

REF: N209580

DATE: 31 March 2021

JSE Properties Pty Ltd

by email: greg@ospreyproperty.com.au

Attention: Greg Holt

Dear Greg

RE: 25 DUNHEVED CIRCUIT, ST MARYS – TRAFFIC IMPACT ASSESSMENT PEER REVIEW

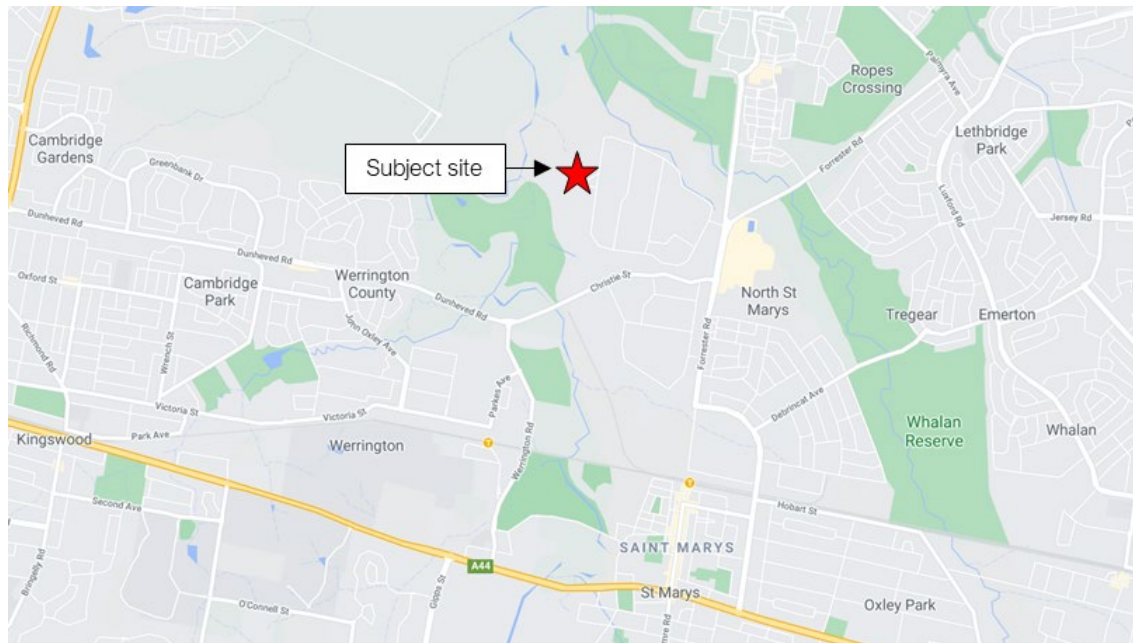
Introduction

GTA Consultants (GTA) has been engaged to complete a peer review of the Traffic Impact Assessment (TIA) prepared by The Transport Planning Partnership (TPPP) dated 26 November 2020 to accompany the State Significant Development Application (SSD-10474) for 25 Dunheved Circuit, St Marys.

The proposal involves the use of an existing resource recovery facility for the sorting and processing of primarily wood and timber waste. It is proposed to increase the throughput of waste on-site to 150,000 tonnes per year, comprising 110,000 tonnes of urban and natural wood, 30,000 tonnes of plasterboard and up to 10,000 tonnes of metal.

The location of the subject site and its surrounds are shown in Figure 1 and Figure 2.

Figure 1: Subject site and its surrounds



Base image source: Google Maps

Figure 2: Aerial view



Base image source: Nearmap

Review Findings

The following sections set out GTA's review of the TIA (TTPP, 2020) and assess the validity of the assumptions used and the key findings of the assessment.

