

REF: N131974

DATE: 7 February 2020

St Hilliers Property Pty Ltd
3/8 Windmill Street
Millers Point NSW 2000

Attention: Frank Katsanevas (Group Design Manager)

Dear Frank,

RE: RESPONSE TO TRANSPORT RELATED SUBMISSIONS (ROADS AND MARITIME SERVICES) – 26-32 MANN STREET GOSFORD

A Concept State Significant Development Application (SSDA) has been lodged with the Department of Planning, Industry and Environment (DPIE) for a proposed staged mixed-use development on land located at 26-32 Mann Street, Gosford.

Subsequent to the SSDA being lodged, stakeholders have requested additional information in relation to traffic and transport. This letter has been prepared to specifically provide a response to submissions in this regard. The relevant stakeholder submissions are reproduced in Attachment 1 together with responses.

Naturally, should you have any questions or require any further information, please do not hesitate to contact me on (02) 8448 1800.

Yours sincerely

GTA CONSULTANTS



Karen McNatty
Associate Director

encl.

Attachment 1 - Response to Submissions

ATTACHMENT 1

Response to Submissions

Comment 1: *The TIA has assumed a trip rate of 0.4 trips per bed for the hotel, however the author has not described where this trip rate has been sourced from. The source for the hotel trip rate should be provided to support these numbers.*

GTA Response: The rate of 0.4 trips/room has been sourced from the motel casual accommodation rate in Table 3.7 from the RMS Guide to Traffic Generating Developments. Other components of the hotel such as retail and commercial uses have been calculated separately.

Comment 2: *The SIDRA assessment has been undertaken so that all intersections operate individually. There are a number of closely spaced intersections within the study area, and the network traffic impacts have not been assessed. Due to proximity of these intersections, it is likely that impacts are expected on these intersections. Therefore, clarification for not assessing the network using a networked SIDRA model is required. Alternatively, a networked SIDRA assessment is recommended.*

GTA Response: Impacts of queuing have been considered while calibrating the models to queues observed on site and through survey videos. It is noted that, with the exception of intersections along Central Coast Highway, the local intersections around the proposed site were not observed to have excessive queuing. Any significant delays or queues were related to the Central Coast Highway. Intersection approach and exit distances were altered to match existing ground conditions. Therefore, any impacts due to short storage lanes were accounted for in the individual intersection models. It should also be noted that when pedestrian signals are activated on the Central Coast Highway south of Vaughan Avenue, southbound queues can potentially block vehicles exiting from Vaughan Avenue. However, the southbound vehicles were observed (during site inspection) to leave appropriate gaps for vehicles to exit from Vaughan Avenue.

Queue lengths and detailed SIDRA results are provided in the TIA report and considered an appropriate representation of existing conditions. Nonetheless, GTA carried out a high-level comparison between SIDRA intersection and SIDRA network results for existing base case (2017) models. Marginal difference was observed in the actual results. Therefore, it is expected that the network models will yield the same conclusion for the future scenarios.

Comment 3: *The SIDRA assessment does not include the intersection of Vaughan Avenue / Central Coast Highway even though traffic counts and distribution assumptions have been made in the report. Furthermore, the Roads and Maritime correspondence dated 19 July 2019 requests the intersection of Henry Parry Drive / Donnison Street to be included in the assessment, and this has also been omitted. Undertaking SIDRA assessment for these intersections is recommended.*

GTA Response: The intersection of Vaughan Avenue / Central Coast Highway is a left-in-left out intersection and the impact was expected to be minimal. As discussed in Comment 2, traffic at Vaughan Avenue was observed to operate well due to its left in /left out only arrangement, during any queuing periods as a result of the nearby pedestrian signals vehicles were observed find appropriate gaps with delays being only marginal and hence this intersection was not included in the assessment. Furthermore, the development is expected to generate an additional 86 vehicles (left out) in the AM peak and addition 64 (left out) vehicles in the PM peak. These can be easily be accommodated at this intersection.

GTA has undertaken a high-level SIDRA Network assessment and included the intersection of Vaughan Avenue / Central Coast Highway for existing base case (2017) models. The review indicates that the intersection of Central Coast Highway/ Vaughan Avenue operates at a good LOS A for both AM and PM peak hours.

Based on the expected traffic distribution from the development any potential impact on the intersection of Henry Parry Drive / Donnison Street is expected to be minimal. Figure 8.1 of GTA's TIA report shows the traffic distribution and the potential increase in traffic at the surrounding intersections. Therefore, it is not considered necessary to model this intersection.

