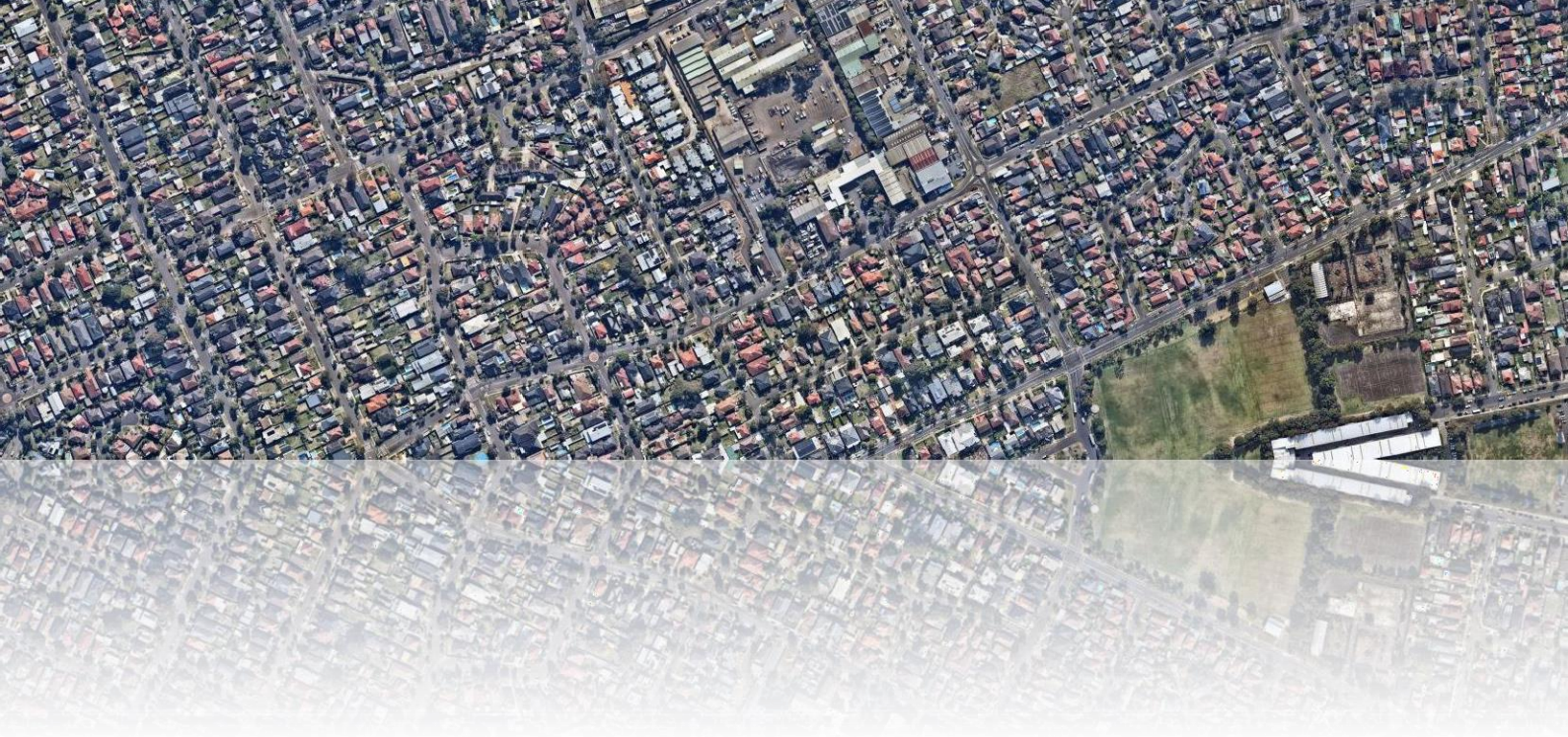




**TRAFFIC AND PARKING IMPACT ASSESSMENT OF
THE PROPOSED WAREHOUSE DEVELOPMENT
AT 98 ROGERS STREET, ROSELANDS**



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Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

Development Type: Warehouse Development

Site Address: 98 Rogers Street, Roselands

Prepared for: GPM 1 Architecture

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1 **INTRODUCTION**

McLaren Traffic Engineering was commissioned by GPM 1 Architecture to provide a traffic and parking impact assessment of the proposed Warehouse Development at 98 Rogers Street, Roselands as depicted in **Annexure A**.

