URaP – TTW

Consulting Engineers

Traffic

TRAFFIC AND PARKING REVIEW REPORT FOR PRINCE OF WALES HOSPITAL MENTAL HEALTH INTENSIVE CARE UNIT

for HEALTH INFRASTRUCTURE

17 December 2010

Job No: 101418T

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1. INTRODUCTION

This traffic and parking review report has been prepared for the Health Infrastructure as part of the construction of a new Mental Health Intensive Care Unit (MHICU) at the Randwick Health Campus.

The POWH – MHICU project site is located on the eastern side of the block between Nurses Road and Avoca Road and consists of a two level building.

Health Infrastructure has confirmed the following operational requirements for the new facility:

Patient Numbers

The proposed facility will provide 12 beds and there will be in the order of 3-4 patient transfers per week. We understand that there will be minimal visitors to the facility at about 1visitor per patient/day.

Patient transfers will generally be by the NSW Ambulance Patient Transport Service to the dedicated Ambulance Bay off Nurses Road. Vehicle sweep paths for this area have been confirmed and are attached.

Staff Levels

Nursing staff are required 24 hours a day and as such work in shifts, whilst the remaining clinical staff generally work business hours Monday to Friday. The staff numbers per shift vary throughout the day with peak levels in the order of 20 (with night shift at 10).

2. PURPOSE

The purpose of this report is to provide a review of traffic and parking requirements with consideration to the proposed MHICU.

3. SCOPE

The scope of work undertaken is as follows:

- Assessment of the proposed development with respect to its ramifications to parking, pedestrian and traffic conditions;
- Comments on traffic impact during the construction.

4. EXISTING PARKING, ACCESS AND TRAFFIC CONDITIONS

The site is located within the Randwick Health Campus along Nurses Drive, opposite Simeon Pearce Drive, Randwick. The main access points to the site are via Barker Street and Easy Street. As part of the Hospitals' campus, car parking provisions are available for both visitors and staff.

The pedestrian route network is well established within the study area and all streets adjacent to the development site have pedestrian footpaths.

The site has a high level of public transport accessibility. The following list gives bus numbers, their destinations and the closest bus stops to the Hospital:

- *304 Circular Quay to Pagewood* via Central Stn, Surry Hills, Waterloo, Zetland. Closest bus stops to hospital: High St, Randwick and Barker St entrance
- *370 Leichhardt to Coogee* via St Peters Stn, Newtown Stn, Annandale. Closest bus stop to hospital: High St, Randwick
- *400 Burwood to Bondi Junction* via Campsie, Bexley North, Rockdale, Arncliffe, Sydney Airport, Pagewood, Maroubra Junction, Kingsford, Kensington. Closest bus stop to hospital: High Street, Randwick
- *372 Railway Square to Coogee* via Cleveland St, Carr St, Coogee. Closest bus stop to hospital: Belmore Rd, Randwick
- *373 Circular Quay to Coogee* via Taylor Square & Carr St, Coogee. Closest bus stop to hospital: Belmore Rd, Randwick
- *374 Circular Quay to Coogee* via Central Stn. Closest bus stop to hospital: Alison Rd, Randwick
- *375 Railway Square, Waterloo, Randwick Junction, Maroubra Beach*. Closest bus stop to hospital: Belmore Rd, Randwick
- *376 Circular Quay to Maroubra Junction* via Central Stn. Closest bus stop to hospital: Belmore Rd, Randwick
- *377 Circular Quay to Pagewood via* Maroubra Beach. Closest bus stop to hospital: Belmore Rd, Randwick
- *314 Bondi Junction Interchange to Coogee*. Closest bus stop to hospital: Belmore Rd, Randwick
- *315 Bondi Junction Interchange to Coogee*. Closest bus stop to hospital: Belmore Rd, Randwick
- *316 Bondi Junction Interchange to Pagewood*. Closest bus stop to hospital: Belmore Rd, Randwick
- *357 Bondi Junction Interchange to Sydenham Station*. Closest bus stop to hospital: Belmore Rd, Randwick

5. IMPACTS OF THE PROPOSAL

Transport-related impacts can be addressed in terms of traffic operation, vehicular access, pedestrian safety and on-street parking:

Traffic Impacts

As stated earlier the proposal involves about 20 staff at most with 12 bed patients. Therefore, additional peak hour vehicular traffic for the site would be in order 20 vehicles per hour (10 staff in and 5 staff out + 2 in and out for patients or delivery). It should be noted that not all staff or activity would take place during one hour peak period as it rather takes place during the whole day. This level of vehicular traffic translates to 1 vehicle per 3 minutes which in traffic engineering terms would have a minimal impact on operation of intersection and road system. Therefore no significant change in travel patterns of visitors and staff to and from the Campus is expected. Consequently, there would be no adverse impact on the street system and/or intersection operation of the road network.

