

**DEVELOPMENT APPLICATION**

To:	City of Canterbury Bankstown	Project:	134666
Email:	council@cbc.city.nsw.gov.au	Version:	H
Date:	28 May 2021		
Subject:	280-300 Lakemba Street & 64-70, King Georges Road, Wiley Park, NSW		

---

To whom it may concern,

This letter is to advise that Holmes Fire has been engaged by ABM Built to provide fire engineering services for the proposed residential and retail development, to be located at the corner of Lakemba Street and King Georges Road in Wiley Park, NSW.

**1 INTRODUCTION**

The development is to consist of four blocks, each with retail tenancies on Level 00 (ground level). The blocks are separated above ground. The blocks have seven levels of residential Sole Occupancy Units (SOUs) and rooftop communal areas. The blocks are connected by three levels of basement carpark (B1-B3), a basement supermarket (B1), and basement plant (B0). Furthermore, there will be a central open plaza between the four blocks at Ground Level.

A Building Code of Australia, 2019 (BCA)<sup>1</sup> assessment has been undertaken by Holmes Fire, dated 28 May 2021. This report identified a number of non-compliances with the Deemed-to-Satisfy Provisions of the BCA that will be addressed by Holmes Fire.

The building has an effective height of approximately 26.1 m and will be sprinkler protected by an AS 2118.1-2017 sprinkler system.

**2 PROPOSED PERFORMANCE SOLUTIONS**

Holmes Fire will address the identified non-compliances using performance-based fire engineering solutions. The performance-based solutions will comply with the relevant Performance Requirements of the BCA. The design approach will be in line with the International Fire Engineering Guidelines<sup>2</sup> and other acceptable guideline documents.

---

<sup>1</sup> Australian Building Codes Board, National Construction Code Series 2019, Volume 1, Building Code of Australia, Class 2 to Class 9 Buildings. Australian Building Codes Board, CAN, Australia, 2019.

<sup>2</sup> National Research Council of Canada; International Code Council, United States of America; Department of Building and Housing, New Zealand; and Australian Building Codes Board, International Fire Engineering Guidelines, Edition 2005, Australian Building Codes Board, 2005.

The Performance Solution designs will be developed in line with BCA Clause A2.2, as applicable; i.e. complying with the relevant Performance Requirements or by equivalence comparison with the Deemed-to-Satisfy Provisions.

The identified non-compliances and proposed approach of the Performance Solution for each issue is listed below. Holmes Fire understands that all other aspects of the building will comply with the Deemed-to-Satisfy Provisions of the BCA.

- Clause C1.1, C2.7, C2.8, C2.9, C3.5 – The carpark levels are required to be separated from the retail supermarket by construction with an FRL of at least 180/180/180, or the entire floor is required to be constructed to the higher FRL. Retail tenancies on Level 00 are required to achieve an FRL of 180/180/180. The loading dock may be considered a storage area and require a 240/240/240 FRL. A Performance Solution using a comparative approach will be provided to address Performance Requirements CP1 and CP2 to modify the FRL to the retail and storage areas and address the separation of classifications.
- Clause D1.2 – At least two exits must be provided to each storey in a building with an effective height greater than 25 m. Retail tenancies, waste rooms, residential lobbies, toilets, and service rooms on Level 00 only have access to a single exit. Egress from the subject areas is independent from portions of the building with a height exceeding 25 m. A Performance Solution using a comparative approach will be provided to address Performance Requirement DP4 to allow for the single exit from these tenancies.
- Clause D1.3 – Each stairway or ramp serving as a required exit must be fire-isolated where it passes three or more consecutive storeys. These stairs are required to be in a fire-resisting shaft, which includes a fire rated lid. The upper flights that serve the roofs (Levels 07 and 08) are not in a fire-resisting shaft as they do not have a fire rated lid. A Performance Solution using a comparative approach will be provided to address Performance Requirement DP5 to allow for the roof stair to not be in a fire-resisting shaft.
- Clause D1.4(a) – The maximum travel distance from the entry door of a residential SOU to a point of choice of exits is permitted to be 6 m. The distance from several SOUs is up to 7 m. A Performance Solution using a comparative approach will be provided to address Performance Requirement DP4 to allow for this travel distance.
- Clause D1.7(b) – A fire-isolated stair must provide independent egress from each storey served and discharge directly or by way of its own fire-isolated passageway to open space or a covered area satisfying particular criteria. The discharge from a number of the residential fire-isolated stairs do not satisfy these requirements, not being open for 2/3 of their perimeters. A Performance Solution using a comparative approach will be provided to address Performance Requirement DP5 to allow for the proposed fire-isolated stair discharge.
- Clause D1.7(c) – A path of travel from a fire-isolated exit discharge must not pass within 6 m of unprotected openings in the building's external walls. The discharge from a number of the residential fire-isolated stairs do not satisfy these requirements. A Performance Solution using a comparative approach will be provided to address Performance Requirement DP5 to allow for the proposed fire-isolated stair paths of travel.

