MBC MODERN BUILDING CERTIFIERS

Building Code of Australia 2019

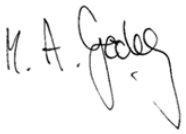
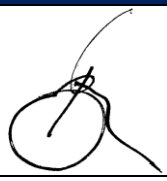
BCA CAPABILITY REPORT

Frenchs Forest Bushland Cemetery

Prepared for: NMCT| Issue date: 18 Sept 19

CONTENTS

Authorisation

Revision	Comment / Reason for Issue	Issue Date	Prepared by	Reviewed by
1	DA submission	18.09.19		
			Mike Gooley	Eric Bailey

Revision History

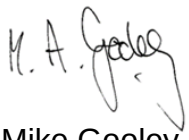
Commercial in Confidence

Revision	Comment / Reason for Issue	Issue Date	Prepared By
1	DA submission	18.09.19	Mike Gooley

Executive Summary

Modern Building Certifiers (MBC) have been commissioned to carry out an assessment of the proposed alterations and additions to the Function Center together with the construction of new Chapel building located within the Frenchs Forest Bushland Cemetery at 1 Hakea Avenue, Frenchs Forest 2085 against the requirements of the National Construction Code Series (Volume 1) – Building Code of Australia (BCA) 2019.

The purpose of the assessment is to provide surety to the Consent Authority, that the buildings design is capable of complying with the BCA and that subsequent compliance with the provisions of Parts C, D E, F & J of the BCA will not give rise to further modifications to the building that may necessitate additional design changes.



Mike Gooley
Accredited Certifier
Director
Modern Building Certifiers

Introduction

The following Modern Building Certifiers Team Members have contributed to this assessment:

- Mike Gooley – Director & A1 Accredited Certifier

Our assessment of the concept design documentation was based on the following:

- National Construction Code Series (Volume 1) Building Code of Australia 2019
- Architectural Drawings – Refer to Appendix A
- Guide to the Building Code of Australia 2019 (BCA Guide)
- Access to Premises – Buildings Standards 2010 (Access Code)
- Environmental Planning and Assessment Act 1979 (EP&A)
- Environmental Planning and Assessment Regulation 2000 (EP&AR)

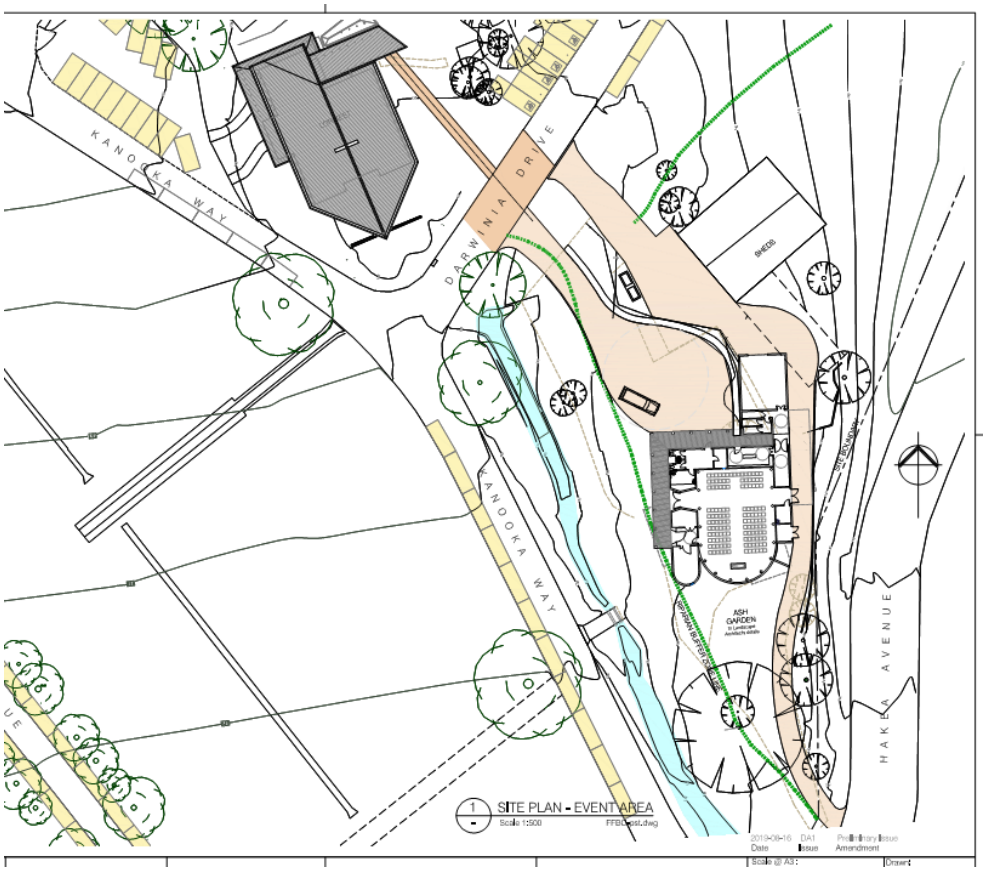
The objectives of this statement are to:

