MATT SHUTER + ASSOCIATES

Building Code of Australia

Design Compliance Report

Schematic Design Review

New High School in Schofields - Tallawong

Report Number & Revision:	**MSA2684_BCA_SCH_3**
Prepared For:	**NSW Department of Education**
Date of Issue:	**21 January 2025**

Revision History & Quality Management

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MSA2684_BCA_SCH_1	Rev1	Draft 100% Concept BCA Design Review	17 October 2024
MSA2684_BCA_SCH_2	Rev2	Schematic BCA Design Review	06 November 2024
MSA2684_BCA_SCH_2	Rev 3	Schematic BCA Design Review - Site Plan Update	21 January 2025

ROLE	NAME + SIGNATURES	CREDENTIALS
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Contents

Executive Summary

This report assesses the **Schematic Level Design** for the proposed **New High School in Schofields - Tallawong** against the requirements of the National Construction Code (NCC) / Building Code of Australia (BCA).

The primary purpose of the report is to identify any non-compliances with the deemed-to-satisfy provision of the BCA and provide mitigation measures to best comply with the requirements of the BCA.

Subject to compliance with the mitigation measures of this report, it is considered that the activity can readily comply with the relevant requirements of the BCA. Mitigation measures have been identified as follows:

- Significant BCA matters, being those with the ability to affect the design have been included in Table 1.0 below.
- A BCA Compliance Schedule suitable for the current level of design is also contained in in Table 6.0 of this report.

Table 1.0 – Significant BCA Compliance Matters

#	DTS Clause	Recommendation	Status
Significant BCA Compliance Issues			
•	D2D5	**Egress Travel Distance** Egress travels distances exceed the thresholds stipulated in this clause in the following circumstances: • **Building A – Level 1** – Egress travel distance exceeds more than 20m to a point of choice and more than 40m (approx. 54m) to an exit • **Building A – Level 2** – Egress travel distance exceeds more than 20m to a point of choice and more than 40m (approx. 43m) to an exit • **Building B – Level 1** – Egress travel distance exceeds more than 20m to a point of choice (approx. 30m) • **Building B – Level 2** – Egress travel distance exceeds more than 20m to a point of choice and more than 40m (approx. 43m) to an exit • **Building C – Level 1 & 2** – Egress travel distance exceeds more than 40 (approx. 48m) to an exit	**Fire Engineering**
•	E1D2	**Fire Hydrant Systems** There are multiple buildings on the allotment and therefore multiple 'main entrances', hence from a technical standpoint compliance with this provision will not be able to be achieved and a fire engineered performance solution will be required to address this DTS departure.	**Fire Engineering**

#	DTS Clause	Recommendation	Status
•	F6D10	**Sanitary Facilities not screened from view** The sanitary facilities in Building A Level 1 does not appear to be adequately screened from view.	**Further Ongoing Detail Required**
•	E1D15	**Fire Control Centre** A fire control room may be required as Buildings A-C are considered as a 'United Building' and therefore the total floor area may exceed 18,000m^2. Architect to advise on whether the aggregate floor area exceeds the limit specified in this clause.	**Further Ongoing Detail Required**
•	*NSW* E2D16	**Smoke Hazard Management Hall** The Hall is required to be provided with automatic shutdown of any air-handling system in accordance with this clause. As the stage is 127m^2, over the stage, it must be provided with— • an automatic smoke exhaust system complying with Specification 21 (including Figure S21C2); or • roof mounted automatic smoke-and-heat vents complying with NSW I4D59, in a single storey building or the top storey of a multi storey building. Details and design certification must be provided by the Mechanical/fire services engineer.	**Further Ongoing Detail Required**
•	Various	**Design Detail** Further to the above matters, those items that are indicated as "Can Readily Comply – (Subject to Detail)" in Table 6.0 also require further detailed to allow full assessment by the BCA Consultant.	**Further Ongoing Detail Required**

1.0 Introduction

This Building Code of Australia (BCA) Report has been prepared to support a Review of Environmental Factors (REF) for the Department of Education (DoE) for the construction and operation of the new Schofields - Tallawong High School (the activity).

The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by *State Environmental Planning Policy (Transport and Infrastructure) 2021* (T&I SEPP) as "development permitted without consent" on land carried out by or on behalf of a public authority under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37 of the T&I SEPP.

This document has been prepared in accordance with the *Guidelines for Division 5.1 assessments* (the Guidelines) by the Department of Planning, Housing and Infrastructure (DPHI). The purpose of this report is to assesses the Schematic Level Design for the proposed New High School in Schofields - Tallawong at Guntawong Road, Tullawong NSW against the requirements of the National Construction Code (NCC) / Building Code of Australia (BCA).

The site is known as 201 Guntawong Road, Tallawong, NSW, 2762 (the site), and is legally described as part of Lot 1 in Deposited Plan 1283186. The site is located at the corner of Guntawong Road and Clarke Street, Tallawong and is approximately 4 hectares in area. The site has an approximately 100-metre-long frontage to Guntawong Road along its northern boundary. Nirmal Street provides a partial frontage along the eastern boundary of the site with plans to extend Nirmal Street to provide a future connection to Guntawong Road.

The site is predominantly cleared land and consists of grassland with several patches of remnant native vegetation particularly within the northern portion of the site. As a result of precinct wide rezonings, the surrounding locality is currently transitioning from a semi-rural residential area to a highly urbanised area with new low to medium density residential activity with supporting services. The site is located approximately 1.5km to the north west of Tallawong Metro Station and is also serviced by an existing bus stop along Guntawong Road.

Figure 1 below provides an aerial image of the site.

Figure 1 Aerial Photograph of Site

Source: Urbis, 2024

2.0 Assessed Information

The following information was specifically relied upon for this assessment:

- Desktop assessment of **Schematic design documentation** and supporting design plans and information prepared by DJRD Architects (refer Attachment A – Assessed Plans)
- The Building Code of Australia (National Construction Code) 2022
- The Guide to the Building Code of Australia (National Construction Code) 2022

3.0 Purpose & Basis of the Report

3.1 Report Purpose

The purpose of this report is to assess the following:

- Assess the design documentation and requirements of the current BCA, and detail any significant issues (or those which have the ability to affect the current design);
- Provide mitigation measures to best address any significant departures from the requirements of BCA and to guide the detailed design activity .

3.2 General Basis

The general basis of this report is to assess and address compliance with the significant requirements of the Building Code of Australia (BCA) as relevant to the new building works and with regard to the site conditions and current design documentation. The scope of services is limited to assessment against *Sections C - Fire Resistance, Section D - Access & Egress and Section E - Services & Equipment, Section F - Health and Amenity, and high level parameter advice on Section B – Structure and Section J - Energy Efficiency* of the BCA.

3.3 Regulatory Basis

The following outlines the regulatory basis for assessment for Crown developments and existing buildings.

3.3.1 Environmental Planning & Assessment Act, 1979 and Regulation 2021

This report assumes compliance with the Building Code of Australia is required under Environmental Planning & Assessment Act, 1979 and Regulation 2021.

4.0 Limitations & Exclusions of the Report

The Report does not specifically consider anything beyond the considerations contains in Section 2.0 "Assessed Information" and Section 3.0 "Purpose & Basis of Report" and is otherwise also subject to the following specific limitations:

- This report is limited strictly to assessment of the proposed project scope, ie 'the new building works' as detailed in the information referenced in Section 2.0 and does not constitute a full upgrade assessment of any existing building.
- The report is limited to assessment of the activity against the deemed-to-satisfy provisions of the applicable Building Code of Australia.
- No assessment has been made of any existing Fire Engineering or BCA Performance based Reports that may apply to the base building or activity, unless otherwise specifically noted.
- The information provided to MSA as nominated in Section 2.0 is accepted in good faith as accurate and correct.
- Some requirements of the BCA / Access Regulations are recognised as being interpretive in nature. Where these matters are encountered, interpretations are made in accordance with MSA policy &/or as guided by other standards, guides and industry best practice.

Specific relevant interpretations relevant to this assessment are included in Section 5.2 "BCA Assessment Data" of this report.

- MSA does not support the use of combustible cladding or aluminium composite panels as external cladding, lining or ancillary element in any way. Such products are recommended to be avoided and where such products are proposed, MSA automatically excludes their assessment from any reporting and certification and will not accept liability for their use in any way.

- The report does not consider compliance with *The Disability Discrimination Act, 1992*, the *Disability (Access to Premises – Buildings) Standards 2010*, or accessibility related parts of the *BCA* (unless specifically referred to). A separate accessibility (DDA) report is required.

- Detailed assessment of any engineering matters or Australian Standards– e.g: structural, civil, electrical, hydraulic, mechanical, fire, bushfire protection is beyond the scope of this report.

- The Report does not provide for any Alternative /Fire Engineered Solutions.

- For the purposes of this report, Buildings A-C have been assessed as a 'United Building'.

5.0 Building Characteristics

5.1 Building Details

5.1.1 Guntawong Road, Tullawong NSW

The proposed activity is for the construction and operation of a new high school known as Schofields - Tallawong High School. The new high school will accommodate up to 1,000 students. The school will provide 49 permanent teaching spaces (PTS), and 3 support teaching spaces (STS) across three buildings.

The buildings will be three-storey in height and will include teaching spaces, specialist learning hubs, a library, administrative areas and a staff hub. Additional core facilities are also proposed including a standalone school hall, a carpark, a pick up and drop off zone along Nirmal Street, two sports courts and a sports field.

Specifically, the proposal involves the following:

- Three learning hubs (three-storeys in height) accommodating 49 general teaching spaces and 3 support learning units (SLUs).
- Other core facilities including amenities, library, staff hub and administrative areas.

- Standalone school hall.
- Separate carpark with 72 spaces.
- Kiss and drop zone along Nirmal Street.
- Open play space including sports courts and sports field.
- Public domain works.

The proposed site access arrangements are as follows:

- Main pedestrian entrance to be located off Nirmal Street.
- Kiss and drop zone proposed along Nirmal Street.
- Onsite parking access via Nirmal Street.

Figure 5.1.1.1 – Site Plan

5.2 BCA Assessment Data

The following table details the key BCA characteristics of the building / activity:

Table 5.2 – Building details for new buildings

BCA Clause		Building A	Building B	Building C
A6G1	Classification	Class 9b (Secondary School & Library) Class 5 (Offices)	Class 9b (Secondary School) Class 5 (Offices)	Class 9b (Secondary School)
C2D3	Rise in Stories	**3**	**3**	**3**
C2D2	Construction Type	**Type A Construction (Most Fire Resistant)**	**Type A Construction (Most Fire Resistant)**	**Type A Construction (Most Fire Resistant)**
C3D3	Floor areas and Fire Compartment Limitations	Type A (Class 5, 9b, 9c)- Max Floor Area 8000m2, Max Volume 48000m3	Type A (Class 5, 9b, 9c)- Max Floor Area 8000m2, Max Volume 48000m3	Type A (Class 5, 9b, 9c)- Max Floor Area 8000m2, Max Volume 48000m3
Schedule 1	Effective Height	Less than 12m	Less than 12m	Less than 12m

BCA Clause		Building D - Hall
A6G1	Classification	Class 9b (School Hall)
C2D3	Rise in Stories	**2**
C2D2	Construction Type	**Type B Construction (Intermediate Fire Resistance)**
C3D3	Floor areas and Fire Compartment Limitations	Type B (Class 5, 9b or 9c) - Max Floor Area 5500m2, Max Volume 33000m3
Schedule 1	Effective Height	Less than 12m

Important Note: Buildings A-C are connected by aerial walkways, and for the purposes of this report, they have been considered as a 'united building'. Notwithstanding the above, each building and storey will be treated as a separate fire compartment therefore the combined floor area and volumes of these buildings are not considered to exceed the maximum fire compartment size allowed for Type A construction given the inherent design.

5.3 BCA / Access Interpretation

Effective height

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

Exit

Exit means:

(a) any, or any combination of the following if they provide egress to a road or open space:

- An internal or external stairway.
- A ramp.
- A fire-isolated passageway.
- A doorway opening to a road or open space.

(b) A horizontal exit or a fire-isolated passageway leading to a horizontal exit

Fire compartment

Fire Compartment means—

(a) the total space of a building; or

(b) when referred to in—

(i) the Performance Requirements — any part of a building separated from the remainder by barriers to fire such as walls and/or floors having an appropriate resistance to the spread of fire with any openings adequately protected; or

(ii) the Deemed-to-Satisfy Provisions — any part of a building separated from the remainder by walls and/or floors each having an FRL not less than that required for a fire wall for that type of construction and where all openings in the separating construction are protected in accordance with the Deemed-to Satisfy Provisions of the relevant Part

Fire-resistance level (FRL)

FRL means the grading periods in minutes determined in accordance with Specification A2.3, for the following criteria—

(a) structural adequacy; and

(b) integrity; and

(c) insulation,

and expressed in that order.

Note: A dash means that there is no requirement for that criterion. For example, 90/–/– means there is no requirement for an FRL for integrity and insulation, and –/–/– means there is no requirement for an FRL.

Fire-source feature

Fire source feature means—

(a) the far boundary of a road, river, lake or the like adjoining the allotment; or

(b) a side or rear boundary of the allotment; or

(c) an external wall of another building on the allotment which is not a Class 10 building

Fire wall

Fire wall means a wall with an appropriate resistance to the spread of fire that divides a storey or building into fire compartments

Non-combustible

Non-combustible means -

(a) applied to a material — not deemed combustible as determined by AS 1530.1 — Combustibility Tests for Materials; and

(b) applied to construction or part of a building — constructed wholly of materials that are not deemed combustible.

Occupiable Outdoor Area

Open /unroofed sections may be considered 'occupiable outdoor area' a new definition under Part G6 of BCA 2019 that requires unroofed parts of buildings meet certain BCA criteria in

relation to fire resistance, egress and services and equipment as these areas can have an effect on the safety of occupants.

Performance requirement

Performance requirement means a requirement which states the level of performance which a Performance Solution or Deemed-to-Satisfy Solution must meet.

Performance Solution

Performance Solution means a method of complying with the Performance Requirements other than by a Deemed-to-Satisfy Solution.

United Buildings

Buildings are deemed united when two or more buildings adjoining each other are connected and used as one building.

6.0 BCA Mitigation Measures

The following Table 6.0 provides a summary of assessment of the architectural plans against the significant requirements of the BCA. The following notations are made in the "Status" column of Table 6.0 for ease of reference.

Key of Compliance Status

Status	Description
Complies	The design documentation for the activity demonstrates compliance with the BCA deemed-to-satisfy (DTS) provisions as relevant to the new building works &/or the existing level of compliance is maintained.
Can Readily Comply **or** **Further Detail Required**	Though strict & full compliance can't necessarily be ascertained on the current level of documentation detail, compliance can be readily achieved within the constraints of the design. This may be in the form of a plan or specification note, or further detailed information.
NA / Informational	The matter is not applicable to the item of the project scope or the clause is informational only. No specific action required.
Does Not Comply	There is an apparent or foreseeable non-compliance with the BCA deemed-to-satisfy provisions indicated on the design documentation that will require re-design or further consideration.
Critical Detail Required	There is a critical detail required to assess or confirm full BCA compliance that should be identified as soon as possible to reduce project risk.
Fire Engineering	A Fire Engineering Report (fire safety issue) is required to address the DTS non-compliance (or re-design). *The mitigation measures of any fire engineering report must be incorporated into the design.*
BCA Performance Solution	A BCA Performance Solution Report (for non-fire safety issue) is required to address the DTS non-compliance (or re-design). *The mitigation measures of any performance solution report must be incorporated into the design.*
Certification by Designer or Specialist	Detailed assessment and confirmation is required from the relevant design engineer, designer or specialist to confirm compliance with the specified requirements of the BCA &/or referenced Australian Standards. This may be technical advice at early design stages or design compliance certification at detailed design stages.

Table 6.0 provides a summary of key BCA considerations only and should be read in conjunction with the full terms, wording and requirements of the Building Code of Australia to ensure compliance. Some BCA Clauses that are not relevant have specifically not been included in the Table.