Comment 4 *It is clear that under existing conditions and under the 2022 and 2032 scenarios, the intersection of Central Coast Highway / Dane Drive experiences significant delays and poor level of service as outlined in the report. The trip distribution assumptions state that it expects 30% of traffic generated by the site to come from the west. However, there appears to be significant development to the west, including industrial, retail, an entertainment ground and other traffic generating developments. Furthermore, based on existing travel patterns significant traffic volumes utilise this intersection, which in turn would suggest that additional traffic on the network would also utilise this intersection as a priority. Additional traffic at this intersection is likely to further exacerbate the existing congestion and intersection upgrades would be required to address current and future operations. Therefore, further clarification for the trip distribution assumptions should be provided*

GTA Response The directional distribution and assignment of traffic generated by the proposal will be influenced by a number of factors including:

- configuration of the arterial road network near the site
- existing operation and directional distributions of traffic at intersections providing access between the local and arterial road network
- configuration of access points to the site and existing turning bans
- distribution of households in the vicinity of the site
- surrounding employment centres and retail centres in relation to the site.

With the Central Coast Highway / Dane Drive roundabout experiencing delays in the peak periods it is unlikely that a higher percentage of traffic from this development would use this intersection. The traffic distribution used within this assessment is considered appropriate to assess potential impacts of the development on the surrounding road network.

Comment 5 *The intersection of Mann Street / Central Coast highway is expected to operate at acceptable levels of service in 2022 during the AM and PM peak hours, however the queue lengths along the north western leg of Mann Street extend up to around 467m in the PM peak. This would extend passed the intersection of Central Coast Highway / Vaughan Avenue, which could block vehicles exiting from the development and cause queues to back up along Vaughn Street. These queues could also back up to the intersection of Central Coast Highway / Dane Drive, further exacerbating the poor performance of this intersection. (The signalised pedestrian crossing which may also add further delay which hasn't been considered). This issue is further exacerbated in 2032, where queues also extend along the southern leg of the intersection and could extend passed the signalised pedestrian crossing and up to Albany Street. Therefore, it is*

recommended to address these issues and impact on traffic network as a result of the development.

GTA Response Section 8.4 of the GTA report discusses localised improvements around the site. As discussed in Comment 2, it was observed that when the pedestrian crossing was activated at Central Coast Highway south of Vaughan Avenue, vehicles at Central Coast Highway would leave appropriate gaps for the traffic at Vaughan Avenue to exit and similar behaviour can be expected in the future. The 2022 PM peak hour results without the development traffic indicates that the 95 percentile queues at Central Coast Highway will extend back to Vaughan Avenue during the PM peak hour only, with a degree of saturation close to 0.9 indicating that the intersection is operating very close to capacity without the development traffic in 2022.

With the development traffic the queues on Central Coast Highway are further extended in the peak periods, particularly the PM peak, however the average increased delay is only around 10 seconds. There is minimal impact on queues at Mann Street due to the development for both peak hours assessed.

The issues identified on Central Coast Highway are existing issues and as noted in TfNSW's submission letter, a lot of development is currently being proposed within the Gosford CBD. It has been identified in the report that the intersections along Central Coast Highway do need considerations for capacity improvements. However, it is pertinent that any upgrades proposed to these intersections are developed in consultation and agreement with Council and TfNSW to accommodate proposed developments within and around the CBD.

At the concept stage, this level of SIDRA intersection assessment is considered appropriate and updated assessments will be carried out for each Stage Development Application when assumptions around the land use mix of the proposed development are finalised.

Comment 6 *It is not clear from the SIDRA files how the 2% growth has been applied. The SIDRA files have not been run to account for 2% compound growth year on year, so a manual calculation appears to have been done. Clarification of the methodology for calculating the 2% growth year should be provided.*

GTA Response A 2% annual growth rate has been applied to the existing traffic volumes through an excel spreadsheet to calculate background growth and distribute the proposed traffic generation on the surrounding network.

Comment 7 *The intersection of Mann Street / Central Coast highway is a signalised intersection. The SIDRA files show that an optimal cycle time has been used of 120 seconds in the PM and 100 seconds in the AM. It is not clear if site observations along with SCATs data were used to calibrate and validate the base year intersection models. Please provide further commentary or alternatively please update modelling using SCATs data. SCATs data can be obtained from SCATS.Traffic.Signal.Data@rms.nsw.gov.au.*

GTA Response It is noted that only a single signalised intersection is included in this assessment. The cycle length for both peak hours were calculated from survey videos collected on the survey days for the entire peak period. The models were then run at optimised cycle times. Phasing data was not obtained from RMS however, observed signal timings were used to calibrate the models. This is considered an appropriate calibration method.

Comment 8 *The stage 2 and 3 car park entry / exit point is expected to cater for approximately 350 parking spaces. It is not clear at this stage how the car park entry / exit is going to be managed (i.e. through boom gates, roller doors, or unsecured). It is expected that a significant number of trips during the peak hour may use this driveway access, particularly in the PM peak when residents are returning home from work for example. It is recommended to undertake an assessment of the expected queues at this driveway, and appropriate management measures.*

GTA Response Individual Development Applications will be submitted for each stage of the development. The management of the carpark access will be developed through the detailed design stage and incorporate appropriate queuing analysis.