



Transport Impact Statement

Project: Proposed Mixed Use Development
1 Newmarket Parade, Butler

Client: Oreana Property Group

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1. Introduction

1.1. Proponent

Shawmac Pty Ltd has been commissioned by Oreana Property Group to prepare a Transport Impact Statement (TIS) for the proposed mixed-use development at Lot 2782 (#1) Newmarket Parade in Butler. The development includes a childcare facility with a capacity of 91 children and 8 retail tenancies.

This TIS has been prepared in accordance with the Western Australian Planning Commission (WAPC) *Transport Impact Assessment Guidelines Volume 4 – Individual Developments*. The assessment considers the following key matters:

- Details of the proposed development.
- Vehicle access and parking.
- Provision for service vehicles.
- Hours of operation.
- Daily traffic volumes and vehicle types.
- Traffic management on frontage streets.
- Public transport access.
- Pedestrian access.
- Cycle access and end of trip facilities.
- Site specific and safety issues.

1.2. Site Location

The site address is Lot 2782, No. 1 Newmarket Parade, Butler. The local authority is the City of Wanneroo.

The general site location is shown in **Figure 1**. An aerial view of the existing site is shown in **Figure 2**.



Figure 1: Site Location



Figure 2: Aerial View (June 2021)

2. Proposed Development

2.1. Land Use

The site is currently developed as a car park.

It is proposed to construct a mixed-use development that will include a childcare facility accommodating up to 91 children and 8 retail tenancies.

Vehicle access is proposed via a single crossover on Newmarket Parade. A total of 70 car parking bays will be provided on-site, including two ACROD bays.

The proposed site layout is shown in **Figure 3**.

