Sinclair Knight Merz 100 Christie Street PO Box 164 St Leonards NSW Australia 1590

 Tel:
 +61 2 9928 2100

 Fax:
 +61 2 9928 2500

 Web:
 www.skmconsulting.com



Toby Philip NSW Department of Planning 23-33 Bridge Street Sydney NSW 2000

29 June 2010

NB11231 - Peer Review - r02.docx

## St Vincent's Research Precinct Traffic and Parking Review

The NSW Department of Planning (DoP) engaged Sinclair Knight Merz (SKM) to review the traffic and parking assessment of the proposed St Vincent's Research Precinct, incorporating the Garvan St Vincent's Cancer Centre (GSVCC), the Victor Chang Cardiac Research Institute (VCCRI), the Garvan Institute of Medical Research (the Garvan Institute), and the Centre of Applied Medical Research (CAMR), and the proposed Stage 2 building in the northeastern corner of the site, in Darlinghurst. The traffic and parking assessment was undertaken by TEF Consulting, who reported in February 2010. TEF Consulting is a consultant to the Garvan Institute and St Vincent's and Mater Health Sydney, the proponents of the Research Precinct.

The proponents are proposing access to the site via the existing off-street car park facility (total parking provision of 300 spaces, increasing from an existing 112 spaces) located off West Street (with access via Liverpool Street). The DoP is seeking independent advice as to the proposed access arrangements for the precinct, factoring in the additional development envisaged by the proposed Stage 2 building.

#### Issues to be reviewed

The basis of SKM's review was the report titled "An assessment of traffic and parking conditions for the St Vincent's Research Precinct Concept Plan: Preferred Project Report", prepared by TEF Consulting. A site inspection was undertaken, on 14<sup>th</sup> December 2009 to observe existing conditions.

The following issues were highlighted to the DoP by the City of Sydney and local residents for particular attention:

- The City of Sydney queried the methodology employed in determining the future traffic generation of the precinct, and the assumption that existing travel patterns and mode shifts would remain the same given the projected increase in parking availability within the site.
- The City of Sydney and local residents do not believe that access off the existing West Street driveway is appropriate, and would prefer an alternate access point to be

Sinclair Knight Merz Pty Limited



considered, with the City of Sydney citing an access point off Victoria Street as a possible alternative.

• A previous approval for the site required traffic management measures at the intersection of West Avenue and West Street to prevent direct access from West Avenue to the access driveway to the car park and loading facility. Residents are concerned that with the proposed driveway to the north of the existing basement access, vehicles will be able to access the driveway illegally from West Avenue, as evidenced by the swept path shown in **Figure 1**.

Figure 1: Swept path analysis of the proposed widened driveway access on West Street (undertaken by Darlinghurst Residents Action Group).



- The City of Sydney is concerned that insufficient bicycle parking is provided within the precinct.
- There are concerns regarding the impact of the proposal on Darlinghurst Primary School, located directly to the north-east of the site.

# **Results of review**

The results of the review are detailed below:

# SINCLAIR KNIGHT MERZ

- Traffic impacts on local roads The impact of traffic generated by the precinct on the local road network, is considered to be negligible. Based on surveys conducted as part of the traffic and parking assessment, it was determined that 39 percent of all vehicles (70 vehicles per hour) would arrive in the AM peak period, and 34 percent of all vehicles (61 vehicles per hour) would depart in the PM peak period. The methodology adopted by TEF Consulting to determine traffic generation and distribution is considered sound;
- Vehicle Access Access to the precinct is proposed to be via the existing access on West Street, with access to the underground Stage 2 building and GSVCC parking to be via underground connections. Chaplin Lane is proposed to be used for light service vehicles and rear loading to the Green Park Hotel. Proposed access arrangements for the precinct are shown in Figure 2.



Figure 2: Proposed access arrangements

It is recommended that Chaplin Lane operate as left-in and left-out only, as right turns from Liverpool Street to Chaplin Street are considered unfeasible, as they would likely cause queuing at the Liverpool Street / Victoria Street intersection (which is located approximately 30 metres west of Chaplin Street). The City of Sydney proposed that an access off Victoria Street be considered. A second access off Victoria Street is not considered preferable, given the concentration of activity along Victoria Street with regard



to kerbside parking, high pedestrian volumes, and moderate traffic volumes (approximately 12,000 vehicles per day). West Street is a less active street and provides safer entry and egress for vehicles accessing the precinct.

Access to West Street driveway via West Avenue – Access to Barcom Street (and hence West Avenue) is restricted by a 2 tonne limit for vehicles who do not have a destination within these streets. The combination of the uphill gradient, deflection to the right caused by the kerb blister, and limited sight distance to the left on the West Avenue approach to the intersection are considered sufficient deterrents to the majority of vehicles from accessing the car park from West Avenue. It is understood that the additional access located immediately to the north of the existing West Street access is intended to operate as an access to the loading dock. Consequently, the majority of vehicles using this access would be service vehicles. Service vehicles are not permitted to use West Avenue, for the reasons discussed above, and could not approach the new loading dock access via West Avenue.

Therefore, it is considered that increased traffic volumes on West Avenue as a result of the GSVCC and the proposed Stage 2 building would be minimal.

- Bicycle Parking Based on existing mode splits, the report estimated that approximately
  71 persons would cycle to the precinct, while the proposed development includes a total of
  70 bicycle parking spaces. While it is acknowledged that this is in excess of Council's
  DCP 11 requirement of 13 spaces, the proposed 70 spaces does not cater for the expected
  number of cyclists, nor does it allow for any further mode shift towards cycling.
- Impacts on Darlinghurst Primary School The impact of the proposal on Darlinghurst Primary School are expected to be minimal. It is anticipated that 13.5% of vehicles will turn right out of West Street onto Liverpool Street, with the majority turning left and away from the school.



### Recommendation

Based on the review of the traffic and transport assessment prepared by TEF Consulting, and consideration of the issues raised by the City of Sydney and local residents, it is recommended that the proposed access to the GSVCC and the proposed Stage 2 building via West Street be retained.

David Lowe Senior Executive Traffic Engineer Phone: (02) 9928 2136 Fax: (02) 9032 1263 E-mail: DLowe@skm.com.au