

Whom it May Concern
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8 February 2013

Dear Sir/Madam

Cronulla Sharks Redevelopment Fire Engineering approach in support of the Planning Application submission

This letter concerns the fire safety design of the Cronulla Sharks Redevelopment in Cronulla, and specifically those aspects of the fire safety design that impact upon planning and hence are Planning Approval related issues for the building.

The scheme involves an extension of the existing club building, with the addition of new club facilities, a medical centre located across Levels 1 and 2, a retail mall at level 2 with associated parking at levels 1, 3 and 4. Club facilities will be at Levels 1, 3 and 4 utilising the existing parts of the club building. The overall development will have an effective height of approximately 17m.

A fire engineering review of the conceptual PA design has been undertaken by Arup based on the drawings issued for Authority Approval, provided by Scott Carver Pty Ltd.

The fire safety design of the building will generally satisfy the Performance Requirements of the Building Code of Australia (BCA) by complying with the Deemed-to-Satisfy (DTS) Provisions. However, there are some aspects of the design that are to be developed using performance based fire engineering to achieve compliance with the Performance Requirements of the BCA. The most significant of these are discussed in more detail below.

Travel distances

It is probable that there will be extended travel distances, both dead end and in two directions. These can be justified by utilisation a combination of enhanced smoke detection and sprinkler provision to demonstrate improved egress times compared to a DTS compliant design. Smoke control measures will further assist to limit smoke spread while occupants evacuate.

Smoke control

In the retail areas, additional smoke control measures will be utilised to limit smoke spread and enable safe occupant egress and fire brigade access.

Due to the size of the retail areas, separate smoke control systems will be required in the major tenancies and the mall. It is proposed to use performance based fire engineering to specify the smoke control exhaust rates.

Compartmentation

Both retail and car park areas will exceed the BCA DtS provisions for compartment sizes. It is proposed to demonstrate an acceptable level of fire safety using performance based fire engineering.

Allotment separation

Due to the legal subdivision of the development into two allotments, legal easements will need to be put in place to ensure that any fire safety measures relied upon from one lot to another is maintained for the duration of the building life or considered as part of a further engineered solution regardless of any future sale of a lot or change of use of an area.

Conclusion

Based on our review of the project documentation, it is considered that performance based fire engineering can be used to demonstrate compliance with the Performance Requirements of the NCC without major changes to the current design.

It is anticipated that other non-compliances with the DTS Provisions of the NCC may be identified as the design further develops. However, it is considered that there are no significant issues that would affect the building layout arising from fire safety and hence no impediments to the issuing of a Planning Approval for the project.

Yours sincerely



Alistair Morrison
Associate CEng, NPER (Fire Safety Engineer),