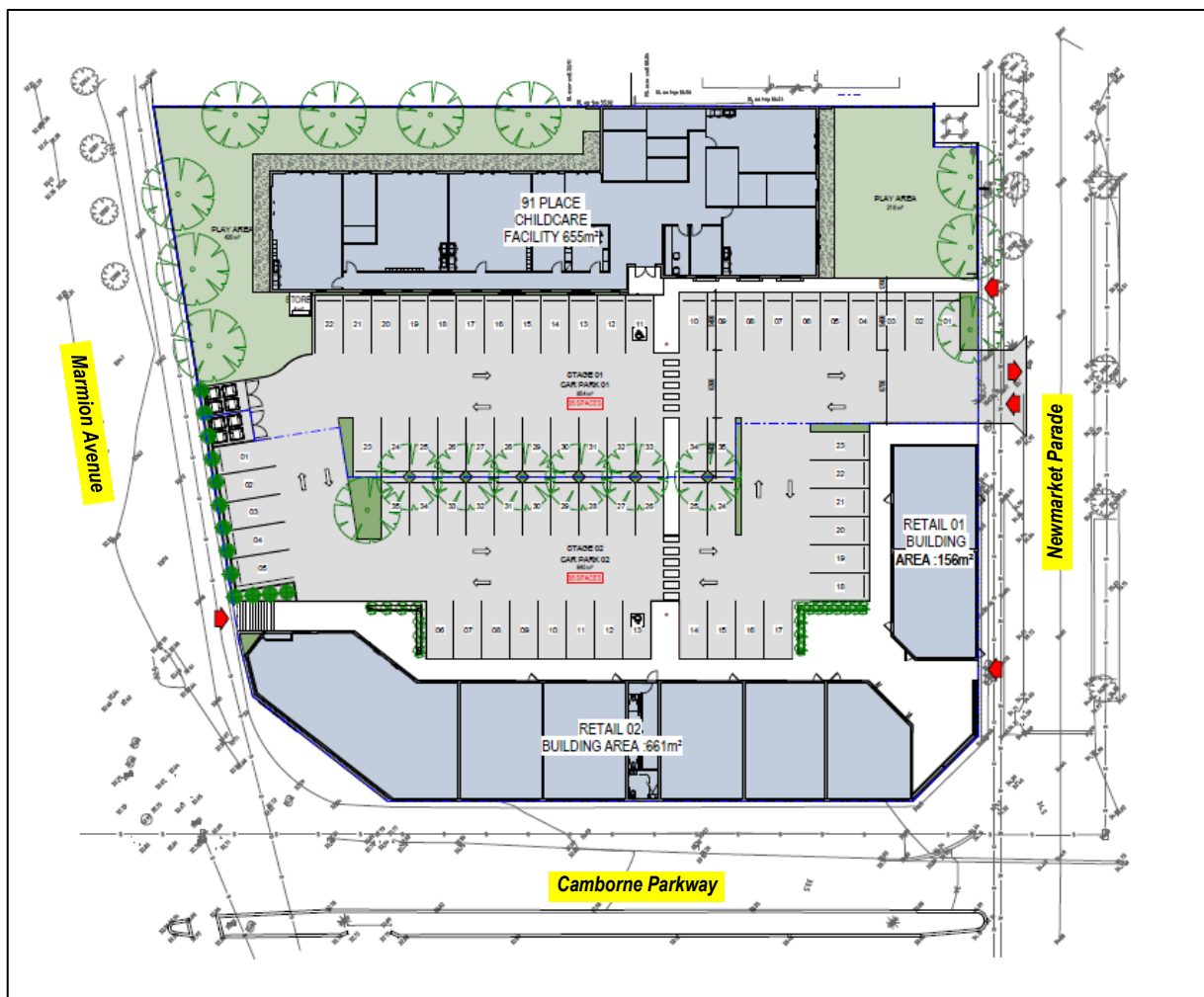


Figure 3: Site Layout

3. Traffic Management on Frontage Streets

3.1. Road Network

3.1.1. Existing Road Layout and Hierarchy

The layout and hierarchy of the existing local road network according to the Main Roads WA *Road Information Mapping System* is shown in **Figure 4**.

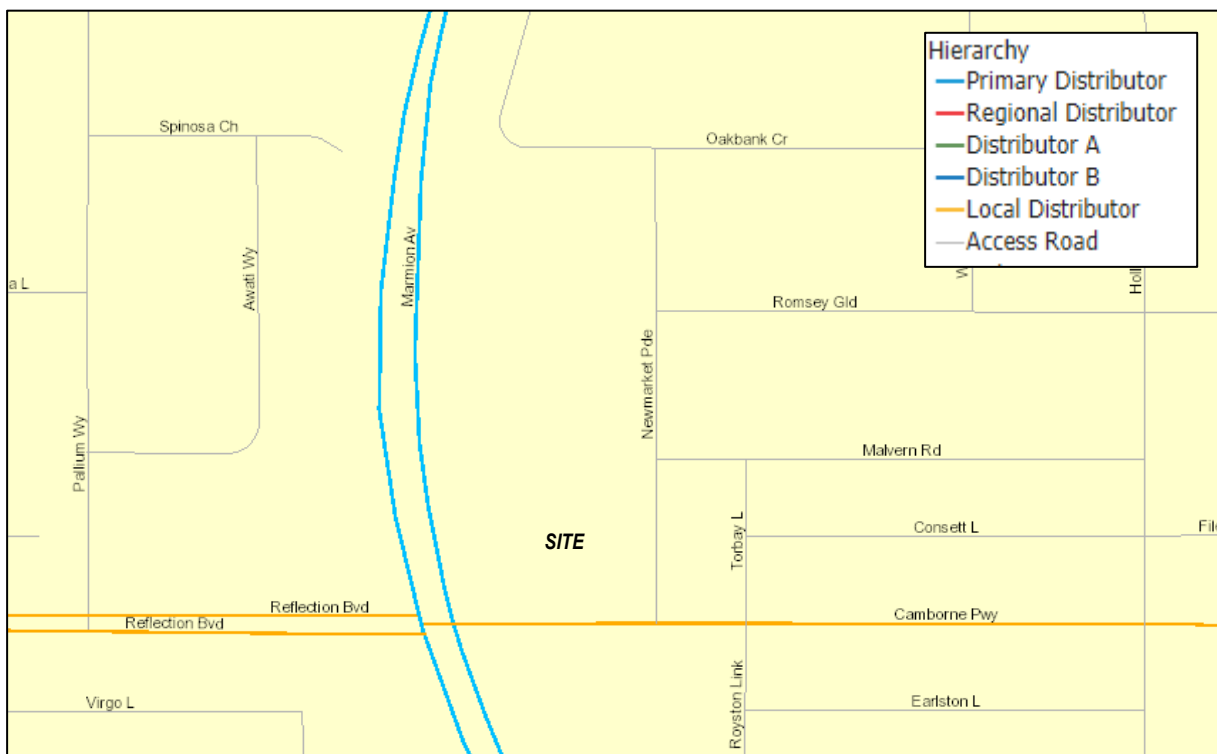


Figure 4: Existing Road Network Hierarchy

3.1.2. Carriageway Width and Cross Section

The configuration of the relevant existing roads is summarised in **Table 1**.

