

# **PROPOSED ALDI STORE – LOT 9053 PORTOBELLO RD, DALYELLUP**

## **SITE ACCESS REVIEW**

### **TECHNICAL NOTE 1**

**6.10.2024**

## **1. INTRODUCTION**

The Shire of Capel (the Shire) has received a development application for an Aldi store to be located at Lot 9053 Portobello Road, Dalyellup (the Site), which has raised some concerns with respect to the site access.

Donald Veal Consultants (DVC) has conducted an independent review of the following issues:

1. whether full access to the site via Portobello Road will result in a detrimental impact on the local traffic network; and
2. whether the mitigated access via Portobello Road (LIFO/right-out ban) will result in a detrimental impact on the local traffic network.

This technical note presents our findings and recommendations for consideration by the Shire.

## **2. DOCUMENT REVIEW**

DVC reviewed the documents provided, namely:

- Access Route Assessment Memo – PS214079-PTH-PAM-MEM-001B, dated 20.09.2024 and prepared by WSP; and
- Vehicular Turning Movements – Vehicle Swept Path plans x 2, dated 11.09.2024.

We understand that no Transport Impact Assessment (TIA) report relating to the Development Application has been provided to the Shire. The Western Australian Planning Commission's Transport Assessment Guidelines (2016) requires a full TIA report for any development generating in excess of 100 peak hour vehicle movements. For developments generating between 10 and 100 vehicle trips per hour, a Transport Impact Statement (TIS) is required.

## **3. TRAFFIC MOVEMENT ASSUMPTIONS**

In the absence of any traffic generation data for the proposed development, certain assumptions regarding traffic movements have been made.

The assumed catchment area for the traffic generated by the proposed land use is based on **Figure 1**. Traffic generated from Area A is expected to access the Site via Norton Promenade, traffic from Area B via Parade Road, and traffic from Area C via Portobello Road. Approximately 70% of the traffic to the Site is assumed to originate from Area A, 25% from Area B, and 5% from Area C.