1.1 Description and Scale of Development

The proposed development has the following characteristics relevant to traffic and parking:

- A single warehouse unit, consisting of:
 - 506.90m² warehouse gross floor area (GFA);
 - 124.47m² office GFA.
- Vehicular access is proposed via a 6.0m wide two-way driveway from Rogers Street, facilitating access to an at-grade car park, accommodating six (6) car parking spaces.

1.2 State Environmental Planning Policy (Transport and Infrastructure) 2021

The proposed development does not qualify as a traffic generating development with relevant size and/or capacity under *Clause 2.122* of the *SEPP (Transport and Infrastructure) 2021*. Accordingly, formal referral to Transport for NSW (TfNSW) is unnecessary, and the application can be assessed by City of Canterbury Bankstown Council officers.

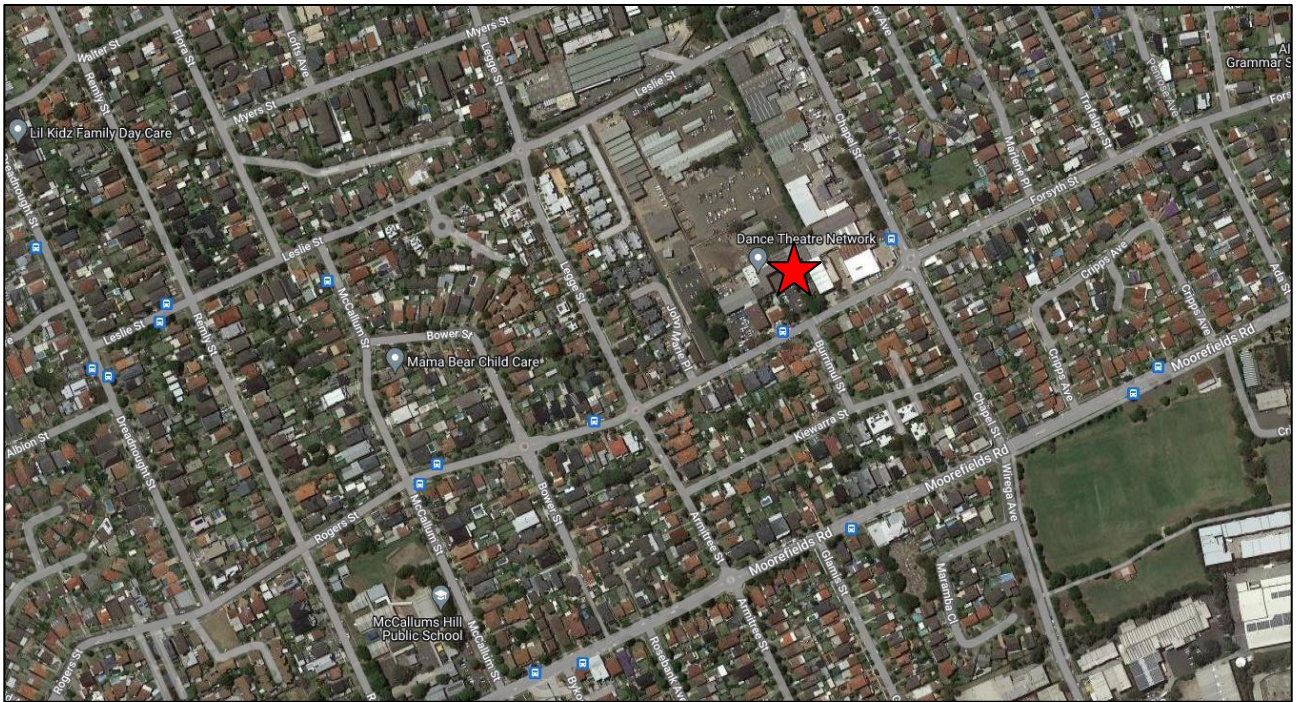
1.3 Site Description

The subject site, legally identified as Lot C / DP388635, is currently zoned *IN2 – Light Industrial* under the *Canterbury-Bankstown Local Environmental Plan 2023* and is occupied by a single-storey residential dwelling. The site has a single street frontage to Rogers Street to the south.