Traffic Impact

- GTA agrees that traffic generation associated with the development is best linked to the operation of the facility as opposed to GFA.
- Table 4.3 of the TIA (TTPP, 2020) provides a summary of the anticipated traffic generation profile of the site over a typical day. Table 4.4 provides a comparison of the anticipated traffic generation profile of the proposal with comparison to the traffic generation estimates for a typical day and busy day for the previous approval of the site. It is understood that busy processing periods will occur as part of the proposal, as referenced in Section 5.1 of the TIA (TTPP, 2020), however there are no details on the anticipated traffic generation of the site for a 'busy day' under the proposal. This detail is important and should be included to ensure accurate assessment is possible of the future traffic impacts of the proposal.
- Section 4.3 of the TIA (TTPP, 2020) indicates the proposal is estimated to generate 2 vehicle trips in the AM peak hour and 4 vehicle trips in the PM peak hour, however Table 4.3 indicates 4 vehicle trips in the AM peak hour and 2 vehicle trips in the PM peak hour. While minor, it does call into question overall accuracy of the data and information presented. And should be clarified.
- Figure 4.1 of the TIA (TTPP, 2020) indicates that the proposal would generate less vehicle trips than the existing use for the site for most of the day except in the afternoon shift changeover period (site peak hour). On-site observations confirm extensive queuing on Dunheved Circuit and Links Road on approach to the Forrester Road/ Ropes Crossing Boulevard/ Links Road roundabout from early afternoon (see Figure 3). This is a result of vehicles departing the area and is typical for industrial precincts where the peaks occur earlier than the broader road network peaks. Given the afternoon peak generation of the site (including the 16 vehicle spike around 2pm and 2:30pm), traffic modelling would appear appropriate at these times at these key intersections to understand the true traffic related impacts of the proposal.

Figure 3: Afternoon congestion Dunheved Road



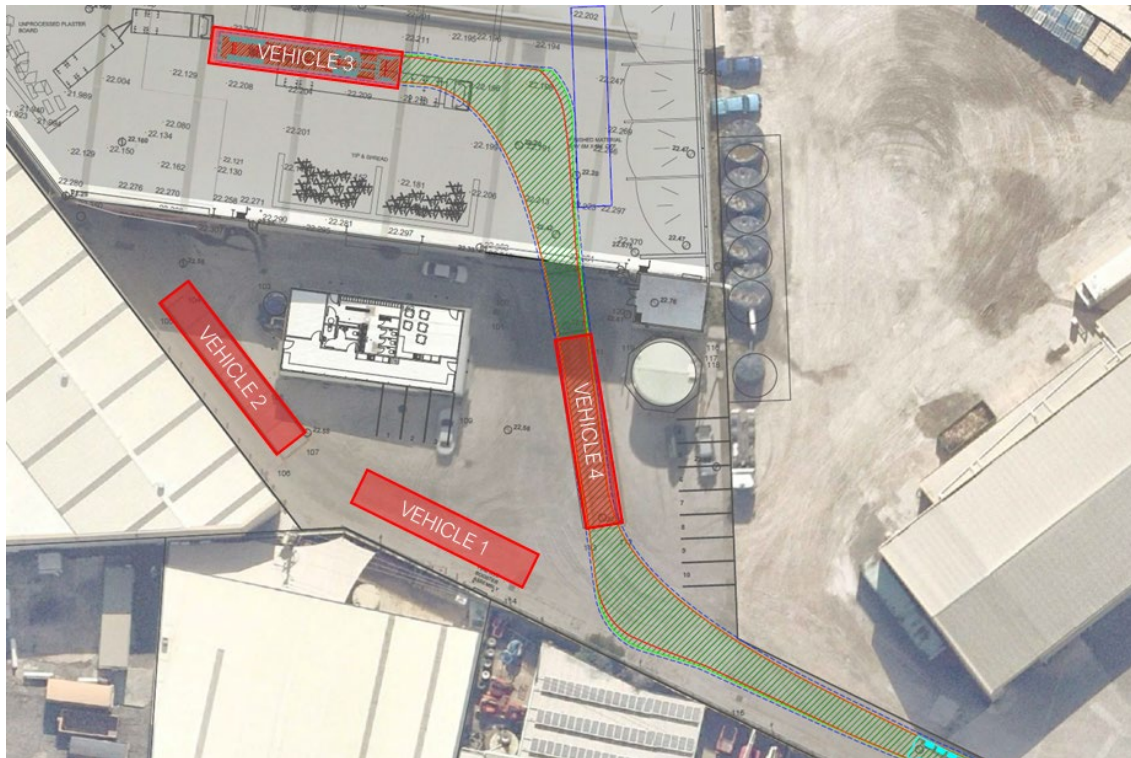
Parking Assessment

- Penrith DCP 2014 states that Accessible car spaces should be in accordance with the Access to Premises Standards, Building Code of Australia (BCA) and AS2890. The Clause D3.5 of the BCA states that for the proposed development, accessible parking should be provided at a rate of one space per 100 car parking spaces or part thereof. This would indicate that one accessible parking space would be required for use by visitors and employees.