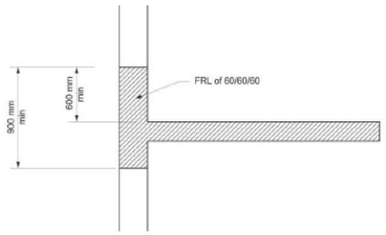
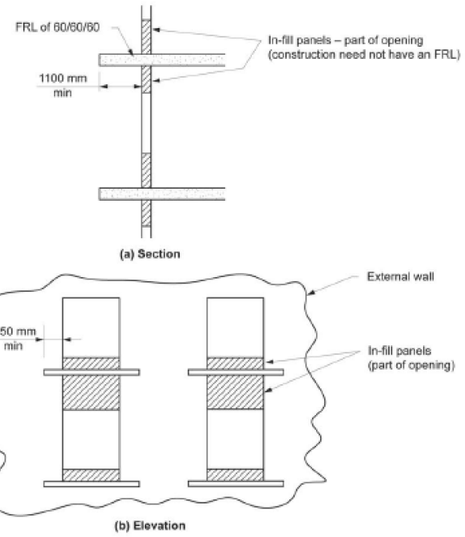
Table 6.0 –BCA Compliance Schedule

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
Section B – Structure				
Section B	Section B	**Structural Compliance** All new works must meet current Structural Requirements of Section B of the BCA. Existing structures should be confirmed as capable of supporting any new loads.	CERTIFICATION BY DESIGNER OR SPECIALIST - Design compliance certification from the designer or specialist is required for the following: Structural Engineer to design and certify any new structural works are in accordance with BCA Section B & Australian Standards.	**Certification by Designer or Specialist**
B1.4	B1D4	**Glazing – BCA Clause B1.4** All glazing must be selected and installed in accordance with AS2047 & AS1288.	CERTIFICATION BY DESIGNER OR SPECIALIST - Design compliance certification from the designer or specialist is required for all glazing to be selected and installed in accordance with AS2047 & AS1288**.**	**Certification by Designer or Specialist**
Section C – Fire Resistance				
Part C2 – Fire Resistance & Stability				
C1.0	C2D1	**Deemed to Satisfy Provisions** Informational clause indicating link between Part C2 performance requirements and other parts of the BCA.	The clause is informational only in nature	**Informational**
C1.1	C2D2	**Type of Construction** All new works must meet current Fire Resistance Level (FRL) requirements of Section C and Specification 5 of the BCA for the required Type of Construction. *Refer to "Fire Resistance of Building Elements below in this table and Attachment B for more Fire Resistance Level information.*	Buildings are required to be benchmarked as Type A & B Construction, requiring fire resistance levels in accordance with BCA Specification 5 and as summarised in Attachment A. The following should be noted: • The **Hall** building is required to be designed to Type B Construction • **Buildings A-C** are required to be designed to Type A Construction **–** Refer to Table 5.2 Fire Rating Plans to be provided to confirm all elements requiring an FRL. This includes all *Structural Load Bearing Elements* in external walls that require an FRL. Where FRLs will not be met, the Fire Engineer will be required to rationalise the FRL's under the BCA Performance Requirements.	**Certification by Designer or Specialist**
2.1 of Spec C1.1	S5C2	**Exposure to Fire Source Features** A building element is exposed to a fire-source feature if any of the horizontal straight lines between that part and the fire-source feature, or vertical projection of the feature, is not obstructed by another part of the building that– • has an FRL of not less than 30/–/–; and • is neither transparent nor translucent.	The clause is informational only in nature	**Informational**
2.2 of Spec C1.1	S5C3	**Fire Protection for Support of Another Part** Where a building element vertically or laterally supports a building element required to have an FRL, that part must generally maintain the same FRL as the part it supports.	The clause is informational only in nature	**Informational**
2.3 of Spec C1.1	S5C4	**Lintels** A lintel must have the FRL required for the part of the building in which it is situated, unless it does not contribute to the support of a fire door, fire window or fire shutter, and— (a)it spans an opening in— • a wall of a building containing only one storey; or • a non-loadbearing wall of a Class 2 or 3 building; or (b)it spans an opening in masonry which is not more than 150 mm thick and— • not more than 3 m wide if the masonry is non-loadbearing; or	Any lintel required to have an FRL to comply. Subject to detail, plan or spec note.	**Can Readily Comply - Detail**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		not more than 1.8 m wide if the masonry is loadbearing and part of a solid wall or one of the leaves of a cavity wall.		
2.4 of Spec C1.1.	S5C5	**Method of attachment not to reduce the fire resistance of building elements** The method of attaching or installing a finish, lining, ancillary element or service installation to a building element must not reduce the fire-resistance of that element below that required.	Details demonstrating compliance are required to be provided in a 'BCA Compliance Specification'	**Can Readily Comply - Detail**
2.5 of Spec C1.1	S5C6	**Concessions to Fire Resistance Levels** Certain elements are given concession to compliance with the FRL requirements of Spec 5: • Steel columns (1 or 2 storey buildings) • Timber columns (1 storey buildings) • Structures on roofs • Curtain walls and panel walls • Balconies and verandahs • Certain non-combustible structures on roofs containing only service equipment	This clause is informational only in nature.	**Informational**
2.7 of Spec C1.1	S5C8	**Enclosure of Shafts** Fire-isolated shafts are required to be enclosed at the top and bottom of the shaft with fire rated construction having an FRL required for the walls of a non-load-bearing shaft in the same building, as per specification 5 This fire rating is required in two directions. The above does not apply to shafts extending beyond the roof covering, other than fire isolated stair and lift shafts and the bottom of non-combustible shafts laid directly on the ground.	The clause is informational only in nature	**Informational**
Spec C1.1	S5C21	**Fire-Resistance of Building Elements** The FRL's of all elements are to be in accordance with: • The FRL's detailed in the Table contained within **Attachment B** of this report. • The FRLs for specific separation of equipment (addressed elsewhere in this report)	Details demonstrating compliance are required to be provided in a 'BCA Compliance Specification' & via an appropriate designer such as Structural Engineer & Architect.	**Can Readily Comply - Detail** **Certification by Designer or Specialist**
C1.2	C2D3	**Rise in Storeys** The building rise in stories is generally 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 above the finished ground next to that part.	INFORMATIONAL - the clause is informational only in nature *Refer to 5.2 of this report BCA Assessment Data*	**Informational**
C1.3	C2D4	**Buildings of Multiple Classification** In a building of multiple classification, the type of construction applying to the top storey, applies throughout.	Informational clause.	**Informational**
C1.4	C2D5	**Mixed Types of Construction** Informational clause relating to the requirements for buildings more than one type of construction.	Informational clause.	**Not Applicable**
C1.5	C2D6	**Two Storey Class 2, 3 or 9 buildings** Provides a concession for construction type in certain Class 2, 3 and 9b buildings.	NA - The matter is not applicable &/or not affected by scope.	**Not Applicable**
C1.6	C2D7	**Class 4 Parts** Provides construction type requirements for Class 4 parts	NA - The matter is not applicable &/or not affected by scope.	**Not Applicable**
C1.7	C2D8	**Open Spectator Stands** Provides construction type requirements for buildings containing open spectator stands.	NA - The matter is not applicable &/or not affected by scope.	**Not Applicable**
C1.8	C2D9	**Lightweight Construction** Lightweight construction must comply with Specification 6 where it is used for fire rated elements and/or lifts shafts.	Where lightweight construction is proposed to be used, the architect/structural engineer should certify that any lightweight construction used complies with BCA Specification 6.	**Can Readily Comply - Detail**

<table>
<tr><th>BCA 2019 Cl.</th><th>BCA 2022 Cl.</th><th>BCA Requirement</th><th>Compliance Comment</th><th>Status</th></tr>
<tr><td rowspan="2">C1.9</td><td rowspan="2">C2D10</td><td rowspan="2">Non-combustible building elements
a) In a building required to be of Type A or B construction, the following building elements and their components must be non-combustible:
• External walls and common walls, including all components incorporated in them including the facade covering, framing and insulation.
• The flooring and floor framing of lift pits.
• Non-loadbearing internal walls where they are required to be fire-resisting.
b) A shaft, being a lift, ventilating, pipe, garbage, or similar shaft that is not for the discharge of hot products of combustion, that is non-loadbearing, must be of non-combustible construction in—
• a building required to be of Type A construction; and
• a building required to be of Type B construction, subject to C2.10, in—
- a Class 2, 3 or 9 building; and
- a Class 5, 6, 7 or 8 building if the shaft connects more than 2 storeys.
c) A loadbearing internal wall and a loadbearing fire wall, including those that are part of a loadbearing shaft, must comply with Specification C1.1.
d) Certain concession apply for elements containing certain combustible elements such as plasterboard, FC and come bonded laminates
Building elements required to be non-combustible, concrete, masonry or fire-protected timber in a building of Type A construction
<table><tr><th>Building element</th><th>Type A construction</th></tr><tr><td>External wall</td><td>Non-combustible</td></tr><tr><td>Common wall</td><td>Non-combustible</td></tr><tr><td>Floor and floor framing of lift pit</td><td>Non-combustible</td></tr><tr><td>All loadbearing internal walls (including those of shafts)</td><td>Concrete, masonry or fire-protected timber</td></tr><tr><td>Loadbearing fire walls</td><td>Concrete, masonry or fire-protected timber</td></tr><tr><td>Non-loadbearing walls required to be fire-resistant</td><td>Non-combustible</td></tr><tr><td>Non-loadbearing lift, ventilation, pipe, garbage and like shafts which do not discharge hot products of combustion</td><td>Non-combustible</td></tr></table>
Building elements required to be non-combustible, concrete, masonry or fire-protected timber in a building of Type B construction
<table><tr><th>Building element</th><th>Type B construction</th></tr><tr><td>External wall</td><td>Non-combustible</td></tr><tr><td>Common wall</td><td>Non-combustible</td></tr><tr><td>Floor and floor framing of lift pit</td><td>Non-combustible</td></tr><tr><td>All loadbearing internal walls (including those of shafts)</td><td>Concrete, masonry or fire-protected timber</td></tr><tr><td>Loadbearing fire walls</td><td>Concrete, masonry or fire-protected timber</td></tr><tr><td>Non-loadbearing walls required to be fire-resistant</td><td>Non-combustible</td></tr><tr><td>Non-loadbearing lift, ventilation, pipe, garbage and like shafts which do not discharge hot products of combustion</td><td>Non-combustible (subject to conditions outlined in C1.9(b))</td></tr></table></td><td><u>Hall</u>
The Hall is required to be Type B Construction, as such, certain building elements, including external walls, are required to comprise of non-combustible building elements in accordance with C2D10.
Plans and certification demonstrating compliance are required to be provided in a via an appropriate designer such as Structural Engineer & Architect.</td><td>Can Readily Comply - Detail</td></tr>
<tr><td><u>Buildings A-C</u>
Buildings A-C are required to be Type A Construction, as such, certain building elements, including external walls, are required to comprise of non-combustible building elements in accordance with C2D10.
Plans and certification demonstrating compliance are required to be provided in a via an appropriate designer such as Structural Engineer & Architect.</td><td>Can Readily Comply - Detail</td></tr>
<tr><td>C1.10</td><td>C2D11</td><td>Fire Hazard Properties
Fire hazard properties for all new floor, wall and ceiling linings and assemblies must comply with BCA Specification 7 (or otherwise considered non-combustible).
Floor Linings – must have an appropriate Critical Radiant Flux and smoke development rate % tested per ISO 9239.1-2003 and meeting the indices in Specification 7 for the location.
Walls & Ceilings – must have an appropriate Group Number tested per AS 5637.1-2015 and meeting the indices in BCA Specification 7.</td><td>All new floor, wall and ceiling linings and assemblies must comply with BCA Specification 7.</td><td>Can Readily Comply - Detail</td></tr>
<tr><td>C1.11</td><td>C2D12</td><td>Performance of external walls in fire
Concrete external walls that could collapse as complete panels (e.g. tilt-up and pre-cast concrete), in a building having a rise in storeys of not more than 2, must comply with Specification 8.</td><td>Where tilt-up and pre-cast concrete is utilised for the hall certification via an appropriate designer such as Structural Engineer is to be provided.
Notwithstanding the above, external walls of the hall seems to be designed with a combination of brick and fibre cement cladding which</td><td>Certification by Designer or Specialist</td></tr>
<tr><td>C1.13</td><td>C2D13</td><td>Fire protected timber: Concession
Fire protected timber can be used in certain Class 2, 3 or 5 buildings subject to meeting specified conditions in this clause.</td><td>The matter is not applicable &/or not affected by scope.</td><td>Not Applicable</td></tr>
</table>

<table>
<tr><th>BCA 2019 Cl.</th><th>BCA 2022 Cl.</th><th>BCA Requirement</th><th>Compliance Comment</th><th>Status</th></tr>
<tr><td rowspan="2">C1.14</td><td rowspan="2">C2D14</td><td rowspan="2">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 non-combustible or otherwise specified (given concession) in this clause.</td><td><u>Hall</u>
The Hall is required to be Type B Construction. As such, any proposed ancillary elements are required to comprise of non-combustible building elements in accordance with C2D14.</td><td>Can Readily Comply - Detail</td></tr>
<tr><td><u>Buildings A-C</u>
Buildings A-C are required to be Type A Construction. As such, any proposed ancillary elements are required to comprise of non-combustible building elements in accordance with C2D14.
In this regard specific details have not been provided based on the current level of design however the design can readily comply subject to additional details.</td><td>Can Readily Comply - Detail</td></tr>
<tr><td rowspan="2">New Clause</td><td rowspan="2">C2D15</td><td rowspan="2">Fixing of bonded laminated cladding panels
In a building required to be of Type A or B construction, externally located bonded laminated cladding panels must have all layers of cladding mechanically supported or restrained to the supporting frame.
An externally located bonded laminated cladding panel need not comply with the above if it is one of the following:
A laminated glass system.
(a) Layered plasterboard product.
(b) Perforated gypsum lath with a normal paper finish.
(c) Fibrous-plaster sheet.
(d) Fibre-reinforced cement sheeting.
(e) A component of a garage door.</td><td><u>Hall</u>
The Hall is required to be Type B Construction. As such, any externally located bonded laminated cladding panels must have all layers of cladding mechanically supported or restrained to the supporting frame in accordance with C2D15.</td><td>Can Readily Comply - Detail</td></tr>
<tr><td><u>Buildings A-C</u>
Buildings A-C are required to be Type A Construction. As such, any externally located bonded laminated cladding panels must have all layers of cladding mechanically supported or restrained to the supporting frame in accordance with C2D15.
The subject works do not appear to include cladding panels that fall under the requirements of this clause; however, this will be monitored and assessed as the design develops.</td><td>Not Applicable</td></tr>
<tr><td colspan="5">Part C3 – Compartmentation & Separation</td></tr>
<tr><td>C2.0</td><td>C3D1</td><td>Deemed to Satisfy Provisions
Informational clause indicating link between Part C3 performance requirements and other parts of the BCA.</td><td>The clause is informational only in nature</td><td>Informational</td></tr>
<tr><td>C2.1</td><td>C3D2</td><td>Application of Part
C3D3, C3D4 and C3D5 do not apply to a carpark provided with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17, an open-deck carpark or an open spectator stand.
(2)C3D13(1)(e) does not apply to a Class 8 electricity network substation.</td><td>The clause is informational only in nature</td><td>Informational</td></tr>
<tr><td rowspan="2">C2.2</td><td rowspan="2">C3D3</td><td rowspan="2">Fire Compartment Floor Area & Volume Limitations
The BCA requires that the floor area of fire compartments is limited to certain areas and volumes dependant on the Type of Construction.
Table C3D3: Maximum size of fire compartments or atria<table><tr><th>Classification</th><th>Type A construction</th><th>Type B construction</th><th>Type C construction</th></tr><tr><td>5, 9b or 9c</td><td>Max floor area—8 000 m²
Max volume—48 000 m³</td><td>Max floor area—5 500 m²
Max volume—33 000 m³</td><td>Max floor area—3 000 m²
max volume—18 000 m³</td></tr><tr><td>6, 7, 8 or 9a (except for patient care areas)</td><td>Max floor area—5 000 m²
Max volume—30 000 m³</td><td>Max floor area—3 500 m²
Max volume—21 000 m³</td><td>Max floor area—2 000 m²
Max volume—12 000 m³</td></tr></table></td><td><u>Hall</u>
The floor area of the Hall is less than 5500m², however confirmation from the Architect to be provided to confirm the volume of the Hall does not exceed 33000m³.</td><td>Informational</td></tr>
<tr><td><u>Buildings A-C</u>
Buildings A-C are connected by aerial walkways, and for the purposes of this report, they have been considered as a 'united building'. Notwithstanding, each building and storey will be treated as a separate fire compartment therefore the combined floor area and volumes of these buildings are not considered to exceed the maximum fire compartment size allowed for Type A construction given the inherent design.</td><td>Informational</td></tr>
<tr><td>C2.3</td><td>C3D4</td><td>Large Isolated Buildings</td><td>The buildings have not been assessed as a large-isolated building.</td><td>Not Applicable</td></tr>
<tr><td>C2.4</td><td>C3D5</td><td>Requirements for Open Space & Vehicular Access</td><td>As above</td><td>Not Applicable</td></tr>
<tr><td>C2.5</td><td>C3D6</td><td>Class 9 Buildings
Class 9a and 9c buildings are subject to further requirements in terms of smoke and fire compartmentation.
Note BCA NSW C2.5 contains variations to this clause (Applicable in NSW)</td><td>The buildings are not class 9a or 9c buildings.</td><td>Not Applicable</td></tr>
</table>

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
C2.6	C3D7	**Vertical Separation of Openings in External Walls** In buildings required to be of Type A construction, openings in external walls are required to be protected with vertical spandrels or horizontal slabs to prevent fire from spreading from a storey below. Vertical separation must be in the form of: • **Vertical spandrels** must be non-combustible, have a FRL of at least 60/60/60, and a height of at least 900mm. At least 600mm must be above the surface of the intervening floor  Section • **Horizontal Slab separation** – FRL of not less than 60/60/60 and extend outwards of the opening not less than 1100mm and horizontally not less than 450mm from the side of the opening. 	**Hall** The Hall is not Type A, therefore complying with C3D7 is not required. **<u>Buildings A-C</u>** **Buildings A-C** are required to comply with the requirements of this clause. In this regard specific details have not been provided based on the current level of design however the design can readily comply subject to additional details.	**Not Applicable** **Can Readily Comply - Detail**
C2.7	C3D8	**Separation by Fire Walls** Fire walls being continuous vertical walls meeting the highest FRL for a fire wall and the classifications concerned as follows: • To Separate Buildings – must be vertical and extend from the lowest storey to the highest roof covering (or extend 6m above the lower roof or certain sprinklers) • To Separate Fire Compartments - must be vertical and extend through all stories and to the highest roof covering or floor slab with FRL	Any fire walls included within the design are required to comply with this clause.	**Can Readily Comply - Detail**
C2.8	C3D9	**Separation of Classifications Within the Same Storey** Separate classifications within the same storey must either be • separated by a fire wall or	**<u>Hall</u>** There are no separate classifications within the same storey for the Hall.	**Not Applicable**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		• built to the highest FRL required by the two classifications throughout	**Buildings A-C** **Buildings A-C**, in some instances, contain both Class 5 and 9b classifications within the same storey. Since these classifications have the same FRL requirements, separating them within the same storey is not considered necessary.	
C2.9	C3D10	**Separation of Classification between Storeys** Floor separating differing classifications must meet the FRL required for the upper level floor.	**Hall** The Hall only contain the 9b classification only.	**Not Applicable**
			Buildings A-C **Buildings A-C** contain both Class 5 and 9b classifications across different storeys in some instances. Since both classifications share the same FRL requirements, the separating floors are inherently included in the design for Type A construction.	**Not Applicable**
C2.10	C3D11	**Separation of Lift Shafts** Where a lift connects or passes by more than 2 stories, or more than 3 stories in a sprinkler protected building, the lift must be contained in a fire rated lift shaft achieving an FRL of no less than: • Type A Construction – the shaft meets the FRLs specified Spec 5 • Type B Construction - if loadbearing, the shaft meets the FRLs specified in Spec 5, if non-loadbearing, the shaft must be non-combustible. • Openings for lift landing doors and services must meet BCA Part C3.	**Hall** The Hall does not contain a lift.	**Not Applicable**
			Buildings A-C **Buildings A-C** contain both Class 5 and 9b classifications across different storeys in some instances. Since both classifications share the same FRL requirements, the separating floors are inherently included in the design for Type A construction.	**Certification by Designer or Specialist**
C2.11	C3D12	**Stairways & Lifts in One Shaft** A stairway and lift must not be in the same shaft if either the stairway or the lift is required to be in a fire-resisting shaft.	There are no fire isolated stairways and lift shafts within the same shaft.	**Complies**
C2.12	C3D13	**Separation of Equipment** Any of the following equipment located in the building must be separated from the remainder of the building: • lift motors and lift control panels; or • emergency generators used to sustain emergency equipment operating in the emergency mode; or • central smoke control plant; or • boilers; or • a battery system installed in the building that has a total voltage of 12 volts or more and a storage capacity of 200 kWh or more. Equipment need not be separated in if the equipment comprises: • smoke control exhaust fans located in the air stream which are constructed for high temperature operation in accordance with Specification E2.2b; or • stair pressurizing equipment installed in compliance with the relevant provisions of AS 1668.1:2015; or • a lift installation without a machine room; or • equipment otherwise adequately separated from the remainder of the building. Separation must be by construction having an FRL as required by Specification C1.1, but not less than FRL 120/120/120 with openings protected by self-closing fire doors having an FRL of not less than –/120/30. Separation of on-site fire pumps must comply with the requirements of AS 2419.1:2005.	Rooms containing equipment as detailed in C3D13 must be by construction having an FRL as required by Specification 5, but not less than FRL 120/120/120 with openings protected by self-closing fire doors having an FRL of not less than –/120/30. Electrical Design Consultant to verify where specified.	**Certification by Designer or Specialist**
C2.13	C3D14	**Electricity Supply System** • Any electrical substation located within the building must be separated from the remainder of the building by construction having an FRL of not less than 120/120/120, and doorways protected with self-closing fire doors having an FRL of not less than –/120/30. • A main switchboard which sustains emergency equipment operating in the emergency mode must be fire separated from any other part of the building by construction having an FRL of not less than 120/120/120 and have the doorway fitted with self-closing fire door having an FRL of not less than –/120/30. • Any electrical conductors located within the building that supply a substation or main switchboard for emergency equipment must comply with BCA clause C3D14.	Electrical supply system and emergency equipment to be fire separated in accordance with C2.13. Electrical Design Consultant to verify where specified.	**Certification by Designer or Specialist**