The site is generally surrounded by industrial and commercial developments to the north with low to medium-density residential developments in all other directions. McCallums Hill Public School is located approximately 600m south-west of the site.

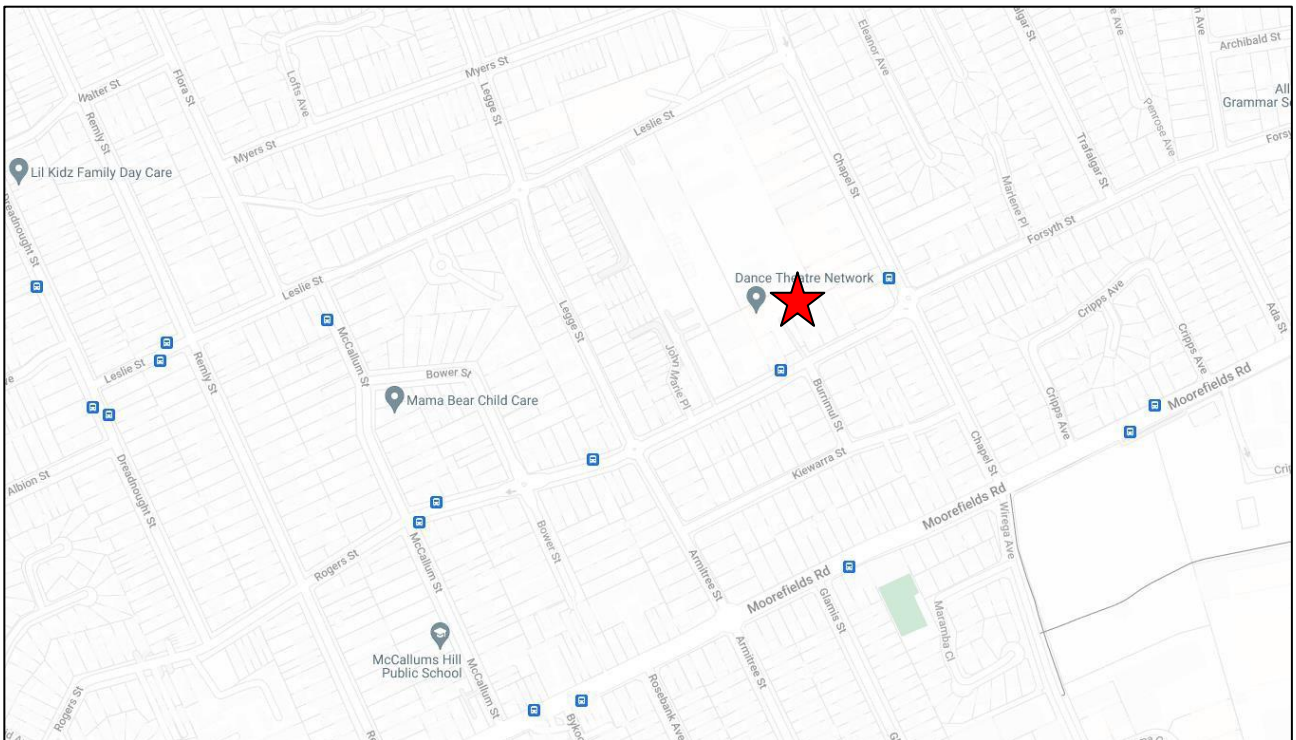
1.4 Site Context

The location of the site is shown on an aerial photo and a street map in **Figure 1** and **Figure 2** respectively.



Site Location

FIGURE 1: SITE CONTEXT – AERIAL PHOTO



Site Location

FIGURE 2: SITE CONTEXT – STREET MAP

2 EXISTING TRAFFIC AND PARKING CONDITIONS

2.1 *Road Hierarchy*

The road network servicing the site has characteristics as described in the following sub-sections.

2.1.1 Rogers Street

- Unclassified COLLECTOR Road.
- Approximately 12m wide carriageway to the west of the subject site facilitating one (1) traffic flow lane in each direction and kerbside parking along both sides of the street.
- Approximately 8m wide carriageway to the east of the subject site facilitating one (1) traffic flow lane in each direction and kerbside parking on the southern side of the road only.
- Signposted 50km/h speed limit.
- Unrestricted kerbside parking permitted along both sides of the road to the west of the subject site and signposted “*No Stopping*” along the northern side of the road to the east of the site.

