

File No: NTH18/00047/11  
Your Ref: SSD10353

The Director  
Major Projects  
NSW Planning, Industry and Environment  
GPO Box 39  
SYDNEY NSW 2001

Attention: Aditi Coomar  
[Aditi.coomar@planning.nsw.gov.au](mailto:Aditi.coomar@planning.nsw.gov.au)

Dear Aditi,

**Re: Review of EIS for Tweed Valley Hospital – Stage 2. - Major Project SSD10353.**

I refer to your email dated 4 October 2019 requesting comment from Roads and Maritime Services in relation to the above mentioned EIS for the construction of the Tweed Valley Hospital (stage 2 of the project).

**Roles and responsibilities**

The key interests for Roads and Maritime Services are the safety and efficiency of the road network, traffic management, the integrity of road infrastructure and the integration of land use and transport.

Tweed Coast Road (MR450) is a classified (Regional) road and Cudgen Road is a public (Local) road. Tweed Shire Council is the Roads Authority for these roads pursuant to Section 7 of the *Roads Act 1993*. Council is responsible for setting standards and carrying out works on local and regional roads in accordance with the Roads Act. Roads and Maritime is the Roads Authority for the Pacific Motorway (HW10), which is a classified road (a freeway) in the subject area.

Roads and Maritime consent is required for the installation of, or modification to, traffic control signals (TCS) on any road under Section 87 of the Roads Act and consent is provided under the terms of a Works Authorisation Deed (WAD).

In accordance with Clause 104 of *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) Roads and Maritime is given the opportunity to review and provide comment on the subject development application as it meets the requirements under Schedule 3.

**Roads and Maritime Response**

Roads and Maritime acknowledges that Department of Planning and Tweed Shire Council are the lead agencies for the development of the Tweed Valley Hospital. We wish to support those entities in respect to construction of the Hospital. As such, we have reviewed the EIS in respect to traffic related matters and provide the following comments and observations to assist in the determination of Stage 2 of the proposal.

1. The Hospital is a major development, with the potential to have a significant impact on traffic and road users in the area. While the EIS has attempted to address the management of traffic to and from the Hospital, as well the impact on general traffic using the same road network; we have identified some concerns with data provided and outcomes suggested. These are summarised below:

- A new Traffic Impact Assessment (TIA) was not provided with Stage 2, although this was requested by Roads and Maritime and reflected in Stage 1 conditions. The document provided with Stage 2 has given some updated SIDRA outputs only, with no detail of the methodology used; for example, why different cycle times were used.
- The tables in the body of the original (TIA) Version 5, dated October 2018 did not fully address the impacts of the development on the intersection of Tweed Coast and Cudgen Roads. The SIDRA modelling used in Stage 1 was different to the modelling used for Stage 2 so comparisons were difficult to make between queue lengths, and the consequential impact on the intersection. The Level of Service (LOS), Degree of Saturation and queue lengths reflected significant differences between the two assessments (Stage 1 and Stage 2) and no detail was given to explain the changes.
- No indication was given with the current application as to where the data for the cycle times at the above-mentioned intersection was sourced. Such data is typically available from Roads and Maritime, but no evidence was provided as to whether we were consulted to provide existing cycle lengths and phasing.
- Modelling was based on a future 4 lane upgrade of Tweed Coast Road being delivered but did not take a proposed future East/West Link into consideration (the exact alignment is yet to be determined). The timing of these road infrastructure projects is unclear in relation to the Hospital and no discussion was provided in respect to alternative solutions.
- Stage 1 consent condition B22 (c) requires plans for the upgrade for Tweed Coast Road/Cudgen Road intersection. The plans provided for stage 2 have no dimensions and should be updated to include the additional lengthening of the Tweed Coast Road north-bound right-turn bay, and left-turn deceleration lanes on Cudgen Road. No detailed plans were provided for the proposed traffic signals at the Hospital entrance.