- Clause D1.9(a) – A non-fire-isolated stairway serving as a required exit must provide a continuous means of travel by its own flights and landings to the level at which egress to a road or open space is provided. A number of non-fire-isolated stairs serve the roof levels and do not provide continuous means of travel by their own flights to reach open space. A Performance Solution using a comparative approach will be provided to address Performance Requirements DP4 and EP2.2 to allow for the non-fire-isolated stairs serving the roof levels.
- Clause D1.12(c) – Escalators and moving walkways must not connect more than three storeys if each of those storeys is provided with a sprinkler system. The escalators and moving walkways serving the basement supermarket connect three storeys but pass by a fourth, such that the three connected storeys are not consecutive. A Performance Solution using an absolute approach will be provided to address Performance Requirements CP2 and DP4 to allow for the escalator and moving walkway connections.
- Clause D2.12 – If an exit discharges occupants to the roof, the roof must not have any openings within 3 m of the travel path to reach open space. The fire-isolated stairs discharge to the roof of the supermarket (Level B0) and openings are located within 3 m of the travel path to open space. A Performance Solution using an absolute approach will be provided to address Performance Requirement DP4.
- Clause D2.20(b) – A swinging door in a required exit must swing in the direction of egress unless it serves a building or part with a floor area not more than 200 m<sup>2</sup>, it is the only required exit from the part of the building, and it is fitted with a device for holding it in the open position. Retail and residential lobby doors are proposed to swing against the direction of egress and may not be provided with a hold open device. A Performance Solution using a comparative approach will be provided to address Performance Requirement DP2 to allow for the proposed door swing directions.
- Clause E2.2 – A stair serving a storey with an effective height of greater than 25 m is required to be provided with pressurisation or open access balconies. Depending on the interpretation of what height the residential fire-isolated stairs serve, a pressurisation system is required. A Performance Solution using an absolute approach will be provided to address Performance Requirement EP2.2 to allow for the omission of stair pressurisation to all or part of the fire-isolated stairs.
- Clause E2.2 – A Class 6 retail area in a building greater than 25 m in effective height is required to be provided with a zone smoke control system. It is not proposed to provide this system to the retail tenancies at Basement 1 and Ground Floor. A Performance Solution using an absolute approach will be provided to address Performance Requirement EP2.2 to allow the tenancies to not have a zone smoke control system.

### 3 SUMMARY

Based on Holmes Fire's review of the project documentation, it is considered that performance-based fire engineering can be utilised to demonstrate compliance with the Performance Requirements of the BCA without major changes to the current design. Additional non-compliances may be identified as the design is

further developed, however it is considered that there are no significant issues that would affect the building layout.

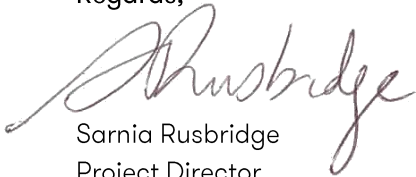
The information contained within this letter is based on the architectural drawings prepared by Marchese Partners International Pty Ltd, as listed below.

Table 3-1: Referenced Architectural Drawings

Dwg no.	Title	Date	Issue
DA 2.01	Level B3	12 May 2021	C
DA 2.02	Level B2	12 May 2021	C
DA 2.03	Level B1	12 May 2021	C
DA 2.04	Level B0	12 May 2021	C
DA 2.05	Level 00	12 May 2021	C
DA 2.06	Level 01	12 May 2021	C
DA 2.07	Level 02	12 May 2021	C
DA 2.08	Level 03	12 May 2021	C
DA 2.09	Level 04	12 May 2021	C
DA 2.10	Level 05	12 May 2021	C
DA 2.11	Level 06	12 May 2021	C
DA 2.12	Level 07	12 May 2021	C
DA 2.14	Level Roof	12 May 2021	C
DA 4.01	Elevation – South-West	12 May 2021	C
DA 4.02	Elevation – North-West	12 May 2021	C
DA 4.03	Elevation – North-East	12 May 2021	C
DA 4.04	Elevations – South-East	12 May 2021	C
DA 4.05	Elevation – South-West Internal	12 May 2021	C
DA 4.06	Elevation – North-East Internal	12 May 2021	C
DA 4.07	Elevation – South-East Internal	12 May 2021	C
DA 4.08	Elevations – North-West Internal	12 May 2021	C

Please do not hesitate to contact Holmes Fire, should there be any queries about the above.

Regards,

A handwritten signature in dark ink, appearing to read 'Sarnia Rusbridge', written in a cursive style.

Sarnia Rusbridge

Project Director

MEFireE, BEMech (Hons), NER, CPEng, Registered Certifier - Fire Safety (BDC0722)

134666.DAL001h