Burrimul Street

- Unclassified LOCAL Road.
- Approximately 7m wide carriageway facilitating two-way traffic flow and kerbside parking along both sides of the street:
 - Opportunities for two-way passing at vacant kerbside parking spaces and driveways.
- No speed limit signposted – 50km/h speed limit applies.
- Unrestricted kerbside parking permitted along both sides of the street.

Chapel Street

- Unclassified COLLECTOR Road.
- Approximately 12m wide carriageway facilitating one (1) traffic flow lane in each direction and kerbside parking along both sides of the street.
- Signposted 50km/h speed limit.
- Unrestricted kerbside parking permitted along both sides of the road.

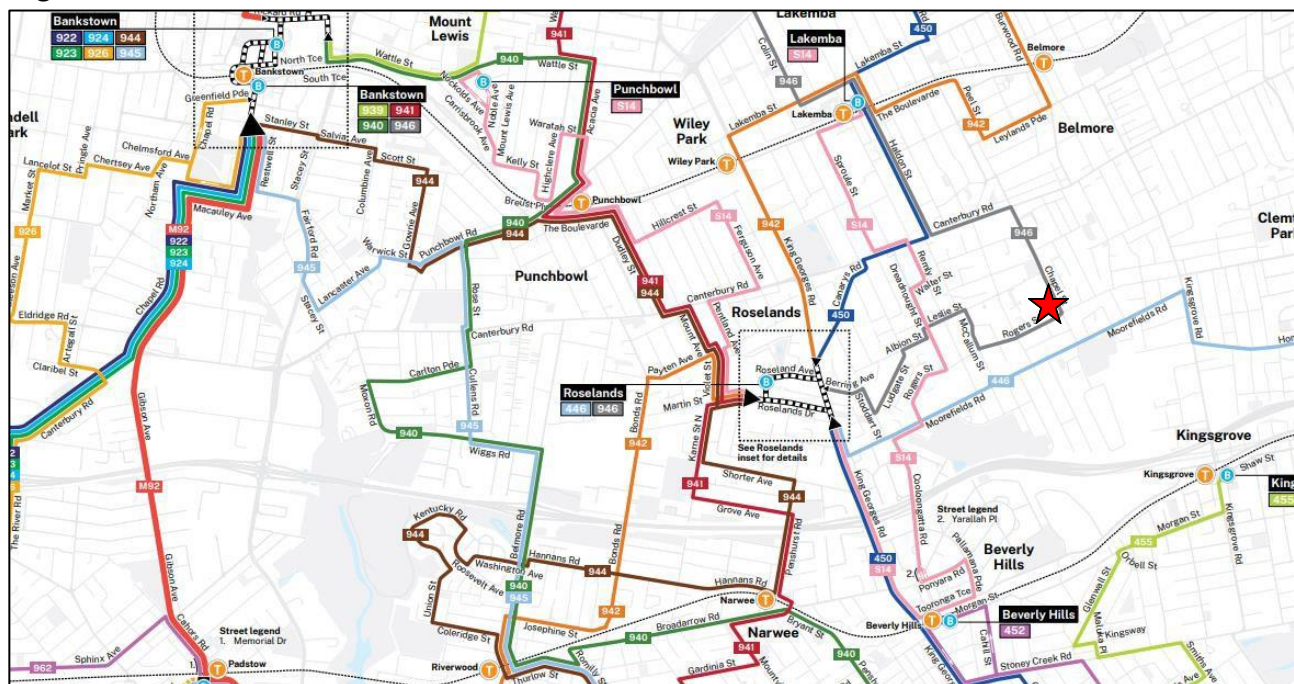
2.2 Existing Traffic Management

- Roundabout controlled intersection of Legge Street / Armitree Street / Rogers Street.
- “Give Way” line marked controlled intersection of Rogers Street / Burrumul Street.
- Roundabout controlled intersection of Rogers Street / Chapel Street / Forsyth Street.
- Signposted “No Trucks – 3t and over” restrictions along Legge Street and Armitree Street.
- Signposted “No Trucks – 3t and over” restrictions eastbound from Rogers Street / Chapel Street.
- Speed Hump and associated “20km/h” signage within the midblock of Rogers Street acting as Local Area Traffic Calming devices.