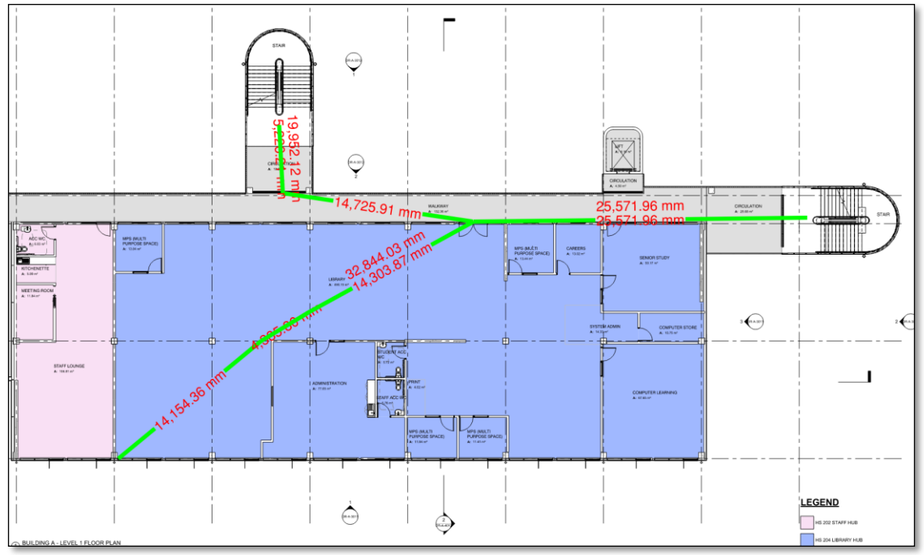
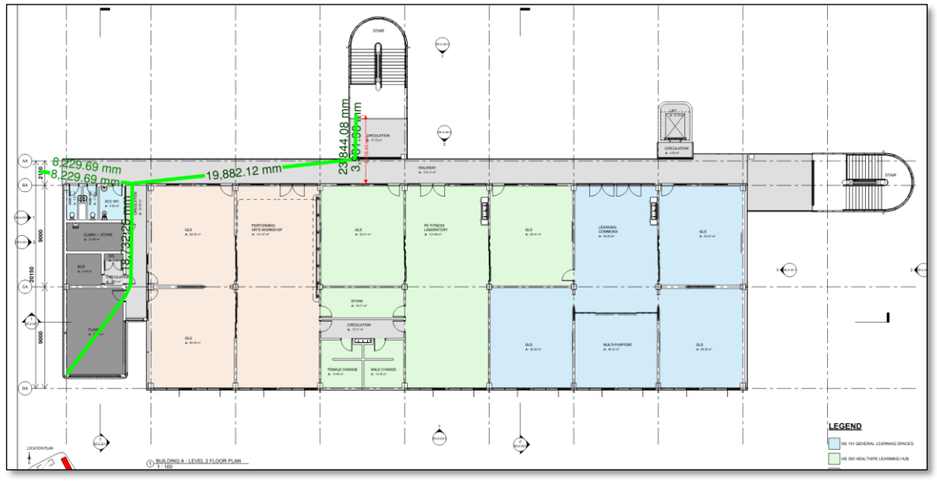
<table>
<tr><th>BCA 2019 Cl.</th><th>BCA 2022 Cl.</th><th>BCA Requirement</th><th>Compliance Comment</th><th>Status</th></tr>
<tr><td></td><td></td><td>• Emergency equipment switchgear must be separated from non-emergency equipment switchgear by metal partitions designed to minimize the spread of a fault from the non-emergency equipment switchgear.
• Emergency equipment includes but is not limited to the following:
• fire hydrant booster pumps;
• sprinkler pumps;
• hose reel pumps;
• air-handling systems designed to exhaust and control the spread of smoke;
• emergency lifts;
• control and indicating equipment; and
• sound systems and intercom systems for emergency purposes.</td><td></td><td></td></tr>
<tr><td>C2.14</td><td>C3D15</td><td>Public corridors in Class 2 & 3 Buildings
Where 'public corridors' in a Class 2 or 3 building exceed a length of 40m, they must be subdivided into smoke compartments (at intervals of not more than 40m).</td><td>Not Applicable – there are no class 2 or 3 parts proposed.</td><td>Not Applicable</td></tr>
<tr><td colspan="5">Part C4 – Protection of Openings</td></tr>
<tr><td>C3.1</td><td>C4D2</td><td>Application of Part
This clause clarifies openings in construction which are not subject to this part:
Control joints, weep holes and the like in external walls of masonry construction and joints between panels in external walls of pre-cast concrete panel construction if, in all cases they are not larger than necessary for the purpose.
Non-combustible ventilators for subfloor or cavity ventilation, if each does not exceed 45 000 mm2 in face area and is spaced not less than 2 m from any other ventilator in the same wall.
Openings in the vertical plane formed between building elements at the construction edge or perimeter of a balcony or verandah, colonnade, terrace, or the like.
In a single fire compartment within a carpark - floor other than a floor that separates a part not used as a carpark, and subject to, the following openings in a carpark floor: Service penetration & openings formed by a vehicle ramp.</td><td>The clause is informational only in nature</td><td>Informational</td></tr>
<tr><td>C3.2</td><td>C4D3</td><td>Protection of Openings in External Walls
Openings in an external wall that is required to have an FRL must be protected against the spread of fire (drenchers, fire rated glazing, fire shutters) if they are not less than:
• 3m from a side or rear boundary of the allotment, or
• 6m from the far boundary of a road, river lake or the like adjoining the allotment (except for ground level openings), or
• 6m from another building on the same allotment
• If required to be protected, must not occupy more than 1/3 of the area of the external wall of the storey in which it is located</td><td><u>Hall</u>
All facades are >3m to the allotment boundaries and >6m from buildings on the same allotment, and therefore any openings do not appear to require protection</td><td>Not Applicable</td></tr>
<tr><td></td><td></td><td></td><td><u>Buildings A-C</u>
All facades are >3m to the allotment boundaries and >6m from buildings on the same allotment, and therefore any openings do not appear to require protection.</td><td>Not Applicable</td></tr>
<tr><td>C3.3</td><td>C4D4</td><td>Separation of External Walls and Associated Openings in Different Fire Compartments
Distance (and angle) between external walls and associated openings in different fire compartments must be:
<table><tr><th>Angle Between Walls (Degrees)</th><th>Minimum Distance</th></tr><tr><td>0</td><td>6m</td></tr><tr><td>0-45</td><td>5m</td></tr><tr><td>45-90</td><td>4m</td></tr><tr><td>90-135</td><td>3m</td></tr><tr><td>135-180</td><td>2m</td></tr><tr><td>180 or more</td><td>NIL</td></tr></table>Concessions apply if those parts of each wall have an FRL of minimum 60/60/60, and any openings protected in accordance with C4D5</td><td><u>Hall</u>
The Hall seems to contain only 1 fire compartment and therefore no separation between different fire compartments is required.</td><td>Not Applicable</td></tr>
<tr><td></td><td></td><td></td><td><u>Buildings A-C</u>
Buildings A-C are connected by aerial walkways, and for the purposes of this report, they have been considered as a single 'united building.' Notwithstanding, each building and storey will be treated as a separate fire compartment therefore the combined floor area and volumes of these compartments do not exceed the maximum fire compartment size allowed for Type A construction given the inherent design.
Having regard to the above the distance (and angle) between external walls and associated openings in different fire compartments in the above buildings do not contravene the provisions of this clause.</td><td>Informational</td></tr>
</table>

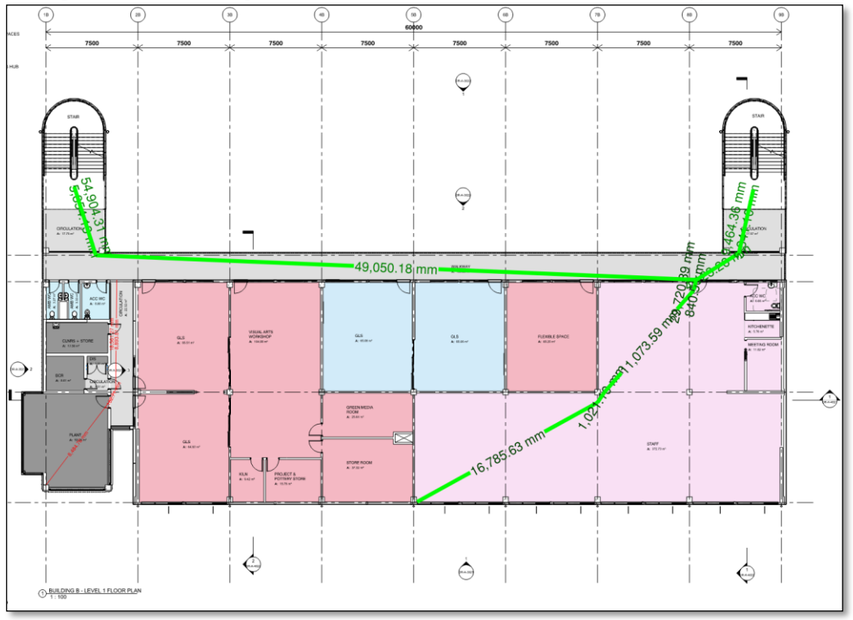
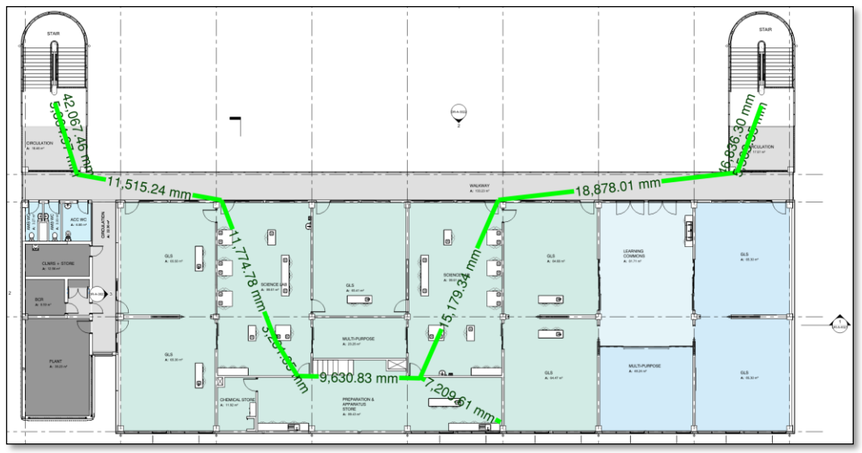
BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
C3.4	C4D5	**Acceptable Methods of Protection** (a) Openings required to be protected under Clause C3.2 (or C3.3) above must be protected as follows: (i) Doorways— • (A) internal or external wall-wetting sprinklers as appropriate used with doors that are self-closing or automatic closing; or • (B) -/60/30 fire doors that are self-closing or automatic closing. (ii) Windows— ▪ internal or external wall-wetting sprinklers as appropriate used with windows that are automatic closing or permanently fixed in the closed position; or ▪ - /60/ fire windows that are automatic closing or permanently fixed in the closed position; or ▪ - /60/ automatic closing fire shutters. (iii) Other openings— • excluding voids — internal or external wall-wetting sprinklers, as appropriate; or • construction having an FRL not less than /60/. (b) Fire doors, fire windows and fire shutters must comply with Specification C3.4.	The clause is informational only in nature	**Informational**
C3.5	C4D6	**Doorways in Fire Walls** • The aggregate width of doorways in fire walls must not exceed ½ of the length of the fire wall. • The doorways can be protected with 1 or 2 doors to achieve the required FRL • Doors must be self or automatic closing	There are no fire walls in the current design.	**Not Applicable**
C3.6	C4D7	**Sliding Fire Doors** Sliding fire doors must automatically close in accordance with this clause and be provided with warning signage.	There are no sliding fire doors in the current design.	**Not Applicable**
C3.7	C4D8	**Protection of Doorways in horizontal exits** • Doors in horizontal exits must achieve the same FRL as that of the fire wall • Doors must be self or automatic closing	There are no horizontal exits in the current design.	**Not Applicable**
C3.8	C4D9	**Openings in fire isolated exits** • Doorways serving the fire isolated exit must be protected with a self-closing fire door achieving a FRL of not less than -/60/30. • Window in the external wall of a fire isolated exit within 6m and exposed to a window or other opening in a wall of the same building must be protected externally in accordance with Clause C3.4.	Fire isolated exists have not been incorporated into the current design.	**Not Applicable**
C3.9	C4D10	**Service Penetrations in fire-isolated exits** Service penetrations in fire exits must comply with this clause. Generally, only electrical wiring and water supply pipes for fire services are permitted within the exits.	There are no fire-isolated exits in the in the current design.	**Not Applicable**
C3.10	C4D11	**Openings in Fire isolated lift shafts** • The entrance doorways must be protected with fire doors (achieving a FRL of not less than -/60/- which comply with AS1735.11 and are set to remain in the closed position (except when discharging or receiving passengers) • The lift indicator panels and the like must be backed with construction achieving a FRL of not less than -/60/60 – if it exceeds an area of 35,000mm^2	Lift Design Consultant to verify where specified.	**Certification by Designer or Specialist**
C3.11	C4D12	**Bounding Construction** • Applies to Class 2 and 3 buildings and Class 4 parts • The entrance doorways of the sole occupancy units, which open onto a public corridor must be protected with a self-closing fire door achieving a FRL of not less than -/60/30. • In a Class 2 or 3 building, where the path of travel to an exit does not provide a person seeking egress with a choice of travel in different directions to alternative exits and is along an open balcony, landing	The proposal does not contain any Class 2 and 3 buildings, Class 4 parts and Class 9b 'Entertainment Building' parts.	**Not Applicable**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		or the like and passes the external wall of another unit or other room, then that wall must be fire rated and openings protected internally. • Note NSW C3.11 Bounding Construction: Class 2, 3, 4 and 9b buildings		
C3.12	C4D13	**Openings in floors and ceilings for services** Where services pass through a floor which is required to achieve an FRL or a ceiling required to have a resistance to the incipient spread of fire, or fire protective covering, the service must be enclosed within a fire resisting shaft or fire protected in accordance with Clause C3.15.	Passive Fire Services Consultant to review and provide Certification confirming all passive fire stopping elements comply with the provisions of this clause.	**Certification by Designer or Specialist**
C3.13	C4D14	**Openings in shafts must be protected by:** • if it is in a sanitary compartment – a door or panel which together with its frame, is non-combustible or has an FRL of not less than –/30/30; or • a self-closing –/60/30 fire door or hopper; or an access panel having an FRL of not less than –/60/30; or • if the shaft is a garbage shaft – a door or hopper of non-combustible construction.	Passive Fire Services Consultant to review and provide Certification confirming all passive fire stopping elements comply with the provisions of this clause.	**Certification by Designer or Specialist**
C3.15	C4D15	**Openings for Service Installations & Construction Joints** • Where services penetrate a building element required to have an FRL, the services must generally be protected against the spread of fire (mechanical with dampers, hydraulic with collars and electrical with fire rated mastic). • All cable penetrations through floors or fire walls must be fire stopped in accordance with BCA C3.15 and AS1530.4 with fire rated mastic to seal gaps.	Passive Fire Services Consultant to review and provide Certification confirming all passive fire stopping elements comply with the provisions of this clause.	**Certification by Designer or Specialist**
C3.16	C4D16	**Construction Joints** Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation must be protected in a manner identical with a prototype tested in accordance with AS 1530.4:2014 to achieve the required FRL.	The design can readily comply subject to ongoing design detail	**Can Readily Comply - Detail**
C3.17	C4D17	**Columns protected in lightweight construction to achieve FRL** Columns protected in lightweight construction which penetrate a building element required to achieve a FRL or a RISF must be installed using a method and materials identical with a prototype assembly of the construction which has achieved the required FRL or RISF.	The design can readily comply subject to ongoing design detail	**Can Readily Comply - Detail**
Section D – Access & Egress				
Part D2 – Provision for Escape				
D1.1	D2D2	**Application of Part** This clause clarifies openings in construction which are not subject to this part: This part does not apply to the internal parts of a sole-occupancy unit in a Class 2 or 3 building or a Class 4 part of a building.	The clause is informational only in nature	**Informational**