- Undertake an assessment of the proposed architectural design documentation against the Performance Requirements of National Construction Code Series 2019 (Volume 1) - Building Code of Australia (BCA).
- Accompany the submission of the Development Application to Lane Cove Municipal Council to enable the Consent Authority to be satisfied that the building design is capable of complying with the BCA and that subsequent compliance with Parts C, D, E, F & J of the BCA will not give rise to further design changes to the building.
- Identify any BCA compliance issues that require resolution at the Construction Certificate stage. These matters are to be considered pursuant to Cls 53 .4 of the EP&A Regulation 2000.
- Enable the certifying authority to satisfy its statutory obligations under Clause 145 of the Environmental Planning and Assessment Regulation, 2000.
- Enable the certifying authority to satisfy its statutory obligations under Clause 17 & 18 of the Building Professionals Regulation 2007.
- This Capability Statement is not intended to identify all issues of compliance or non-compliance with the BCA with such other issues to be appropriately addressed prior to issue of the Construction Certificate.

Building Description Summary

Proposed Works

The proposal involves alterations and additions to the Function Center together with the construction of new Chapel building located within the Frenchs Forest Bushland Cemetery at 1 Hakea Avenue, Frenchs Forest 2085.



The allotment is currently identified as 16 Hakea Avenue, Frenchs Forest (Lot/Section/Plan No: 8/DP224759) within Northern Beaches Council area.

BCA Assessment

Relevant BCA Edition

The proposed building will be subject to compliance with the relevant requirements of the BCA as in force at the time that the application for the Construction Certificate is made. In this regard it is assumed that the Construction Certificate application will be made prior to the 1st May 2019, as such BCA 2019 Version applies to the new works proposed at the subject development.

Compliance with the BCA

The detailed desktop assessment was carried out against the technical provisions of the BCA and compliance matters will be addressed in the Crown Certification documentation. It is noted that the proposed development must comply with the relevant requirements and this can be achieved by complying with the following:

a) Complying with the Deemed-to-satisfy (DTS) Provisions; or
b) Formulating an Alternative Solution which –
    i) Complies with the performance requirements; or
    ii) Is shown to be at least equivalent to the DTS provisions; or
c) A combination of the above.

In accordance with the above, Modern Building Certifiers can verify that the proposed building design will entail compliance with the DTS provisions of the BCA.

Building Assessment Data

Summary of Construction and Building	
Use(s)	Assembly Buildings
Classification(s)	9b – Function Centre 9b - Chapel
Number of Storeys contained	1
Rise in Storeys	1
Type of Construction	Type C
Effective Height	< 12m
Climate Zone	Zone 5

BCA Summary Requirements

Structural Provisions

Any new structural works are to comply with the applicable requirements listed within the suite AS/NZS 1170.

Any glazing, including external glazed assemblies, shall comply with AS1288-2006 – Glass in Buildings – Selection and Installation, Amendments 1 and 2.

Any external glazed assemblies shall also comply with AS2047-2014 – Windows and external glazed doors in buildings.

Prior to the issue of the relevant Crown Certificate structural certification is required to be provided confirming the structural design complies with the requirements of Section B of the BCA.

