

18/12/2020

Our Ref: GDL190177.1

Hansen Yuncken Pty Ltd
Attn: Nader Zreik
Sydney Corporate Park Building 1, Level 3, 75-85 O'Riordan Street
Alexandria NSW 2015

SINSW - Catherine Field Public School
Cnr Barry O'Keefe Drive and Peter Brock Drive Catherine Field NSW 2557
BCA DESIGN COMPLIANCE STATEMENT (MODIFIED CROWN CERTIFICATE)

Further to our engagement for the abovementioned project, please find attached the Building Code of Australia (BCA) Design Compliance Review completed in respect to the modified Development Consent SSD-9477 Mod 2 Consultancy Services.

In reviewing the content herein, we draw particular attention to both the design documentation listed and conditions of approval listed in this statement.

In terms of the conditions of approval, the content therein reflects BCA related matters that where not fully documented or need to be complied with during the construction to achieve compliance with the referenced BCA.

The builder and the applicant need to be aware of these conditions whilst undertaking the works, as they represent items that we shall either be focusing on in the inspection or be seeking installation certificates for on completion of the works, and it is the responsibility of the applicant and builder engaged for the works to ensure these are complied with as part of the works.

Should you have any further enquiries please do not hesitate to contact Mauricio Vera or the undersigned.

Yours faithfully



Brett Clabburn
Director

BCA DESIGN COMPLIANCE STATEMENT

PRELIMINARIES

STATEMENT NO.	GDL190177.1
Property Address	SINSW - Catherine Field Public School, Catherine Fields NSW 2557
Client	NSW Department of Education, School Infrastructure NSW
Date	18/12/2020
Proposal	BCA & Crown (s6.28) Consultancy Services This Modified Crown Certificate relates to SSD-9477 Mod 2: <i>"Modifications to amend the layout of drop-off/pick-up area on O'Keefe Drive, alter the layout and access arrangements to the on-site car park and re-locate the waste storage area"</i>

DEVELOPMENT DESCRIPTION

Proposed Works	Description
Classification(s):	9b
Use of Building/Part:	Educational Establishment
Subject Area (Area of Works):	SINSW - Catherine Field Public School, Catherine Field NSW 2557

BASIS OF STATEMENT:

This statement is based upon: -

- The National Construction Code, Volume 1, Building Code of Australia BCA Class 2-9 Buildings 2016 Amendment 1 (BCA)
- The Design Documentation listed in this statement below

EXCLUSIONS

This statement relates only to the assessment and application of the Building Code of Australia to the proposed building works contained within the Design Documentation listed below and excludes: -

- General (non-BCA) electrical, mechanical, hydraulic building services
- Service providers requirements relating to electricity, gas, water and telecommunications
- The regulatory compliance of existing components/areas of the premises/site unaffected by the works.
- Disability (Access to Premises – Buildings) Standards 2010 compliance
- This statement relates to BCA compliance only and excludes any requirements for development consent or conditions of any approval documents, or any other form of planning or certification obligations required by the Environmental Planning and Assessment Act 1979 or any other legislation.
- Review of existing population densities throughout the building with respect to the new works
- Any existing elements of the building, as this statement relates to BCA confirmation of new works only, and not an assessment of any existing elements or portions of the building

- Any elements the subject of the documentation relied upon, or the conditions are not the liability of Group DLA as reliance upon this documentation, certification and information in issuance of this statement.

STATEMENT OF COMPLIANCE

We hereby confirm that the proposed design shall accord with the relevant principles and provisions of the Building Code of Australia 2016 subject to: -

- Compliance with the conditions of approval nominated below; and
- Reliance upon the listed documentation relied upon, listed drawings/plans
- Certification of the installation of the relevant portions on completion of the works