D1.2	D2D3	**Number of Exits Required**
		• At least one exit must be provided from each storey of every building
		• At least 2 alternative exits must be provided from:
		  ○ Every storey of a building which has an effective height of more than 25m
		  ○ Basement storeys where egress from the building involves a vertical rise of 1.5m or more (some small basements provided with an exemption)
		  ○ Class 8 buildings with a rise in storeys of more than 6
		  ○ A storey which contains a 'patient care area'
		  ○ A storey which contains sleeping areas in a Class 9c building
		  ○ Every storey in a childcare centre
			Hall
			• The Hall on the ground floor has access to a minimum of 2 exits.
			• The exits from the Hall on Level 1 need to be clarified. An aerial walkway appears to be present around the Movement Studio and Lecture Theatre, but the egress from this area is unclear.
				Can Readily Comply - Detail

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		○ Each storey of a primary/secondary school with a rise in storeys of 2 or more ○ Any storey or mezzanine which accommodates more than 50 ppl ○ Any storey used as a Class 9b early childhood centre, or any Class 9b early childhood centre which forms part of a storey • Additional requirements apply to Class 9a and 9c buildings and to open spectator stands. • Egress is not permitted to be provided through another sole occupancy unit. • A part of a storey which is provided with direct egress to a road or open space is permitted to have only 1 exit for buildings with an effective height of more than 25m.	**Buildings A-C** Each storey of Buildings A-C has access to a minimum of 2 exits in accordance with the provisions of this clause.	**Complies**
D1.3	D2D4	**When Fire Isolated Exits Are Required** Exits are required to be fire isolated depending on the Classification of the building and number of storeys connected. The following general requirements apply (exits are required to be fire isolated in the following circumstances): • Class 2 buildings – > 3 consecutive storeys • Class 3 buildings – > 2 consecutive storeys • Class 5-9 buildings (> 2 consecutive storeys) • Class 9a (patient care parts) & 9c buildings – all exits to be fire isolated. *Note D1.7 in relation to design of fire isolated exits.*	**Hall** The Hall is not required to have fire isolated exits.	**Not Applicable**
			Buildings A-C **Buildings A-C** have been designed with *'External stairways lieu of fire-isolated exits.'* Refer to Clause D2D13 for assessment.	**Informational**
D1.4	D2D5	**Exit Travel Distances** • Class 2 & 3 buildings ○ The distance between the entrance door of a Sole Occupancy Unit (SOU) and an exit or Point of Choice (POC) to 2 alternative exits must not exceed 6m (20m on ground floor) ○ From all parts not in a SOU – 20m to exit or POC • Class 4 buildings – entrance door of SOU to exit or POC must not exceed 6m • Class 5, 6, 7, 8 or 9 buildings – 20m to exit or POC • Additional requirements apply to Class 9 buildings, and open Spectator stands	**Hall** • Egress travel distances from the ground floor of the Hall generally comply. • Egress travel distances from the Hall on Level 1 needs to be clarified. An aerial walkway appears to be present around the Movement Studio and Lecture Theatre, but the egress from this area is unclear.	**Can Readily Comply - Detail**

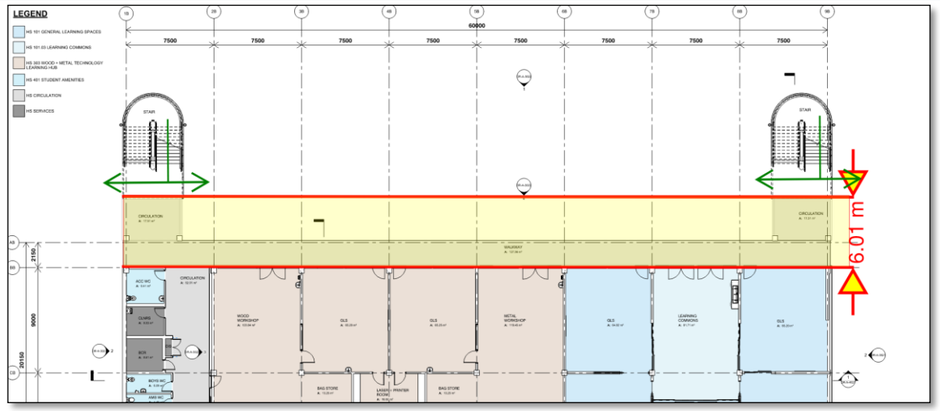
BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
			Buildings A, B & C • **Building A – Level 1** – Egress travel distance exceeds more than 20m to a point of choice and more than 40m (approx. 54m) to an exit  • **Building A – Level 2** – Egress travel distance exceeds more than 20m to a point of choice and more than 40m (approx. 43m) to an exit 	**Fire Engineering**

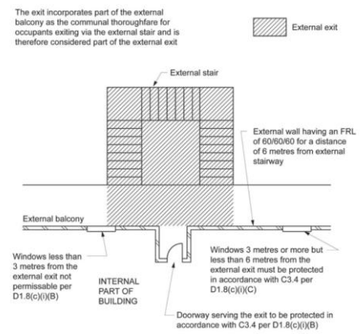
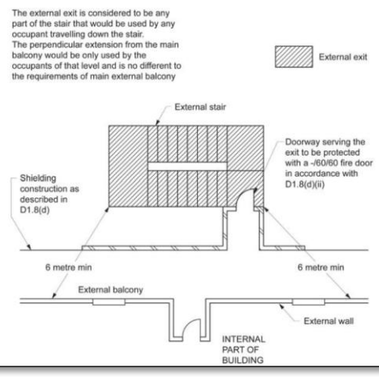
BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
			• **Building B – Level 1** – Egress travel distance exceeds more than 20m to a point of choice (approx. 30m)  • **Building B – Level 2** – Egress travel distance exceeds more than 20m to a point of choice and more than 40m (approx. 43m) to an exit  	

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
			• **Building C – Level 1 & 2** – Egress travel distance exceeds more than 40 (approx. 48m) to an exit  	
D1.5	D2D6	**Distance Between Alternative Exits** • BCA requires that where exits are provided as 'alternative' should be distributed as uniformly as possible around the storey.	Distance between alternative exits appear compliant in the **Hall**.	**Can Readily Comply - Detail**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		• Alternative exits must: • Be not less than 9m apart • Be not more than 45m apart in a Class 2 or 3 building (or patient care area in a Class 9a building) • Be not more than 60m apart in any other case • Be located so that alternative paths of travel do not converge to be less than 6m apart.	**Buildings A-C** Distance between alternative exits are considered compliant in Buildings A-C.	**Informational**
D1.6(a)	D2D7	**Height of exits, paths of travel to exits and doorways** Required exits or path of travel to exits must have an unobstructed height throughout of not less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1980mm.	The height of exits, paths of travel to exits and doorways appear compliant at this stage of the design, subject to ongoing design detail.	**Can Readily Comply - Detail**
D1.6(b), (c), (d) and (e)	D2D8	**Width of Exits & Paths of Travel to Exits** • Generally a minimum 1m egress path of travel must be provided. • Wider exits required for Class 9a or 9c buildings for patients on beds • Appropriate aggregate exit width must be provided or maintained in the building to allow for safe egress of the building populations.	**Hall** The Hall contains approximately 9.25m of aggregate exit widths throughout its main parts, centrally connected to the main hall. Based on this figure, a maximum of 1287 occupants can be accommodated. **Note:** Roller or tilt up doors have not been included as part of the aggregate egress width on account that these types of doors are not permitted to be considered as egress doors. Refer to BCA Clause D3D24.	**Can Readily Comply - Detail**
			Buildings A-C Based on the current design aggregate exit width for Buildings A-C appear to comply with the provisions of this clause.	**Can Readily Comply - Detail**
D1.6(f)	D2D9	**Width of doorways in exits or paths of travel to exits** General min width of doorway in an exit or path of travel: • Unobstructed egress width (as per D2D8) minus 250mm • Generally 750mm (unless to sanitary compartments) • Additional widths required in Class 9a or 9c buildings.	A door schedule should be provided in subsequent design reviews	**Can Readily Comply - Detail**
D1.6(g)	D2D10	**Exit width not to diminish in direction of travel** The unobstructed width of a required exit must not diminish in the direction of travel to a road or open space, except where the width is increased in accordance with D2D8(1)(b) or D2D9(a)(i).	Exits in both the Hall & Buildings A-C do not appear to diminish in the direction of travel.	**Can Readily Comply - Detail**
D1.6(h) and (i)	D2D11	**Determination and measurement of exits and paths of travel to exits** The required width of a stairway or ramp in a required exit or path of travel to an exit must— (a) be measured clear of all obstructions such as handrails, projecting parts of barriers and the like; and (b) extend without interruption, except for ceiling cornices, to a height not less than 2 m vertically above a line along the nosings of the treads or the floor surface of the ramp or landing.	The clause is informational only in nature	**Informational**

D1.7	D2D12	**Travel via Fire Isolated Stairs**
		• Doors from rooms must not open directly into a fire isolated exit unless the room is a public corridor, lobby, SOU occupying the whole of storey, or sanitary compartment.
		• Fire isolated exists must provide independent egress from each storey served and discharge directly to:
		  ○ A road or open space
		  ○ A covered area of the building which is suitably open
			Buildings A-C
			The discharge of occupants from the external stairs should avoid passing within 6m of the external wall. Otherwise the wall will require to achieve an FRL of 60/60/60 and any Openings protected in accordance with Clause C4D5.
			The subject works appear to comply under the requirements of this clause; however, this will be monitored and assessed as the design develops.
				Can Readily Comply - Detail

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		• Where a path of travel from a fire isolated exit involves passing within 6m of the external wall of the building, the external wall must be fire rated and openings protected in accordance with BCA C3,4.		
D1.8	D2D13	**External Stairways or ramps in lieu of Fire Isolated Stairs** An external stairway or ramp may serve as a required exit in lieu of a fire-isolated exit, if: • It serves a storey below an effective height of 25 m • The stair is non-combustible throughout • The stair is appropriately protected against the spread of fire if it is within 6 m of, and exposed to any part of the external wall of the building it serves (refer to clause for full details)	Buildings A-C_incorporate external stairs in lieu of fire isolated stairs. The external stairways appear to comply with this clause on the basis that the stairways are setback >6m from the external façade of the building.	**Can Readily Comply - Detail**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		Figure D1.8(1) Protection of the external exit using the external wall of the building in accordance with D1.8(c)(i)  D1.8(d) provides requirements for the shielding construction and protection of any openings in that construction. **Figure D1.8(2) Protection of the external exit using shielding construction in accordance with D1.8(c)(ii)** 		
D1.9	D2D14	**Travel Via Non-Fire Isolated Stairs & Ramps** • Non-fire-isolated exits serving as a required exit must provide a continuous measure of travel by its own flights and landings to the level at which egress to a road or open space is provided. • The distance between the doorway of an SOU and the point of egress to a road or open space must not exceed - 30m for Type C construction - 60m in any other case. • The distance between any point on the floor and the point of egress to road/open space in a Class 5, 6, 7, 8 or 9 building must not exceed 80m. • The distance between the point of discharge of a non-fire isolated stair and a doorway leading to road open space must not exceed 15m for Class 2 or 3 buildings, or 20m for Class 5, 6, 7, 8 or 9 buildings • In Class 2 or 3 buildings – non-fire isolated exits must provide separate egress to road/open space and be smoke separated at the level of discharge.	No non-fire isolated stairs are proposed for the current design.	**Not Applicable**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
D1.10	D2D15	**Discharge of Exits** • Exits from the building must be provided with an unobstructed path of travel to the street. Where exits discharge at a level that is different to the street level, compliant stairs and ramps must be provided to the street. • The width of the external path must be not less than 1m wide (or if the width of the required exits is more than 1m, the width of the external path must be not less than that of the required exit) • Where necessary, exits must be provided with suitable barriers or bollards to prevent vehicles blocking them. • Additional requirements apply to Class 9b buildings containing auditoriums	**Hall** Discharge from exits appears generally compliant with this clause.	**Can Readily Comply - Detail**
D1.11	D2D16	**Horizontal Exits** • Horizontal exits must not be used between SOUs or from a childcare centre or primary/secondary school. • Sufficient space must be allocated on either side of the fire wall serving as a horizontal exit. • Additional requirements apply in Class 9a or 9c buildings.	Horizontal exits are not relied upon in the Hall and Buildings A-C.	**Not Applicable**

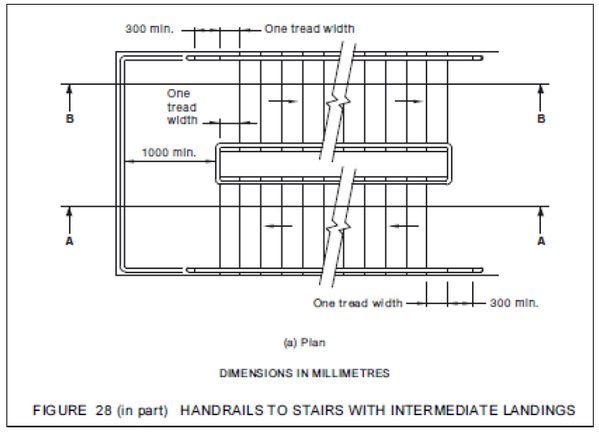
D1.12	D2D17	**Non-required Stairways, Ramps or Escalators**
		An escalator, moving walkway or non-required non fire-isolated stairway or pedestrian ramp—
		• must not be used between storeys in—
		  ○ a patient care area in a Class 9a health-care building; or
		  ○ a resident use area in a Class 9c building; and
		• may connect any number of storeys if it is—
		  ○ in an open spectator stand or indoor sports stadium; or
		  ○ in a carpark or an atrium; or
		  ○ outside a building; or
		  ○ in a Class 5 or 6 building that is sprinklered throughout, where the escalator, walkway, stairway or ramp complies with Specification D1.12; and
		• except where permitted above must not connect more than—
		  ○ 3 storeys if each of those storeys is provided with a sprinkler system (other than a FPAA101D system) complying with Specification E1.5 throughout; or
		  ○ 2 storeys,
		  ○ provided that in each case, those storeys must be consecutive, and one of those storeys is situated at a level at which there is direct egress to a road or open space; and
		• except where permitted in above must not connect, directly or indirectly, more than 2 storeys at any level in a Class 5, 6, 7, 8 or 9 building and those storeys must be consecutive.
		Refer to BCA Specification D1.12 where required.
			There are no non-required stairways, ramps or escalators in the Hall and Buildings A-C.	**Not Applicable**

D1.13	D2D18	**Number of Persons Accommodated** The number of persons accommodated on each storey can be determined by using the estimates based on floor area in Table D1.13 or other appropriate means of determination can also be used where populations can be more reasonably estimated.	The clause is informational only in nature	**Informational**
D1.14 & D1.15	D2D19 & D2D20	**Measurement of Distances & Method of Measurement** Provides details for how to measure distances for exits.	The clause is informational only in nature	**Informational**
D1.16	D2D21	**Plant Rooms and lift Motor Rooms: Concession** Ladders generally meeting AS1657 can be used for egress for: • Plant room less than 100m^2, can use a ladder for egress • Plantroom, Lift Machine Room or Class 8 substation that is 100m^2 – 200m2 can use a ladder for all but one point of egress • Must otherwise meet design requirements of this clause dependant on location	The clause is informational only in nature	**Informational**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
D1.17	D2D22	**Access to lift pits** Access to lift pits must: • Where pit depth is less than 3m, through the lowest landing doors • Where pit depth is more than 3m, by a 600mm x 1980mm access door meeting certain requirements	The clause is informational only in nature	**Informational**
D1.18	D2D23	**Egress from Early Childhood Centres** • Every part of a Class 9b early childhood centre must be wholly within a storey that provides direct egress to a road or open space. • The requirements of (a) do not apply in a building with a rise in storeys of not more than 2, where the Class 9b early childhood centre is the only use in that building.	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Part D3 - Construction of Exits				
D2.1	D3D2	**Application of Part** With the exception of certain clauses (relating to stair construction, handrails, balustrades, door hardware and window fall protection, this Part does not apply to the internal parts of a SOU in residential buildings – to be noted.	The clause is informational only in nature	**Informational**
D2.2	D3D3	**Fire-Isolated stairways and ramps** The fire isolated stairs must be of non-combustible construction and be design such that if there is local failure it will not cause structural damage to or impair the fire resistance of the shaft.	There are no fire-isolated exits in the Hall and Buildings A-C.	**Not Applicable**
D2.3	D3D4	**Non-Fire Isolated Stairways & Ramps** Must generally be concrete, steel or 44mmm timber.	There are no non fire-isolated exits in the Hall and Buildings A-C.	**Not Applicable**
D2.4	D3D5	**Separation of Rising and Descending Stairs** In a fire isolated stair, rising and descending stair flights must have no direct connection, being physically separated by non-combustible smoke proof construction.	There are no fire-isolated exits in the Hall and Buildings A-C.	**Not Applicable**
D2.5	D3D6	**Open Access Ramps and Balconies** Where an open access ramp or balcony is provided to meet the smoke hazard management requirements of Table E2.2a, it must— • have ventilation openings to the outside air which— • have a total unobstructed area not less than the floor area of the ramp or balcony; and • are evenly distributed along the open sides of the ramp or balcony; and • not be enclosed on its open sides above a height of 1 m except by an open grille or the like having a free air space of not less than 75% of its area.	Open access ramps/balconies are not relied upon to provide smoke hazard management.	**Not Applicable**
D2.6	D3D7	**Smoke Lobbies** A smoke lobby required by D1.7 must— • have a floor area not less than 6 m2; and • be fire & separated by FRL 60/60/- construction from the occupied areas in the storey by walls which are impervious to smoke • have smoke doors from any occupied area complying with Clause 3 of Specification C3.4 except that the smoke sensing device need only be located on the approach side of the opening; and • be pressurised as part of the exit if the exit is required to be pressurised under E2.2.	Smoke lobbies do not appear to be required under BCA D3D7.	**Not Applicable**
D2.7	D3D8	**Installations in the Path of Travel** • Electrical distribution and telecommunications, boards etc. where located in a path of travel to an exit, must be enclosed in non-combustible construction, with openings suitably smoke sealed. • Gas services must not be located in a required exit • Wiring associated with fire, security, lighting may be installed in a fire isolated exit	Details for the proposed means of separating equipment to be provided on the architectural plans/specifications.	**Can Readily Comply - Detail**