Vehicle Access and Car Parking Layout Review

- The TIA (TTPP, 2020) states that the largest design vehicle would be a 19 metre articulated vehicle/ semi-trailer. As a new DA, the proposal should consider the requirements of AS2890.2:2018. Clause 2.1 of AS2890.2:2018 states that unless a commercial vehicle facility is to be designed specifically for a nominated vehicle type, the facility shall be designed to accommodate the standard vehicle types appropriate to the use required by the operator of the facility. As such, the facility should be designed to the design vehicle specifications in AS2890.2:2018 for an articulated vehicle, which has an overall length of 20 metres, rather than the 19 metre design vehicle referenced in the TIA. This also means that vehicle swept paths provided in Appendix D of the TIA may need to be updated to ensure appropriate design.
- The queuing assessment states that the driveway access is about 100 metres long, allowing the site to accommodate up to seven semi-trailers or nine rigid trucks at any one time, including one vehicle on the inbound weighbridge and one vehicle in the facility. That said, the swept path assessment indicates two-way passing between inbound and outbound articulated vehicles is likely not possible at each end of the driveway and along the driveway itself. As such, the site would likely only be able to accommodate up to four articulated vehicles at one time, as shown in Figure 4. While this would still suitable accommodate the anticipated demand for a typical day, no assessment has been completed for a 'busy day' and therefore the potential higher traffic generation associated with busy processing periods may result in vehicles queuing on Dunheved Circuit.

Figure 4: Available storage capacity for articulated vehicles



- The swept path assessment included in Appendix D of the TIA indicates articulated vehicles exiting the site onto Dunheved Circuit would conflict with existing on-street parking currently permitted along the 21 Dunheved Circuit site frontage. The TIA does not mention any proposed loss of on-street parking as a result of the proposal or the associated impacts. This is a critical detail and should be appropriately addressed – vehicles parking in this location would be struck or trucks would mount the kerb on the other side to avoid such conflict. The issue primarily arises due to the larger size of vehicle required to access the site when compared with previous uses.
- Articulated vehicles also need the full width of Dunheved Circuit to exit the site. With Dunheved Circuit being narrow (about 7.5m wide) and somewhat unique for an industrial precinct where road widths are typically 10m to 13m wide, this further constrains the site access requirements and on-street parking conflicts. There would clearly be conflicts with arriving and departing vehicles and through traffic on Dunheved Circuit should any small delay occur and/ or an articulated vehicle has difficulty exiting the site.
- The swept path assessment indicates that an articulated vehicle exiting the site would also be required to traverse the 21 Dunheved Circuit driveway when turning left onto Dunheved Circuit. Such arrangements are typically not accepted given one site is reliant on the adjacent site to maintain their access arrangements. While it is understood that the 21 Dunheved Circuit is owned by the same organisation as the subject site, the 21 Dunheved Circuit site could be sold in future and potentially redeveloped and hence again, alter the current access arrangements.
- A 300mm clearance is shown on the swept path assessment for articulated vehicles which is not in accordance with the general 600mm requirements of AS2890.2:2018. This further shows the inappropriateness of the driveway to accommodate passing trucks along its 100m length.
- Relevant images illustrating such congestion in this part of Dunheved Road as a result of the narrow width and on-street parking constraints are included in Figure 5 and Figure 6. It is clear that the passing of two articulated vehicles is not practical and causes delay and associated risk.

Figure 5: Dunheved Circuit looking west towards the site



Figure 6: Dunheved Circuit looking north (site access driveway on the left)



Summary and Recommendations

Based on the above, it is recommended that the TIA (TTPP, 2020) be updated to consider the following:

- The anticipated traffic generation for the site on a 'busy day' should be identified, consistent with information provided for the current approval for the site.
- Traffic modelling during the early afternoon peak should be considered, and at the time when the site generates most traffic and the road network in the precinct appears to also experience delay.
- Traffic generation estimates should be checked to ensure consistency throughout the report.
- A minimum of one accessible space should be provided in accordance with BCA requirements.
- A 20 metre articulated vehicle should be used as the largest design vehicle requiring access to the site.
- The queuing assessment should be updated to also consider a 'busy day' scenario to ensure no queuing would occur on Dunheved Circuit or impact exiting vehicles.
- The swept paths should be updated to consider existing kerbside parking currently permitted along Dunheved Circuit and detail any proposed loss of on-street parking and the associated impacts of such loss.
- The swept paths should be updated to demonstrate independent access is possible and without reliance on the adjacent 21 Dunheved Circuit driveway.

- The swept paths should be updated to allow for 600mm clearances in accordance with the requirements of AS2890.2:2018.

I trust the above provides the necessary information. Should you have any questions or require any further information, please do not hesitate to contact me on (02) 8448 1800.

Yours sincerely

GTA, NOW STANTEC



Rhys Hazell
Director