

4 May 2018

Our Reference: **J17-073**

Trustees of the Roman Catholic Church  
Diocese of Wollongong  
C/- Alleanza Architecture



Attention: Brendan Clarke

**RE: National Construction Code Building Code of Australia Report**

**PTY: Proposed GLA Facilities at Magdalene Catholic High School  
Smeaton Grange Road, Narellan**

Dear Brendan,

Please find the National Construction Code - Building Code of Australia Capability Report for the proposed new GLA buildings at the above-mentioned property.

Do not hesitate to contact the underside should you wish to discuss any aspect of the report.

Yours faithfully,

A handwritten signature in dark ink, appearing to read "R. Valades".

Robert Valades  
**Benchmark Building Certifiers**

***Encl.***

- BUILDING APPROVALS
- BASIX / SECTION J ENERGY RATINGS
- BUILDING / FIRE SAFETY CONSULTANTS
- TOWN PLANNING
- ACCREDITED CERTIFIERS
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BUILDING CERTIFIERS

# **BUILDING CODE OF AUSTRALIA COMPLIANCE REPORT**

**PREPARED FOR:**

***“Catholic Education for the Diocese of Wollongong”***

**BY**

***Benchmark Building Certifiers***

**REGARDING**

***“Magdalene Catholic School”  
Smeaton Grange Road, Narellan***

**4 May 2018**

**Reference No.: J17-073**

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Version	Date	Description
A	1 March 2018	Draft report for client review
		<div> <div>Prepared by <u><i>RV</i></u></div> <div>Robert Valades (MAIBS)</div> </div> <div> <div>Checked by <u><i>AK</i></u></div> <div>Anthony Krilich (MAIBS)</div> </div>
B	4 May 2018	Final report
		<div> <div>Prepared by <u><i>RV</i></u></div> <div>Robert Valades (MAIBS)</div> </div> <div> <div>Checked by <u><i>AK</i></u></div> <div>Anthony Krilich (MAIBS)</div> </div>

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# PART 1

## BUILDING DESCRIPTION

The building description refers to the proposed building works at the property only.

<b><i>Address</i></b>	Magdalene Catholic School Smeaton Grange Rd, Narellan
<b><i>Classification</i></b>	Class 9b
<b><i>Rise-in-Storeys</i></b>	2 storey - School Building
<b><i>Floor Area (new work only)</i></b>	2,395 m <sup>2</sup>
<b><i>Floor area (total fire compartment)</i></b>	4,420 m <sup>2</sup> (based on the combined floor area of the new building additions and existing adjoining school block).
<b><i>Required Type of Construction</i></b>	Type B Construction
<b><i>Building Design Basis</i></b>	Assessment based on BCA2016
<b><i>Effective Height</i></b>	<25 m and < 12 m – Section E
<b><i>Section B 'Structure'</i></b>	Noted for report purposes.
<b><i>Section C 'Fire Resistance'</i></b>	Assessed
<b><i>Section D 'Access and Egress'</i></b>	Assessed
<b><i>Section E 'Services and Equipment'</i></b>	Assessed
<b><i>Section F 'Health and Amenity'</i></b>	Assessed
<b><i>Section G 'Ancillary Provisions'</i></b>	Assessed
<b><i>Section H 'Special Use Buildings'</i></b>	Noted, but not applicable.
<b><i>Section I 'Maintenance'</i></b>	Noted for report purposes.
<b><i>Section J 'Energy Efficiency'</i></b>	Noted for report purposes.

# PART 2

## BASIS OF ASSESSMENT

### 2.0 BASIS OF ASSESSMENT

#### 2.1 General

This report relates to the capability of the proposed development with regard to the relevant provisions of the BCA2016. The development involves new two storey school additions at the rear of the existing school campus. The additions will be constructed adjoining the existing school blocks A1, A2, A3 and F. An awning will be constructed in the space between the existing and new building. A link way will be provided between the existing blocks A1 to F also. The intention is to provide covered access between school buildings as part of the building additions and renovations.

#### 2.2 Purpose of this Report

This report has been prepared for the Catholic Education Office Diocese of Wollongong and Alleanza Architects. This report assesses the capability compliance with the provisions of the BCA2016. The report will be submitted to Council with the development application.

#### 2.3 Exclusions

This report should not be construed to infer that an assessment of compliance with the following has been undertaken:

- Structural adequacy and/or integrity of members or design of components,
- Quality of construction as required by the NSW Office of Fair Trading,
- The individual requirements of other service providers & local authorities,
- Health related matters and associated legislation.

#### 2.4 Building Code of Australia

This report is based on the Building Code of Australia 2016–Volume One, adopted 1 May 2016.

The report will identify any non-compliance with the deemed-to-satisfy provisions of the Building Code of Australia.

#### 2.5 Building Description

The proposed development for the school buildings is best described as follows:

External Walls:	Brick veneer and light weight cladding material
Internal Walls:	Brick and framed plasterboard walls
Structural Framework:	Concrete structural columns and beams (to be confirmed).
Floors:	On ground concrete slab floor Suspended concrete slabs
Roof:	Metal deck roof

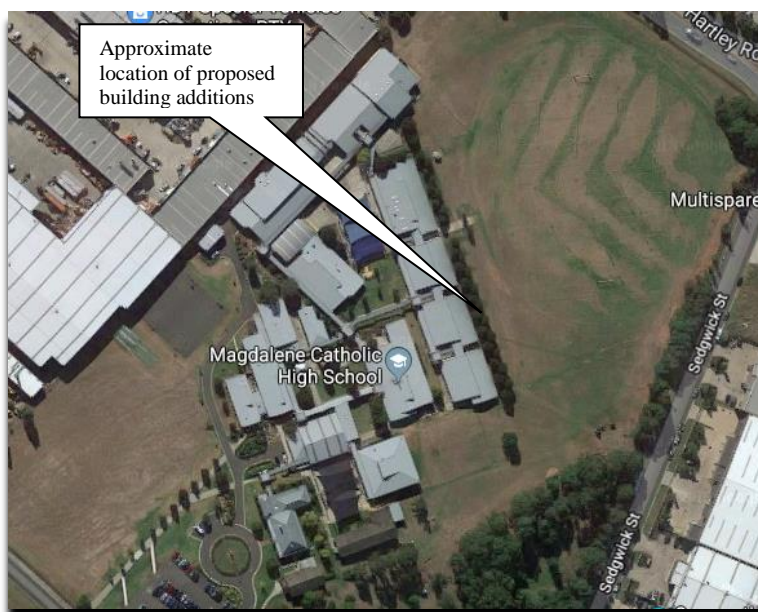
## 2.6 Documents Relied Upon

The report is based on the following plans by Alleanza Architecture Project Number 16116;

<u>Description</u>	<u>Drawing No./Issue</u>	<u>Date</u>
▪ Site Analysis	DA00/A	12.12.2017
▪ Overall Site Plan	DA01/B	07.02.2018
▪ Part Site Plan	DA02/E	02.05.2018
▪ Proposed Lower Ground Floor Plan	DA03/G	07.02.2018
▪ Proposed Ground Floor Plan	DA04/H	02.05.2018
▪ Proposed Roof Plan	DA05/F	07.02.2018
▪ Elevations Sheet 1	DA06/E	07.02.2018
▪ Elevation Sheet 2	DA07/E	07.02.2018
▪ Sections	DA008/E	07.02.2018
▪ Shadow Diagrams	DA10/B	07.02.2018
▪ Perspectives	DA11/A	12.12.2017

## 2.7 Location

The property is located between Smeaton Grange Rd, Sedgwick Street and Hartley Rd, Narellan. It is in a locale comprising of a recently developed industrial and commercial land developed consistent with the provisions of the BCA.



Aerial view of Magdalene Catholic School

BCA Report – Magdalene Catholic School  
Smeaton Grange Rd, Narellan  
Benchmark Building Certifiers

Source: Google Maps



## PART 3

### BCA 2016 – VOLUME ONE Class 2 to 9 Buildings

#### 3.1 BUILDING CODE OF AUSTRALIA

##### FIRE SOURCE FEATURES

North:	–	Commercial Property
East:	–	School Oval and Hartley Rd
South:	–	School Property and Sedgwick Street
West:	–	School Property and Smeaton Grange Road

A 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”.

