



14 August 2012

The Director General
Major Projects Assessment
23-33 Bridge Street
Sydney NSW 2000

DEVELOPMENT APPLICATION – PYMBLE LADIES COLLEGE AQUATIC CENTRE,
20 AVON ROAD, PYMBLE, NSW

Director General,

This letter is to advise that Holmes Fire has been engaged by Pymble Ladies College to provide fire engineering services for the proposed Aquatic Centre, to be located within Pymble Ladies College at 20 Avon Road, Pymble, NSW.

INTRODUCTION

Pymble Ladies College is a private school for girls from Kindergarten to Year 12. A new aquatic centre is proposed for the school that will contain two pools, a fitness studio, physio rooms, administration areas, change rooms and WC facilities. The new building will be located adjacent to, and connect with, the existing two storey gymnasium. Some modification to the existing gymnasium façade, as well as demolition of the existing pools, will also be undertaken.

A Building Code of Australia, 2012(BCA)¹ assessment has been undertaken by BCA Vision (reference P12113), dated 6 August 2012. This report identified a number of non-compliances with the Deemed-to-Satisfy Provisions of the BCA that will be addressed by Holmes Fire (see below).

PROPOSED ALTERNATIVE 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

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¹ Australian Building Codes Board, *BCA 2012, Building Code of Australia, Class 2 to Class 9 Buildings, Volume 1*, Australian Building Codes Board, Canberra, Australia, 2012.



will be in line with the International Fire Engineering Guidelines² and other acceptable guideline documents.

The Alternative Solution designs will be developed in line with BCA Clause A0.5, 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 Alternative Solution for each issue is listed below. It is Holmes Fire's understanding that all other aspects of the building will comply with the Deemed-to-Satisfy Provisions of the BCA.

1. BCA Clause C1.1 requires a four storey Class 9b building to be of Type A construction. It is proposed to construct the aquatic centre of Type B construction. An Alternative Solution using a comparative approach will be provided to address Performance Requirements CP1 and CP2 to allow for the reduced type of construction based on comparison of the subject building to a two storey aquatic centre building.
2. BCA Clause C2.6 requires Type A buildings to be provided with separation of opening located above each other in external walls. Spandrel or apron protection is not proposed to be provided. An Alternative Solution using a comparative approach will be provided to address Performance Requirement CP2 based on the Type B construction provided and the location of openings within an open stair and the main pool area.
3. BCA Clause D1.4(c)(i) requires a single exit, or a point of choice to two exits, to be available within a maximum distance of 20 m. Travel distances have been advised as exceeding the maximum in the Lower Ground Floor plant areas. An Alternative Solution using an absolute approach will be provided to address Performance Requirements DP4 and, if required by the Principal Certifying Authority, EP2.2. This would depend on the extent and location of the non-compliance.
4. BCA Clause D1.5 requires alternative exits to be located no more than 60 m apart. These distances are likely to be exceeded in the Lower Ground Floor plant areas. An Alternative Solution using an absolute

² Australian Building Codes Board, Department of Building and Housing, New Zealand, National Research Council of Canada and International Code Council, United States of America, *International Fire Engineering Guidelines, Edition 2005*, Australian Building Codes Board, Canberra, Australia, 2005.



approach will be provided to address Performance Requirements DP4 and, if required by the Principal Certifying Authority, EP2.2. This would depend on the extent and location of the non-compliance.

SUMMARY

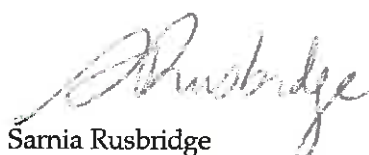
Based on our review of the project documentation, it is considered that performance based fire engineering can be utilised to demonstrate compliance with the Performance Requirements of the BCA without major changes to the current design. Additional non-compliances may be identified as the design is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

Dwg no.	Title	Date	Issue
DA101	Aquatic Centre Ground Level Plan	Jan 2012	-
DA102	Aquatic Centre Upper Level Plan	Jan 2012	-
DA103	Aquatic Centre Lower Ground Level Plan	Jan 2012	-
DA104	Aquatic Centre Roof Plan	Jan 2012	-
DA200	Aquatic Centre Elevations	26.08.11	-
DA300	Aquatic Centre Sections	22.11.11	-

Please do not hesitate to contact Holmes Fire should there be any queries.

Regards,


Sarnia Rusbridge
SENIOR FIRE ENGINEER

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