2.3 Public Transport

The subject site has access to the existing bus stops (ID: 2196264 and ID: 219666) located approximately 40m walking distance to the west and 140m walking distance to the east of site on Rogers Street and Chapel Street. These bus stops service the existing bus route 946 (Roselands to Bankstown via Lakemba & Greenacre) provided by U-Go Mobility.

The location of the site subject to the surrounding public transport network is shown in Figure 3.



Site Location

FIGURE 3: PUBLIC TRANSPORT NETWORK MAP

2.4 Future Road and Infrastructure Upgrades

From Canterbury-Bankstown Council Development Application tracker and TfNSW Projects website, it appears that there are no future planned road or public transport changes that will affect traffic conditions within the immediate vicinity of the subject site.

3 PARKING ASSESSMENT

3.1 Council Parking Requirement

Reference is made to the *Canterbury-Bankstown Development Control Plan 2023* (CBDPCP 2023) – Chapter 3.2: *Parking* which outlines the following parking requirements applicable to the proposed development:

Off-Street Parking Schedule

Warehouse or distribution centres

1 space per 300m² GFA or 1 space per 2 staff, whichever is the greater.

Note 2: Where an office component is involved and provided this does not exceed 20% of the total gross floor area, 1 car space per 100m² gross floor area is to be provided. Any additional office space will be assessed at a rate of 1 car space per 40m² gross floor area.

Development Controls

2.2 *In calculating the total number of car parking space required for development, these must be:*

- (a) *rounded down if the fraction of the total calculation is less than half (0.5) a space; or*
- (b) *rounded up if the fraction of the total calculation is equal or more than half (0.5) a space; and...*

Table 1 presents the parking requirements of the proposal according to the above CBDPCP 2023 car parking rates.

TABLE 1: CBDPCP 2023 PARKING RATES

Land Use	Scale	Rate	Spaces Required	Spaces Provided
Warehouse	506.90m ² GFA	1 space per 300m ² GFA	1.7	6
Offices ⁽¹⁾	124.47m ² GFA	1 space per 100m ² GFA	1.2	
Total	-	-	3 (2.9)	6

Notes: (1) Office component of the development comprises of 19.7% of the GFA (124.47 / 631.37)

As shown, strict application of the CBDPCP 2023 requires the provision of three (3) car parking spaces. The proposed plans detail the provision of six (6) car parking spaces exceeding CBDPCP 2023 requirements by three (3) car parking spaces.

3.2 Parking for People with Disabilities

CBDP 2023 states the following regarding accessible parking provision relevant to the proposed development:

Accessible off-street parking rates

Commercial and industrial premises (BCA Classes 5-8) where development contains 10 or more spaces

1 accessible parking space per 50 parking spaces for staff;

1 accessible parking space for visitors per 50 parking spaces where a car park has less than 500 spaces;

The proposed plans do not provide 10 or more car parking spaces and hence reference is made to *Section D4D6* of the *Building Code of Australia (BCA)* as part of the *National Construction Code 2022 (NCC)* which categorises a warehouse and office as a Class 8 and Class 5 building respectively, and therefore requires the provision of car parking for people with disabilities at a rate of:

Class 5,7,8 or 9c buildings 1 accessible space for every 100 carparking spaces or part thereof

In accordance with the BCA requirements, one (1) car parking space for people with disabilities is to be provided. The proposed car parking layout incorporates one (1) parking space for people with disabilities resulting in compliance with CBDP 2023 requirements.

3.3 Bicycle & Motorcycle Parking Requirements

Reference is made to the CBDP 2023 which outlines the following bicycle parking requirements applicable to the proposed development:

Off-Street Parking Schedule – Bicycle Spaces

Office premises

Staff: 1 space per 300m² gross floor area

Visitors: 1 space per 500m² gross floor area over 1000m²

Warehouse or distribution centres

1 space per 20 staff

At the time of the preparation of this report, it is unknown as to how many staff are required by the development. It is expected that there is enough area within the warehouse unit building envelope to accommodate staff bicycle parking requirements.