2. Observations taken from the EIS in regard to queue lengths, and our comments thereon are:

- The SIDRA modelling estimated that the queue lengths on Cudgen Road were 202m for left-turns and 289m for right-turns. The eastern approach of Cudgen Road (E phase) provided only 35 seconds of green time. This will take at least 2 cycles (or more) too clear. Access to the left-turn lane will likely be blocked and westbound through traffic will be delayed by the additional right-turn traffic sharing the lane. It is suggested that this be given further consideration in line with clause 104(3) if the ISEPP to better understand the extent and duration of expected queuing during peak periods in the interests of identifying any measures required to accommodate forecast traffic demand.
- Left-turn lanes at the Tweed Coast Road/Cudgen Road at the access into the Hospital should be designed in accordance with Austroads standards. They should be long enough to cater for deceleration and queued traffic due to pedestrian crossings or internal design. For a 60km/h speed zoned area, this would require a minimum of 55m plus queue length.
- Modelling provided with the Stage 2 EIS has indicated that only 20m storage was required for the east-bound left-turn deceleration lane. This should be lengthened to provide 55m to cater for deceleration and queuing back from the hold line as only a single entry lane is provided for both left and right-turning entering traffic into the site. This change should also apply to the four other left-turn slip lanes (east-bound left-turn lane at Tweed Coast Road signals; and the three along the frontage of the site).
- The existing left-turn slip lane for vehicles turning from the western approach to Cudgen Road into Tweed Coast Road has limited storage. SIDRA modelling indicates that this lane needs to provide more capacity. Any queuing will have a significant impact on through and right-turn traffic. It is noted that the northern side is constrained by existing residential. It is suggested that strategic drawings be provided to show queue lengths, and that Council/State Government confirm that those lengths are acceptable and meet Austroads standards.
- Lengthy delays at the Tweed Coast Road/Cudgen Road traffic signals may encourage traffic to seek other routes from the Hospital. This has the potential to increase the existing left-turn demand at the Hospital's traffic signals and at other local intersections to the east.

- There is potential for conflict between exiting and queued merging traffic, on the internal road networks adjacent to the main entrance to the Hospital, especially in the peak hours. It is suggested that the eastern left slip lane into the car park and the through merge should be separated to avoid such conflict. It is also suggested that bus bays be positioned on the departure sides of the traffic signals to avoid conflict.
3. The consent authority should be satisfied that adequate road infrastructure is in place with each stage of the development to cope with the capacity of traffic anticipated, and to guarantee the safety of the community and road users.
  4. The positioning of the main access, bus bays and alternative ingress within close proximity to each other has the potential to compromise the ability to include any improvements in the future. This warrants further consideration at this time.
  5. All regulatory signs, controls and traffic signal plans for internal and external roads should be referred to Tweed Shire Council's Traffic Committee for a recommendation. The internal roads are Road Related Areas and traffic regulations can be enforced.
  6. It is noted that the western approach right-turn lane of the Turnock Street roundabout is also shared by the TAFE's access as an east-bound acceleration lane. The merge/diverge movements will have an impact on the efficient and safe operations of this approach lane. This should be noted and further considered.
  7. The EIS mentioned provision of a Green Travel Plan (GTP), however little detail of content or actions was provided. The GTP should identify initiatives which can be undertaken to reduce the share of private vehicles used in trips to and from Hospital. These initiatives include encouraging use of the buses servicing the Hospital, promoting car-pooling for staff; increasing active transport; and providing end-of-trip facilities.

The GTP should include the following:

- A detailed action plan comprising specific tasks needed to complete the proposed actions, the person/s responsible for completion of the task, completion date and anticipated costs.
- Quantitative data and targets for appropriate sustainable transport mode share targets;
- An implementation checklist to achieve the proposed initiatives;
- Alternative actions to undertake where targets are not achieved; and
- The set-up of a steering group or committee of relevant internal and external stakeholders to inform future targets and the ongoing monitoring and revision of the GTP for five years.

It is requested that the Department consider the above points and include a condition to ensure the GTP is a relevant and useable document.

It is suggested that the Department and/or Council seek further information and address the above points.

Roads and Maritime would like to see the Response to Submissions, and would be willing to participate in any discussions related to the above matters, with a view to achieving the best outcomes for the community, the Hospital and State interests.

Upon determination of the application it would be appreciated if Department of Planning and Environment could forward a copy of the approval for our records. If you have any further enquiries regarding the above comments please do not hesitate to contact Cheryl Sisson, Development Assessment Officer on (02) 6640 1362 or via email at [development.northern@rms.nsw.gov.au](mailto:development.northern@rms.nsw.gov.au)

Yours faithfully,



for Matt Adams  
Manager Land Use Assessment, Northern

6 November 2019