

DEVELOPMENT APPLICATION

To:	Northern Beaches Council	Project:	136215
Date:	6 September 2021	Version:	D
Subject:	28 Lockwood Avenue, Belrose, NSW		

To whom it may concern,

This letter is to advise that Holmes Fire has been engaged by Platinum Property Group to provide fire engineering services for the proposed mixed-use development, to be located at 28 Lockwood Avenue, Belrose, NSW.

1 INTRODUCTION

The project relates to the proposed mixed-use development to be located at 28 Lockwood Avenue, Belrose, NSW. The building contains Class 7a basement carparking, Class 7b storage, Class 6 retail, and Class 2 residential use. The residential blocks are divided into Building A and Building B, with Building B being on the north side and Building A being on the south side. The building is under 25 m in effective height, greater than 6,000 m² in area, and required to be sprinkler protected.

A Building Code of Australia, Volume One, Amendment 1, 2019 (BCA)¹ assessment has been undertaken by BCA Vision, dated 20 June 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.

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 Australian Fire Engineering Guidelines² and other acceptable guideline documents.

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.

¹ 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, 2020.

² ABCB, Australian Fire Engineering Guidelines, Australian Building Codes Board, 2021.

- BCA Clause C1.1 and Specification C1.1 (Clause 3.6) requires that where a roof is required to be non-combustible, rooflights or the like installed in that roof must not be located less than 3 m from roof lights of adjacent SOUs. Units 1.05 and 1.14 on Level 1 contain skylights approximately 2.4 m from one another. A Performance Solution using an approach will be provided to address Performance Requirement CP2.
- BCA Clause C2.14 requires that residential public corridors exceeding 40 m in length to be divided into sections of 40 m or less by smoke proof construction. Public corridors are up to 72 m in length and are not proposed to be separated by smoke proof construction.
- BCA Clause D1.2 requires basements to have not less than two exits. The retail areas on Lower Ground Floor are more than 1.5 m below ground and thus require two exits. It is proposed to only provide one exit from the retail areas. A Performance Solution using a comparative approach will be provided to address Performance Requirement DP4.
- BCA Clause D1.4(a)(i)(A) and Specification E1.5a permit the maximum travel distance from the entry door of a residential Sole Occupancy Unit (SOU) to an exit in a sprinklered building to be up to 12 m. The travel distance in Building B is up to 14 m to an exit and the travel distance in Building A is up to 16 m to an exit.
- BCA Clause D1.4(a)(ii) and Clause D1.4(c)(i) permits the maximum travel distance from a residential area not within an SOU or a Class 7a area to be up to 20 m to an exit. The travel distance from the Basement 2 residential bin room and HRV loading area is up to 39 m and 44 m to an exit. The travel distance from the Level 1 communal open space is up to 34 m to an exit. A Performance Solution using a comparative approach will be provided to address Performance Requirements DP4 and EP2.2.
- BCA Clause D1.4(c) permits the maximum travel distance from a Class 6 area to be up to 20 m to an exit, or 30 m to an exit where there is a single exit and the area is located at the level of access to open space. The travel distance from the Basement 2 south west retail tenancy is up to 36 m to an exit at the level of access to open space. The travel distance from the Lower Ground Floor retail tenancies is up to 34 m to an exit. A Performance Solution using a comparative approach will be provided to address Performance Requirements DP4 and EP2.2.
- BCA Clause D1.7(b) requires that a fire-isolated exit must provide egress directly to open space or to a compliant covered area that is open for 33% of the perimeter with a travel distance of no more than 6 m. The Building A fire-isolated stairs (west) serving the carpark and residential areas discharge into a covered area that is open for 13% of its perimeter and requires up to 6.9 m to reach open space. The Building A fire-isolated stairs (south) serving the carpark and residential areas discharge into a covered area that is open for 24% of its perimeter and requires up to 2.7 m to reach open space. The Building B fire-isolated stairs (north) serving the carpark and residential areas discharge into a covered area that is open for 16% of its perimeter and requires up to 4.7 m to reach open space. A Performance Solution using a comparative approach will be provided to address Performance Requirements DP5 and EP2.2.
- BCA Clause D1.7(c) requires that where the path of travel from the point of discharge of fire-isolated exits to the road requires occupants to pass within 6 m of openings in the external wall of

the building, those openings are to be protected. The path of travel from multiple fire-isolated stairs to the road require occupants to pass within 6 m of openings in the external wall. A Performance Solution using an absolute approach will be provided to address Performance Requirement DP5.

- BCA Clause D2.20(b) requires doors in a required exit to swing in the direction of egress. Retail and bin room doors on Ground Floor swing against the direction of egress. A Performance Solution using an absolute approach will be provided to address Performance Requirement DP2.

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 DKO Architecture, as listed below.

Dwg no.	Title	Date	Issue
DA200	Basement 4	2 September 2021	I
DA201	Basement 3	2 September 2021	I
DA202	Basement 2	2 September 2021	K
DA203	Lower Ground Floor	2 September 2021	J
DA204	Ground Floor	2 September 2021	K
DA205	Level 1	2 September 2021	J
DA206	Roof	2 September 2021	I

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

Regards,



Sarnia Rusbridge
Project Director

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