The proposed office use of the development requires the provision of one (1) staff bicycle space. The proposed plans do not provide any formal bicycle parking facilities, bicycles can be stored informally on-site if required. If any formal bicycle parking is required, there is

adequate area within the building envelope of the warehouse unit to detail compliant bicycle parking spaces.

The CBDCP 2023 does not outline motorcycle parking rates. Accordingly, no motorcycle parking spaces have been provided, satisfying CBDCP 2023 requirements.

3.4 Servicing & Loading

Reference is made to *Canterbury Bankstown – Waste Design for New Developments – Guide F* which states the following:

For commercial and industrial developments, all allocated bins are required to be presented to a nominated on-site collection point and not on the kerbside. The site is to allow an HRV to enter the site and collect all bins directly from the bin storage area, a loading dock or a separate on-site bin presentation area.

Waste collection will be undertaken by a private waste contractor using vehicles up to and including a 6.4m wide Small Rigid Vehicle (SRV). The SRV waste vehicle will briefly utilise the loading bay in the parking aisle to collect waste where car parking space 6 will be restricted. It should be noted that this space is allocated to staff only. SRV waste collection will be infrequent and can be arranged to not take place during peak commuter periods. This loading area is located within direct access from the Rogers Street frontage and does not impact primary pedestrian access into any buildings. Swept path tests of the SRV waste collection vehicle have been undertaken, with the results presented in **Annexure B**.

It has been advised that the warehouse units will accommodate vehicles up to and including a 6.4m length Small Rigid Vehicle within the building envelope. Swept path tests have been undertaken demonstrating successful SRV entry and exit of the warehouse units in a forward direction, with the results presented in **Annexure B**.

3.5 Car Park Design & Compliance

The car parking layout as depicted in **Annexure A**, has been assessed to achieve the relevant clauses and objectives of AS2890.1:2004, AS2890.2:2018 and AS2890.6:2022. Swept path testing has been undertaken and the results are reproduced within **Annexure B** for reference. Any required changes are detailed in **Section 3.6**.

The proposed car parking and vehicular access design achieves the following:

- 6.0m wide two-way driveway (measured at the property boundary) facilitating access to Rogers Street;
- Minimum 5.8m wide parking aisles;
- Minimum 5.4m long, 2.4m wide spaces for staff;
- Minimum 5.4m long, 2.4m wide accessible spaces with adjacent associated 5.4m long, 2.4m wide shared space;
- Minimum 6.0m headroom clearance under the warehouse roller shutter doors, accommodating SRV access requirements;
- 2.0m x 2.5m pedestrian sight triangles clear of obstructions.

Whilst the plans have been assessed to comply with the relevant standards, it is usual and expected that a design certificate be required at the Construction Certificate stage to account for any changes following the development application.

3.6 Required Changes

Driveway Location

The proposed driveway location is required to be shifted to be 2m from the eastern side boundary such that the pedestrian sight triangle can be accommodated entirely on-site as per AS2890.1:2004 Figure 3.3. A concept is presented in **Figure 4** below.

FIGURE 4: CONCEPT DRIVEWAY LOCATION

4 TRAFFIC ASSESSMENT

The impact of the expected traffic generation levels associated with the subject proposal is discussed in the following sub-sections.

4.1 *Traffic Generation*

Traffic generation rates for the relevant land uses are provided in the RTA Guide to Traffic Generating Developments 2002 (RTA Guide) and recent supplements as adopted by Transport for NSW (TfNSW) and are as follows:

3.5 Office and Commercial

Evening peak hour vehicle trips = 2 per 100m² gross floor area

3.10.2 Warehouses

Morning peak hour vehicle trips = 0.5 per 100m² gross floor area

Whilst the RTA Guide only provides traffic generation rates for office uses in the PM peak hour and warehouse uses in the AM peak hour, the same rates will be assumed for the AM and PM peak hours respectively, as a conservative assessment. The resulting AM and PM peak hourly traffic generation is summarised in **Table 2**.