Fire Resistance

The buildings shall be constructed generally in accordance with Table 5 of Specification C1.1 of the BCA. The building is required to be Type C Construction.

Details of the proposed lightweight construction means of compliance and FRL achieved are to be provided as part of the Crown Certification application.

Fire Hazard Properties

The Fire Hazard Properties of floor linings and floor coverings, wall and ceiling linings, and other material as noted within Clause C1.10, must comply with the provisions of Specification C1.10 as noted in Table 1 below.

Item	Location	Requirement
Floor linings or coverings	All new floor linings	*CRF of no less than 2.2
Wall and ceiling linings	Corridors	**Group Number 1 or 2
Wall and ceiling linings	Rooms (General)	Group Number 1, 2 or 3
Ceiling linings	Rooms (Open office with a floor to ceiling ration of >5)	Group Number 1 or 2

Table 1 - Fire Hazard Properties

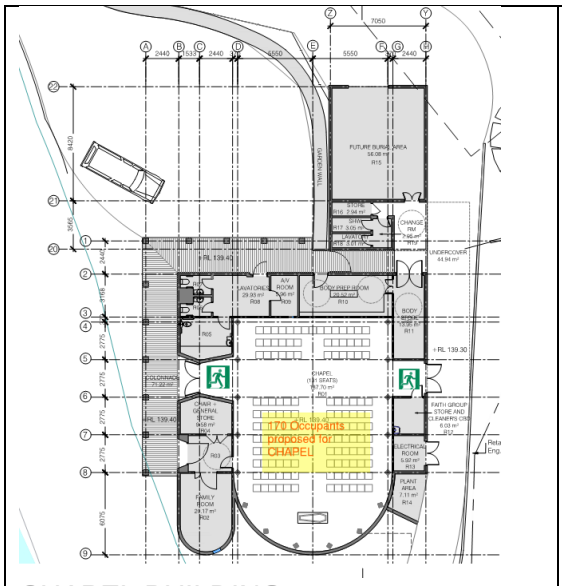
Note: CRF stands for critical radiant flux, which is a BCA defined term as follows – "Critical radiant flux means the critical heat flux at extinguishment as determined by AS ISO 92391.1 – 2003."*
*Note**: Group Number is a BCA defined term as follows – "Group number means the number of one of 4 groups of materials used in the regulation of fire hazard properties and applied to materials used as a finish, surface, lining, or attachment to a wall or ceiling."*

The Group Numbers are as follows –

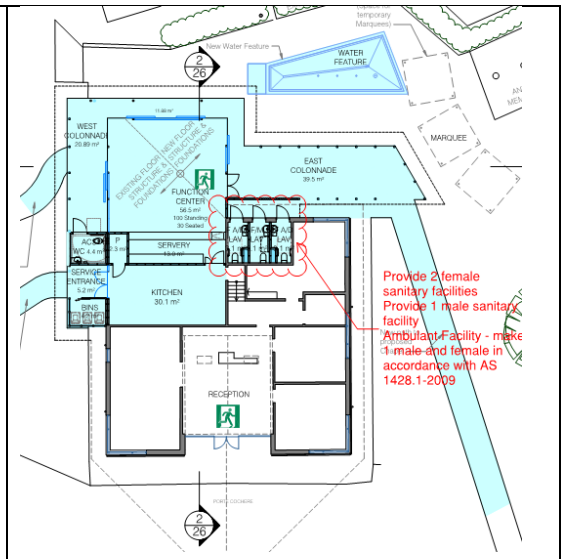
(a) For the purposes of this Clause, the group number of a material is determined by either—
(i) physical testing in accordance with AS ISO 9705; or
(ii) prediction in accordance with Clause 3 of Specification A2.4 using data obtained by testing the material at 50 kW/m^2 irradiance in the horizontal orientation with edge frame in accordance with AS/NZS 3837.

Egress

The egress provisions from the building are provided by external perimeter doorways. The number of exits and travel distances to required exits will comply with the provisions of the BCA.



CHAPEL BUILDING



FUNCTION CENTER

Access for Persons with a Disability

Access for people with disabilities shall be provided to and within the building in accordance with the requirements of Clause D3.2, D3.3 and D3.4 of the BCA 2019. Parts of the building required to be accessible shall comply with the requirements of AS1428.1-2009.