Table 1: Road Configuration

Road and Location	Road Type	Cross Section	Speed Limit (km/h)
Newmarket Parade	Access Road	2-lane single carriageway	50km/h
Reflection Boulevard / Camborne Parkway	Local Distributor	2-lane dual carriageway	50km/h
Marmion Avenue	Primary Distributor	4-lane dual carriageway	80km/h

Marmion Avenue is under the jurisdiction of Main Roads WA and is also reserve as a Primary Regional Road under the Metropolitan Region Scheme.

3.2. Traffic Volumes

The latest traffic volumes along Marmion Avenue, Camborne Parkway and Reflection Boulevard were derived from the SCATS traffic signal data as shown in **Figure 5**.

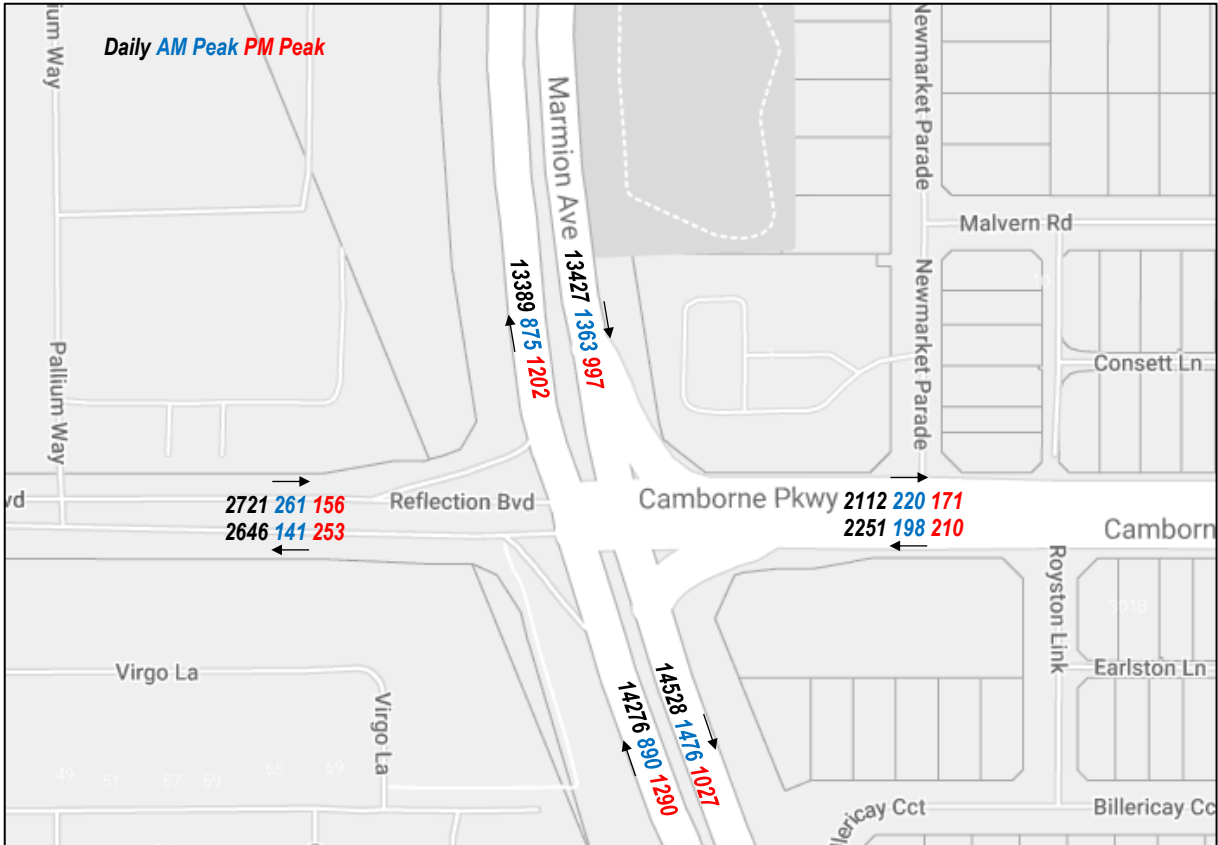


Figure 5: Average Weekday Traffic (February 2021)

Traffic data was not available for Newmarket Parade and it is estimated that the current daily traffic volumes are less than 1,000 vehicles per day (vpd).