TABLE 2: ESTIMATED TRAFFIC GENERATION

Use	Scale	Peak	Generation Rate	Trips
Warehouse ⁽¹⁾	507m ² GFA	AM	0.5 per 100m ² GFA	3 trips (2 in, 1 out)
		PM	0.5 per 100m ² GFA	3 trips (1 in, 2 out)
Office ⁽¹⁾	125m ² GFA	AM	2 per 100m ² GFA	2 trips (1 in, 1 out)
		PM	2 per 100m ² GFA	2 trips (1 in, 1 out)
Total	-	AM	-	5 trips (3 in, 2 out)
		PM		5 trips (2 in, 3 out)

Notes:

(1) 90% inbound and 10% outbound assumed for the AM peak period, vice versa for the PM peak period.

As shown, the expected traffic generation associated with the proposed development is in the order of **5** vehicle trips in the AM peak period (3 in, 2 out) and **5** vehicle trips in the PM peak period (2 in, 3 out).

This level of traffic will have no adverse impact on any nearby intersections and can be readily accommodated within the existing road network with minimal impact in terms of traffic flow efficiency and road safety considerations.

Indeed, the computer models that are available to assess these impacts are not sensitive to such small changes and it may be concluded that the road network will operate with no change in the existing levels of service. In this regard, the proposed use of the site is a low-order traffic use, and the proposed development is supportable in terms of its traffic impacts.

4.1.1 Requirement for Impact Assessment

Reference is made to *Austroads Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments Figure 5.1* which states the following regarding peak hour vehicle trips:

Likely impact of development:

Low Impact (<10 Trips): No Detailed Assessment Required

Moderate Impact (10-100 Trips): Traffic Impact Statement Required

High Impact (>100 Trips): Traffic Impact Assessment Required

Accordingly, the proposal is a low impact development, and no detailed assessment is required.

5 CONCLUSION

In view of the foregoing, the subject Warehouse Development proposal at 98 Rogers Street, Roselands (as depicted in **Annexure A**) is fully supportable in terms of its traffic and parking impacts. The following outcomes of this traffic and parking impact assessment are relevant to note:

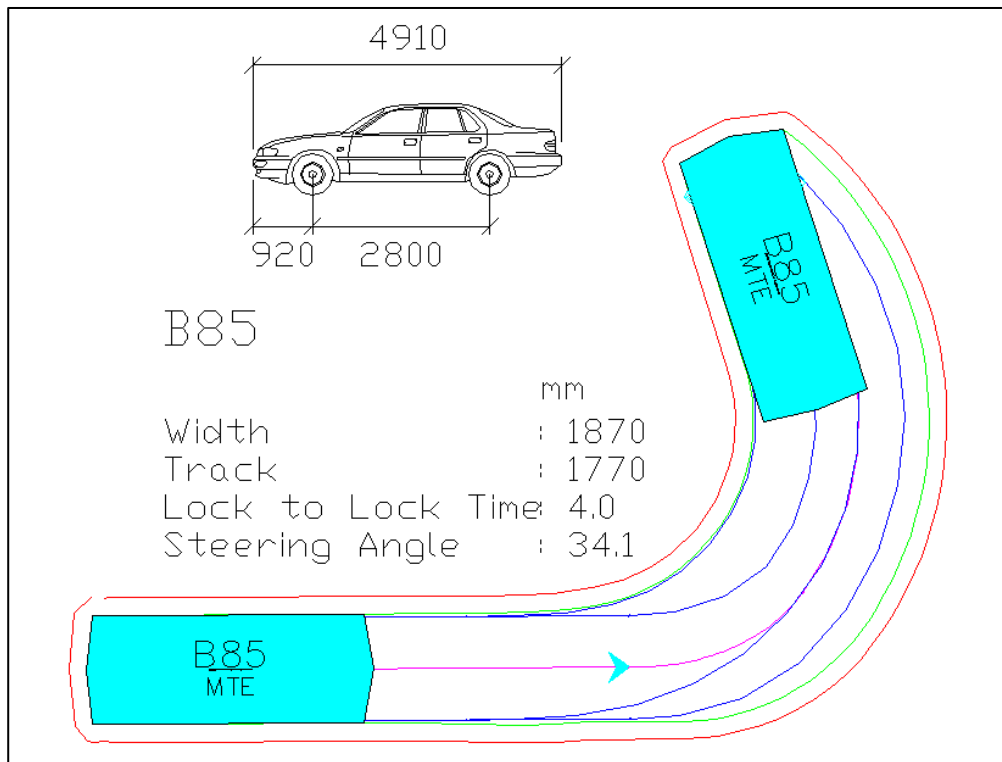
- a) The proposal includes the provision of **6** car parking spaces within a proposed carpark, resulting in compliance with CBDCP 2023 car parking requirements.
- b) It is unknown how many staff members would be required for the warehouse tenancy. As such, a definite provision for staff bicycle parking is unknown. In any case, the proposed plans detail the provision of nil (0) bicycle spaces, bicycles can be stored informally on-site if required. If any formal bicycle parking is required, there is adequate area within the building envelope of each warehouse unit to store additional bicycles.
- c) CBDCP 2023 does not require the provision motorcycle parking facilities. As such nil (**0**) motorcycle parking spaces have been provided.
- d) Waste collection will be undertaken by a private waste contractor utilising vehicles up to and including a 6.4m length SRV. Swept paths demonstrating waste collection operation are presented in **Annexure B**.
- e) The parking areas of the site have been assessed against the relevant sections of AS2890.1:2004, AS2890.2:2018 and AS2890.6:2022 and have been found to satisfy the objectives of each. Swept path testing has been undertaken and the results are reproduced within **Annexure B**.
- f) The traffic generation associated with the proposed development is in the order of **5** vehicle trips in the AM peak period (3 in, 2 out) and **5** vehicle trips in the PM peak period (2 in, 3 out). This level of traffic will have no adverse impact on any nearby intersections and can be readily accommodated within the existing road network with minimal impact in terms of traffic flow efficiency and road safety considerations.