<table>
<tr><th>BCA 2019 Cl.</th><th>BCA 2022 Cl.</th><th>BCA Requirement</th><th>Compliance Comment</th><th>Status</th></tr>
<tr><td></td><td></td><td>• Access to service shafts (other than for fire services) must not be provided from a fire isolated exit.</td><td></td><td></td></tr>
<tr><td>D2.8</td><td>D3D9</td><td>Enclosure of Space Below Stairs
Enclosed cupboards must not be installed in fire isolated stairs and if installed under non-fire isolated stairs must be fire separated with 60/60/60 walls & ceilings with self-closing -/60/30 fire doors.</td><td>There does not appear to be any enclosure below any stairs in the buildings.</td><td>Not Applicable</td></tr>
<tr><td>D2.9</td><td>D3D10</td><td>Width of Required Stairways & Ramps
A stair or ramp wider than 2m only counts as 2m for aggregate exit width purposes if there is no dividing handrails.</td><td>Informational.</td><td>Informational</td></tr>
<tr><td>D2.10</td><td>D3D11</td><td>Pedestrian Ramps
• Fire isolated ramps may be used in lieu of fire isolated stairways
• Ramps must not exceed a grade of 1:14 where required to be 'accessible', or 1:8 in any other case.
• Ramp surface must be slip resistant.</td><td>Pedestrian ramps do not form part of a required exit in the current design.</td><td>Not Applicable</td></tr>
<tr><td>D2.11</td><td>D3D12</td><td>Fire-Isolated Passageways
Fire isolated passageways must generally achieve a FRL consistent with the stair/ramp to which it is connected OR 60/60/60 in any other case.</td><td>There are no fire-isolated passageways in the Hall and Buildings A-C.</td><td>Not Applicable</td></tr>
<tr><td>D2.12</td><td>D3D13</td><td>Roof as Open Space
If an exit discharges to the roof of a building, the roof must achieve a FRL of 120/120/120 and not contain any openings/rooflights etc within 3m of the path of travel.</td><td>The roof of the buildings is not relied upon as open space.</td><td>Not Applicable</td></tr>
<tr><td>D2.13</td><td>D3D14</td><td>Goings & Risers
To satisfy BCA D3D14, a stairway must have—
• Not more than 18 and not less than 2 risers in each flight
• Going/riser/quantity dimensions in accordance with BCA Table D3D14
• Constant riser/going dimensions (variation 5mm between treads and 10mm overall permitted)
• Required exits must not contain winders in lieu of a quarter landing (up to 3 winders in a quarter landing are permitted in non-required stairs and in residential SOUs')
• Solid treads required where stair exceed 10m in height or 3 storeys
• No openings that would allow a 125mm sphere to pass through
• Slip resistant treads or nosings (per Table D3D15 below)
• Where consecutive flights contain more than 36 risers in a Class 9b building, the stair must contain a minimum 30 degree change in direction.
• Bottom riser may vary when meeting a public road only
Table D3D14: Riser and going dimensions
<table>
<tr><th rowspan="2">Stairway location</th><th colspan="2">Riser (R)</th><th colspan="2">Going (G)[Note 3]</th><th colspan="2">Quantity (2R + G)</th></tr>
<tr><th>Max</th><th>Min</th><th>Max</th><th>Min</th><th>Max</th><th>Min</th></tr>
<tr><td>Public</td><td>190</td><td>115</td><td>355</td><td>250</td><td>700</td><td>550</td></tr>
<tr><td>Private [Note 1]</td><td>190</td><td>115</td><td>355</td><td>240</td><td>700</td><td>550</td></tr>
</table>
Refer to DDA Report for specific accessibility requirements to some stairs</td><td>Details for the proposed goings and risers to be provided on the architectural plans/specifications.</td><td>To be addressed in BCA Specification</td></tr>
</table>

<table>
<tr><th>BCA 2019 Cl.</th><th>BCA 2022 Cl.</th><th>BCA Requirement</th><th>Compliance Comment</th><th>Status</th></tr>
<tr><td>D2.14</td><td>D3D15</td><td>Landings
Landings must:
Be at least 750mm long must be provided to divide stairs into flights no greater than 18 risers (900mm preferred top and bottom to allow tactiles on a single grade)
Be no steeper than 1:50
be slip resistant as per BCA Table D3D15
Table D3D15: Slip-resistance classification<table><tr><th>Application</th><th>Dry surface conditions</th><th>Wet surface conditions</th></tr><tr><td>Ramp steeper than 1:14</td><td>P4 or R11</td><td>P5 or R12</td></tr><tr><td>Ramp steeper than 1:20 but not steeper than 1:14</td><td>P3 or R10</td><td>P4 or R11</td></tr><tr><td>Tread or landing surface</td><td>P3 or R10</td><td>P4 or R11</td></tr><tr><td>Nosing or landing edge strip</td><td>P3</td><td>P4</td></tr></table></td><td>Details for the proposed stair landing crossfalls and slip resistance to be provided on the architectural plans/specifications.</td><td>To be addressed in BCA Specification</td></tr>
<tr><td>D2.15</td><td>D3D16</td><td>Thresholds
A doorway must generally not contain a step or ramp within the door threshold unless it is leading externally, and the step is no greater than 190mm (except on accessible paths where no step is allowable).</td><td>Details for any thresholds to be provided on the architectural plans/specifications.</td><td>To be addressed in BCA Specification</td></tr>
<tr><td>D2.16 (a), (b) and (c)</td><td>D3D17</td><td>Barriers to Prevent Falls
A continuous barrier must be provided along the side of—
(a) a roof to which general access is provided; and
(b) a stairway or ramp; and
(c) a floor, corridor, hallway, balcony, deck, verandah, mezzanine, access bridge or the like; and
(d) any delineated path of access to a building,
if the trafficable surface is 1 m or more above the surface beneath.</td><td>Details for any barriers to prevent falls to be provided on the architectural plans/specifications. Specifically external balconies/aerial walkways are to be reviewed once further design developed plans are provided.</td><td>Can Readily Comply - Detail</td></tr>
<tr><td>Table D2.16a</td><td>D3D18</td><td>Height of Barriers
(1)The height of a barrier required by D3D17 must be not less than the following:
For stairways or ramps with a gradient of 1:20 or steeper — 865 mm.
(a) For landings to a stair or ramp where the barrier is provided along the inside edge of the landing and does not
(b) exceed 500 mm in length — 865 mm.
In front of fixed seating on a mezzanine or balcony within an auditorium in a Class 9b building, where the
(c) horizontal projection extends not less than 1 m outwards from the top of the barrier — 700 mm.
For all other locations — 1 m.</td><td>Details for any barriers to be provided on the architectural plans/specifications. Specifically external balconies/aerial walkways and stairways are to be reviewed once further design developed plans are provided.</td><td>Can Readily Comply - Detail</td></tr>
<tr><td>Table D2.16a</td><td>D3D19</td><td>Openings in Barriers
Generally openings must not allow a 125 mm sphere to pass through.
In fire isolated exits (not serving a early childhood centre, or an external stair/ramp):
Must not allow a 300mm sphere to pass through OR where rails are used 150mm between nosing line and bottom rail and 460mm between rails.</td><td>Details for any barriers to be provided on the architectural plans/specifications. Specifically external balconies/aerial walkways and stairways are to be reviewed once further design developed plans are provided.</td><td>Can Readily Comply - Detail</td></tr>
</table>

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
Table D2.16a	D3D20	**Barrier Climbability** (1) A barrier required by D3D17, located on a floor more than 4 m above the surface beneath, must not incorporate horizontal or near horizontal elements that could facilitate climbing between 150 mm and 760 mm above the floor. (2) The requirements of (1) do not apply to— fire-isolated stairways, fire-isolated ramps and other areas used primarily for emergency purposes, other than— (a) external stairways; and (i) external ramps; and (ii) Class 7 (other than carparks) and Class 8 buildings.	Details for any barriers to be provided on the architectural plans/specifications. Specifically external balconies/aerial walkways and stairways are to be reviewed once further design developed plans are provided.	**Can Readily Comply - Detail**
D2.16 (a), (b) and (c)	D3D21	**Wire Barriers** Provides requirements for installation and tensioning of wire barriers	Not Applicable.	**Not Applicable**
D2.17	D3D22	**Handrails** • A handrail is required to at least one side of every stairway or ramp (and to both sides where the stair has a width of 2m or more) • Handrails must be at a height of not less than 865mm above the stair nosing line (additional handrail at 665-750mm to be provided in primary schools) • The handrail must be continuous between stair flight landings and have no obstructions that will tend to break a hand-hold (except for newel posts, ball type sanctions or the like). • Handrails required to assist people with disabilities must comply with BCA D3.3. • In a required exit, the handrail must comply with Clause 12 of AS1428.1. This typically requires the handrail to have a continuous height to the stair nosing line & around landings, and also incorporate extensions/terminations at the top and bottom as per AS1428.1.  (a) Plan DIMENSIONS IN MILLIMETRES FIGURE 28 (in part) HANDRAILS TO STAIRS WITH INTERMEDIATE LANDINGS • Additional requirements apply to Class 9a and 9c buildings	The design can readily comply subject to ongoing design detail	**Can Readily Comply - Detail**
D2.18	D3D23	**Fixed Platforms, Walkways, Stairways & Ladders** Informational clause only noting fixed platforms, walkways and ladders for Access can be in accordance with AS1657 to service/plant areas or in low-use areas in a residential SOU. In summary this requires: • Risers (R) of 130mm-225mm • Goings (G) of 215-355mm • Ratio of 2R+G = 540mm-700mm • Minimum 600mm clear width, 1m preferred	The design can readily comply subject to ongoing design detail	**Can Readily Comply - Detail**