FIRE SAFETY SCHEDULE

Building A-D

Fire Safety Measure	Standard	BCA Clause(s)	Proposed Fire Safety Measures
Access panels, doors & hoppers to fire resisting shafts	AS 1530.4 – 2014	C3.13	<input checked="" type="checkbox"/>
Automatic fail-safe devices	--	C3.8, D2.21, Spec C3.4	<input checked="" type="checkbox"/>
Automatic fire detection & alarm systems (associated to automatic shut-down system)	AS 1670.1 – 2015 AS 1668.1 – 2015	Spec E2.2b	<input checked="" type="checkbox"/>
Emergency lighting	AS 2293.1 – 2005	E4.2, E4.4	<input checked="" type="checkbox"/>
Exit signs	AS 2293.1 – 2005	E4.5, NSW E4.6 & E4.8, EP4.2	<input checked="" type="checkbox"/>
Fire dampers	AS 1668.1 – 2015	Spec E2.2a	<input checked="" type="checkbox"/>
Fire doors	AS 1905.1 – 2015	Spec C3.4, C3.10	<input checked="" type="checkbox"/>
Fire hydrant systems	AS 2419.1 – 2005	E1.3, EP1.3	<input checked="" type="checkbox"/>
Fire seals (protecting openings in fire resisting components of the building)	AS 4072.1 – 2005 AS 1530.4 – 2014	C3.12, C3.13, C3.15	<input checked="" type="checkbox"/>
Lightweight construction	--	C1.8, Spec C1.8, CP1, CP2	<input checked="" type="checkbox"/>
Mechanical air handling systems <ul style="list-style-type: none"> • Auto shutdown 	AS 1668.1 – 2015 AS 1668.2 –2012	E2.2, Spec E2.2a, Spec E2.2b	<input checked="" type="checkbox"/>
Portable fire extinguishers & fire blankets	AS 2444 – 2001	E1.6	<input checked="" type="checkbox"/>
Paths of Travel	--	D1.6, DP4, DP5, DP6, EP2.2	<input checked="" type="checkbox"/>
Fire Engineering Performance Solutions prepared by MCD Fire Engineering. Rev: FER2.0, date: 20/11/2020; 1. To review and permit a reduction in spandrel/balcony separation between vertically	C2.6, CP2		<input checked="" type="checkbox"/>

Fire Safety Measure	Standard	BCA Clause(s)	Proposed Fire Safety Measures
<p>aligned openings for building of Type A construction (Blocks A-D).</p> <p>2. To permit the reduction in general FRLs;</p> <ul style="list-style-type: none"> • from the required FRL of 120 minutes down to 60 minutes for building of Type A construction, i.e., main School Buildings (Blocks A-D); • from the required FRL of 90 minutes down to 60 minutes for building of Type C construction, i.e., Hall Building (Block E). <p>3. To permit the reduction of FRLs to the floors for buildings of Type A construction (Blocks B, C & D), from 120/120/120 to a ceiling having a Resistance to Incipient Spread of Fire (RISF) of 60 minutes.</p> <p>4. To permit the use of combustible sarking material (Bradford Enviroseal ProctorWrap RW) inside the external walls of the building of Type A construction (Blocks A-D).</p> <p>5. To permit the use of plywood timber noggings/reinforcement (for handrails/grabrails/wall mounted wet areas systems such as WHBs etc) in cavities of fire rated walls (internal or external) and non-fire-rated external walls the building of Type A construction (Blocks A-D).</p> <p>6. The residual pressure of internal fire hydrants is to be designed in accordance with AS 2419.1-2017 instead of AS 2419.1-2005, i.e., 250 kPa instead of 700 kPa by viewing them as “unassisted attack fire hydrant”.</p> <p>7. To permit the location of the fire hydrant booster to not technically be within sight of each building entry on the site, and not adjacent to the vehicular entrance.</p> <p>8. To permit the omission of Fire Hose Reels serving parts of the buildings that are not forming part of the main classroom areas of the building (i.e. admin, BOH, etc).</p>	<p>Spec C1.1, Table 3. Table 5, CP1 and CP2</p> <p>Spec C1.1, Clause 3.1 Table 3, CP1 and CP2</p> <p>C1.9, CP2, CP4</p> <p>C1.9, Spec C1.1, Clause 3.1(d), CP2. CP4</p> <p>E1.3, AS 2419.1, EP1.3</p> <p>E1.3, AS 2419.1, EP1.3</p> <p>E1.4, EP1.1</p>		

