Consultant Advice

From:	**Frazer MacDonald**	**Date:**	**10 Oct. 19**	**File No:**	S38551\001\FE\21\ca191008s0004	**Pages:**	3
Project:	**Roseville Anglican College - SWELL Centre Fire Engineering**					**No:**	**FE001**[1.0]

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Roseville Anglican College – SWELL Centre – Fire Engineering – Development Application (DA) Statement

INTRODUCTION

The project relates to the development of the Roseville SWELL Centre which is an assembly building including a two-storey carpark, a swimming pool, a gym, a rooftop hardcourt and learning spaces.

Norman Disney & Young (NDY) have been engaged by EPM Projects Pty Ltd on behalf of the Anglican Schools Corporation t/as Roseville College to provide initial fire engineering advice in relation to non-compliances identified by Group DLA based on the proposed architectural drawings.

REFERENCE DOCUMENTS

- Architectural drawings prepared by Brewster Hjorth Architects, revision SSDA Submission, dated 03/10/2019 and 04/10/2019.
- BCA Review of Student Wellness Centre, file number GDL 190173 prepared by Group DLA, dated 27 June 2019.

PURPOSE

This Consultant Advice Note is provided to comment on potential Fire Engineering solutions to address fire safety related non-compliances identified by the BCA consultant (Group DLA).

The following fire engineering statement confirms that the Fire Engineering Solutions listed in Table 1 can be developed and supported for the SWELL Centre of Roseville Anglican College.

The schedule and measures noted are subject to change following further stakeholder / design team inputs, it is therefore anticipated that this schedule will be developed further in the subsequent design phases.

NEXT STEP

Our intent is to finalise this schedule of solutions and foreseen measures in support of the project DA application. Following which, fire engineering solutions will be outlined in a Fire Engineering Brief (FEB) document for referral to the fire brigade, followed by a Fire Engineering Report (FER) during the detailed design stage of the project.

SCHEDULE OF ISSUES

The following outlines proposed fire engineering solutions. Note that a number of additional items are identified in the BCA report and schedule of services non-compliances which we understand are to be rectified as part of building works to comply with BCA DTS provisions.

#	BCA DTS Item	BCA Report Comments	Fire Engineering Comments
1.	C3.2 – Protection of openings in external walls C3.4 – Acceptable methods of protection	Unprotected Openings on L2 & 3	DTS requires 60-minute FRL to external wall of both new SWELL Centre and existing building, plus protection of openings. A Performance Solution is feasible however will require additional measures and considerations as follows: a) Wall wetting sprinklers internally to the new SWELL Centre (to BCA Clause C3.2). b) The existing building is understood to have sprinklers therefore feasible for no additional wall wetting sprinklers to the outside of the new SWELL Centre.
2.	C3.5 – Doorways in fire walls	Fire Shutter being -/120/- in lieu of -/120/30	Supportable as a fire engineering Performance Solution. We have recommended allowing for additional measures at this juncture. Please see below two feasible options: a) Wall wetting sprinklers to be provided on both sides of the shutter; or b) 2-hour fire rated construction to be provided to the walls adjacent to the fire shutter.
3.	D1.5 – Distance between alternative exits	Travel distance between exits being 66m in lieu of 60m on L1	Supportable as a fire engineering Performance Solution, based on the addition of a detection system in accordance with BCA E2.2 and AS1670.1-2018. We understand this is an additional measure over and above BCA DTS provisions.

4.	D1.3 – When fire-isolated stairways and ramps are required D2.4 – Separation of rising and descending stair flights	Stair 1 being non-fire isolated and no fire separation between rising and descending flights	Supportable as a fire engineering Performance Solution, based on: a) We understand that L2 and L3 have direct egress to outside. b) L1 will rely on both fire stairs and the open stair for egress – to ensure open stair has a nominated discharge path to outside (open space). c) Addition of a detection system in accordance with BCA E2.2 and AS1670.1-2018. We understand this is an additional measure over and above BCA DTS provisions. d) Fire compartment areas and volumes remaining within BCA DTS limits (<5,500 m²). Note no fire doors / held open devices will be required.

Table 1: Schedule of Proposed Fire Engineering Solutions

We trust the above is sufficient for your present purposes.

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