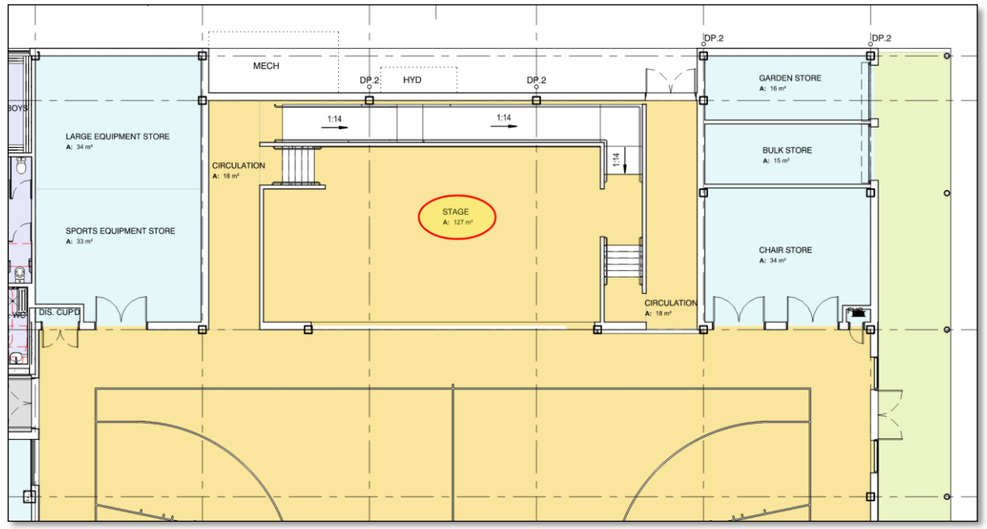
BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		• Clear overhead height of 2000mm • Landings at top and bottom at least as deep as the stair is wide • Highlighted nosings • Continuous handrail to both sides if stair is >1m in width, at least one handrail if <1m • Guardrailing ≥900mm in height with mid rail at 450mm max spacing or 560mm if no toe-board installed for bottom spacing • Gaps between adjacent guardrails must be between 25mm-50mm		
D2.19	D3D24	**Doorways & Doors** • Doors in required exits must not be fitted with roller shutters/tilt up doors (except in Class 6-8 SOUs with a floor area of not more than 200m^2, and where only one exit is required, and the door is held open when in use. • Doors in required exits must not be sliding unless the door leads directly to road/open space (and can be manually opened with force less than 110 N) • Where power operated doors are provided they must open automatically on power failure or fire alarm trip and able to be opened manually with force no less than 110N) • Additional requirements apply to Class 9a and 9c buildings.	In this respect, the design currently indicates appropriate compliance for this stage based on the plans submitted. Further design detail will continue to be developed and assessed until final AFC design	**Can Readily Comply - Detail**
D2.20	D3D25	**Swinging Doors** • Doors gates serving as a required exit for public areas should typically swing in the direction of egress and must generally not impede egress paths. • Swinging doors must not encroach: - at any part of its swing by more than 500 mm on the required 1m width of the exit and - when fully open, by no more than 100 mm on the required 1m exit width • Doors can swing against the direction of egress if serving building areas less than 200m^2, are the only exit and a hold-open device is provided to the door.	Doorways serving as required exits are required to swing in the direction of the egress. Further design detail will continue to be developed and assessed until final AFC design	**Can Readily Comply - Detail**
D2.21	D3D26	**Operation of Latch** • Exit doors and doors in a path of travel to an exit must generally be readily operable without a key from the side that faces a person seeking egress by a single handed downward action or pushing action on a single device which is located between 900mm and 1100mm above the floor. • Some concessions are provided to certain buildings – including doors in a residential SOU, childcare centers, banks, jails, metal health facilities. Doors which open automatically on the activation of a fire trip are also provided with a concession under this clause. • Additional requirements apply to assembly buildings accommodating more than 100 people (which generally requires that panic bars be provided)	**Buildings A-C** Buildings A-C operation of latch details are to be provided on to the plans/specification in subsequent design review. The design can readily comply subject to ongoing design detail	**Can Readily Comply - Detail**
			Hall Exit doors are required to be provided with panic bar details in accordance with the provisions of this clause. The design can readily comply subject to ongoing design detail	**Can Readily Comply - Detail**
D2.22	D3D27	**Re-entry from Fire isolated exits** Doors in fire isolated exits in Class 9a/9c buildings and buildings with an effective height exceeding 25m must not be locked from the inside of the exit. Some exemptions can be applied where security measures are implemented.	There are no fire-isolated exits in the Hall and Buildings A-C.	**Not Applicable**
D2.23	D3D28	**Signs on Doors** Signage must be provided to fire exit doors.	In this respect, the design currently indicates appropriate compliance for this stage based on the plans submitted. Further design detail will continue to be developed and assessed until final AFC design	**Can Readily Comply - Detail**
D2.24	D3D29	**Protection of openable windows** This clause applies to all windows serving a bedroom in the Class 2, 3, 4 buildings and in Class 9b buildings. Where the window (serving a floor more than 2m from the surface beneath) has a sill height of less than 1.7m, the openable portion of the window must be fitted with: • A device to restrict the window openings; or • A screen with secure fittings *(refer to Clause D2.24 for requirements)*	In this respect, the design currently indicates appropriate compliance for this stage based on the plans submitted. Further design detail will continue to be developed and assessed until final AFC design	**Can Readily Comply - Detail**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		• Note balustrading may also be required to windows.		
Part D4 – Access for People with Disabilities				
Part D3	Part D4	**Access for People with Disabilities** Access / DDA is not specifically considered by this BCA Report. Refer to separate DDA Report for assessment.	Refer to separate DDA Report for assessment.	**Certification by Designer or Specialist**
Section E – Services & Equipment				
Section E	Section E	**Services & Equipment** *BCA Section E* Any new or affected Fire Services must comply with the BCA Section E and relevant Australian Standards.	**Fire Services & Equipment** The following Fire Services & Equipment are required under the deemed-to-satisfy provisions of the BCA based on its classification and characteristics: • Fire Hydrants – YES • Fire Hose Reels – YES (not including classrooms and associated corridors) • Portable Fire Extinguishers - YES • Fire Sprinklers – NO (subject to Fire Engineering – see below) • Fire Control Centre - NO • Fire Control Room – NO • Smoke Hazard Management – No (subject to Fire Engineering – see below) • Smoke Detectors for Automatic Shutdown of Mechanical - YES • Emergency Lifts - NO • Emergency Lighting - YES • Exit Signage - YES • Emergency Warning & Intercom System - YES *See below for details on each of the above where relevant.*	**Informational**
Part E1 – Fire Fighting Equipment				
E1.3	E1D2	**Fire Hydrants** Fire hydrant coverage meeting AS2419.1 must be confirmed / provided: • to new buildings or new parts that are over 500m^2 in total floor area • to any additional floor area in an existing building that is already provided with hydrant coverage • Hydrant Boosters & Hydrants (where required) must be 10m from the building or adequately protected from fire • Hydrant Pumprooms (where required) must be accessible from open space or via fire isolated passage • Coverage and pressure & flows must meet AS2419.1-2005	**Fire Hydrant Systems** There are multiple buildings on the allotment and therefore multiple 'main entrances', hence from a technical standpoint compliance with this provision will not be able to be achieved and a fire engineered performance solution will be required to address this DTS departure.	**Fire Engineering**
E1.4	E1D3	**Fire Hose Reels** Where the building is provided with an internal fire hydrant system or incorporates a fire compartment with a floor area of more than 500m^2, it must be provided with a fire hose reel system in accordance with BCA E1.4 and AS2441. Fire Hose Reels must be located: • Within 4m of an exit • Along paths of travel to provide requisite coverage • Located so they are not pulled through fire or smoke doors *Note that fire hose reels are <u>not</u> required in a:* • *Class 2/3/4 building* • *Class 8 electrical substation* • *Class 9c building*	**Fire Hose Reels** Fire Hose Reels are required to serve the Hall Building and Library under DTS as internal hydrants will be provided. Classrooms and associated corridors are not required to be provided with Fire Hose Reels under E1D3(1)(d). Details and design certification must be provided by the hydraulic/fire services engineer.	**Certification by Designer or Specialist**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		• *Class 9b primary or secondary school Classrooms/corridors.*		
E1.5	E1D4	**Sprinklers** A building must be provided with a sprinkler system complying with when required by E1D5 to E1D12 as applicable; and comply with Specification 17 and Specification 18 as applicable. • Sprinkler Alarm Valves must be provided with direct access to a road or open space	**Sprinklers** Sprinklers are not required to be provided throughout the Buildings.	**Not Applicable**
Table E1.5	E1D5	**Where sprinklers are required: all classifications** • Buildings with an effective height of more than 25m, excluding— ○ an open-deck carpark being a separate building; and ○ a Class 8 electricity network substation, with a floor area not more than 200 m2, located within a multi-classified	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E1.5	E1D6	**Where sprinklers are required: Class 2 and 3 buildings other than residential care buildings** • Class 2 or 3 buildings with a rise in storeys of 4 or more and an effective height of not more than 25m.	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E1.5	E1D7	**Where sprinklers are required: Class 3 building used as a residential care building** • Class 3 or 9a buildings used as residential aged care; and • Any fire compartment containing a Class 3 part used for residential care.	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E1.5	E1D8	**Where sprinklers are required: Class 6 building** • Class 6 buildings with floor area of more than 3,500m^2 or volume of 21,000m^3	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E1.5	E1D9	**Where sprinklers are required: Class 7a building, other than an open-deck carpark** • Class 7a (non-open deck) carparks accommodating more than 40 vehicles	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E1.5	E1D10	**Where sprinklers are required: Class 9a health-care building used as a residential care building, Class 9c buildings**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E1.5	E1D11	**Where sprinklers are required: Class 9b buildings**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E1.5	E1D12	**Where sprinklers are required: additional requirement** • For sprinkler requirements for atriums, see Part G3. • For sprinkler requirements for large isolated buildings, see C3D4.	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E1.5 (Note 4)	E1D13	**Where sprinklers are required: occupancies of excessive hazard** Buildings with a floor area of more than 2000m^2 or volume of more than 12,000m^3 and containing an 'excessive hazard'.	The matter is not applicable &/or not affected by scope.	**Not Applicable**
E1.6	E1D14	**Portable Fire Extinguishers** Portable fire extinguishers are required to serve Class A-Class E fire under BCA E1.6 & AS2444. *Note: They are not required for Class A fire where fire hose reels are otherwise provided.*	Portable fire extinguisher coverage is required throughout to meet BCA E1D14 & AS2444. Details and design certification must be provided by the hydraulic/fire services engineer.	**Certification by Designer or Specialist**
E1.8	E1D15	**Fire Control Centres** A Fire Control Centre is required where the building has: • An Effective Height over 25m • A floor area over 18,000m^2 Fire control Centres must meet Clauses 1-5 of BCA Spec E1.8 – *see below Spec 19*	A fire control room may be required as previously advised Buildings A-C building are considered as a 'United Building' and therefore the total floor area may exceed 18,000m^2. Architect to advise whether on whether the aggregate floor are exceeds the threshold limit of this clause.	**Further Detail Required**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
E1.8	S19C7	**Fire Control Room**	A fire control room is not required as the building has an effective height of less than 50m.	**Not Applicable**
Spec E1.8	S19C1-S19C6	**Fire Control Centres – Specification Summary**	A fire control centre may be required as previously advised Buildings A-C building are considered as a 'United Building' and therefore the total floor area may exceed 18,000m^2. Architect to advise whether on whether the aggregate floor are exceeds the threshold limit of this clause.	**Can Readily Comply - Detail**
Spec E1.8	S19C7-S19C13	**Fire Control Room – Specification Summary**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
E1.9	E1D16	**Fire Precautions During Construction** Portable fire extinguishers must be provided during construction.	To be noted during construction.	**Informational**
E1.10	E1D17	**Provision for Special Hazards** Additional PFEs may be required should the building contain special hazards.	Fire services/safety engineers to assess and determined whether additional measures are required.	**Certification by Designer or Specialist**
BCA Part E2 – Smoke Hazard Management				
E2.1	E2D2	**Application of Part** Part E2 does not apply to: An open deck carpark or open spectator stand A class 8 electricity network substation (less than 200m^2 in floor area) within a multi classified building.	The clause is informational only in nature	**Informational**
E2.2a & E2.2b	*NSW* E2D3	**Smoke Hazard Management** • Smoke Hazard Management must be provided per **E2D4** to **E2D20** depending on the class, rise in stories and nature of the building design, which can require one or more of the following: ○ Zone Pressurisation ○ Smoke Exhaust ○ Smoke Vents ○ Automatic Smoke Detection & Alarm ○ Smoke Detectors to satisfy Automatic Shutdown of Mechanical (Class 9b only) ○ Sprinklers (to satisfy smoke hazard management) ○ Stair Pressurisation • Refer to Tables E2.2a and NSW E2.2b for full details • Smoke detection per AS1670.1 can also be required to allow exit / egress doors to unlock in the event of emergency under BCA D2.21.	**Hall - Smoke Hazard Management** As the building is a Class 9b building and incorporates a Stage with an area between 50m^2 to 150m^2, smoke hazard management is required under *NSW E2D16* & *NSW E2D17* which must either be: • Smoke detection and alarm, or • Sprinklers, or • Stair Pressurisation, or • Zone Pressurisation, or Any deletion of rationalisation of smoke hazard management must be addressed via a Fired Engineered Performance Solution	**Certification by Designer or Specialist**
Table E2.2a	E2D4	**Fire-isolated exits**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E2.2a	E2D5	**Buildings more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E2.2a	E2D6	**Buildings more than 25 m in effective height: Class 5, 6, 7b, 8 or 9b buildings**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E2.2a	E2D7	**Buildings more than 25 m in effective height: Class 9a buildings**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E2.2a	E2D8	**Buildings not more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E2.2a	E2D9	**Buildings not more than 25 m in effective height: Class 5, 6, 7b, 8 and 9b buildings**	The matter is not applicable &/or not affected by scope.	**Not Applicable**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		A building not more than 25 m in effective height that— • is a Class 5 or 9b school building or part of a building having a rise in storeys of more than 3; or • is Class 6, 7b, 8 or 9b building (other than a school) or part of a building having a rise in storeys of more than 2; or • has a rise in storeys of more than 2, and contains— ○ a Class 5 or 9b school part; and ○ a Class 6, 7b, 8 or 9b (other than a school) part, must meet the requirements of (2) A building referred to in (1) must be provided with— • in each required fire-isolated stairway, including any associated fire-isolated passageway or fire-isolated ramp, an automatic air pressurisation system for fire-isolated exits in accordance with AS 1668.1; or • a zone pressurisation system between vertically separated fire compartments in accordance with AS 1668.1, if the building has more than one fire compartment; or • an automatic smoke detection and alarm system complying with Specification 20; or a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. • For the purposes of (2), vertically separated fire compartments are fire compartments above and below each other, and not fire compartments within the same storey.		
Table E2.2a	E2D10	**Buildings not more than 25 m in effective height: large isolated buildings subject to C3D4**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E2.2a	E2D11	**Buildings not more than 25 m in effective height: Class 9a and 9c buildings**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E2.2a	E2D12	**Class 7a buildings**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E2.2a	E2D13	**Basements (other than Class 7a buildings)**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E2.2b	E2D14	**Class 6 buildings – in fire compartments more than 2000 m2: Class 6 building (not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit)**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E2.2b	E2D15	**Class 6 buildings – in fire compartments more than 2000 m2: Class 6 building (containing an enclosed common walkway or mall)**	The matter is not applicable &/or not affected by scope.	**Not Applicable**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
Table E2.2b	NSW E2D16	**Class 9b – assembly buildings: all** The following provisions apply to all Class 9b assembly buildings: (a) A building or part of a building used as an assembly building must be provided with automatic shutdown of any air-handling system (other than non-ducted individual room units with a capacity not more than 1000 L/s and miscellaneous exhaust air systems installed in accordance with Sections 5 and 6 of AS 1668.1) which does not form part of the smoke hazard management system, on the activation of— (i) smoke detectors installed complying with S20C6; and (ii) any other installed fire detection and alarm system, including a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. (b) A basement not counted in the rise in storeys in accordance with C2D3, less than 2000 m2 used as an assembly building or part of an assembly building containing an auditorium or other public area, must be equipped with— (i) an automatic smoke detection system in accordance with Specification 20; or (ii) an automatic zone pressurisation system in accordance with AS 1668.1 if the basement has more than one fire compartment; or if the basement forms part of a multi fire compartmented building served by the zone pressurisation system; or (iii) a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. (c) Stages and backstages: (i) For the purposes of this clause, where a stage is separated from the auditorium by a proscenium wall incorporating a proscenium opening, a backstage room or area that is not separated from the stage by construction having an FRL of not less than 60/60/60, is taken to form part of the stage. (ii) A building or part of a building used as an assembly building which has a stage with a floor area of more than 50 m2 and not more than 150 m2 must, over the stage, be provided with— (A) an automatic smoke exhaust system complying with Specification 21 (including Figure S21C2); or (B) roof mounted automatic smoke-and-heat vents complying with NSW I4D59, in a single storey building or the top storey of a multi storey building. (iii) A building or part of a building used as an assembly building which has a stage with a floor area of more than 150 m2 must, over the stage, be provided with an automatic smoke exhaust system complying with Specification 21 (including Figure S21C2). (iv) A building or part of a building used as an assembly building which has a stage equipped with means of flying scenery must, over the stage, be provided with an automatic smoke exhaust system complying with Specification 21 (including Figure S21C2).	**Hall** The Hall is required to be provided with automatic shutdown of any air-handling system in accordance with this clause. As the stage is 127m^2, over the stage, it must be provided with— • an automatic smoke exhaust system complying with Specification 21 (including Figure S21C2); or • roof mounted automatic smoke-and-heat vents complying with NSW I4D59, in a single storey building or the top storey of a multi storey building. Details and design certification must be provided by the Mechanical/fire services engineer. 	**Certification by Designer or Specialist**
Table E2.2b	NSW E2D17	**NSW E2D17 Class 9b – assembly buildings: night clubs, discotheques and the like**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
Table E2.2b	NSW E2D18	**NSW E2D18 Class 9b – assembly buildings: exhibition halls, museums and art galleries** A building or part of a building used as an exhibition hall, museum, art gallery or the like, must be provided with— • where the floor area is more than 2000 m2 and not more than 3500 m2— ○ an automatic smoke exhaust system complying with Specification 21; or ○ roof mounted automatic smoke-and-heat vents complying with Specification 22 in a single storey building or the top storey of a multi storey building; or ○ a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17; and • where the floor area is more than 3500 m2, a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 and— ○ an automatic smoke exhaust system complying with Specification 21; or ○ roof mounted automatic smoke-and-heat vents complying with Specification 22 , in a single storey building or the top storey of a multi storey building.	The **Hall** for the purposes of this school is not considered to be an assembly building that is used as an exhibition hall, museum, art gallery or the like and therefore the provisions of this clause do not apply.	**Not Applicable**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
Table E2.2b	E2D19	**Class 9b – assembly buildings: theatres and public halls (not listed in E2D18) including lecture theatres and cinema/auditorium complexes** 1. Unless otherwise described in (2), in a building or part of a building used as an assembly building (not being a night club, discotheque or the like; or an exhibition hall, museum or art gallery) where the floor area of a fire compartment is more than 2000 m2, the fire compartment must be provided with— • an *automatic* smoke exhaust system complying with Specification 21; or • roof mounted *automatic smoke-and-heat vents* complying with Specification 22, in a single *storey* building or the top *storey* of a multi *storey* building; or • if the *floor area* of the *fire compartment* is not more than 5000 m^2 and the building has a *rise in storeys* of not more than 2— ○ an *automatic* smoke detection and alarm system complying with Specification 20; or ○ a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. 2. The following buildings are exempt from the provisions of (1): • Sporting complexes, (including sports halls, gymnasiums, *swimming pools*, ice and roller rinks, and the like) other than indoor sports stadiums with total spectator seating for more than 1000 persons. • Churches and other places used solely for religious worship. • *School* classrooms. 3. A building containing a Class 9b *early childhood centre* must be provided with an *automatic* smoke detection and alarm system complying with Specification 20 throughout the whole building, including any part of another Class.	The **Hall** is less than 2000m^2 therefore the provisions of this clause do not apply.	**Not Applicable**
Table E2.2b	NSW E2D20	**Class 9b assembly buildings: other assembly buildings (not listed in E2D16 to E2D19)** E2D20 does not apply in NSW. This clause is deleted from the BCA in NSW, as requirements for Class 9b – Assembly buildings in NSW are covered under NSW E2D16 to NSW E2D19.	The matter is not applicable &/or not affected by scope.	**Not Applicable**
E2.3	E2D21	**Provision for Special Hazards** Suitable additional provision must be made for smoke hazard management where it is considered that the building incorporates a *special hazard*, including: • special characteristics of the building; or • special function or use of the building; or • special type or quantity of materials stored, displayed or used in a building; or • special mix of classifications within a building or fire compartment, which are not addressed in Tables E2.2a and E2.2b	Should the Fire Services Engineer deem there are special hazards, additional measures may be required.	**Certification by Designer or Specialist**
Part E3 – Lift Installations				
E3.1	E3D2	**Lift Installations** Electrical passenger lifts and electrohydraulic passenger lifts must comply with BCA Spec E3.1	Lift designer to provide details and design certification during detailed design.	**Certification by Designer or Specialist**
Spec E3.1	S24C1-S24C6	**Lift Installations Specification** Lifts under E3.1 must be provided with the features included in BCA Specification E3.1 including; • Where exposed to solar radiation, the lift car must have mechanical ventilation at a rate of one air change per minute or mechanical cooling. • Have an alternative power source for ventilation or mechanical cooling in the event of normal power loss that last for at least 2 hours. • Contain an emergency lighting system that automatically activates upon failure of the normal lighting supply and provides at least 20 lux of lighting for 2 hours on the alarm initiation button. • Contain cooling of the lift shaft whilst the lift is in service that will– ○ ensure that a dry bulb air temperature in the lift shaft does not exceed 40°C ○ if the cooling is by a ventilation system, be provided with an air change rate determined using a temperature rise of no more than 5K.		

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
E3.2	E3D3	**Stretcher Facilities in Lifts** Where serving a level >12m in effective height, the lift must contain a portion within the internal car dimensions that is 2000mm (deep) x 600mm (wide) to allow for stretcher facilities. Note ASA / ESB prefers that *all* lifts can accommodate a stretcher.	Lift designer to provide details and design certification during detailed design.	**Certification by Designer or Specialist**
E3.3	E3D4	**Warning Against the Use of Lifts in Fire** A warning sign must be provided near the lift call buttons stating "DO NOT USE LIFTS IF THERE IS A FIRE".	Lift designer to provide details and design certification during detailed design.	**Certification by Designer or Specialist**
E3.4	E3D5	**Emergency Lifts** Emergency lifts are typically required to buildings >25m in effective height.	N/A	**Not Applicable**
E3.5	E3D6	**Lift Landings** Access and egress from lift landings must comply with BCA Section D. *Refer to DDA report for full Lift Landing Clearances and requirements for accessibility*	*Refer to DDA report for full Lift Landing Clearances and requirements for accessibility*	**Informational**
E3.6, Table E3.6a, Table E3.6b	E3D7	**Passenger lift types and their limitations** In an accessible building, every passenger lift must be one of the following lift types, subject to the limitations (if any) of each lift type: • Electric passenger lifts • Electrohydraulic passenger lifts • Inclined lifts • Stairway platform lifts • Low-rise platform lift • Low-rise, low-speed constant pressure lift • Small-sized, low-speed automatic lift	Lift designer to provide details and design certification during detailed design.	**Certification by Designer or Specialist**
Table E3.6a, Table E3.6b	E3D8	**Accessible features required for passenger lifts** In an accessible building, every passenger lift must be one of the types referred to in Table E3.6a and contain all features specified in the clause.		
E3.7	E3D9	**Fire Service Controls** Fire service controls are required to lifts serving >12m in effective height including a fire service recall switch per BCA E3.9 and lift car fire control per BCA E3.10 – see below.		
E3.8	E3D10	**Residential care buildings** Where residents in a Class 9c residential care building are on levels which do not have direct access to a road or open space, the building must be provided with either at least one lift to accommodate a stretcher in accordance with E3D3(2); or a ramp in accordance with AS 1428.1.		
E3.9	E3D11	**Fire Service Recall Control Switch** Fire service recall controls are required at each lift bank where serving an effective height greater than 12m in accordance with this clause.		
E3.10	E3D12	**Lift Car Fire Service Drive Control Switch** Lift car fire service control switches must be provided in accordance with this clause where serving an effective height greater than 12m.		

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
Part E4 – Visibility in an Emergency, Exit Signs & Warning Systems				
E4.2, E4.4	E4D2, E4D4	**Emergency Lighting** Emergency lighting must generally be provided throughout stories greater than 300m^2, and above all required exit stairs and ramps per AS2293.1.	Emergency lighting is required to be provided. Details and design certification must be provided by the electrical/fire services engineer - during detailed design.	**Certification by Designer or Specialist**
E4.5, E4.6 & E4.8	E4D5, E4D6, E4D8	**Exit & Directional Signs** Illuminated exit signs is required above all exit doors, stairs and final exit points and where the exit isn't readily apparent, directional exit signage is required per AS2293.1.	Exit signage is required to be provided to the designated exits. Details and design certification must be provided by the electrical/fire services engineer - during detailed design.	**Certification by Designer or Specialist**
E4.9	E4D9	**Sound System & Intercom Systems for Emergency Purposes** A sound system and intercom system for emergency purposes complying where applicable with AS 1670.4 must be installed to station buildings with an Effective Height >25m.	A sound system and intercom system for emergency purposes complying with AS 1670.4 is required in the building.	**Certification by Designer or Specialist**
Section F – Health & Amenity				
Part F1 – Surface water management, rising damp and external waterproofing				
F1.1	F1D3	**Stormwater Drainage** Stormwater drainage must comply with AS3500.3	Any new stormwater drainage to comply. Subject to design certification from drainage engineer.	**Certification by Designer or Specialist**
New to 2022	F1D4	**Exposed joints** Exposed joints in the drainage surface on a roof, balcony, podium or similar horizontal surface part of a building must be protected in accordance with Section 2.9 of AS 4654.2, and not be located beneath or run through a planter box, water feature or similar part of the building.	Details and design specification must be provided on plan - during detailed design.	**To be addressed in BCA Specification**
F1.4	F1D5	**External Above Ground Membranes** Waterproof membranes for external above ground use (balconies, terraces etc) must comply with AS4654 Parts 1&2.	Details and design specification must be provided on plan - during detailed design.	**To be addressed in BCA Specification**
F1.9	F1D6	**Damp-proofing** To comply with AS/NZS 2904-Damproof courses and flashings.		
F1.10	F1D7	**Damp-proofing of Floors on Ground** To comply with AS2870 – 2011 Residential slabs and footings.		
F1.12	F1D8	**Sub-Floor Ventilation** Subfloor ventilation openings must be provided to the underside of suspended floors in accordance with this requirement.		
Part F2 – Wet areas and overflow protection				
F1.7(a) and (b)	F2D2	**Wet area construction** Wet areas must comply with AS3740.	Details and design specification must be provided on plan - during detailed design.	**To be addressed in BCA Specification**
F1.7(c), (d) and (e)	F2D3	**Rooms containing urinals** Specific details on the installation of either a slab, stall or hung urinal are discussed within this clause.	Details and design specification must be provided on plan - during detailed design.	**To be addressed in BCA Specification**
F1.11	F2D4	**Floor wastes** In a Class 2 or 3 building or Class 4 part of a building, a bathroom or laundry located at any level above a sole-occupancy unit or public space must have a floor waste	Details and design specification must be provided on plan - during detailed design.	**To be addressed in BCA Specification**
Part F3 – Roof and wall cladding				