Building E

Fire Safety Measure	Standard	BCA Clause(s)	Proposed Fire Safety Measures
Access panels, doors & hoppers to fire resisting shafts	AS 1530.4 – 2014	C3.13	<input checked="" type="checkbox"/>
Automatic fail-safe devices	--	C3.8, D2.21, Spec C3.4	<input checked="" type="checkbox"/>
Automatic fire detection & alarm systems (associated to automatic shut-down system)	AS 1670.1 – 2015 AS 1668.1 – 2015	Spec E2.2b	<input checked="" type="checkbox"/>
Emergency lighting	AS 2293.1 – 2005	E4.2, E4.4	<input checked="" type="checkbox"/>
Exit signs	AS 2293.1 – 2005	E4.5, NSW E4.6 & E4.8, EP4.2	<input checked="" type="checkbox"/>
Fire doors	AS 1905.1 – 2015	Spec C3.4, C3.10	<input checked="" type="checkbox"/>
Fire hydrant systems	AS 2419.1 – 2005	E1.3, EP1.3	<input checked="" type="checkbox"/>
Lightweight construction	--	C1.8, Spec C1.8, CP1, CP2	<input checked="" type="checkbox"/>
Mechanical air handling systems <ul style="list-style-type: none"> Auto shutdown 	AS 1668.1 – 2015 AS 1668.2 –2012	E2.2, Spec E2.2a, Spec E2.2b	<input checked="" type="checkbox"/>
Portable fire extinguishers & fire blankets	AS 2444 – 2001	E1.6	<input checked="" type="checkbox"/>
Paths of Travel	--	D1.6, DP4, DP5, DP6, EP2.2	<input checked="" type="checkbox"/>
<p>Fire Engineering Performance Solutions prepared by MCD Fire Engineering.</p> <p>Rev: FER2.0, date: 20/11/2020;</p> <p>9. To review and permit a reduction in spandrel/balcony separation between vertically aligned openings for building of Type A construction (Blocks A-D).</p> <p>10. To permit the reduction in general FRLs;</p> <ul style="list-style-type: none"> from the required FRL of 120 minutes down to 60 minutes for building of Type A construction, i.e., main School Buildings (Blocks A-D); from the required FRL of 90 minutes down to 60 minutes for building of Type C construction, i.e., Hall Building (Block E). <p>11. To permit the reduction of FRLs to the floors for buildings of Type A construction (Blocks B, C & D), from 120/120/120 to a ceiling having a Resistance to Incipient Spread of Fire (RISF) of 60 minutes.</p> <p>12. To permit the use of combustible sarking material (Bradford Enviroseal</p>	<p>C2.6, CP2</p> <p>Spec C1.1, Table 3. Table 5, CP1 and CP2</p> <p>Spec C1.1, Clause 3.1 Table 3, CP1 and CP2</p> <p>C1.9, CP2, CP4</p>		<input checked="" type="checkbox"/>

Fire Safety Measure	Standard	BCA Clause(s)	Proposed Fire Safety Measures
<p>ProctorWrap RW) inside the external walls of the building of Type A construction (Blocks A-D).</p> <p>13. To permit the use of plywood timber noggings/reinforcement (for handrails/grabrails/wall mounted wet areas systems such as WHBs etc) in cavities of fire rated walls (internal or external) and non-fire-rated external walls the building of Type A construction (Blocks A-D).</p> <p>14. The residual pressure of internal fire hydrants is to be designed in accordance with AS 2419.1-2017 instead of AS 2419.1-2005, i.e., 250 kPa instead of 700 kPa by viewing them as “unassisted attack fire hydrant”.</p> <p>15. To permit the location of the fire hydrant booster to not technically be within sight of each building entry on the site, and not adjacent to the vehicular entrance.</p> <p>16. To permit the omission of Fire Hose Reels serving parts of the buildings that are not forming part of the main classroom areas of the building (i.e. admin, BOH, etc).</p>	<p>C1.9, Spec C1.1, Clause 3.1(d), CP2. CP4</p> <p>E1.3, AS 2419.1, EP1.3</p> <p>E1.3, AS 2419.1, EP1.3</p> <p>E1.4, EP1.1</p>		

DESIGN DOCUMENTATION

The following architectural documentation was reviewed as part of this assessment.

