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by email

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Dear Greg

UTS Central Fire Engineering Statement for SSDA

Introduction

This report supports a State Significant Development Application (SSDA) submitted to the Department of Planning and Environment pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The SSD Application relates to the Concept Plan Approval for the University of Technology Sydney (UTS) City Campus Broadway Precinct, which was approved in December 2009 (MP08_0116).

The proposed works relate specifically to the UTS Central Project, more specifically the extension of Building 1 (podium) and redevelopment of Building 2 at the City Campus, Broadway Precinct.

Specifically the SSD application seeks approval for the following components;

- Site preparation works, including demolition and clearance of existing Building 2 down to approximately ground level and associated tree removal;
- Retention and re-use of existing basement Level 1 and Level 2;
- Construction and use of new floors above new Building 2 podium;
- Public domain improvements surrounding the site;
- Landscaping works to roof levels;
- Retention of existing vehicle access and parking arrangements and
- Extension and augmentation of physical infrastructure/ utilities as required

As the development has a capital investment value of more than \$30 million as an educational establishment, it is identified as State Significant Development under the State

Environmental Planning Policy (State and Regional Development) 2011, with the Minister for Planning the consent authority for the project.

This report has been prepared having regard to the Secretary's Environmental Assessment Requirements issued for the project.

Specifically this letter considers the fire safety design and extensions being made to Building 01 (CB01) and redeveloped Building 02 (CB02) of the University Technology Sydney (known herein as UTS), and specifically those aspects of the fire safety design that impact upon planning and hence SSDA issues for the building.

The new floor space will accommodate a range of educational and ancillary educational uses, such as:

- Library
- Research
- Teaching Space
- Informal Learning Space
- Student Centre
- Student Union Spaces
- Food and Beverage Outlets
- Academic (including Faculty space)

The new CB02 building will consist of 17 levels in total (Ground Floor is considered to be Level 3), as shown on the architectural drawings by Frances-Jones Morehen Thorp Pty Ltd (FJMT). This letter is based on drawings dated May 2016 and a BCA report dated April 2016 R1.3. It has an effective height of more than 50m. The building will feature a number of voids that connect numerous floors.

The extension made to CB01 will also include atria that connect a number of podium levels. The fire safety of the existing CB01 tower will not be significantly affected by the works being undertaken at Podium Levels.

The new CB02 and CB01 will be physically separated above Level 2 by a fire rated wall or similar which will include doors and/ or sliding elements in order to complete the separation. As the design progresses the level of separation will be developed with the team.

The fire safety design of the building will satisfy the Performance Requirements of the Building Code of Australia (BCA) by complying with either the Deemed-to-Satisfy (DTS) Provisions or by developing performance based fire engineering to achieve compliance with the Performance Requirements of the BCA. New works are not to have an adverse effect on the existing, retained areas. The main aspects of fire safety that affect the building layout are highlighted below.

- The void connections and atrium through the building will likely be open to some floors i.e. will not have bounding construction. The design for fire safety will look to limit the number of floors that are interconnected in order to remove the need for smoke control systems, other than zone pressurisation. The design will also take advantage of the architecture in separating floors/ compartments. There is a series of

winter gardens that provide a natural separation between the “villages” which will be considered external balconies for the purposes of the fire strategy.

- Sprinkler protection will be provided throughout to minimise potential fire sizes.
- The exit widths are sized to allow simultaneous evacuation of floors open to each other. This will mean a maximum of 3 floors evacuating at once within CB02. CB01 may require an amended strategy due to the existing atrium located in this building.
- Egress from the floors appears to comply with the deemed to satisfy provisions, however this may not be the case if the floors were to be split into separate tenancies. To provide future flexibility, extended travel distances will be accommodated in the design through the use of detection and possible enhanced warning systems to achieve comparable egress times to the deemed to satisfy provisions.
- The fire stairs discharge externally at ground floor (Level 3), as per the deemed to satisfy provisions.
- The fire control room (FCR) for both CB01 and CB02 will be combined and located directly off Jones Street. The FCR will contain the FIP for both buildings. The hydrant booster will be located on Broadway at a midway point between CB01 and CB02.

At this stage of the design, other fire safety aspects of the building appear to be DTS compliant. It is anticipated that there will be other non-compliances with the DTS Provisions of the BCA as the design develops, however it is considered that there are no issues that would affect the building layout arising from fire safety and hence no impediments to Council issuing development consent.

Yours sincerely



Neil McPhail
Senior Fire Engineer

cc Sally Vaughton - UTS