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
F1.5	F3D2	**Roof Coverings** Roof covering must comply with the following: • AS2049 - 2002 *Roof Tiles;* and/or • AS/NZS 2908 - 2000 parts 1 and 2 *Cellulose cement products*; and/or • AS/NZS 1562.2 - 1999 *Design and installation of sheet roof and wall cladding –corrugated fibre-reinforced cement* and/or • AS1562.1 - 1992 *Design and installation of sheet roof and wall cladding –metal* and/or • AS/NZS 4256 - 2012 parts 1, 2, 3 and 5 – *Plastic roof and wall cladding material* • AS1562.3 – 1996 *Design and installation of sheet roof and wall cladding –plastics* and/or ASTM D3018-90 – 1994 , Class A ashphalt shingles surfaced with mineral granules	Details and design specification must be provided on plan - during detailed design.	**To be addressed in BCA Specification**
F1.6	F3D3	**Sarking** Must comply with AS/NZS4200-1994 Parts 1 & 2.	Details and design specification must be provided on plan - during detailed design.	**To be addressed in BCA Specification**
F1.13	F3D4	**Glazed Assemblies** *See BCA B1.4*	Details and design specification must be provided on plan - during detailed design.	**To be addressed in BCA Specification**
New for 2022	F3D5	**Wall cladding** External wall cladding must comply with one or a combination of the following: • Masonry, including masonry veneer, unreinforced and reinforced masonry: AS 3700. • Autoclaved aerated concrete: AS 5146.3. • Metal wall cladding: AS 1562.1.	Details and design specification must be provided on plan - during detailed design.	**To be addressed in BCA Specification**
Part F4 – Sanitary & Other Facilities				
F2.1	F4D2	**Facilities in residential buildings** Facilities must be provided to residential buildings as follows: • Class 2, 4 & 9c buildings – kitchen, bath/shower, WC, washbasin & laundry facilities + WC & washbasin for employees where >10 SOU's are provided • Class 3 buildings – bath/shower	The matter is not applicable &/or not affected by scope.	**Not Applicable**
F2.2	F4D3	**Calculation of number of occupants and fixtures** • Number of occupants to be calculated as per BCA D1.13 • Sanitary facilities to be generally provided assuming a 50:50 male/female split • A unisex accessible sanitary facility can be counted once for each sex	Sanitary facilities calculations could not be concluded as the proposed toilet allocation within the Hall and Buildings A-C as plans do not appear to distinguish between staff & students & male or female. Separate sanitary facilities for males & females have not been noted on the plans. **NOTE:** A unisex facility is not strictly permitted as a sanitary compartment under the BCA and would require support via a BCA Performance Solution from the BCA Consultant.	**Further Detail Required**
F2.3	F4D4	**Facilities for Class 3 to 9 Buildings** Facilities to be provided in accordance with BCA F2.3 and Table F2.3, noting: • Separate facilities typically required for males and female (Except accessible toilets which may be unisex) • Separate facilities required for staff and student in schools • Specific kitchen, laundry and bathing facilities required to be provided in Class 9a buildings • Specific facilities are required to be provided in child care centres – including junior toilet pans & basins, kitchen facilities, laundry facilities and nappy changing benches		
F2.4	F4D5	**Accessible sanitary facilities** In a building required to be accessible—		

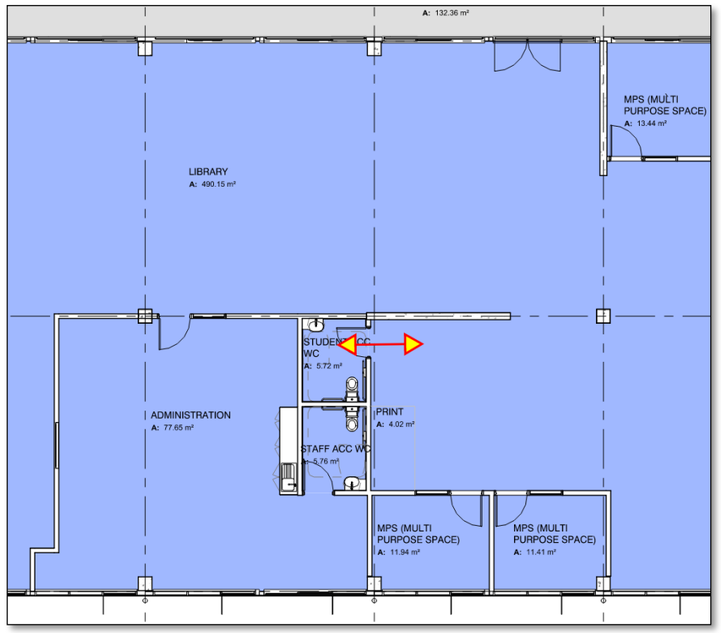
BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		• accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with F4D6; and • accessible unisex showers must be provided in accordance with F4D7; and • at each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, not less than one sanitary compartment suitable for a person with an ambulant disability for use by males and one sanitary compartment suitable for a person with an ambulant disability for use by females, must be provided; and • an accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary products; and • the circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with F4D6 and F4D7 must comply with the requirements of AS 1428.1; and • an accessible unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only; and • where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right handed mirror image facilities must be provided as evenly as possible; and • where male sanitary facilities are provided at a separate location to female sanitary facilities, accessible unisex sanitary facilities are only required at one of those locations; and • an accessible unisex sanitary compartment or an accessible unisex shower need not be provided on a storey or level that is not required by D4D4(f) to be provided with a passenger lift or ramp complying with AS 1428.1.		

Table F2.4a	F4D6	**Accessible unisex sanitary compartments**
		Where required by F4D5(a), the minimum number of accessible unisex sanitary compartments for each class of building is as follows:
		• For a Class 1b building—
		  ○ not less than 1; and
		  ○ where private accessible unisex sanitary compartments are provided for every accessible bedroom, common accessible unisex sanitary compartments need not be provided.
		• For a Class 2 building, where sanitary compartments are provided in common areas, not less than 1.
		• For Class 3 and Class 9c buildings—
		  ○ in every accessible sole-occupancy unit provided with sanitary compartments within the accessible sole-(i) occupancy unit, not less than 1; and
		  ○ at each bank of sanitary compartments containing male and female sanitary compartments provided in common areas, not less than 1.
		• For Class 5, 6, 7, 8 or 9 buildings, where F4D4 requires closet pans—
		  ○ 1 on every storey containing sanitary compartments; and
		  ○ where a storey has more than 1 bank of sanitary compartments containing male and female sanitary compartments, at not less than 50% of those banks.
		• For a Class 10a building, at each bank of sanitary compartments containing male and female sanitary compartments, not less than 1.
			Refer to Separate DDA Report Prepared by MSA for DDA Assessment of the project.	**Informational**

Table F2.4b	F4D7	**Accessible unisex showers**
		Where required by F4D5(b), the minimum number of accessible unisex showers for each class of building is as follows:
		• For a Class 1b building—
		  ○ not less than 1; and
		  ○ where private accessible unisex showers are provided for every accessible bedroom, common accessible unisex showers need not be provided.
		• For a Class 2 building, where showers are provided in common areas, not less than 1.
		• For Class 3 and 9c buildings—
		  ○ in every accessible sole-occupancy unit provided with showers within the accessible sole-occupancy unit,
		  ○ not less than 1; and
			Refer to Separate DDA Report Prepared by MSA for DDA Assessment of the project.	**Informational**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		○ 1 for every 10 showers or part thereof provided in common areas • For Class 5, 6, 7, 8 or 9 buildings, where F4D4 requires 1 or more showers, not less than 1 for every 10 showers or part thereof. • For a Class 10a building, where showers are provided, 1 for every 10 showers or part thereof.		
F2.5	F4D8	**Construction of Sanitary Compartments** 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 • to a height of not less than 1.5 m above the floor if primary school children are the principal users; or • 1.8 m above the floor in all other cases • Does not apply to early childhood centres The entry 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 1.2 m, measured in accordance with Figure F2.5, between the closet pan within the sanitary compartment and the doorway.	Details and design specification must be provided on plan - during detailed design.	**Can Readily Comply - Detail**
F2.6	F4D9	**Interpretation: Urinals and washbasins** • Urinals may be individual stalls or a length of 600mm in a trough • A closet pan may be used in lieu of a urinal • Washbasins may be single basins or part of a trough provided with a tap	The clause is informational only in nature	**Informational**
F2.7	F4D10	**Microbial (legionella) control**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
F2.8	F4D9	**Waste management**	The matter is not applicable &/or not affected by scope.	**Not Applicable**
F2.9	F4D9	**Accessible adult change facilities** One unisex accessible adult change facility must be provided in an accessible part of a— • Class 6 building that is a shopping centre having a design occupancy of not less than 3,500 people, calculated on the basis of the floor area and containing a minimum of 2 sole-occupancy units; and • Class 9b sports venue or the like that— ○ has a design occupancy of not less than 35,000 spectators; or ○ contains a swimming pool that has a perimeter of not less than 70 m and that is required by D4D2 to be accessible; and • museum, art gallery or the like having a design occupancy of not less than 1,500 patrons; and • theatre or the like having a design occupancy of not less than 1,500 patrons; and • passenger use area of an airport terminal building within an airport that accepts domestic and/or international flights that are public transport services as defined in the Disability Standards for Accessible Public Transport 2002.	Refer to Separate DDA Report Prepared by MSA for DDA Assessment of the project.	**Informational**
BCA Part F5 - Room Heights				
F3.1	F5D2	**Height of Rooms & Other Spaces** BCA requires that all public habitable areas must be typically: - 2700mm for public areas and corridors serving a Class 9b assembly building with >100 occupants - 2400mm generally for habitable rooms and corridors serving a Class 9b assembly building with <100 occupants - 2100mm for non-habitable rooms, including bathrooms, storerooms, service rooms - 2000mm above stairs, ramps & landings	Reflected Ceiling Plans have not been provided. Details and design specification must be provided on plan - during detailed design.	**Can Readily Comply - Detail**
BCA Part F6 - Light & Ventilation				

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
F4.1	F6D2	**Provision of natural light** Natural light is required to be provided to habitable/sleeping rooms in Class 2, 3, 4 and 9 buildings.	INFORMATIONAL - the clause is informational only in nature	**Informational**
F4.2	F6D3	**Methods and extent of natural lighting** Natural light must be provided from: • Windows (with an aggregate light transmitting area of not less than 10% of the floor area of the area which they serve);or • Skylights with an aggregate light transmitting area of not less than 3% of the floor area of the area which they serve; or • A combination of both Windows must typically be setback from the boundary/wall of the building or other building on the allotment: • Generally at least 1m (or 3m for sleeping rooms in a Class 9a building) • 50% of the square room of the height of the wall in which the window ins located. I.e. the higher the wall the greater the setback required. *Note in Class 9b childcare centres, at least 50% of the windows must have sill height not greater than 500mm from the floor level.*	Natural light appears to be provided to habitable rooms as required. A scheduled or room areas vs window light transmitting areas has not been reviewed – although course calculations indicated general compliance is achieved.	**Can Readily Comply - Detail**
F4.3	F6D4	**Natural light borrowed from adjoining room** This clause allows natural light in Class 2-4 buildings to be borrowed from an adjoining room. The room providing the borrowed light must be provided with windows which have a light transmitting area of at least 10% (or skylights with an area or 3%) of the combined floor area of both rooms.	Borrowed natural light is not currently relied upon.	**Not Applicable**
F4.4	F6D5	**Artificial Light** Artificial lighting is required to all newly created or affected areas in accordance with BCA F4.4 and AS1680.0.	Lighting to AS1680.0 required to all affected areas. See also DDA Report. Subject to certification from the design engineer.	**Certification by Designer or Specialist**
F4.5	F6D6	**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 light amounting to 5% of the floor area of the room served or mechanical ventilation complying with AS/NZS 1668.2.	Ventilation required to all newly created or affected rooms and spaces in accordance with this clause. The **mechanical consultant** should provide design details and certification confirming compliance with this clause.	**Certification by Designer or Specialist**
F4.6	F6D7	**Natural Ventilation** Natural ventilation must constitute 5% of the floor area of the area serving and open to a suitable outdoor, covered open area or adjacent shared room with suitable natural ventilation openings.	Ventilation required to all newly created or affected rooms and spaces in accordance with this clause. The **mechanical consultant** should provide design details and certification confirming compliance with this clause.	**Certification by Designer or Specialist**
F4.7	F6D8	**Ventilation borrowed from adjoining room** Natural ventilation can be borrowed from an adjoining room providing adjacent room is provided ventilating area that is 5% (or 10% in Class 5-9 buildings) of the both the subject room and the adjoining room combined.	Borrowed natural ventilation is not currently relied upon.	**Certification by Designer or Specialist**
F4.8	F6D9	**Restriction of position of water closets and urinals** Generally sanitary compartments must not open directly into: • A kitchen, pantry, public dining area or restaurant • Dormitory in a Class 3 building • Room / area used for public assembly • Workplace normally occupied by more than 1 person *Note comments in F4.9 below.*	Generally, design appears compliant.	**Can Readily Comply - Detail**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
F4.9	F6D10	**Airlocks** Airlocks can be used between a sanitary compartment and area described in BCA F6D9 above. In a Class 5-9 building: • airlocks must have a floor area of at least 1.1m² and be fitted with self-closing doors. • Alternatively, the sanitary compartment must be provided with mechanical exhaust and the doorway suitably screened from view.	**Sanitary Facilities not screened from view** The sanitary facilities in Building A Level 1 does not appear to be adequately screened from view 	**Further Detail Required**
F4.11	F6D11	**Carparks** Every storey of a carpark (except open deck) must be provided with mechanical ventilation complying with AS1668.2 or natural ventilation complying with AS1668.4.	NA - The matter is not applicable &/or not affected by scope.	**Non Applicable**
F4.12	F6D12	**Kitchen Local Exhaust** Commercial kitchens must have exhaust hoods complying with this clause and AS1668.1 & AS1668.2.	The canteen and some classrooms may be subject to this requirement. Mechanical consultant to provide design details and certification during detailed design.	**Certification by Designer or Specialist**
Part F7 - Sound Transmission & Insulation				
Part F5	F7D2	**Sound Transmission and Insulation** This part applies to Class 2, 3 & 9c buildings and provides the requirements for sound insulation must be provided between sole occupancy units (and between units and other parts of the building).	NA - The matter is not applicable &/or not affected by scope.	**Not Applicable**
SECTION G **ANCILLARY PROVISIONS**				
Part G1 **Minor Structures & Components**				
G1.3	G1D4	**Outdoor play spaces** • Any outdoor play space in a Class 9b early childhood centre must be enclosed on all sides with a barrier which complies with AS 1926.1. • For the above purposes, AS 1926.1 is applied as if there is a swimming pool located outside the outdoor play space, so that the barrier restricts children from exiting the premises without the knowledge of staff in the centre.	NA - The matter is not applicable &/or not affected by scope.	**Not Applicable**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
		• The above requirements do not apply to a wall, including doors and windows, which form part of the Class 9b early childhood centre.		
NSW G1.101	G1D5	**Provision for cleaning windows** A building must provide for a safe manner of cleaning any windows located 3 or more storeys above ground level, including: • the windows can be cleaned wholly from within the building; or • provision is made for the cleaning of the windows by a method complying with the Work Health and Safety Act 2011 and regulations made under that Act.	Details and design specification must be provided on plan - during detailed design.	**Not Applicable**
Part G5 – Construction in Bushfire Prone Areas				
NSW G5.1	NSW G5D2	**Application of Part** The Deemed-to-Satisfy Provisions of this Part apply in a designated bushfire prone area to— (a) a Class 2 or 3 building; or (b) a Class 4 part of a building; or (c) a Class 9 building that is a special fire protection purpose located in an area subject to a Bushfire Attack Level (BAL) not exceeding BAL—12.5, determined in accordance with Planning for Bush Fire Protection; or (d) a Class 10a building or deck immediately adjacent or connected to a building or part of a type in (a), (b) or (c).	Where the project is designated in bushfire prone land, certification must be provided by an accredited bushfire consultant.	**Certification by Designer or Specialist**
NSW G5D4	NSW G5D4	**Protection – Class 9 buildings used as a special fire protection purpose** In a designated bushfire prone area, a Class 2 building, a Class 3 building, a Class 4 part of a building or a Class 9 building that is a special fire protection purpose or a Class 10a building or deck associated with such a building or part, must comply with the following— (a) AS 3959 except— (i) as amended by Planning for Bush Fire Protection; and (ii) for Section 9 Construction for Bushfire Attack Level FZ (BAL-FZ). Buildings subject to BAL-FZ must comply with specific conditions of development consent for construction at this level; or (b) the requirements of (a) above as modified by the development consent following consultation with the NSW Rural Fire Service under section 4.14 of the Environmental Planning and Assessment Act 1979 if required; or (c) the requirements of (a) above as modified by development consent with a bushfire safety authority issued under section 100B of the Rural Fires Act 1997 for the purposes of integrated development.	Where the project is designated in bushfire prone land, certification must be provided by an accredited bushfire consultant.	**Certification by Designer or Specialist**
Part G6 – Occupiable Outdoor Area				
Part G6	Part G6	**Occupiable Outdoor Area - Definition** *Occupiable outdoor area* means a space on a roof, balcony or similar part of a building— • that is open to the sky; and • to which access is provided, other than access only for maintenance; and • that is not open space or directly connected with open space. *Note: An occupiable outdoor area is not a storey for the purposes of Schedule 3 of the NCC/BCA and therefore is not included in the determination of rise in storeys. It is considered a storey for the purposes of other parts detailed below.*	Informational Clause	**Informational**
G6.2	G6D2	**Fire Hazard Properties – Occupiable Outdoor Area** Any lining in an occupiable outdoor area must meet the Fire Hazard Properties requirements of BCA Clause & Specification C1.10 as if it were an internal lining but need not meet the following: • Average specific extinction area. • Smoke-Developed Index. • Smoke development rate. • Smoke growth rate index ($SMOGRA_{RC}$).	Informational Clause	**Informational**