Drawing No.	Titled	Prepared by	Revision	Dated
NHQC2-CF-AR-DWG-00_S002	Site Plan	PERUMAL PEDAVOLI ARCHITECTS	13	10/12/2020
NHQC2-CF-AR-DWG-00_S005	Overall Fence Plan	PERUMAL PEDAVOLI ARCHITECTS	5	04/12/2020
NHQC2-CF-AR-DWG-00_S302	External Works Plan - Sheet 2	PERUMAL PEDAVOLI ARCHITECTS	11	10/12/2020
NHQC2-CF-AR-DWG-00_S303	External Works Plan - Sheet 3	PERUMAL PEDAVOLI ARCHITECTS	12	04/12/2020
NHQC2-CF-AR-DWG-00_S304	External Works Plan - Sheet 4	PERUMAL PEDAVOLI ARCHITECTS	6	02/12/2020
NHQC2-CF-AR-DWG-00_S305	External Works Plan - Sheet 5	PERUMAL PEDAVOLI ARCHITECTS	5	10/12/2020
NHQC2-CF-AR-DWG-00_S306	Carpark	PERUMAL PEDAVOLI ARCHITECTS	2	09/11/2020

SUPPLEMENTARY DOCUMENTATION

The following additional documentation was reviewed as part of this assessment, and has been relied upon in confirming compliance for those elements listed / certified or confirmed as compliant;

- Civil Design Certificate issued by James Gilligan of Northrop Consulting Engineers, dated 18/12/2020
- Certificate of Compliance for Landscape Designs issued by Iain Brammer of Taylor Brammer, dated 16/12/2020
- Fire Engineering Report No. S19033.CF, Revision FER 2.0, issued by MCD Fire Engineering, dated 20/11/2020
- Certificate of Compliance for Disabled Access Design issued by Tegan Ma of Du Chateau Chun, dated 16/12/2020.
- Certificate of Compliance for Hydraulic Services Design issued by Ian Stalker of Woolacotts, dated 17/12/2020.

Information previously relied upon in Crown Certificate GDL190177, dated 29/06/2020;

- Application for Crown Certificate form issued by Anthony Manning of NSW Department of Education, School Infrastructure NSW, dated 25/06/2020
- Schedule of Materials, Colours & Finishes for Project No. 3252, Revision 0, issued by Perumal Pedavoli Pty Limited, dated 18/06/2020
- Architectural Specification No. NHQC – Package 2, Revision M, issued by Perumal Pedavoli Pty Limited, dated 19/06/2020
- BCA Design Statement issued by Salvatore Rigoli of Perumal Pedavoli Pty Limited, dated 23/06/2020
- Fire Engineering Report No. S19033.CF, Revision FER 1.1, issued by MCD Fire Engineering, dated 19/06/2020
- Weather Proofing Performance Solution Report No. NHQC2, Revision B, issued by Hansen Yuncken, dated 26/06/2020

- Structural Design Compliance Certificate issued by Jonathan Low of Northrop Consulting Engineers, dated 25/06/2020
- Design Statement for Electrical and Lighting issued by Ivan Mira of Steensen Varming, dated 24/06/2020
- Item 10 - Design Certificate for Fire Services issued by Dieter Janssen of Force Fire & Safety Pty Ltd, dated 24/06/2020
- Design Certificate for Hydraulic Services issued by Ian Stalker of Woolacotts Consulting Engineers, dated 26/06/2020
- Design Certificate for Inground Stormwater Drainage issued by James Gilligan of Northrop Consulting Engineers, dated 23/06/20250
- Design Certificate for Mechanical Building Services issued by Chris Arkins of Steensen Varming, dated 23/06/2020
- Design Certificate for Access Consulting Services issued by Tegan Ma of du Chateau Chun, dated 17/06/2020
- Letter of Confirmation of Population Numbers issued by Sam Rigoli of Perumal Pedavoli Pty Limited, dated 19/06/2020
- NCC Section J JV3 Report No. 195018-SER01, Revision 4, issued by Northrop Consulting Engineers, dated 15/06/2020
- SSD Condition B3 – Structural Design Compliance Certificate and associated drawings issued by Jonathan Low of Northrop Consulting Engineers, dated 25/06/2020
- SSD Condition B4 – Letter referencing External Walls and Cladding issued by Paul Nelson of Hansen Yuncken Pty Ltd
- SSD Condition B5 & B6 – Dilapidation Report No. 20015, issued by Project Solutions Pty Ltd, dated 25/07/2019
- SSD Condition B9 – Letter referencing Registration for Green Star Certification issued by Jim Lewis of School Infrastructure NSW, dated 22/06/2020
- SSD Condition B10 – Design Statement for External Lighting issued by Ivan Mira of Steensen Varming, dated 23/06/2020
- SSD Condition B11 – Letter referencing Demolition Work issued by Paul Nelson of Hansen Yuncken Pty Ltd
- SSD Condition B13 – Construction Environment Management Plan (CEMP) No. SC126, Revision 3, issued by Hansen Yuncken Pty Ltd, dated 29/06/2020
- SSD Condition B13 – Letter of Compliance for CEMP issued by Paul Todhunter of Hansen Yuncken Pty Ltd, dated 29/06/2020
- SSD Condition B20 – Certification of Design Intent issued by Isabella Adlington of Northrop Consulting Engineers, dated 18/06/2020
- SSD Condition B21, B25, B28 and B29 – Letter referencing conditions which will be covered under a separate Crown Certificate issued by Paul Nelson of Hansen Yuncken Pty Ltd
- SSD Condition B22, 23 & 24 - Certificate of Compliance for Landscape Design issued by Iain Brammer of Taylor Brammer Landscape Architects Pty Ltd, dated 22/06/2020
- SSD Condition B22 – Document Transmittal for Landscape Drawings and associated drawings issued by Taylor Brammer Landscape Architects Pty Ltd
- SSD Condition B27 - Submission of Construction Carparking and service vehicle layout in accordance with Condition B27 issued by NSW Department of Education
- SSD Condition B27 - Construction Traffic and Pedestrian Management Sub-Plan Reference No. P1047r05 issued by Ason Group, dated 19/06/2020
- Email Confirming Fire Rated Penetrations issued by Mark McDaid of MCD Fire Engineering, dated 11/06/2020