##### RISE-IN-STOREYS

Two storeys

##### FLOOR AREA

2,395 m<sup>2</sup> *Floor Area (new work only)*  
4,420 m<sup>2</sup> *Floor area (total fire compartment)*  
(Based on the combined floor area of the new building additions and existing adjoining school block).

##### EFFECTIVE HEIGHT

< 25 metres and <12 metres

##### CLASSIFICATION

Class 9b – an ‘*assembly building*’ (school).

#### 3.2 DEEMED-TO-SATISFY COMPLIANCE ISSUES

##### SECTION B – STRUCTURE

BCA Clause	Title	Assessment and Comment	Status
B1.1 & B1.2	<b>Resistance to actions / Determination of individual actions</b>	Structural details, specifications and engineering details are to be checked by the certifying authority for compliance.	<b>For Information Purposes</b>
B1.3	<b>Loads</b>	Structural details, specifications and engineering details are required to comply with earthquake loads in accordance with AS1170.4 (1993).  Details confirming compliance are to be checked by the certifying authority.	<b>For Information Purposes</b>

BCA Clause	Title	Assessment and Comment	Status
B1.4	<b>Determination of structural resistance of materials and forms of construction</b>	<p>The certifying authority is required to check the following forms of construction and that they will comply with applicable Australian Standards, including:</p> <ul style="list-style-type: none"> <li>▪ <i>Concrete construction</i> – Footings/concrete slab system details required.</li> <li>▪ <i>Masonry construction</i> – Face brick wall construction details required.</li> <li>▪ <i>Steel construction</i> – Steel columns, and steel beam details required.</li> <li>▪ <i>Timber construction</i> – Wall and roof frame construction details required (if relevant).</li> <li>▪ <i>Glazed assemblies</i> – Windows and glazed doors details required. Existing glazed assemblies should be checked.</li> <li>▪ <i>Termite risk management</i> – Under slab and perimeter treatment methods details required.</li> <li>▪ <i>Roof construction</i> – Metal roofing details are required.</li> </ul> <p>Details confirming compliance are to be checked by the certifying authority.</p>	<b>For Information Purposes</b>
B1.5	<b>Structural software</b>	<p>(a) Structural software used in computer aided design of a building or structure, that uses design criteria based on the <i>Deemed-to-Satisfy Provisions</i> of the BCA, including its referenced documents, for the design of steel or timber trussed roof and floor systems and framed building systems, must comply with the ABCB Protocol for Structural Software.</p> <p>(b) Structural software referred to in (a) can only be used for buildings within the following geometrical limits:</p> <ul style="list-style-type: none"> <li>(i) The distance from ground level to the underside of eaves must not exceed 6 m.</li> <li>(ii) The distance from ground level to the highest point of the roof, neglecting chimneys must not exceed 8.5 m.</li> <li>(iii) The building width including roofed verandahs, excluding eaves, must not exceed 16 m.</li> <li>(iv) The building length must not exceed five times the building width.</li> <li>(v) The roof pitch must not exceed 35 degrees.</li> </ul> <p>(c) The requirements of (a) do not apply to design software for individual frame members such as electronic tables similar to those provided in—</p> <ul style="list-style-type: none"> <li>(i) AS 1684; or</li> <li>(ii) NASH Standard Residential and Low-Rise Steel Framing Part 2.</li> </ul>	<b>For Information Purposes</b>
B1.6	<b>Construction of buildings in flood hazard areas</b>	Not applicable as the building is of Class 9b classification.	<b>Not Applicable</b>

## **SECTION C – FIRE RESISTANCE**

### **Part C1 – Fire Resistance and Stability**

BCA Clause	Title	Assessment and Comment	Status												
C1.1	Type of construction required and Specification C1.1	<p>In determining the requirements for construction, the definition of ‘fire-source feature’ needs to noted:</p> <p><b>Fire-source feature means-</b></p> <p>(a) the far boundary of a road adjoining the allotment; or</p> <p>(b) a side or rear boundary of the allotment; or</p> <p>(c) an external wall of another building on the allotment which is not a Class 10 building.</p> <p>The fire-source features affecting the proposed development are as follows:</p> <table><tr><td>North:</td><td>–</td><td>Commercial Property</td></tr><tr><td>East:</td><td>–</td><td>School Oval and Hartley Rd</td></tr><tr><td>South:</td><td>–</td><td>School Property &amp; Sedgwick Street</td></tr><tr><td>West:</td><td>–</td><td>School Property &amp; Smeaton Grange Road</td></tr></table> <p><b><u>Comment:</u></b></p> <p>The development being two storeys requires Type B construction.</p> <p>In this regard, the external wall (where the fire source feature is less than 18 m to the building) such as the property boundary, internal loadbearing walls, loadbearing columns, floors and the like are required to achieve an FRL of not less than 2hrs. Specification C1.1 in Appendix A provides specific details of the required fire resistance levels of the building elements.</p> <p>The property boundaries are greater than 18 m from the building. The adjoining Block A GLA’s is considered part of the one fire source feature. Block B GLA’s are located about 10 m to the Block A GLA’s.</p> <p>Details confirming compliance are to be checked by the certifying authority.</p>	North:	–	Commercial Property	East:	–	School Oval and Hartley Rd	South:	–	School Property & Sedgwick Street	West:	–	School Property & Smeaton Grange Road	Compliance subject to Certification
North:	–	Commercial Property													
East:	–	School Oval and Hartley Rd													
South:	–	School Property & Sedgwick Street													
West:	–	School Property & Smeaton Grange Road													
C1.2	Rise-in-storeys	The maximum rise-in-storeys is two (2).	For Information												
C1.3	Multiple classification	No multiple classifications apply. Classification is suitable.	Not Applicable												
C1.4	Mixed classification	No mixed classifications apply. Classification is suitable.	Not Applicable												
C1.5	Two storey Class 2, 3& 9c buildings	Not applicable – The building is of Class 9b classification.	Not Applicable												
C1.6	Class 4 parts of building	Not Applicable – The building is of Class 5 and 9b classification.	Not Applicable												
C1.7	Open spectator stands and indoor sports stadiums	Not applicable – The building is not an open spectator stand of indoor sports stadium.	Not Applicable												
C1.8	Lightweight construction	Not applicable – No lightweight construction is not shown as proposed works and therefore not required to have an FRL for the proposed building.	Not Applicable												

BCA Clause	Title	Assessment and Comment	Status
C1.10	Fire hazard properties	Sarking type materials are to have a Flammability Index of not more than 5 (for example, roof insulation). Other materials are to have a Spread of Flame Index of not more than 9, and Smoke Developed Index not more than 8 (where Spread of Flame is more than 5).  <b>Comment:</b> Certification must be submitted to the Principal Certifying Authority at the completion of construction works.	Compliance subject to Certification
C1.11	Performance of external walls in fire	Not applicable – No concrete panel construction is proposed.	Not Applicable
C1.12	Non-combustible materials	The requirements of this clause are noted.	For Information Purposes

## **Part C2 – Compartmentation & Separation**

FIRECOMPARTMENT SIZE		<i>Type A</i>	Type B	<i>Type C</i>
Class 5 or 9b	max. floor area max. volume	<del>8,000 sq.m.</del> <del>48,000 cu.m.</del>	5,500 sq.m. 33,000 cu.m.	<del>3,000 sq.m.</del> <del>18,000 cu.m.</del>
Class 6,7,8 or 9a (except for patient care areas)	max. floor area max. volume	<del>5,000 sq.m.</del> <del>30,000 cu.m.</del>	<del>3,500 sq.m.</del> <del>21,000 cu.m.</del>	<del>2,000 sq.m.</del> <del>12,000 cu.m.</del>

BCA Clause	Title	Assessment and Comment	Status
C2.2	General floor area and volume limitations	The maximum permissible floor area for the building as Type B Construction is 5,500 m <sup>2</sup> and a volume of 33,000 m <sup>3</sup> .  <b>Comment:</b> The proposed new building additions does not exceed the limitations for Type B construction.	Complies
C2.3	Large isolated buildings	The provisions of this clause are considered to not be applicable.	Not Applicable
C2.4	Requirements for open space and vehicular access	The provisions of this clause are not applicable.	Not Applicable
C2.5	Class 9a and 9c buildings	The provisions of this clause are not applicable.	Not Applicable
C2.6	Vertical separation of openings in external walls	The provisions of this clause are not applicable.	Not Applicable
C2.7	Separation of fire walls	The provisions of this clause are not applicable.	Not Applicable
C2.8	Separation of classifications in same storey	The provisions of this clause are not applicable.	Not Applicable
C2.9	Separation of classifications in different storeys	The provisions of this clause are not applicable.	Not Applicable
C2.10	Separation of lift shafts	The provisions of this clause are not applicable.	Not Applicable