4. Vehicle Access and Parking

4.1. Access

Vehicle access will be via a new crossover on Newmarket Place.

4.1.1. Sight Distance

Sight distance requirements from vehicle exit points are defined in Figure 3.2 of Australian Standard AS2890.1-2004 *Parking facilities Part 1: Off street car parking (AS2890.1)* as shown in **Figure 6**.

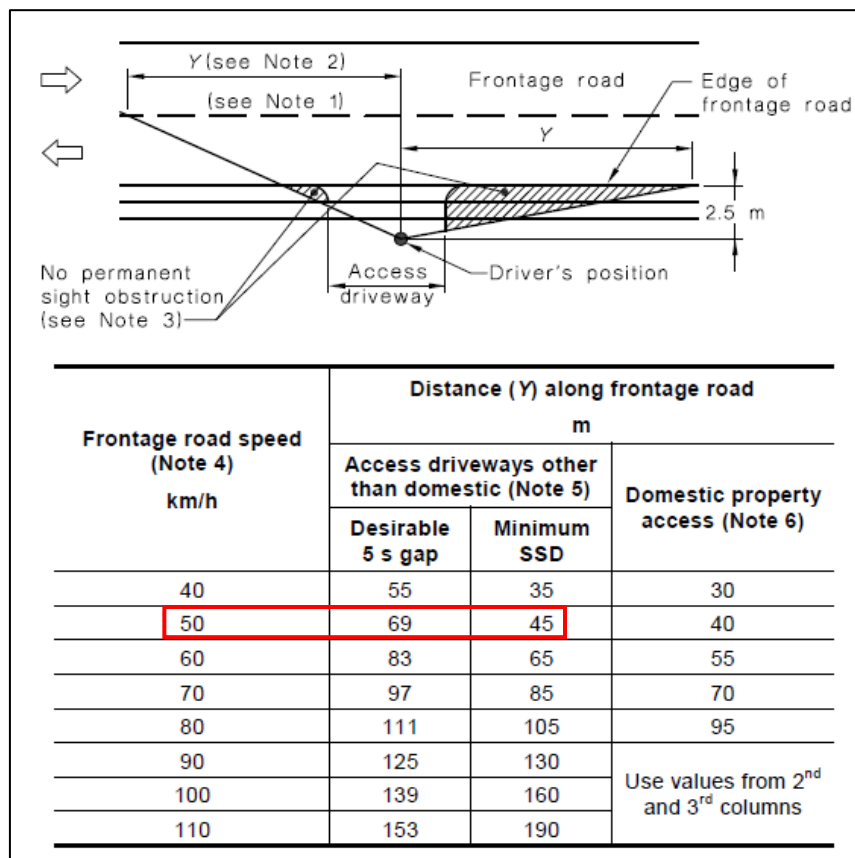


Figure 6: Sight Distance Requirements

Based on the 50km/h speed limit along Newmarket Parade, the minimum required sight distance is 45m. As shown in **Figure 7**, the minimum sight distance is achieved at the proposed crossover in both directions.



Figure 7: Sight Distance Check

4.2. Parking

The City's District Planning Scheme No. 2 (DPS2) requires 7 bays per 100m² of net leasable area (NLA) for Shopping Centres under 10,000m²

Based on the proposed 727m² of NLA for the retail tenancies, 51 car parking bays are required.

The City's Local Planning Policy 2.3 (LPP2.3) outlines the following minimum parking requirement for the childcare facility:

- 1 bay per each staff member.
- For 55 children or more, 9 bays plus 1 bay per 8 children accommodated in excess of 54.

Based on the proposed 91 children and 15 staff members, 29 car parking bays are required.

The overall parking requirement is therefore 80 bays.

The proposed 70 bays 10 bays short of the calculated requirements. In this instance, the shortfall of 10 bays may be considered justifiable for the following reasons:

- The peak periods of parking demand of the child care centre and the retail tenancies do not coincide. The peak period of parking demand for the child care centre is generally from 6 to 9am and from 2 to 5pm while the peak period of parking demand for a shopping centre is generally around mid-day.
- There are four on-street parking bays on the eastern side of Newmarket Parade directly opposite the site.