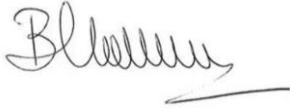
CONDITIONS OF APPROVAL

PART A – CONDITIONS OF CONSTRUCTION

BCA CLAUSE	Comments
BCA 2019	The construction works must be undertaken and installed in accordance with the requirements of BCA 2019 and any referenced Australian Standards in BCA 2019.
C1.10	<p>Materials must have fire hazard properties in accordance with BCA Specification C1.10 as follows: -</p> <ul style="list-style-type: none"> • <u>Floor Coverings</u> <ul style="list-style-type: none"> (i) a critical radian flux no less than 2.2kW/m² for non-sprinkler protected buildings (ii) a maximum smoke development rate of 750 percent minutes • <u>Wall and Ceiling linings</u> <ul style="list-style-type: none"> (i) a group number of ; and (ii) a smoke growth rate index of not more than 100; or (iii) an average specific extinction area less than 250m²/kg • <u>Air handling ductwork</u> <ul style="list-style-type: none"> (i) Rigid and flexible ductwork must comply with the fire hazard properties set out in AS 4254 – 1995 <p>Note: BCA 2019 has specific Australian Standards that must be complied with in determining the above requirements, consult BCA 2019 to establish the relevant testing requirements prior to specifying, ordering or installing finishes</p>
C3.15	Any new service penetrations in fire rated elements must be fire sealed in accordance with Clause C3.15 of BCA.
D1.6	Paths of travel to exits must have a clear width of no less than 1000mm. Note: Measured between fixed items, such as workstations, openings without doors, etc
D2.21	All door latching mechanisms to be located between 900-1100mm from the finished floor level.
E4.2/E4.5	New emergency lighting to be undertaken in accordance with BCA Clause E4.2 and AS2293.1 - 2005
E4.5/E4.6	New exit signage and alterations to suit new arrangement must be undertaken in accordance with BCA Clause E4.5, E4.6 and AS2293.1 - 2005
F4.4	New artificial lighting must accord with AS/NZS 1680.0 – 2009 to all rooms and corridors, lobbies and internal circulation spaces, and certified by a suitably qualified contractor upon completion.
F4.5	New / alterations to ventilation must be in accordance with AS1668.2-2012
Part J6	New artificial lighting must accord with Part J6 of BCA 2016, and certified by a suitably qualified contractor upon completion.
Table D2.14	Slip Resistance of new stairs / ramps, including relining of such must be provided in accordance with the required slip resistance listed in Table D2.14 of the BCA.
Fire Services	Any Fire Services being installation, modification or alteration must be undertaken in accordance with the listed standards of performance and BCA clause requirements of the Fire Safety Schedule.

GROUPDLA

This certificate confirms compliance to Section 6.28 of the Environmental Planning and Assessment Act for the proposed works, and is reliant upon the listed documentation, design certification and plans referenced, as well as compliance with the conditions of this document, as listed, being achieved



Brett Clabburn
Director
BDC0064