BCA Clause	Title	Assessment and Comment	Status
C2.11	Stairways and lifts in one shaft	The provisions of this clause are not applicable.	Not Applicable
C2.12	Separation of equipment	The provisions of this clause are not applicable.	Not Applicable
C2.13	Electricity supply system	Where a main switchboard is to be located within the building which sustains emergency equipment operating in the emergency mode, it must be separated from any other part of the building by construction having an FRL of not less than 120/120/120, and have any doorway in that construction protected with a self-closing fire door having an FRL of not less than –/120/30. <b>Comment:</b> The certifying authority should therefore check this requirement prior to approval, if a switchboard is proposed. At this stage a main switch board doesn't appear to be proposed in the new building work.	Compliance subject to Certification
C2.14	Public corridors in Class 2 & 3 building	The provisions of this clause are not applicable.	Not Applicable

### **Part C3 –Protection of Openings**

BCA Clause	Title	Assessment and Comment	Status
C3.2	Protection of openings in external walls	Openings in external walls required to have an FRL must be protected under C3.4 if – (i) <3m from a side or rear boundary of the allotment; or (ii) < 6m from the far boundary of a road adjoining the allotment, if not located in a storey at or near ground level; or (iii) < 6m from another building on the allotment that is not Class 10.	Complies
C3.3	External walls of different compartments	The provisions of this clause are not applicable.	Not Applicable
C3.4	Acceptable methods of protection	The provisions of this clause are not applicable.	Not Applicable
C3.5	Doors in fire walls	The provisions of this clause are not applicable.	Not Applicable
C3.6	Sliding fire doors	The provisions of this clause are not applicable.	Not Applicable
C3.7	Protection of doorways in horizontal exists	The provisions of this clause are not applicable.	Not Applicable
C3.8	Openings in fire-isolated exits	The provisions of this clause are not applicable.	Not Applicable
C3.9	Service penetrations in fire isolated exits	The provisions of this clause are not applicable.	Not Applicable
C3.10	Openings in fire-isolated lift shafts	The provisions of this clause are not applicable.	Not Applicable

BCA Clause	Title	Assessment and Comment	Status
C3.11	<b>Bounding construction: Class 2, 3 &amp; 4 buildings</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>
C3.12	<b>Openings in floors and ceilings for services</b>	<p>Where a service passes through a floor that is required to have an FRL with respect to integrity and insulation. A service must be protected in a building of Type B construction, by a shaft that will not reduce the fire performance of the building elements it penetrates; or in accordance with C3.15.</p> <p>Where a service passes through a floor which is required to be protected by a fire-protective covering, the penetration must not reduce the fire performance of the covering.</p> <p><b><u>Comment:</u></b> Details confirming compliance are to be checked by the certifying authority with the application of a construction certificate.</p>	<b>Compliance subject to Certification</b>
C3.13	<b>Openings in shafts</b>	The provisions of this clause are not applicable is it not Type A Construction.	<b>Not Applicable</b>
C3.15	<b>Openings for service installations</b>	<p>Where an electrical, electronic, plumbing, mechanical ventilation, air-conditioning or other service penetrates a building element (other than an external wall or roof) that is required to have an FRL with respect to integrity or insulation or a resistance to the incipient spread of fire, that installation must comply AS1668 with regard to mechanical ventilation system or Specification C3.15 for other services as stated in the clause.</p> <p><b><u>Comment:</u></b> Any openings in walls required to have an FRL shall comply with the requirements of this clause.</p>	<b>Compliance subject to Certification</b>
C3.16	<b>Construction joints</b>	<p>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 to achieve the required FRL.</p> <p><b><u>Comment:</u></b> All new building work must be constructed to comply with this requirement.</p>	<b>Compliance subject to Certification</b>
C3.17	<b>Columns protected with lightweight construction to achieve an FRL</b>	<p>A column protected by lightweight construction to achieve an FRL which passes through a building element that is required to have an FRL or a resistance to the incipient spread of fire, must be installed using a method and materials identical with a prototype assembly of the construction which has achieved the required FRL or resistance to the incipient spread of fire.</p> <p><b><u>Comment:</u></b> The plans do not show insufficient details of any columns etc that may need protection. Details are type of protection of the columns are to be checked by the certifying authority. It is likely that some columns will require protection from fire.</p>	<b>Compliance subject to Certification</b>

## **SECTION D – ACCESS AND EGRESS**

### **Part D1 - Access and Egress**

<b>BCA Clause</b>	<b>Title</b>	<b>Assessment and Comment</b>	<b>Status</b>
D1.2	<b>Number of exits required</b>	<p>Two exits are required from each storey in a school with a rise-in-storeys of more 2 or more and in any storey, which accommodates more than 50 persons.</p> <p><b><u>Comment:</u></b> All buildings are provided with two exits at each floor level and therefore complies.</p>	<b>Complies</b>
D1.3	<b>When fire-isolated stairways and ramps are required</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>
D1.4	<b>Exit travel distance</b>	<p>The travel distance to an exit complies - at least two exits in opposing directions are provided in each storey.</p> <p>No point on a floor must be more than 20 m from an exit, or a point from which travel in different directions to 2 exits is available, in which case the maximum distance to one of those exits must not exceed 40 m.</p> <p><b><u>Comment:</u></b> Satisfactory – Egress is provided to the building, where no point on the floor is more than 20m from an exit, or at a point of choice to two exits, in which case the maximum distance does not exceed 40m.</p> <p>It is noted that the exit in this case is considered to be the point of which the discharge to the exit is to open space via the “covered circulation space”.</p>	<b>Complies</b>
D1.5	<b>Distance between alternative exits</b>	<p>Exits that are required as alternative means of egress must be</p> <ul style="list-style-type: none"> <li>(a) distributed as uniformly as practicable within or around the storey served and in positions where unobstructed access to at least 2 exits is readily available from all points on the floor including lift lobby areas; and</li> <li>(b) not less than 9m apart; and</li> <li>(c) not more than 45m apart;</li> <li>(d) located so that alternative paths of travel do not converge such that they become less than 6m apart.</li> </ul> <p><b><u>Comment:</u></b> Exits are provided uniformly and distributed in opposing directions, not less than 9m apart and not more than 60 m apart.</p>	<b>Complies</b>
D1.6	<b>Dimensions of exits and paths of travel to exits</b>	<p>The unobstructed width of each exit or path of travel to an exit must be not less than 1m. If the storey, mezzanine or open spectator stand accommodates more than 100 persons but not more than 200 persons, the aggregate unobstructed width, except for doorways, must be not less than 1 m plus 250 mm for each 25 persons (or part) in excess of 100.</p> <p>If the storey, mezzanine or open spectator stand accommodates more than 200 persons, the aggregate unobstructed width, except for doorways, must be increased to 2 m plus 500 mm for every 60 persons (or part) in excess of 200 persons. If egress involves a change in floor level by a stairway or ramp with a gradient steeper than 1 in 12; or in any other case, 2 m plus 500 mm for every 75 persons (or part) in excess of 200.</p> <p><b><u>Comment:</u></b> The total population of each storey should be checked and determined for compliance. This clause should be checked against Clause D1.10 and D2.9</p>	<b>Complies</b>