**Figure 1: Assumed catchment for traffic generated for the proposed development Site**

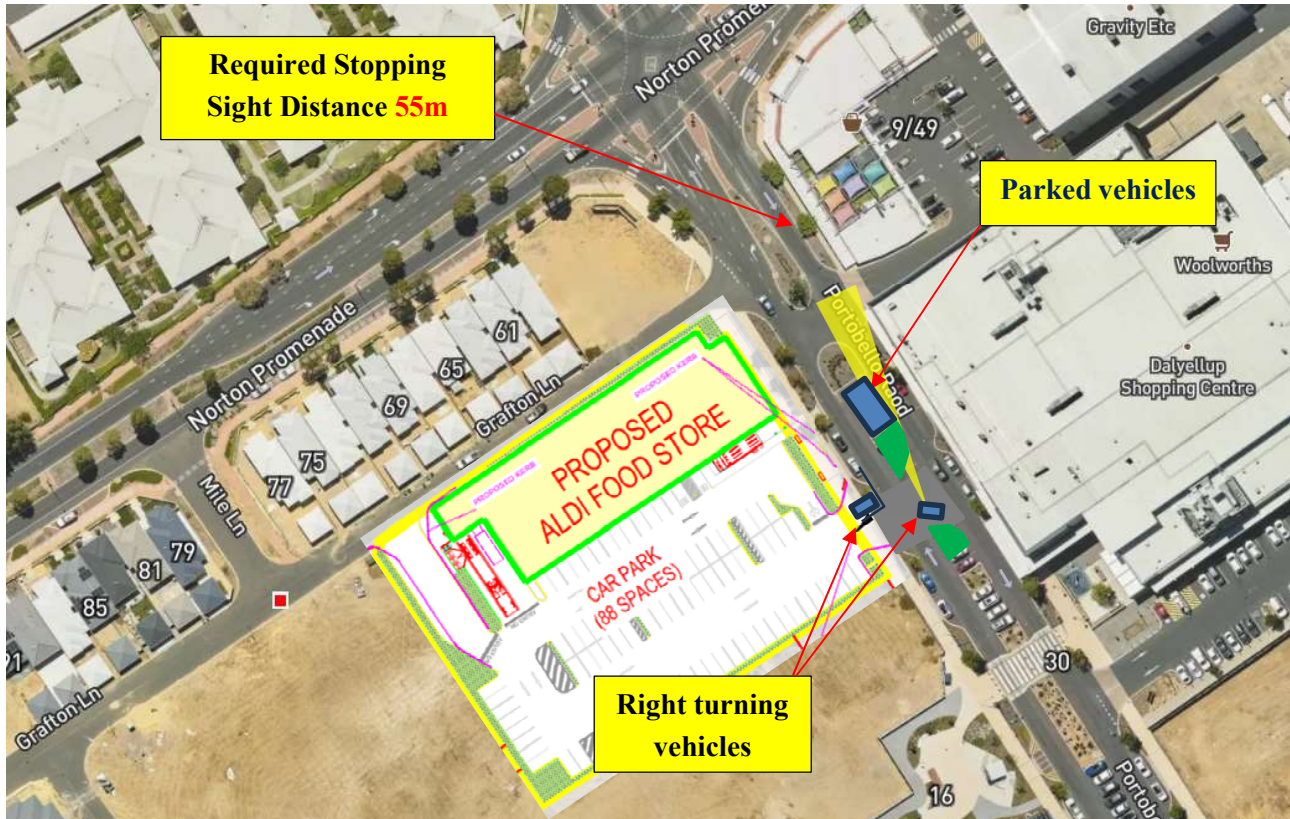
#### 4. ROAD ENVIRONMENT

Portobello Road is currently a 40km/h speed environment with kerbside parallel parking and 90° parking in the median. There is a raised zebra crossing midblock and two further pedestrian crossing points to the south and one to the north, making four crossings within a section of 220m.

#### 5. FULL ACCESS TO THE SITE VIA PORTOBELLO ROAD

Since most of the traffic is expected to come from the western (Area A) and northern (Area B) areas, approximately 95% of vehicles exiting the Site are expected to turn left onto Portobello Road, heading north. The demand for right turns from the Site currently is anticipated to be low (approximately 5%) due to limited property development to the south (Area C).

Drivers making right turn exit movements from the Site Vehicles would have their sight distance to the north obstructed by parked vehicles in the central median on Portobello Road, leading to potential right angled crashes. Based on Austroads Guide to Road Design Part 3 Table 5.5, for a design speed of 50 km/h and a reaction time of 2.0s, the required Stopping Sight Distance (SSD) is 55m whereas barely half this distance would be achieved. See **Figure 2**.



**Figure 2: Required Stopping Sight Distance to the north for right turning vehicles from the Site**

Hence, if the right turn out movement from the Site onto Portobello Road is permitted, the median parking to the north should be removed in order to provide adequate site distance.

## 6. MITIGATED ACCESS VIA PORTOBELLO ROAD (LILO/RIGHT OUT BAN)

This option assumes all movement at the site access onto Portobello Road apart from a ban on right turn out movements. It therefore permits LI/LO and right in movements.

Although the demand for vehicles exiting the Site to travel south is likely to be low, those that do will need to find an alternative route if only permitted to turn left on exit. One option is to travel north on Portobello Road, then west on Norton Promenade, and south on Wicklow Boulevard. The more likely option is for drivers to make a U-turn at the central median opening near the Dalyellup Shopping Centre, which could lead to the risk of side swipe crashes with shopping centre traffic heading south.

We note the Dalyellup Shopping Centre access onto Portobello Road to the north of the proposed Aldi Site access caters for full turning movements with the right turn out movement likely to be significantly greater than that generated by the Aldi store.

## 7. OPTIONS ASSESSMENT

The pros and cons for the two options are shown in **Table 1**.

**Table 1: Pros and Cons of the Options**

Option Description	Pros	Cons
Full Site Access to Portobello Road	<ul style="list-style-type: none"> <li>• No restrictions on access to and from the Aldi site.</li> <li>• Less conflicting movements on the network.</li> <li>• Caters for all vehicle desire lines.</li> <li>• Short right turn in pocket to Aldi Site possible due to removal of median parking.</li> <li>• Would allow delivery trucks to exit right.</li> </ul>	<ul style="list-style-type: none"> <li>• The sight distance to the north is obstructed by parked vehicles, necessitating the removal of 3 additional parking bays in the central median north of the Site access.</li> </ul>
Mitigated Site to Portobello Road	<ul style="list-style-type: none"> <li>• Retains 3 median parking bays.</li> </ul>	<ul style="list-style-type: none"> <li>• Vehicles exiting the Site and wishing to travel south on Portobello Road likely to U-turn in the central median opening for the Dalyellup Shopping Centre. May lead to side swipes with drivers turning left.</li> <li>• Queueing likely in southbound direction on Portobello Road caused by vehicles waiting to access the Aldi site resulting in the risk of rear end crashes.</li> <li>• Delivery truck swept paths show the vehicle exiting the site on the wrong side of the driveway.</li> </ul>

## **8. RECOMMENDATIONS**

DVC would advise that the full site access to Portobello Road option be adopted with the three median parking bays to the north removed and a short right turn pocket provided. Portobello Road is a slow speed environment with a posted speed of 40 km/h. The right turn out demand from the Aldi site is expected to be low and allowing it to occur here would avoid the demand for U-turn movements further north.

Prepared: Yaqoob Siddiqui – Senior Consultant & Donald Veal

Approved: Donald Veal - Director

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