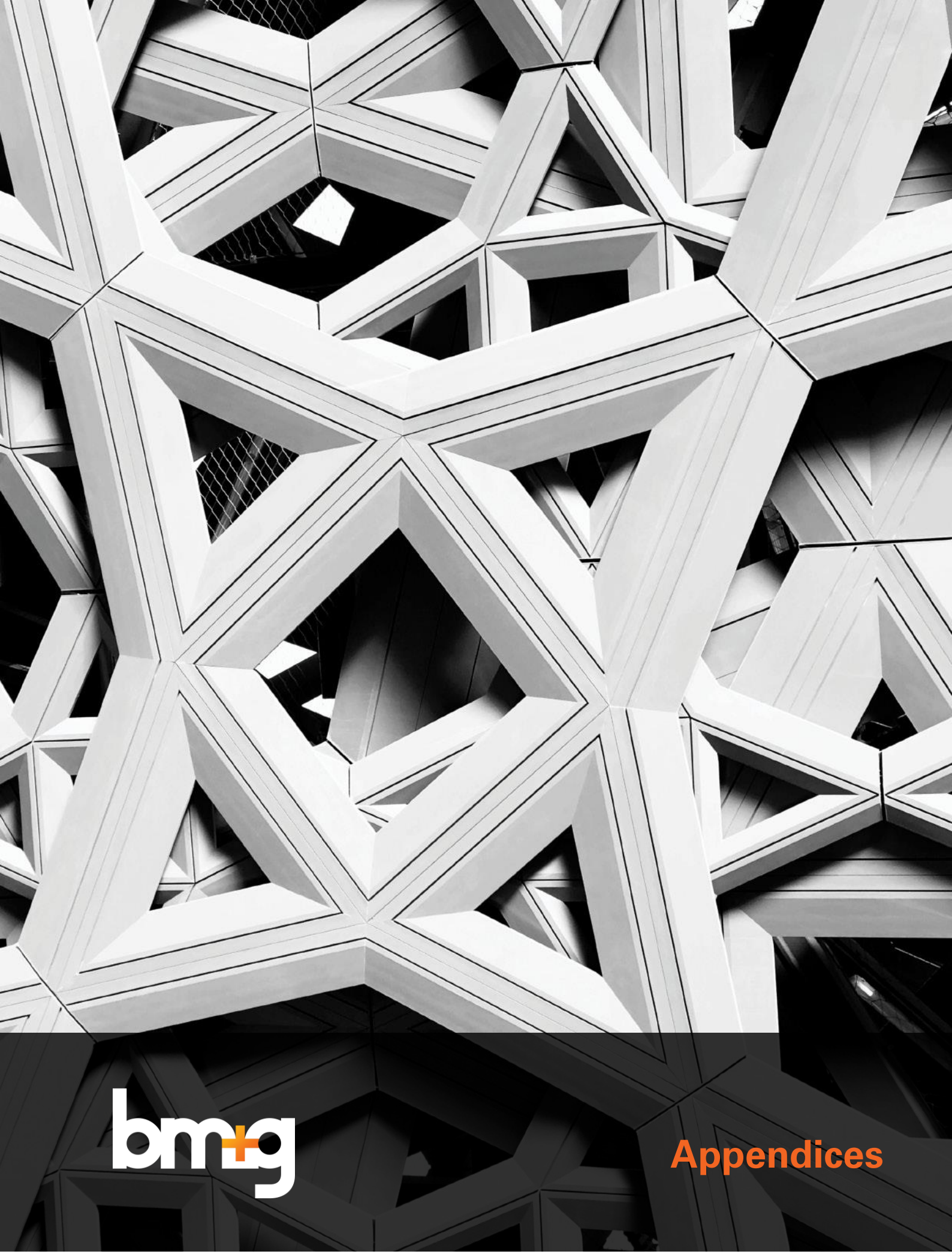

# Appendices

# + Appendix 1 – Fire Resisting Construction

| TYPE A CONSTRUCTION: FRL OF BUILDING ELEMENTS | | | | |
|---|---|---|---|---|
| + Building Element | + Class of Building - FRL: (in minutes)<br>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 within it) or other external building element, where the distance from any fire-source feature to which it is exposed is: | | | | |
| **For loadbearing parts:** | | | | |
| Less than 1.5m | 90/90/90 | 120/120/120 | 180/180/180 | 240/240/240 |
| 1.5 to less than 3m | 90/60/60 | 120/90/90 | 180/180/120 | 240/240/180 |
| 3m or more | 90/60/30 | 120/60/30 | 180/120/90 | 240/180/90 |
| **For non-loadbearing parts:** | | | | |
| less than 1.5m | –/90/90 | –/120/120 | –/180/180 | –/240/240 |
| 1.5 to less than 3m | –/60/60 | –/90/90 | –/180/120 | –/240/180 |
| 3m or more | –/–/– | –/–/– | –/–/– | –/–/– |
| **EXTERNAL COLUMN** - Not incorporated in an external wall | | | | |
| For loadbearing columns | 90/–/– | 120/–/– | 180/–/– | 240/–/– |
| For non-loadbearing columns | –/–/– | –/–/– | –/–/– | –/–/– |
| **COMMON WALLS and FIRE WALLS** | 90/90/90 | 120/120/120 | 180/180/180 | 240/240/240 |
| **INTERNAL WALLS** | | | | |
| **Fire-resisting lift and stair shafts** | | | | |
| Loadbearing | 90/90/90 | 120/120/120 | 180/120/120 | 240/120/120s |
| Non-loadbearing | –/90/90 | –/120/120 | –/120/120 | –/120/120 |
| **Bounding public corridors, public lobbies and the like:** | | | | |
| Loadbearing | 90/90/90 | 120/–/– | 180/–/– | 240/–/– |
| Non-loadbearing | –/60/60 | –/–/– | –/–/– | –/–/– |
| **Between or bounding sole-occupancy units:** | | | | |
| Loadbearing | 90/90/90 | 120/–/– | 180/–/– | 240/–/– |
| Non-loadbearing | –/60/60 | –/–/– | –/–/– | –/–/– |
| **Ventilating, pipe, garbage, and the like shafts not used for the discharge of hot products of combustion:** | | | | |
| Loadbearing | 90/90/90 | 120/90/90 | 180/120/120 | 240/120/120 |
| Non-loadbearing | –/90/90 | –/90/90 | –/120/120 | –/120/120 |
| **OTHER LOADBEARING INTERNAL WALLS, INTERNAL BEAMS, TRUSSES, AND:** | | | | |
| **COLUMNS** | 90/–/– | 120/–/– | 180/–/– | 240/–/– |
| **FLOORS** | 90/90/90 | 120/120/120 | 180/180/180 | 240/240/240 |
| **ROOFS** | 90/60/30 | 120/60/30 | 180/60/30 | 240/90/60 |

Notes:

1. Any lightweight construction in a fire wall or an internal wall required to have an FRL is to comply with Specification 11.

2. Where a part of a building required to have an FRL depends upon direct vertical or lateral support from another part to maintain its FRL, that supporting part must typically achieve the same FRL. Where that part is also required to be non-combustible, the supporting part must also be non-combustible.

3. A loadbearing internal wall and a loadbearing fire wall (including those that are part of a loadbearing shaft) must be constructed from concrete or masonry.

4. The method of attaching or installing a finish, lining, ancillary element, or service installation to a building must not reduce the fire-resistance of that element to below that required.

5. Where roof lights are proposed they are required to be located not less than 3 metres from a roof light in an adjoining fire separated part; and must not be more than 20% of the area of the roof.

6. Any loadbearing internal walls or loadbearing fire walls are to be masonry or concrete.

7. External walls must be non-combustible construction.

8. The roof need not comply with the table above on the basis that the building is sprinkler protected.

9. Internal columns in this building (being less than 25m in effective height) that are in the storey immediately below the roof, can be constructed as follows:

    a. Building with a rise in storeys exceeding 3 – FRL 60/60/60

    b. *Building with a rise in storeys not exceeding 3 – no FRL*

# + Appendix 2 – Fire Hazard Properties

## + Table S7C3 of Specification 7– Critical Radiant Flux of Floor Linings and Floor Coverings

| + Class of building | + Building fitted with a sprinkler system (other than a FPAA101D or FPAA101H system) |
|---|---|
| Class 5 and 9b | 1.2 kW/m2 |

## + Table S7C4 of Specification 7 – Wall and Ceiling Lining Materials (Materials Groups Permitted)

| + Class of building | + Public corridors | + Specific areas | + Other areas |
|---|---|---|---|
| Class 5, 6, 7, 8 or 9b schools, Sprinklered | Walls: 1, 2, 3<br>Ceilings: 1, 2, 3 | Walls: 1, 2, 3<br>Ceilings: 1, 2, 3 | Walls: 1, 2, 3<br>Ceilings: 1 ,2, 3 |
| Class 9b other than schools, Sprinklered | Walls: 1, 2<br>Ceilings: 1, 2 | Walls: 1, 2, 3<br>Ceilings: 1, 2, 3 | Walls: 1, 2, 3<br>Ceilings: 1, 2, 3 |