BCA Clause	Title	Assessment and Comment	Status
D1.7	Travel via fire-isolated exits	The provisions of this clause are not applicable.	Not Applicable
D1.8	External stairways or ramp in lieu of fire-isolated exits	The provisions of this clause are not applicable.	Not Applicable
D1.9	Travel by non-fire-isolated stair or ramps	<p>A non-fire-isolated stairway or non-fire-isolated ramp serving as a required exit must provide a continuous means of travel by its own flights and landings from every storey served to the level at which egress to a road or open space is provided.</p> <p>In a Class 5, 6, 7, 8 or 9 building, the distance from any point on a floor to a point of egress to a road or open space by way of a required non-fire-isolated stairway or nonfire-isolated ramp must not exceed 80 m.</p> <p>In a Class 5 to 8 or 9b building, a required non-fire-isolated stairway or non-fire-isolated ramp must discharge at a point not more than—</p> <ul style="list-style-type: none"> <li>(i) 20 m from a doorway providing egress to a road or open space or from a fire-isolated passageway leading to a road or open space; or</li> <li>(ii) 40 m from one of 2 such doorways or passageways if travel to each of them from the non-fire-isolated stairway or non-fire-isolated ramp is in opposite or approximately opposite directions.</li> </ul>	Complies
D1.10	Discharge from exits	<p>(a) An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit, or access to it.</p> <p>(b) If a required exit leads to an open space, the path of travel to the road must have an unobstructed width throughout of not less than—</p> <ul style="list-style-type: none"> <li>(i) the minimum width of the required exit; or (ii) 1m, whichever is the greater.</li> </ul> <p><b>Comment:</b> Discharges from all required exits must comply with the provisions of BCA2016. A path of travel from the exits to the street must be provided and not less than the minimum required width of the exit.</p> <p>Details confirming compliance are to be checked by the certifying authority.</p>	Complies
D1.11	Horizontal exits	The provisions of this clause are not applicable.	Not Applicable
D1.12	Non required stairways, ramps or escalators	The provisions of this clause are not applicable.	Not Applicable
D1.13	Number of persons accommodated	<p>Noted for assessment purposes.</p> <p>General classrooms are measured at a rate of 2m<sup>2</sup> per person. An office/admin space is measured at a rate of 10 m<sup>2</sup> per person.</p> <p><b>Comment:</b> Details of the numbers of persons accommodated and population of the building and are to be submitted to the certifying authority.</p>	For Information Purposes
D1.14	Measurement of distances	Noted for assessment purposes.	For Information Purposes
D1.15	Method of measurement	Noted for assessment purposes.	For Information Purposes
D1.16	Plant rooms and lift motor rooms: Concession	The provisions of this clause are not applicable.	Not Applicable



BCA Clause	Title	Assessment and Comment	Status
D1.17	Access to lift pits	The provisions of this clause are not applicable.	Not Applicable

## **Part D2 - Construction of exits**

BCA Clause	Title	Assessment and Comment	Status
D2.2	Fire-isolated stairways and ramps	The provisions of this clause are not applicable.	Not Applicable
D2.3	Non-fire-isolated stairways and ramps	The provisions of this clause are not applicable.	Not Applicable
D2.4	Separation of rising and descending stair flights	The provisions of this clause are not applicable.	Not Applicable
D2.5	Open access ramps and balconies	The provisions of this clause are not applicable.	Not Applicable
D2.6	Smoke lobbies	The provisions of this clause are not applicable.	Not Applicable
D2.7	Installation in paths of travel	<p>Services or equipment comprising electricity meters, distribution boards or ducts; or central telecommunications distribution boards or equipment; or electrical motors or other motors serving equipment in the building, may be installed in a required exit, in any corridor, hallway, lobby or the like leading to a required exit if the services or equipment are enclosed by non-combustible construction or a fire protective covering with doorways and openings suitably sealed against smoke spreading from the enclosure.</p> <p><b><u>Comments:</u></b>  Distribution boards in the path of travel to an exit must be suitably smoke sealed.</p> <p>Details confirming compliance are to be checked by the certifying authority.</p>	Compliance subject to Certification
D2.8	Enclosure of space under stairs and ramps	<p>(a) Fire-isolated stairways and ramps — If the space below a required fire-isolated stairway or fire-isolated ramp is within the fire-isolated shaft, it must not be enclosed to form a cupboard or similar enclosed space.</p> <p>(b) Non fire-isolated stairways and ramps — The space below a required non fire-isolated stairway (including an external stairway) or non-fire-isolated ramp must not be enclosed to form a cupboard or other enclosed space unless—</p> <ul style="list-style-type: none"> <li>(i) the enclosing walls and ceilings have an FRL of not less than 60/60/60; and</li> <li>(ii) any access doorway to the enclosed space is fitted with a self-closing –/60/30 fire door.</li> </ul> <p><b><u>Comments:</u></b>  There is no storage proposed under the stairs.</p>	Complies
D2.9	Width of stairways	<p>The unobstructed width of each exit or path of travel to an exit must be not less than 1m or the minimum aggregate width based on the population of the each storey.</p> <p><b><u>Comment:</u></b>  The minimum 1m required width per 100 persons of a stairway must be measured clear of all obstructions such as handrails, projecting parts of balustrades or other barriers and the like.</p>	Complies Subject to Certification

BCA Clause	Title	Assessment and Comment	Status
D2.10	<b>Pedestrian ramps</b>	<p>All proposed pedestrian ramps must have a non-slip finish and where the ramp is also serving as an accessible ramp under Part D3 is in accordance with AS1428.1 or have a grade not steeper than 1:8.</p> <p><b><u>Comment:</u></b> Details confirming compliance are to be checked by the certifying authority.</p>	<b>Compliance subject to Certification</b>
D2.11	<b>Fire-isolated passageways</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>
D2.12	<b>Roof as open space</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>
D2.13	<b>Goings and risers</b>	<p>The provisions of this clause are applicable. All goings and risers are to comply with Table 2.13.</p> <p><b><u>Comment:</u></b> The number of risers proposed for the stairways is satisfactory. Risers are not permitted to allow openings greater than 125mm to pass between treads. All treads are to have a non-slip finish or an adequate non-skid strip near the edge of the nosings that complies with Table D2.14 of the BCA.</p> <p>Details confirming compliance are to be checked by the certifying authority.</p>	<b>Compliance subject to Certification</b>
D2.14	<b>Landings</b>	<p>The provisions of this clause are applicable. Proposed landings generally comply with this clause.</p> <p>Landings having a maximum gradient of 1:50 may be used in any building to limit the number of risers in each flight and each landing must—</p> <ul style="list-style-type: none"> <li>(i) be not less than 750 mm long, and where this involves a change in direction, the length is measured 500 mm from the inside edge of the landing; and</li> <li>(ii) have a non-slip finish throughout or an adequate non-skid strip near the edge of the landing where it leads to a flight below.</li> </ul> <p><b><u>Comments:</u></b> Landings must be also comply with Table D2.14 Slip- Resistance Classification.</p> <p>Details confirming compliance are to be checked by the certifying authority.</p>	<b>Compliance subject to Certification</b>
D2.15	<b>Thresholds</b>	Thresholds for all doorways are to be not more than 190mm above the finished ground surface.	<b>For Information Purposes</b>
D2.16	<b>Barriers to prevent falls</b>	<p>(a) A continuous barrier must be provided along the side of—</p> <ul style="list-style-type: none"> <li>(i) a roof to which general access is provided; and</li> <li>(ii) a stairway or ramp; and</li> <li>(iii) a floor, corridor, hallway, balcony, deck, verandah, mezzanine, access bridge or the like; and</li> <li>(iv) any delineated path of access to a building, if the trafficable surface is 1 m or more above the surface beneath.</li> </ul> <p>(b) The requirements of (a) do not apply to—</p> <ul style="list-style-type: none"> <li>(i) the perimeter of a stage, rigging loft, loading dock or the like; or</li> <li>(ii) areas referred to in D2.18; or</li> <li>(iii) a retaining wall unless the retaining wall forms part of, or is directly associated with a delineated path of access to a building from the road, or a delineated path of access between buildings; or</li> <li>(iv) a barrier provided to an openable window covered by D2.24.</li> </ul> <p>(c) A barrier required by (a) must be constructed in accordance with <u>Table D2.16a</u>.</p> <p><b><u>Comments:</u></b> Details confirming compliance are to be checked by the certifying authority.</p>	<b>Compliance subject to Certification</b>