Where the main public entrance is via a ramp, tactile indicators shall be provided in accordance with AS 1428.4 at the top and bottom. Facilities services and features of the building accessible to people with disabilities shall be identified by signage complying with Clause D3.6 of the BCA.

The following items to be address within the design documentation:

(a) The ramp to achieve a grade 1:20 or being designed as 1:14 ramp in accordance with AS 1428.1-2009;
(b) The reception counter being design to cater for public who may be a wheelchair. The height of counter being not more than 900mm with recess space for a wheelchair in accordance with AS 1428.2-2009;

(c) Access for people with disabilities being provided throughout occupied spaces. Consideration being given to circulation spaces on the latch side of doorways;
(d) The current provisions of the BCA require unisex toilet for people with disabilities together with ambulant facilities for male and females.
(e) Access for people with disabilities being provided from the nominated accessible carspace with access via pathway or walkways to connect with the entrance foyer of each building.

Fire Services & Equipment

Based upon a review of the design documentation the size of the building is less than 500m^2. The building would be required to be served by the following:

- Portable Fire Extinguishers in accordance with Clause E1.6 of the BCA and AS 2444-2001,
- Emergency lighting, exit signage and directional exit signage is required throughout the building in accordance with Part E of the BCA and AS/NZS 2293.1-2005
- Automatic shutdown of air-conditioning system by smoke detectors in accordance with BCA NSW Table E2.2band specification E2.2a.

Sanitary Facilities

The sanitary facilities are provided within the building based upon the number of occupant proposed to be accommodated within the building. If not more than 10 people are employed, a unisex facility may be provided instead of a separate facilities for each sex. The sanitary facilities will include a unisex ambulant facility and shower in lieu of a designated unisex disabled facility.

Each building has made provision for unisex accessible sanitary facilities for people with disabilities together with ambulant facilities for male and females.

Light and Ventilation

The provision of natural or mechanical ventilation is required to all habitable rooms in accordance with F4.5 Building Code of Australia and AS 1668 and AS/NZS 3666.1.

Energy Efficiency

Class 9b Portions

The proposed development shall comply with Part J of the BCA. To achieve compliance, there are two options available:

1. The building can comply with the deemed-to-satisfy provisions of the BCA, relating to the following areas:

    - Building Fabric
    - Glazing

- Building Sealing
- Air Conditioning & Ventilation Systems
- Artificial Lighting & Power
- Hot Water Supply

2. The building can be verified against a reference building as per Verification Method JV3. This requires that the proposed building and its services be shown to have an annual energy consumption of equal or less than the reference building which has been modelled as per the requirements of Part J of the BCA.

Certification from an appropriately qualified engineer should be provided for either option with a report / computations outlining how compliance is achieved.

Access for maintenance is to be provided to the building in accordance with the requirements of BCA Part J8.

The proposed site will be located in a climate zone 5.

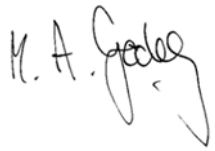
Conclusion

This report contains an assessment of the referenced architectural documentation for the proposed development against the Deemed-to-Satisfy provisions & Performance Requirements of the National Construction Code Series (Volume 1) Building Code of Australia 2019.

In view of the above assessment we can confirm that subject to the above measures being appropriately considered, that compliance with the Deemed-to-Satisfy Provisions of the BCA are readily achievable.

We trust that the above submission is of assistance to Council and should you wish to discuss any aspect of this advice, please do not hesitate to contact me.

Best regards,



Mike Gooley
Accredited Certifier – BPB 0143
Director
Modern Building Certifiers

Appendix A – Design Documentation

The following documentation prepared by Hector Abrahams Architects was used in the assessment and preparation of this report

Drawing No.	Description
00	Drawing Register & Location Plan
01	Site Plan – Event Area
03	Chapel – Ground Floor Plan
04	Chapel – Clerestory Plan
05	Chapel – Roof Plan
06	Chapel – North and South Elevations
08	Chapel – East and West Elevations
10, 12 , 13	Chapel – Section A, C, D

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