5. Traffic Generation

The volume of traffic generated by the proposed development has been estimated using trip generation rates from the Institute of Transportation Engineers (ITE) *Trip Generation* as detailed in **Table 2**.

Table 2: Proposed Development Vehicle Trip Generation

Land Use	Units	Quantity	Generation Rate			Number of Trips		
			Daily	AM Peak	PM Peak	Daily	AM Peak	PM Peak
Shopping Centre	100m ² GFA	7.27	45.96	1.03	3.99	334	7	29
Day Care Centre	Students	91	4.38	0.80	0.81	399	73	74
					Total	733	80	103

As shown, the proposed development is predicted to generate approximately 733 vehicle trips per day including 80 vehicle trips during the morning peak hour and 103 during the afternoon peak hour.

According to the ITE *Trip Generation*, approximately 34% of traffic generated by Shopping Centres are pass by trips which are vehicles that are already on the road network, diverting to the centre before continuing on. Additionally, there will be a proportion of multi-purpose trips generated by customers visiting several different tenancies within the site including people staff or parents from the child care centre visiting the shops before or after pick-up / drop-off.

Once the pass by trips are removed, the net increase in traffic generation resulting from the development is in the order of 484 vehicles per day including 53 vehicles during the morning peak hour and 68 vehicles during the afternoon peak hour.

This volume of traffic is considered to be low to moderate and can be accommodated within the existing capacity of the road network.

6. Pedestrian and Cyclist Access

6.1. Paths

The existing path network is well established with at least one footpath along all adjacent roads. There are also on-road cycle lanes along both sides of Marmion Avenue and Reflection Boulevard / Camborne Parkway.

Internally, the site will have footpaths along the majority of the parking lot perimeter.

The existing and proposed path network is assessed as being adequate.

6.2. Bicycle Parking

The City's Local Planning Scheme does not outline bicycle parking requirements for developments.

For the child care centre, any parking demand is likely to be limited to staff. As child care centres are typically enclosed and secure, bicycles can simply be stored within the premises wherever there is room available.

For the retail tenancies, it is recommended that some bicycle parking is provided for customers and staff to encourage cycling as much as possible.

According to Austroads *Guide to Traffic Management Part 11: Parking Management Techniques*, the recommended bicycle parking provision rate for a shop is 1 employee space per 200m² GFA and 1 visitor space per 500m² over 1000m² GFA.

Based on the approximately 727m² GFA, the recommended bicycle parking provision is 4 employee spaces. For this type of development it may not be necessary to allocate bicycle users to staff and visitors. It may be more appropriate to provide a number of spaces in a relatively central area for communal use and additional spaces can be added if there is demonstrated demand.



7. Public Transport Access

The following Transperth bus services currently operate within reasonable walking distance of the site:

- Route 483 which operates between Clarkson Station and Alkimos via Merriwa and Butler Station.
- Route 490 which operates between Butler Station and Two Rocks via Marmion Avenue.
- Route 491 which operates between Butler Station and Yanchep via Marmion Avenue.

The closest stop are located on Marmion Avenue north and south of Camborne Parkway (Route 490 and 491) and along Camborne Parkway east of Poppleton Parkway.

Child care centre do not typically generate much demand for public transport use and so the existing available services are considered to be adequate.



8. Site Specific Issues and Safety Issues

8.1. Crash History

The only crash recorded along Newmarket Parade over the five-year period ending December 2020 was a “Right Turn Thru” crash at the intersection with Camborne Parkway.

The crash history does not indicate any major safety issue on the road network and there is no indication that the development would increase the risk of crashes unacceptably.



9. Conclusion

A Transport Impact Statement for the proposed mixed use development at 1 Newmarket Parade in Butler concluded the following:

- The available sight distance at the proposed crossover meets the minimum Australian Standard requirements.
- The car parking requirement according to the planning scheme and the local planning policy for child care centres is 80 bays. The proposed 70 bays 10 bays short of the calculated requirements. The shortfall of 10 bays is considered justifiable based on the availability of street parking adjacent to the site and the staggered peak parking demand between the child care centre and the retail tenancies.
- The existing road network will have sufficient capacity to accommodate the traffic generated by the development and no modifications are required.
- The existing external path network is considered to be adequate.
- It is recommended that 4 bicycle parking spaces are provided.
- The existing public transport services are considered to be adequate.
- The crash history of the adjacent road network does not indicate any major safety issue on the road network and there is no indication that the development would increase the risk of crashes unacceptably.