BCA Clause	Title	Assessment and Comment	Status
D2.17	<b>Handrails</b>	<p>Handrails are required to be provided on each side of a ramp or flight. Handrails should therefore be provided to the new flights. Note: Handrails required to assist persons with disabilities must be provided in accordance with D3.3 (a) (ii).</p> <p><b>Comments:</b> Details confirming compliance are to be checked by the certifying authority.</p>	<b>Compliance subject to Certification</b>
D2.18	<b>Fixed platforms, walkways, stairways, and ladders</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>
D2.19	<b>Doorways and doors</b>	The provisions of this clause are complied with.	<b>Complies</b>
D2.20	<b>Swinging doors</b>	<p>All required exit doors must swing in the direction of egress.</p> <p>A swinging door in a required exit or forming part of a required exit (a) must not encroach-</p> <p>(i) at any part of its swing by more than 500 mm on the required width (including any landings) of a required (A) stairway; or (B) ramp; or (C) passageway, if it is likely to impede the path of travel of the people already using the exit; and (ii) when fully open, by more than 100 mm on the required width of the required exit and the measurement of encroachment in each case is to include door handles or other furniture or attachments to the door.</p> <p><b>Comments:</b> The exit door near GLA J-3 and Stair 01 must be swing in the direction of egress.</p> <p>Details confirming compliance are to be checked by the certifying authority.</p>	<p><b>Does Not Comply</b></p> <p><b>Compliance subject to certification</b></p>
D2.21	<b>Operation of latch</b>	<p>All doors in the path of travel to exit (other than the bedrooms which are exempt) must be fitted with lever type handles or panic bars that are located between 900 mm and 1100 mm above floor level.</p> <p>Details confirming compliance are to be checked by the certifying authority.</p>	<b>Compliance subject to certification</b>
D2.22	<b>Re-entry from fire isolated exits</b>	The provisions of this clause are not applicable for this is type of building.	<b>Not Applicable</b>
D2.23	<b>Signs on doors</b>	<p>A sign, to alert persons that the operation of certain doors must not be impaired, must be installed where it can readily be seen on, or adjacent to, a required fire door providing direct access to a fire-isolated exit, on the side of the door that faces a person seeking egress.</p> <p>If the door is fitted with a device for holding it in the open position, on either the wall adjacent to the doorway or both sides of the door. In the case of a door leading from a fire isolated exit to a road or open space, on each side of the door.</p> <p><b>Comment:</b> At this stage, it appears that signs would not be required on doors are fire rated doors, smoke door or the like are not proposed. Details confirming compliance are to be checked by the certifying authority.</p>	<b>Not Applicable</b>
D2.24	<b>Protection of openable windows</b>	<p>Where the floor below the window is 4 m or more above the surface beneath, the window must be protected in a method specified by Clause D2.24 of the BCA.</p> <p><b>Comment:</b> The 1<sup>st</sup> floor level of the school buildings is approximately 4m above the ground floor level, hence protection of the windows may be required. (it is noted that at this point it is less than 4 m). Protection of the windows would be required if the floor levels are shown to be more than 4 m above ground level. Details confirming compliance are to be checked by the certifying authority.</p>	<b>Compliance Subject to certification</b>

BCA Clause	Title	Assessment and Comment	Status
D2.25	Timber stairways concession	The provisions of this clause are not applicable for this is type of building.	Not Applicable

### **Part D3 – Access for People with Disabilities**

BCA Part	Title	Assessment and Comment	Status
D3.1	Application of part	BCA2016 requires access for persons with disabilities to these classes of buildings.	For Information Purposes
D3.2	General building access requirements	<p>BCA2016 requires access for persons with disabilities to and within all areas used by the occupants, including staff, students and visitors, if no alternative similar facilities to those provided in that area are accessible elsewhere in the school and any other floor where a ramp or passenger lift is provided.</p> <p>All external ramps generally comply with the requirements of AS1428.1. Kerb rails (wheelchair guardrails) must be provided in accordance with AS1428.1 along a ramp where there is a step down or no wall along that path of travel. The ramp widths must also not be less than 1000mm between handrails (which are required on both sides of the ramps).</p> <p>Transoms are required to glass doorways and other glazing that may be mistaken as a doorway in accordance with AS1428.1. Doors or door frames are to have minimum luminance contrast of 30%. Door handles and hardware are to be lever type handles. Circulation spaces must comply with the AS1428.1 Stairways accessing the building are to have 50mm - 75mm contrasting strip on the tread at nosings (minimum 30% luminance contrast). Stair handrails shall also extend at least one tread width plus 300mm from the last riser in accordance with Figure 17 of AS1428.1.</p> <p><b>Comment:</b> The proposed development shows that access for persons with a disability is to be provided externally to the building and to differing levels within the building by ramps, corridors and a passenger lift. Some minor issues may apply regarding circulation spaces but can readily be addressed as part of a further assessment as during the construction certificate stage.</p> <p>It is noted that an Access Compliance Report has been received from Vanessa Griffin of Vista Access Architects. The report comments on areas of non-compliances. The recommendations of the report are to be incorporated into the construction certificate plans and checked by the certifying authority.</p>	Compliance subject to Certification

BCA Part	Title	Assessment and Comment	Status
D3.3	<b>Parts of buildings to be accessible</b>	<p>In a building required to be accessible—</p> <p>(a) every ramp and stairway, except for ramps and stairways in areas exempted by D3.4, must comply with—</p> <p>(i) for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and</p> <p>(ii) for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; and</p> <p>(iii) for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1; and</p> <p>(b) every passenger lift must comply with E3.6; and</p> <p>(c) accessways must have—</p> <p>(i) passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an accessway where a direct line of sight is not available; and</p> <p>(ii) turning spaces complying with AS 1428.1—</p> <p>(A) within 2 m of the end of accessways where it is not possible to continue travelling along the accessway; and</p> <p>(B) at maximum 20 m intervals along the accessway; and</p> <p>(d) an intersection of accessways satisfies the spatial requirements for a passing and turning space; and</p> <p>(e) a passing space may serve as a turning space; and</p> <p>(f) a ramp complying with AS 1428.1 or a passenger lift need not be provided to serve a storey or level other than the entrance storey in a Class 5, 6, 7b or 8 building—</p> <p>(i) containing not more than 3 storeys; and</p> <p>(ii) with a floor area for each storey, excluding the entrance storey, of not more than 200 m<sup>2</sup>; and</p> <p>(g) clause 7.4.1(a) of AS 1428.1 does not apply and is replaced with 'the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm'; and</p> <p>(h) the carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in Figure 8 of AS 1428.1 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively.</p>	<b>Compliance subject to Certification</b>
D3.4	<b>Concessions</b>	No concessions apply for this building.	<b>For Information Purposes</b>
D3.5	<b>Car parking</b>	<p>Accessible carparking is required to comply with AS2890.6.</p> <p><b>Comment:</b> New carparking is not within the scope of the development. The access report has determined that it is not required.</p>	<b>Not Applicable</b>
D3.6	<b>Identification of accessible facilities, services and features</b>	In every building required to be accessible, clear and legible Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access must be provided each accessible service, entrance and lift.	<b>For Information Purposes</b>
D3.7	<b>Hearing augmentation</b>	<p>(a) A hearing augmentation system must be provided where an inbuilt amplification system, other than one used only for emergency warning, is installed—</p> <p>(i) in a room in a Class 9b building; or</p> <p>(ii) in an auditorium, conference room, meeting room or room for judicatory purposes; or</p> <p>(iii) at any ticket office, teller's booth, reception area or the like, where the public is screened from the service provider.</p> <p><b>Comment:</b> The access report states that an augmentation system may be required if an amplification system is proposed in the GLA areas.</p> <p>Details confirming compliance are to be checked by the certifying authority.</p>	<b>Compliance subject to Certification</b>

BCA Part	Title	Assessment and Comment	Status
D3.8	<b>Tactile indicators</b>	<p>Type B tactile ground surface indicators must be provided to warn people with vision impairment that they are approaching a stairway or ramp and are to be installed in accordance with AS1428.4.</p> <p><b>Comment:</b> Tactile ground surface indicators are required for the new building works as specified in the BCA.</p> <p>Details confirming compliance are to be checked by the certifying authority.</p>	<b>Compliance subject to Certification</b>
D3.9	<b>Wheelcar setaing in Class 9b buildings</b>	The provisions of this clause are not applicable for this is type of building.	<b>Not Applicable</b>
D3.10	<b>Swimming Pools</b>	The provisions of this clause are not applicable for this is type of building.	<b>Not Applicable</b>
D3.11	<b>Ramps</b>	<p>On an accessway: -</p> <p>(a) a series of connected ramps must not have a combined vertical rise of more than 3.6 m; and</p> <p>(b) a landing for a step ramp must not overlap a landing for another step ramp or ramp.</p>	<b>Compliance subject to Certification</b>
D3.12	<b>Glazing on an accessway</b>	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1.	<b>Compliance subject to Certification</b>