BCA 2019 Cl.	BCA 2022 Cl.	BCA Requirement	Compliance Comment	Status
G6.3	G6D3	**Fire Separation – Occupiable Outdoor Areas** For the purposes of the Deemed-to-Satisfy Provisions of C2.7, C2.8 and C2.9, a reference to a storey includes an occupiable outdoor area, however a fire wall cannot be used to separate an occupiable outdoor area into different fire compartments. That is, where an occupiable outdoor area has a different classification to the area adjacent or above/below it, it must have any building elements meet the higher FRL of any other classification on the same storey, or have a fire rated floor separating any other classification above or below.	Informational clause.	**Informational**
G6.4	G6D4	**Provision for Escape – Occupiable Outdoor Areas** Must comply with the egress requirements contained in BCA Part D1 "Provision for Escape".	These areas have been specifically considered under BCA Part D1 earlier in this report.	**Informational**
G6.5	G6D5	**Construction of Exits – Occupiable Outdoor Areas** Must comply with the exit requirements contained in BCA Part D2 "Construction of Exits"**.**	These areas have been specifically considered under BCA Part D2 earlier in this report.	**Informational**
G6.6	G6D6	**Fire Fighting Equipment – Occupiable Outdoor Areas** For the purposes of BCA Part E1 "Fire Fighting Equipment", occupiable outdoor area is considered a storey so may be required to be provided with fire hydrant, fire hose reel, sprinkler, portable fire extinguisher &/or fire control rooms should BCA Part E1 ordinarily require it based on floor area of a storey or otherwise. See below.	These areas have been specifically considered under BCA Part E1 earlier in this report.	**Informational**
G6.7	G6D7	**Lift Installations – Occupiable Outdoor Areas** For the purposes of Part G3 "Lift Installations", a reference to a storey includes an occupiable outdoor area.	Noted, informational	**Informational**
G6.8	G6D8	**Visibility in an emergency, exit signs and warning systems – Occupiable Outdoor Areas** For the purposes of the Deemed-to-Satisfy Provisions of Part E4, a reference to a storey includes an occupiable outdoor area.	Noted, informational	**Informational**
G6.9	G6D9	**Light & Ventilation – Occupiable Outdoor Areas** A reference to a room in the following BCA Clauses includes an occupiable outdoor area. • F4.4 Artificial lighting • F4.8 Restriction on location of sanitary compartments • F4.9 Airlocks	Noted, informational	**Informational**
Section J – Energy Efficiency				
Section J	Section J	**Energy Efficiency** *BCA Section J* New works must comply with the Energy Efficiency requirements of Section J, including: Part J1 - Energy efficiency performance requirements Part J2 - Energy efficiency Part J3 - Elemental provisions for a sole-occupancy unit of a Class 2 building or a Class 4 part of a building. Part J4 - Building fabric Part J5 – Building sealing Part J6 - Air-conditioning and ventilation Part J7 - Artificial lighting and power Part J8 – Heated water supply and swimming pool and spa pool plant	Any new activity works must comply with BCA Section J for Energy Efficiency. The design should be reviewed & certified by a suitably qualified Energy Efficiency Consultant during the detailed design.	**Certification by Designer or Specialist**

7.0 Conclusion

This report assesses the **Schematic Level Design** for the proposed **New High School in Schofields - Tallawong** against the requirements of the National Construction Code (NCC) / Building Code of Australia (BCA).

The primary purpose of the report is to identify any non-compliances with the deemed-to-satisfy provision of the BCA and provide mitigation measures to best comply with the requirements of the BCA.

Subject to compliance with the mitigation measures of this report, the activity can readily comply with the relevant requirements of the BCA. Mitigation measures have been identified as follows:

- Significant BCA matters, being those with the ability to affect the design have been included in Table 1.0 below and in the Executive Summary.
- A BCA Compliance Schedule suitable for the current level of design is also contained in in Table 6.0 of this report.

Attachment A – Summary of Fire Resistance Levels (Type A)

The following is a summary of the required fire resistance levels of buildings elements for **Type A Construction** (refer to BCA Specification 5 for full requirements & concessions):

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

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

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

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

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

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

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

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

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

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

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

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

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

Building element	FRL (in minutes): *Structural adequacy / Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Other *loadbearing* internal walls, internal beams, trusses and columns	90/–/–	120/–/–	180/–/–	240/–/–
Floors	90/90/90	120/120/120	180/180/180	240/240/240
Roofs	90/60/30	120/60/30	180/60/30	240/90/60

S5C12 Type A fire-resisting construction — concessions for floors

[2019: Spec C1.1: 3.2]

The above should be read in conjunction with the remainder and further concessions contained within Specification 5.

Attachment A – Summary of Fire Resistance Levels (Type B)

The following is a summary of the required fire resistance levels of buildings elements for **Type B Construction** (refer to BCA Specification 5 for full requirements & concessions):

Table S5C21a: Type B construction: FRL of loadbearing parts of external walls

Distance from a *fire-source feature*	FRL (in minutes) *Structural adequacy / Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5 m	90/90/90	120/120/120	180/180/180	240/240/240
1.5 to less than 3 m	90/60/30	120/90/60	180/120/90	240/180/120
3 m to less than 9 m	90/30/30	120/30/30	180/90/60	240/90/60
9 m to less than 18 m	90/30/–	120/30/–	180/60/–	240/60/–
18 m or more	–/–/–	–/–/–	–/–/–	–/–/–

Table S5C21b: Type B construction: FRL of non-loadbearing parts of external walls

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

Table S5C21c: Type B construction: FRL of external columns not incorporated in an external wall

Distance from a *fire-source feature*	FRL (in minutes): *Structural adequacy / Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Loadbearing column — less than 18 m	90/–/–	120/–/–	180/–/–	240/–/–

Distance from a *fire-source feature*	FRL (in minutes): *Structural adequacy / Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Loadbearing column — 18 m or more	–/–/–	–/–/–	–/–/–	–/–/–
Non-*loadbearing* column	–/–/–	–/–/–	–/–/–	–/–/–

Table S5C21d: Type B construction: FRL of common walls and fire walls

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

Table S5C21e: Type B construction: FRL of loadbearing internal walls

Location	FRL (in minutes): *Structural adequacy / Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Fire-resisting lift and stair *shafts*	90/90/90	120/120/120	180/120/120	240/120/120
Bounding *public corridors*, public lobbies and the like	60/60/60	120/–/–	180/–/–	240/–/–
Between or bounding *sole-occupancy units*	60/60/60	120/–/–	180/–/–	240/–/–

Table S5C21f: Type B construction: FRL of non-loadbearing internal walls

Location	FRL (in minutes): *Structural adequacy / Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Fire-resisting lift and stair *shafts*	–/90/90	–/120/120	–/120/120	–/120/120
Bounding *public corridor*, public lobbies and the like	–/60/60	–/–/–	–/–/–	–/–/–
Between or bounding *sole-occupancy units*	–/60/60	–/–/–	–/–/–	–/–/–

Table S5C21g: Type B construction: FRL of other building elements not covered by Tables S5C21a to S5C21f

Building element	FRL (in minutes): *Structural adequacy / Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Other *loadbearing* internal walls and columns	60/–/–	120/–/–	180/–/–	240/–/–
Roofs	–/–/–	–/–/–	–/–/–	–/–/–

The above should be read in conjunction with the remainder and further concessions contained within Specification 5.

Attachment B – Assessed Plans

The following plans have been assessed for the purposes of this report:

Prepared By	Design Stage	Date
DJRD Architects	100% Scmatic Design Review	Generally dated 01/11/2024

DRAWING LIST

0	
STHS-DJRD-00-00-DR-A-0000	COVER & DRAWING LIST
1	
0000 - SITE	
STHS-DJRD-00-00-DR-A-0100	SITE & LOCATION PLAN
STHS-DJRD-00-GF-DR-A-0101	SITE PLAN - STAGE 01
STHS-DJRD-00-00-DR-A-0250	OVERALL LOWER GROUND FLOOR PLAN
STHS-DJRD-00-00-DR-A-0251	OVERALL GROUND FLOOR PLAN
STHS-DJRD-00-01-DR-A-0252	OVERALL LEVEL 1 FLOOR PLAN
STHS-DJRD-00-02-DR-A-0253	OVERALL LEVEL 2 FLOOR PLAN
STHS-DJRD-00-03-DR-A-0254	OVERALL ROOF PLAN
STHS-DJRD-00-00-DR-A-0300	OVERALL SITE WORKS PLAN
STHS-DJRD-00-00-DR-A-0311	SITE WORKS PLAN - SHEET 1
STHS-DJRD-00-00-DR-A-0312	SITE WORKS PLAN - SHEET 2
STHS-DJRD-00-00-DR-A-0313	SITE WORKS PLAN - SHEET 3
STHS-DJRD-00-00-DR-A-0314	SITE WORKS PLAN - SHEET 4
STHS-DJRD-00-00-DR-A-0316	SITE WORKS PLAN - SHEET 6
STHS-DJRD-00-00-DR-A-0317	SITE WORKS PLAN - SHEET 7
STHS-DJRD-00-00-DR-A-0319	SITE WORKS PLAN - SHEET 9
STHS-DJRD-00-00-DR-A-0320	SITE WORKS PLAN - SHEET 10
STHS-DJRD-00-00-DR-A-0321	SITE WORKS PLAN - SHEET 11
STHS-DJRD-00-00-DR-A-0322	SITE WORKS PLAN - SHEET 12
STHS-DJRD-00-00-DR-A-0402	BUILDING A & C - LINK BRIDGE
STHS-DJRD-00-00-DR-A-0403	BUILDING A & B - LINK BRIDGE
20	
1000 - GA PLANS	
STHS-DJRD-B00A-GF-DR-A-1010	BUILDING A - GROUND FLOOR PLAN
STHS-DJRD-B00A-L1-DR-A-1011	BUILDING A - LEVEL 1 FLOOR PLAN
STHS-DJRD-B00A-L2-DR-A-1012	BUILDING A - LEVEL 2 FLOOR PLAN
STHS-DJRD-B00A-RF-DR-A-1013	BUILDING A - ROOF PLAN
STHS-DJRD-B00B-GF-DR-A-1020	BUILDING B - GROUND FLOOR PLAN
STHS-DJRD-B00B-L1-DR-A-1021	BUILDING B - LEVEL 1 FLOOR PLAN
STHS-DJRD-B00B-L2-DR-A-1022	BUILDING B - LEVEL 2 FLOOR PLAN
STHS-DJRD-B00B-RF-DR-A-1023	BUILDING B - ROOF PLAN
STHS-DJRD-B00C-GF-DR-A-1030	BUILDING C - GROUND FLOOR PLAN
STHS-DJRD-B00C-L1-DR-A-1031	BUILDING C - LEVEL 1 FLOOR PLAN
STHS-DJRD-B00C-L2-DR-A-1032	BUILDING C - LEVEL 2 FLOOR PLAN
STHS-DJRD-B00C-RF-DR-A-1033	BUILDING C - ROOF PLAN
STHS-DJRD-B00D-GF-DR-A-1040	BUILDING D - GROUND FLOOR PLAN
STHS-DJRD-B00D-GF-DR-A-1041	BUILDING D - LEVEL 1 FLOOR PLAN
STHS-DJRD-B00D-RF-DR-A-1042	BUILDING D - ROOF PLAN
15	
1300 - FFE PLANS	
STHS-DJRD-B00A-GF-DR-A-1310	BUILDING A - GROUND FLOOR FFE PLAN
STHS-DJRD-B00B-GF-DR-A-1310	BUILDING B - GROUND FLOOR FFE PLAN
STHS-DJRD-B00C-GF-DR-A-1310	BUILDING C - GROUND FLOOR FFE PLAN
STHS-DJRD-B00A-L1-DR-A-1311	BUILDING A - LEVEL 1 FFE PLAN
STHS-DJRD-B00B-L1-DR-A-1311	BUILDING B - LEVEL 1 FFE PLAN
STHS-DJRD-B00C-L1-DR-A-1311	BUILDING C - LEVEL 1 FFE PLAN
STHS-DJRD-B00A-L2-DR-A-1312	BUILDING A - LEVEL 2 FFE PLAN
STHS-DJRD-B00B-L2-DR-A-1312	BUILDING B - LEVEL 2 FFE PLAN
STHS-DJRD-B00C-L2-DR-A-1312	BUILDING C - LEVEL 2 FFE PLAN
STHS-DJRD-B00D-GF-DR-A-1340	BUILDING D - GROUND FLOOR FF&E PLAN
STHS-DJRD-B00D-GF-DR-A-1341	BUILDING D - LEVEL 1 FLOOR FF&E PLAN
11	
1400 - FINISHES PLANS	
STHS-DJRD-B00A-GF-DR-A-1410	BUILDING A - GROUND FLOOR FINISHES PLAN
STHS-DJRD-B00A-L1-DR-A-1411	BUILDING A - LEVEL 1 FINISHES PLAN
STHS-DJRD-B00A-L2-DR-A-1412	BUILDING A - LEVEL 2 FINISHES PLAN
STHS-DJRD-B00B-GF-DR-A-1420	BUILDING B - GROUND FLOOR FINISHES PLAN
STHS-DJRD-B00B-L1-DR-A-1421	BUILDING B - LEVEL 1 FINISHES PLAN
STHS-DJRD-B00B-L2-DR-A-1422	BUILDING B - LEVEL 2 FINISHES PLAN
STHS-DJRD-B00C-GF-DR-A-1430	BUILDING C - GROUND FLOOR FINISHES PLAN
STHS-DJRD-B00C-L1-DR-A-1431	BUILDING C - LEVEL 1 FINISHES PLAN
STHS-DJRD-B00C-L2-DR-A-1432	BUILDING C - LEVEL 2 FINISHES PLAN
STHS-DJRD-B00D-GF-DR-A-1440	BUILDING D - GROUND FLOOR FINISHES PLAN
STHS-DJRD-B00D-GF-DR-A-1441	BUILDING D - LEVEL 1 FLOOR FINISHES PLAN
11	
2000 - RCPs	
STHS-DJRD-B00A-GF-DR-A-2010	BUILDING A - GROUND FLOOR REFLECTED CEILING PLAN
STHS-DJRD-B00A-L1-DR-A-2011	BUILDING A - LEVEL 1 REFLECTED CEILING PLAN
STHS-DJRD-B00A-L2-DR-A-2012	BUILDING A - LEVEL 2 REFLECTED CEILING PLAN
STHS-DJRD-B00B-GF-DR-A-2020	BUILDING B - GROUND FLOOR REFLECTED CEILING PLAN
STHS-DJRD-B00B-L1-DR-A-2021	BUILDING B - LEVEL 1 REFLECTED CEILING PLAN
STHS-DJRD-B00B-L2-DR-A-2022	BUILDING B - LEVEL 2 REFLECTED CEILING PLAN
STHS-DJRD-B00C-GF-DR-A-2030	BUILDING C - GROUND FLOOR REFLECTED CEILING PLAN
STHS-DJRD-B00C-L1-DR-A-2031	BUILDING C - LEVEL 1 REFLECTED CEILING PLAN
STHS-DJRD-B00C-L2-DR-A-2032	BUILDING C - LEVEL 2 REFLECTED CEILING PLAN
STHS-DJRD-B00D-GF-DR-A-2040	BUILDING D - GROUND FLOOR REFLECTED CEILING PLAN
STHS-DJRD-B00D-GF-DR-A-2041	BUILDING D - LEVEL 1 REFLECTED CEILING PLAN
11	
3000 - ELEVATIONS	
STHS-DJRD-B00A-ZZ-DR-A-3011	BUILDING A - ELEVATIONS - SHEET 1
STHS-DJRD-B00A-ZZ-DR-A-3012	BUILDING A - ELEVATIONS - SHEET 2
STHS-DJRD-B00A-ZZ-DR-A-3013	BUILDING A - ELEVATIONS - SHEET 3
STHS-DJRD-B00B-ZZ-DR-A-3021	BUILDING B - ELEVATIONS - SHEET 1
STHS-DJRD-B00B-ZZ-DR-A-3022	BUILDING B - ELEVATIONS - SHEET 2
STHS-DJRD-B00B-ZZ-DR-A-3023	BUILDING B - ELEVATIONS - SHEET 3
STHS-DJRD-B00C-ZZ-DR-A-3031	BUILDING C - ELEVATIONS - SHEET 1
STHS-DJRD-B00C-ZZ-DR-A-3032	BUILDING C - ELEVATIONS - SHEET 2
STHS-DJRD-B00C-ZZ-DR-A-3033	BUILDING C - ELEVATIONS - SHEET 3
STHS-DJRD-B00D-ZZ-DR-A-3401	BUILDING D - ELEVATIONS - SHEET 1
STHS-DJRD-B00D-ZZ-DR-A-3402	BUILDING D - ELEVATIONS - SHEET 2
STHS-DJRD-B00D-ZZ-DR-A-3403	BUILDING D - INTERNAL ELEVATIONS - SHEET 3
12	
4000 - SECTIONS	
STHS-DJRD-B00A-ZZ-DR-A-4011	BUILDING A - SECTIONS - SHEET 1
STHS-DJRD-B00A-ZZ-DR-A-4012	BUILDING A - SECTIONS - SHEET 2
STHS-DJRD-B00B-ZZ-DR-A-4021	BUILDING B - SECTIONS - SHEET 1
STHS-DJRD-B00B-ZZ-DR-A-4022	BUILDING B - SECTIONS - SHEET 1
STHS-DJRD-B00C-ZZ-DR-A-4031	BUILDING C - SECTIONS - SHEET 1
STHS-DJRD-B00C-ZZ-DR-A-4032	BUILDING C - SECTIONS - SHEET 2
STHS-DJRD-B00D-ZZ-DR-A-4401	BUILDING D - SECTIONS - SHEET 1
STHS-DJRD-B00D-ZZ-DR-A-4402	BUILDING D - SECTIONS - SHEET 2
8	
6000 - STAIR & LIFT DETAILS	
STHS-DJRD-00-ZZ-DR-A-6001	TYPICAL STAIR DESIGN - PLANS
STHS-DJRD-00-ZZ-DR-A-6002	TYPICAL STAIR DESIGN - ELEVATIONS
STHS-DJRD-00-ZZ-DR-A-6003	TYPICAL STAIR DESIGN - ELEVATIONS
STHS-DJRD-00-ZZ-DR-A-6004	TYPICAL STAIR DESIGN - SECTIONS
STHS-DJRD-00-ZZ-DR-A-6101	TYPICAL LIFT DESIGN - PLANS
STHS-DJRD-00-ZZ-DR-A-6102	TYPICAL LIFT DESIGN - ELEVATIONS
STHS-DJRD-00-ZZ-DR-A-6103	TYPICAL LIFT DESIGN - SECTIONS
7	