

CARPARK AND DRIVEWAY CERTIFICATION OF AN APPROVED MEDICAL CENTRE DEVELOPMENT

160 Lakemba Street in Lakemba

Prepared for: Mr Ghassan Hijazi

N1514161A

May 2015

1. INTRODUCTION

Motion Traffic Engineers was commissioned by Mr Ghassan Hijazi to prepare a car parking certification report of an approved medical centre development at 160 Lakemba Street in Lakemba.

The car park is on the ground level with two double garages provided with vehicle access and egress via Lakemba Street. Car parking is provided with 90 degree car spaces. Six car spaces are provided with a turnaround area.

Reference is made to AS2890.1 and Council's Development Control Plan for compliance. DA conditions need to be met and are quoted below:

9. *The submitted design of the vehicular access and off street parking facilities does not comply with the relevant provisions of Australian Standard AS/NZS 2890.1-2004 Parking Facilities - Off-Street Car Parking. The site constraints are such that the parking facilities must be specifically designed using the rules contained in the Standard to produce a workable solution. In this regard the submitted design must be amended to address the following issues:*
 - 9.1. *The number of parking spaces must be reduced to no more than seven.*
 - 9.2. *The U-turn area must be no less than 3500 mm wide and must be specifically identified for vehicular manoeuvring through signage and ground marking. Parking on this area is not permitted.*
 - 9.3. *The disabled parking module must be widened to no less than 2700 mm. In this regard the shared area can be utilised for manoeuvring into the parking module.*
 - 9.4. *A blind aisle extension is required between the building housing the swimming pool and the adjacent parking module in accordance with Clause 2.4.2(c) of AS/NZS 2890.1: 2004. The blind aisle extension may be reduced as the parked vehicle will use the U-turn bay to reverse direction rather than the parking aisle.*
 - 9.5. *Parking modules must have a length of 5400 mm in accordance with Clause 2.4.1(a) of AS/NZS 2890.1: 2004.*
 - 9.6. *The width of the parking modules shall be determined using a single turn swept path template for the B85 vehicle, generated in accordance with Appendix B of AS/NZS 2890.1: 2004, Paragraph B3.1, including the swept path clearances specified in Paragraph B3.2.*
 - 9.7. *There is insufficient sight distance and reaction time between vehicles entering the parking facility and vehicles manoeuvring from the disabled parking module and adjoining modules. The design must specifically resolve this deficiency.*

- 9.8. *Forward entry and exit of vehicles is required in relation to the site. The design must ensure that reversing movements into or out of the site are specifically prohibited.*
- 9.9. *The design must ensure that exit from the site is only via a left turn. The design must be certified by a suitably qualified Civil Engineer with NPER registration with the Institution of Engineers.*

The author of the report has NPER registration.

2. DRIVEWAY

A driveway runs upwards from Lakemba Street to the garage level. The driveway is 4.2 metres wide at the property and on a flat gradient.

3. CAR SPACES

A swept path for a B85 (as per DA condition 9.6) shows that the 90 degree car spaces need to be 3.3 metres wide. The disabled car space can make use of the shared zone for the width (with the bollard in place).

Each of the car spaces have a width of 3.2 metres and the disabled car space has a width of 2.7 metres (encroaching upon the shared zone and is permitted according to AS2890.6). The shared zone complies with AS2890.1 and the disabled

The length of the car spaces are 5.4 metres. The blind aisle is 1.27 metres wide.

Convex safety mirrors are required on both sides of the gate for pedestrian sight distance to be met.

4. LEFT TURN INTO LAKEMBA STREET

Council's DA conditions states a left turn out is required. An oversize right turn ban symbol should be drawn on the pavement next to the gate to indicate the right turn is not permitted.

5. SIGHT DISTANCE

The car driver's sight distance requirement to enter the external road is stated in Figure 3.2 of AS2890.1.

The sight distance varies according to the speed of the external road. Lakemba Street has a default speed limit of 50km/hr.

The minimum sight distance required is 45 metres. Site measurements showed that the minimum sight distance looking left is met without permanent obstructions.

The pedestrian sight triangle (as set out in Figure 3.3) is met as well with convex safety mirrors.

6. CONCLUSIONS AND RECOMMENDATIONS

The car parking area and driveway is compliant with Australian Standards and Council's DCP.