## **SECTION E - SERVICES AND EQUIPMENT**

### **Part E1 – Fire Fighting Equipment**

<b>BCA Part</b>	<b>Title</b>	<b>Assessment and Comment</b>	<b>Status</b>
E1.3	<b>Fire hydrants</b>	<p>The new buildings must be provided with hydrant coverage as required by the BCA and AS2419.1-2005.</p> <p><b><u>Comment:</u></b> A fire services plan will be prepared by the consultant engineers Abel and Brown Pty Ltd. The fire services plan will need to cover the new building and ensure existing hydrants are adequately located. The adequacy of the existing hydrant booster assembly should be checked and upgraded if required. Details confirming compliance are to be checked by the certifying authority.</p>	<b>Compliance subject to Certification</b>
E1.4	<b>Fire hose reels</b>	Classrooms and associated corridors in a school are now not required by BCA2016 to be provided with a fire hose reel.	<b>Not Applicable</b>
E1.5	<b>Sprinklers</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>
E1.6	<b>Portable fire extinguishers</b>	<p>Portable fire extinguishers are required. Compliance is required to be to AS2444.</p> <p><b><u>Comment:</u></b> Details confirming compliance are to be checked by the certifying authority.</p>	<b>Compliance subject to Certification</b>
E1.8	<b>Fire control centres</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>
E1.9	<b>Fire precautions during construction</b>	Additional fire extinguishers should be provided next to the exits at all times during the construction process.	<b>For Information Purposes</b>
E1.10	<b>Provision for special hazard</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>

### **Part E2 – Smoke Hazard Management**

<b>BCA Part</b>	<b>Title</b>	<b>Assessment and Comment</b>	<b>Status</b>
E2.2 & NSW E2.2	<b>General Requirements</b>	<p>NSW Table E2.2b requires that an assembly building must be provided with automatic shutdown of any air handling system (other than non-ducted individual room units with a capacity of not more than 1000L/s or miscellaneous exhaust systems) not forming part of the smoke hazard management system.</p> <p><b><u>Comment:</u></b> If a ducted A/C or large system is proposed automatic shutdown of the air conditioning system activated by smoke detectors installed in accordance with Clause 5 of Specification E2.2a and any other installed fire detection and alarm system would be required. This applies to the class 9b buildings only in NSW.</p> <p>Details of the proposed smoke hazard system (and shutdown of the A/C system, if required), shall be provided to the certifying authority for approval.</p>	<b>Compliance subject to Certification</b>

## **Part E3 – Lift Installations**

<b>BCA Part</b>	<b>Title</b>	<b>Assessment and Comment</b>	<b>Status</b>
E3.2	<b>Stretcher facility in lifts</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>
E3.3	<b>Warning against use of lifts in fire</b>	<p>A warning sign must—</p> <p>(a) be displayed where it can be readily seen—</p> <p>(i) near every call button for a passenger lift or group of lifts throughout a building; except</p> <p>(ii) a small lift such as a dumb-waiter or the like that is for the transport of goods only; and</p> <p>(b) comply with the details and dimensions of Figure E3.3 and consist of—</p> <p>(i) incised, inlaid or embossed letters on a metal, wood, plastic or similar plate securely and permanently attached to the wall; or</p> <p>(ii) letters incised or inlaid directly into the surface of the material forming the wall.</p> <p><b><u>Comment:</u></b> Details confirming compliance are to be checked by the certifying authority.</p>	<b>Complies subject to Certification</b>
E3.4	<b>Emergency lifts</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>
E3.5	<b>Landings</b>	<p>Access and egress to and from liftwell landings must comply with the Deemed-to-Satisfy Provisions of Section D.</p> <p><b><u>Comment:</u></b> Details confirming compliance are to be checked by the certifying authority.</p>	<b>Complies subject to Certification</b>
E3.6	<b>Facilities for people with disabilities</b>	The lift must be accessible in accordance with the requirements of AS1428.1.	<b>Complies subject to Certification</b>
E3.7	<b>Fire service controls</b>	The provisions of this part are not applicable (effective height less than 12m).	<b>Not Applicable</b>

## **Part E4 – Emergency Lighting, Exit Signs and Warning Systems**

<b>BCA Part</b>	<b>Title</b>	<b>Assessment and Comment</b>	<b>Status</b>
E4.2 & E4.4	<b>Emergency lighting requirements</b>	<p>Emergency lighting is required for every storey of a Class 5 and 9b building with a floor area over 300m<sup>2</sup>.</p> <p>In this regard, the building will require emergency lighting to every passageway, corridor or hallway that is part of a path of travel to an exit and in every room if the room has a floor area of 300m<sup>2</sup>.</p> <p><b><u>Comments:</u></b> Details on emergency lighting provisions are to be provided to the certifying authority for approval.</p>	<b>Compliance subject to Certification</b>
E4.5 & E4.6	<b>Exit signs and direction signs</b>	<p>Exit and direction signs are required to be installed for the building.</p> <p><b><u>Comments:</u></b> Details on exit signs are to be provided to the certifying authority for approval.</p>	<b>Compliance subject to Certification</b>
E4.7	<b>Class 2 &amp; 3 exemption</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>



<b>BCA Part</b>	<b>Title</b>	<b>Assessment and Comment</b>	<b>Status</b>
E4.8	<b>Design and operation of exit signs</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>
E4.9	<b>Sound systems and intercom systems for emergency purposes</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>

## **SECTION F – HEALTH AND AMENITY**

### **Part F1 – Damp and Weatherproofing**

<b>BCA Part</b>	<b>Title</b>	<b>Assessment and Comment</b>	<b>Status</b>
F1.1	<b>Stormwater drainage</b>	Plans or specifications must indicate that stormwater drainage will comply with AS/NZS 3500.3.  <b><u>Comment:</u></b> Details confirming compliance are to be checked by the certifying authority.	<b>Compliance subject to Certification</b>
F1.5	<b>Roof coverings</b>	Plans or specifications must indicate that metal sheet roofing will comply with AS 1562.1.  <b><u>Comment:</u></b> Details confirming compliance are to be checked by the certifying authority.	<b>Compliance subject to Certification</b>
F1.6	<b>Sarking</b>	Plans or specifications must indicate that the all sarking material to be installed will comply with AS/NZS 4200 Parts 1 and 2.  <b><u>Comment:</u></b> Details confirming compliance are to be checked by the certifying authority.	<b>Compliance subject to Certification</b>
F1.7	<b>Waterproofing of wet areas in buildings</b>	The provisions of this clause are applicable as new sanitary compartments / wet areas are proposed.  <b><u>Comment:</u></b> These rooms must be water-resistant or waterproofed in accordance with AS3740 as if they were in a residential building. Plans or specifications must indicate compliance.	<b>Compliance subject to Certification</b>
F1.9	<b>Damp-proofing</b>	Moisture from the ground must be prevented from reaching the walls above the damp proof course. Plans or specifications must indicate that damp proofing will be in accordance with AS/NZS 2903. Refer to F1.10 also.  <b><u>Comment:</u></b> Details confirming compliance are to be checked by the certifying authority.	<b>Compliance subject to Certification</b>
F1.10	<b>Damp-proofing of floor on the ground</b>	Moisture from the ground must be prevented from reaching the upper surface of the floor and adjacent walls by the insertion of a vapour barrier. Plans or specifications must indicate compliance with AS 2870.  <b><u>Comment:</u></b> Details confirming compliance are to be checked by the certifying authority.	<b>Compliance subject to Certification</b>
F1.11	<b>Provisions of floor wastes</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>
F1.12	<b>Sub-floor ventilation</b>	The provisions of this clause are not applicable (principally slab on ground construction).	<b>Not Applicable</b>
F1.13	<b>Glazed assemblies</b>	All external wall windows and glazed doors must comply with AS 2047 for water penetration. Specifications must state compliance with this standard. Hinged doors are exempt from the requirements of this clause.  Details confirming compliance are to be checked by the certifying authority.	<b>Compliance subject to Certification</b>