A vehicular intersection count was carried out on Tuesday 7th December, 2010 between 7.45AM and 8.45AM at intersection of Barker and Easy Streets. The observation of the site showed that the roundabout at the above intersection operates satisfactory with minimal delays along its approaches. The results of the survey showed that 73 vehicles exit Easy Street onto Barker Street while some 400 vehicles enter Easy Street from Barker Street during the above period.

Access

The vehicular access arrangement to the site for all movements; cars, deliveries and pick up/set down activities under the proposed redevelopment will remain per the existing situation, except for the ambulance movements that will take place off Nurses Road with an access to the site for patient transfers as shown on the attached sketch. This is supported by the fact that Nurses Drive has very low traffic volumes and such movements will take place in one or two occasions per day.

<u>Deliveries</u>

Health Infrastructure has advised that all food, linen and waste transfers will be provided by vehicles from within the hospital campus to and from the existing hospital service facilities.

No service deliveries will come from outside of the hospital campus and it is envisaged that only small service vehicles will be required for these internal deliveries. As such these vehicle movements will not have any impact on the road network outside of the hospital campus

Pedestrians

Pedestrian footpaths are available adjacent to the development site providing a safe pedestrian environment. Access ramps are also provided for people with mobility difficulty or with prams.

To maintain pedestrian safety across the ambulance entrance off Nurses Drive, it is recommended that appropriate signage at the crossover be provided.

Parking

Health Infrastructure has confirmed that the required parking of some 10-15 spaces for staff (based on public transport use or walk and presence of staff at site) will be accommodated as part of the existing car parking facilities due to existing spare capacity of the car parking areas. A parking survey of the site including a multi-level carpark along Nurses Drive, opposite the proposed development site showed a parking availability of some 15 spaces during the day as shown in the following table.

Table 1 No of Vacant Parking Spaces – Multi level Car Park

Time	No of Vacant Spaces
9.30AM	26
12.00 Noon	15
2.00PM	15
3.00PM	15
4.00PM	55

Survey Date: 7 December 2010

Accordingly, it is envisaged that the parking demand for the site will be accommodated as part of the current operation of hospital campus.

Construction Traffic

It is estimated that a total of some 15 truck movements per day (on average) will be associated during of the construction process. This level of vehicular traffic is equivalent to 1 vehicle per 4 minutes which in traffic engineering terms would have no significant impact on operation of intersection and road network. The maximum number of truck movements will occur only on four or five occasions (i.e. 4 or 5 days during the whole construction period) when up to 40 truck movements per day could take place for major concrete works.

The approach routes will be via main arterial roads with access to the site off Barker Street or via a temporary construction ramp to Avoca Street. Due to the nature of the site and location of the Hospital, appropriate measures will be employed to meet all required road safety and noise regulations as part of the construction process.

Prior to the commencement of works, a Construction and Traffic Management Plan (CTMP) will need to be prepared that outlines these measures and indicates how access to the site (vehicular and pedestrian) will be made during the construction period including any particular movements for trucks or special deliveries if required. It will also need to identify hours of operation for truck movements (such as non-peak hours during the construction works) that are satisfactory to relevant authorities.

6. CONCLUSION

The vehicular access arrangement to the Hospital for all movements; cars, deliveries and pick up/set down activities under the proposed redevelopment will be in order of 20 vehicles per peak hour. This level of traffic generation will have minimal impact on operation of street system and intersection operation.

The parking requirements of some 10 to 15 parking spaces are easily accommodated as part of the existing spare capacity at car parking areas within the campus.

The site is serviced by high level of public transport (bus routes) while pedestrian access is well established as part of the existing hospital campus and its environs. The Hospital Campus Management have continuously been adhered to the principles of sustainable transport as well as its promotion among staff and users of the site.

Accordingly, the redevelopment proposal should have no unacceptable traffic implications. The access arrangements and parking provision are acceptable and supportable on the basis of relevant guidelines.

Prepared by:
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Director

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TTW SKETCH

AMBULANCE TURNING

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