## Part F2 – Sanitary and Other Facilities

BCA Part	Title	Assessment and Comment	Status		
F2.3	Facilities in Class 3 to 9 buildings	<p>Amenities are proposed in each building and at each level. Initial assessment indicates there are a sufficient number of facilities to cater staff and students.</p> <p>Details confirming compliance are to be checked by the certifying authority.</p>	Compliance subject to Certification		
F2.4	Facilities for people with disabilities	<p>(a) accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with Table F2.4(a);</p> <p>(b) accessible unisex showers must be provided in accordance with Table F2.4(b); and</p> <p>(c) 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, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS 1428.1 must be provided for use by males and females; and</p> <p>(d) an accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels; and</p> <p>(e) the circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4(a) and Table F2.4(b) must comply with the requirements of AS 1428.1; and</p> <p>(f) an accessible unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only; and</p> <p>(g) 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</p> <p>(h) 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</p> <p>(i) an accessible unisex sanitary compartment or an accessible unisex shower need not be provided on a storey or level that is not required by D3.3(f) to be provided with a passenger lift or ramp complying with AS 1428.1.</p> <p><b>Table 2.4(a)</b></p> <table><tr><td>Class 5, 6, 7, 8 or 9 — except for within a ward area of a Class 9a health-care building</td><td>Where F2.3 requires closet pans—  (a) 1 on every storey containing sanitary compartments; and  (b) 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.</td></tr></table> <p><b>Comment:</b> A new accessible sanitary facility is proposed at the ground level and lower ground level to service students. An ambulant WC is also provided at the each accessible WC.</p> <p>Details confirming compliance should be checked by the certifying authority.</p>	Class 5, 6, 7, 8 or 9 — except for within a ward area of a Class 9a health-care building	Where F2.3 requires closet pans—  (a) 1 on every storey containing sanitary compartments; and  (b) 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.	Complies
Class 5, 6, 7, 8 or 9 — except for within a ward area of a Class 9a health-care building	Where F2.3 requires closet pans—  (a) 1 on every storey containing sanitary compartments; and  (b) 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.				
F2.5	Construction of sanitary compartments	<p>The door to a fully enclosed sanitary compartment must open outwards; or slide; or be readily removable from the outside of the sanitary compartment, unless there is a clear space of at least 1.2 m, measured in accordance with Figure F2.5, between the closet pan within the sanitary compartment and the doorway.</p> <p><b>Comment:</b> Details confirming compliance are to be checked by the certifying authority.</p>	Compliance subject to Certification		
F2.6	Interpretation: Urinals and washbasins	For information purposes only.	For Information Purposes		
F2.7	Microbial (Legionella) control	The provisions of this clause are not applicable.	Not Applicable		

BCA Part	Title	Assessment and Comment	Status
F2.8	Waste Management	The provisions of this clause are not applicable.	Not Applicable

### **Part F3 – Room Sizes**

BCA Part	Title	Assessment and Comment	Status
	Height of rooms and other spaces	<p>BCA2016 requires a minimum ceiling height of 2.7m if more than 100 persons are accommodated in a class 9b building. The school building appears to have ceiling heights of at least 3m.</p> <p>All ceiling heights above ramps shall be a minimum of 2 m in height.</p> <p>All ceiling heights above ramps and stairs shall be a minimum of 2 m in height.</p>	Complies

### **Part F4 – Light and Ventilation**

BCA Part	Title	Assessment and Comment	Status
F4.1	Provision of natural light	<p>Natural lighting must be provided to all general purpose classrooms and adequate natural lighting is provided to those proposed rooms.</p> <p><b>Comment:</b> The GLA's D-1, D-2, A-1, A-2 and B-1 are provided with natural lighting. However, the extent of natural lighting is via the elevated awning on one elevation and clerestory windows on the other which is borrowed via the corridor.</p> <p>The extent of natural lighting is to be checked by the certifying authority. If necessary additional lighting can be provided via rooflights to the affected GLA's.</p>	Complies subject to certification
F4.2	Method and extent of natural lighting	<p><b>Comment:</b> The GLA's D-1, D-2, A-1, A-2 and B-1 are provided with natural lighting. However, the extent of natural lighting is via the elevated awning on one elevation and clerestory windows on the other which is borrowed via the corridor. There are no specific provisions for borrowed lighting in the BCA for Class 9b buildings.</p> <p>This issue is to be considered by the certifying authority and a determination made on compliance with F4.1.</p>	Complies subject to certification
F4.3	Natural light borrowed from adjoining room	Not for assessment purposes.	Not Applicable
F4.4	Artificial lighting	Specifications must indicate that the provision of artificial lighting complying with AS/NZS 1680.0.	Compliance subject to Certification

BCA Part	Title	Assessment and Comment	Status
F4.5, F4.6 & F4.7	<b>Ventilation of rooms / natural ventilation / borrowed ventilation</b>	<p>A habitable room, office, workroom, sanitary compartment and any other room occupied by a person for any purpose must have natural ventilation complying with F4.6; or a mechanical ventilation or air-conditioning system complying with AS 1668.2.</p> <p>Natural ventilation provided in accordance with F4.5(a) must consist of permanent openings, windows, doors or other devices which can be opened with an aggregate opening or openable size not less than 5% of the floor area of the room required to be ventilated.</p> <p>Ventilation of proposed rooms is considered to be satisfactory via natural ventilation to the GLA's. WC's and the like not provided with natural ventilation will require mechanical ventilation as specified.</p>	<b>For Information Purposes</b>
F4.8	<b>Restriction on position of water closets and urinals</b>	<p>(a) a kitchen or pantry; or</p> <p>(b) a public dining room or restaurant; or</p> <p>(c) a dormitory in a Class 3 building; or</p> <p>(d) a room used for public assembly (which is not an early childhood centre, primary school or open spectator stand); or</p> <p>(e) a workplace normally occupied by more than one person.</p>	<b>Complies</b>
F4.9	<b>Airlocks</b>	Where this clause applies, the sanitary compartment must be either provided with an airlock or mechanical ventilation.	
F4.11	<b>Carparks</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>
F4.12	<b>Kitchen local exhaust ventilation</b>	The provisions of this clause are not applicable.	<b>Not Applicable</b>

## **Part F5 – Sound Transmission and Insulation**

BCA Part	Title	Assessment and Comment	Status
Part F5	<b>Sound transmission and insulation</b>	The provisions of this part are not applicable.	<b>Not Applicable</b>

## **SECTION G – ANCILLARY PROVISIONS**

BCA Part	Title	Assessment and Comment	Status
NSW G1.101	<b>Provision for cleaning windows</b>	The provisions of this part are not applicable as the building is less than 3 storeys in height.	<b>Not Applicable</b>

BCA Part	Title	Assessment and Comment	Status
Part G5 & NSW G5.2	Construction in bushfire prone areas	<p>In a designated bushfire prone area, a Class 2 building, a Class 3 building, a Class 4 part of a building or a <u>Class 9 building</u> 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—</p> <p>(a) AS 3959 except 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</p> <p>(b) the requirements of (a) above as modified by the development consent following consultation with the NSW Rural Fire Service under section 79BA of the Environmental Planning and Assessment Act 1979; or</p> <p>(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.</p> <p><b>Comment:</b> The BCA defines a “school” as a “special fire protection purpose” and therefore is subject to the requirements of the development consent that has been issued by the planning authority.</p>	For information purposes

## **SECTION H – SPECIAL USE BUILDINGS**

BCA Part	Title	Assessment and Comment	Status
Section H	Special use buildings	The provisions of Section H are not applicable.	Not Applicable
H1.1	Application of part	<p>NSW H1.1 advises that Part H applies to a Class 9b building that is not an entertainment venue where a stage or any backstage area in a hall is proposed.</p> <p>However, as the development involves no stage or backstage, as the main provisions of Part H are not applicable.</p> <p>NSW Part H101 is not assessed as the development is not proposed as a place of public entertainment.</p>	Not Applicable

## **SECTION I – MAINTENANCE**

BCA Part	Title	Assessment and Comment	Status
I1.1	Essential fire safety measures	<p>Essential fire or other safety measures must be maintained and certified on an ongoing basis, in accordance with the provisions of the <i>Environmental Planning and Assessment Regulation 2000</i> (refer to Section 5 of this report).</p> <p>A list of <u>required/proposed</u> essential fire and other safety measures for the proposed new building is required as part of the construction approval.</p>	Compliance subject to Certification

## **SECTION J – ENERGY EFFICIENCY**

BCA Part	Title	Assessment and Comment	Status
NSW SJ	NSW Section J(A) Energy Efficiency – Class 2 building and Class 4 parts	This clause of Section J only applies to Clause 2, 3 and 4 buildings in NSW which is therefore not applicable at this stage.	Complies subject to certification

## PART 4

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### CONCLUSION AND VERIFICATION

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This assessment identified areas of potential non-compliance with the deemed-to-satisfy provisions of the Building Code of Australia 2016–Volume One Class 2 to 9 Buildings.

It is the opinion of the author that subject to compliance with the recommendations of this report, the development is capable of complying with the provisions of the BCA for use as a Class 9b School building.

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**Author:**



Robert Valades  
**Benchmark Building Certifiers**  
**Accredited Certifier Grade 1 (BPB0419)**

**Verified:**



Anthony Krilich  
**Benchmark Building Certifiers**  
**Accredited Certifier Grade 2 (BPB0216)**

# APPENDIX A

## SPECIFICATION C1.1

### Table 4



**Table 4 – Specification C1.1 – Type B Construction**

**Table 4 TYPE B CONSTRUCTION: FRL OF BUILDING ELEMENTS**

Building element	Class of building—FRL: (in minutes)			
	<i>Structural adequacy/Integrity/Insulation</i>			
	2, 3 or 4 part	5, 7a or 9	6	7b or 8
<b>EXTERNAL WALL</b> (including any column and other building element incorporated therein) or other external building element, where the distance from any <i>fire-source feature</i> to which it is exposed is—				
For <i>loadbearing</i> parts—				
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 to less than 9 m	90/ 30/ 30	120/ 30/ 30	180/ 90/ 60	240/ 90/ 60
9 to less than 18 m	90/ 30/—	120/ 30/—	180/ 60/—	240/ 60/—
18 m or more	—/—/—	—/—/—	—/—/—	—/—/—
For non- <i>loadbearing</i> parts—				
less than 1.5 m	—/ 90/ 90	—/120/120	—/180/180	—/240/240
1.5 to less than 3 m	—/ 60/ 30	—/ 90/ 60	—/120/ 90	—/180/120
3 m or more	—/—/—	—/—/—	—/—/—	—/—/—
<b>EXTERNAL COLUMN</b> not incorporated in an <i>external wall</i> , where the distance from any <i>fire-source feature</i> to which it is exposed is—				
For <i>loadbearing</i> columns—				
less than 18 m	90/—/—	120/—/—	180/—/—	240/—/—
18 m or more	—/—/—	—/—/—	—/—/—	—/—/—
For non- <i>loadbearing</i> columns—				
	—/—/—	—/—/—	—/—/—	—/—/—
<b>COMMON WALLS and FIRE WALLS—</b>	90/ 90 / 90	120/120/120	180/180/180	240/240/240

Building element	Class of building—FRL: (in minutes)			
	<i>Structural adequacy/Integrity/Insulation</i>			
	2, 3 or 4 part	5, 7a or 9	6	7b or 8
<b>INTERNAL WALLS—</b>				
<i>Fire-resisting</i> lift and stair <i>shafts</i> —				
<i>Loadbearing</i>	90/ 90/ 90	120/120/120	180/120/120	240/120/120
<i>Fire-resisting</i> stair <i>shafts</i> —				
<i>Non-loadbearing</i>	—/ 90/ 90	—/120/120	—/120/120	—/120/120
Bounding <i>public corridors</i> , public lobbies and the like—				
<i>Loadbearing</i>	60/ 60/ 60	120/—/—	180/—/—	240/—/—
<i>Non-loadbearing</i>	—/ 60/ 60	—/—/—	—/—/—	—/—/—
Between or bounding <i>sole-occupancy units</i> —				
<i>Loadbearing</i>	60/ 60/ 60	120/—/—	180/—/—	240/—/—
<i>Non-loadbearing</i>	—/ 60/ 60	—/—/—	—/—/—	—/—/—
<b>OTHER LOADBEARING INTERNAL WALLS and COLUMNS—</b>				
	60/—/—	120/—/—	180/—/—	240/—/—
<b>ROOFS</b>	—/—/—	—/—/—	—/—/—	—/—/—

# APPENDIX B

## Site Photos



**A. Entrance to school buildings**



**B. Central courtyard and existing GLA's**



**C. Rear elevation of existing GLA's and location of proposed building**



**D. Existing access stairs to oval.**



**E. Existing space garden space between GLA's to be paved and part enclosed.**



**F. Existing fire hydrant booster assembly and block plan**

## APPENDIX C

### Existing and Proposed Fire Safety Schedules



## EXISTING FIRE SAFETY SCHEDULE



### *Fire Safety Schedule*

*Issued pursuant to Section 168 of the  
Environmental Planning and Assessment Regulation 2000*

#### **IDENTIFICATION OF BUILDING**

**Property Address:** MAGDALENE CATHOLIC HIGH  
1 Sedgwick Street SMEATON  
GRANGE

**Owner's Name & Address:** Trustees Roman Catholic Church  
Diocese Wollongong  
Magdalene High School  
PO Box 22  
NARELLAN NSW 2567

**Lot & Deposited Plan Number:** LOT: 51 DP: 1077229

**Date Issued:** 13/04/15

**Officer Initials (Register No.)** DSIM:2003/301/1

Fire Safety Measure	Design and/or Installation
Emergency Lighting	BCA Clause E4.2 & AS 2293.1-2005
Exit Signs	BCA Clause E4.5, BCA Clause E4.6, BCA cl E4.7 (Class 2, 3 & Class 4 parts) & AS 2293.1-2005
Fire Hydrant Systems	BCA Clause E1.3 & AS 2419.1-2005
Hose Reel Systems	BCA Clause E1.4 AS 2441
Portable Fire Extinguisher	BCA Clause E1.6 BCA AS 2444
Automatic shutdown of Mechanical Services	NSW Table E2.2b. AS1668
Fire Doors (incl Self Closing Device)	BCA D2.7 AS 1905.1-1997

Listed above are the Essential Fire Safety Measures installed in the building.

As the building owner, every 12 months you must provide Council with an **Annual Fire Safety Statement** to the effect that each measure has been checked by a properly qualified person, in that:

- (a) the measure is maintained to the relevant standard at intervals prescribed by the relevant standard; and
- (b) the measure operates and functions in accordance with the relevant design and installation standard.

A copy of the Annual Fire Safety Statement should be displayed prominently in the building and forwarded electronically to The Commissioner of Fire & Rescue (FRNSW) at email: [afss@fire.nsw.gov.au](mailto:afss@fire.nsw.gov.au).

## EXISTING FIRE SAFETY SCHEDULE

DSTR

12 March 2004

### FIRE SAFETY SCHEDULE

In respect of: Magdalene School

**SITE DESCRIPTION:**                      **1 Sedgwick Street SMEATON  
GRANGE  
DP 829081 Lot 1051**

Fire Safety Measure	Design and/or Installation
Auto-shutdown of Mechanical Services	NSW Table E2.2b AS 1668 - 1998
Emergency Lighting	Clause E4.4 AS 2293, Part 1-2005
Exit Signs	Clause E4.8, AS 2293, Part 1-2005
Fire Hydrants	AS 2419.1-2005
Fire Hose Reels	AS 2441-1988
Portable Fire Extinguisher	Clause E1.6 - 2001
Fire & Smoke Alarms	Clause/Spec E2.2a, AS 1670 - 1995
Fire Doors	AS1905-1997 BCA D2.7 - 1997

Listed above are the Essential Fire Safety Measures installed in the building.

As the building owner, every 12 months you must provide Council with an **Annual Fire Safety Statement** to the effect that each measure has been checked by a properly qualified person, in that;

- (a) the measure is maintained to the relevant standard at intervals prescribed by the relevant standard; and
- (b) the measure operates and functions in accordance with the relevant design and installation standard.

A copy of the Annual Fire Safety Statement should be displayed prominently in the building and forwarded to the Fire Brigade.

# PROPOSED

## Fire Safety Schedule

*Issued pursuant to Section 168 of the Environmental Planning and Assessment Regulation, 2000*



**Description of work:** School Additions at Magdalene Catholic School

**Address of subject land:** Corner of Sedgwick Street and Smeaton Grange Road, Narellan

FIRE SAFETY MEASURE	MINIMUM STANDARD OF PERFORMANCE DESIGN & INSTALLATION
Emergency lighting	E4.2 & E4.4 (BCA2016) and AS2293.1-2005
Exit signs	E4.5 & E4.6 & E4.8 (BCA2016) and AS2293.1-2005
Portable fire extinguisher and fire blanket	E1.6 (BCA2016) and AS2444-2001
Fire Hydrants	E1.3 (BCA2016) and AS2419-2005

The Statutory Fire Safety Measures identified in the above-mentioned table are to be the subject of an Annual, Fire Safety Certificate to be submitted to Council and The Commissioner of the NSW Fire and Rescue.

A copy of the certificate together with the relevant fire safety schedule must be prominently displayed in the building.