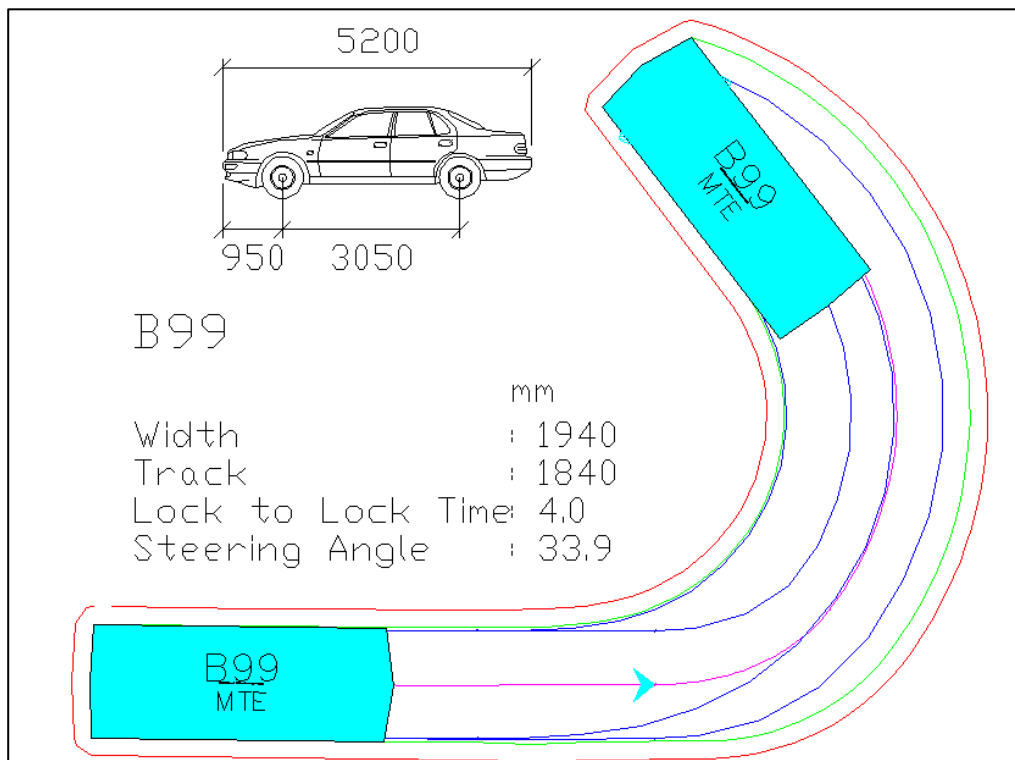
**ANNEXURE A: PROPOSED PLANS
(1 SHEET)**



**ANNEXURE B: SWEEP PATH TESTING
(6 SHEETS)**



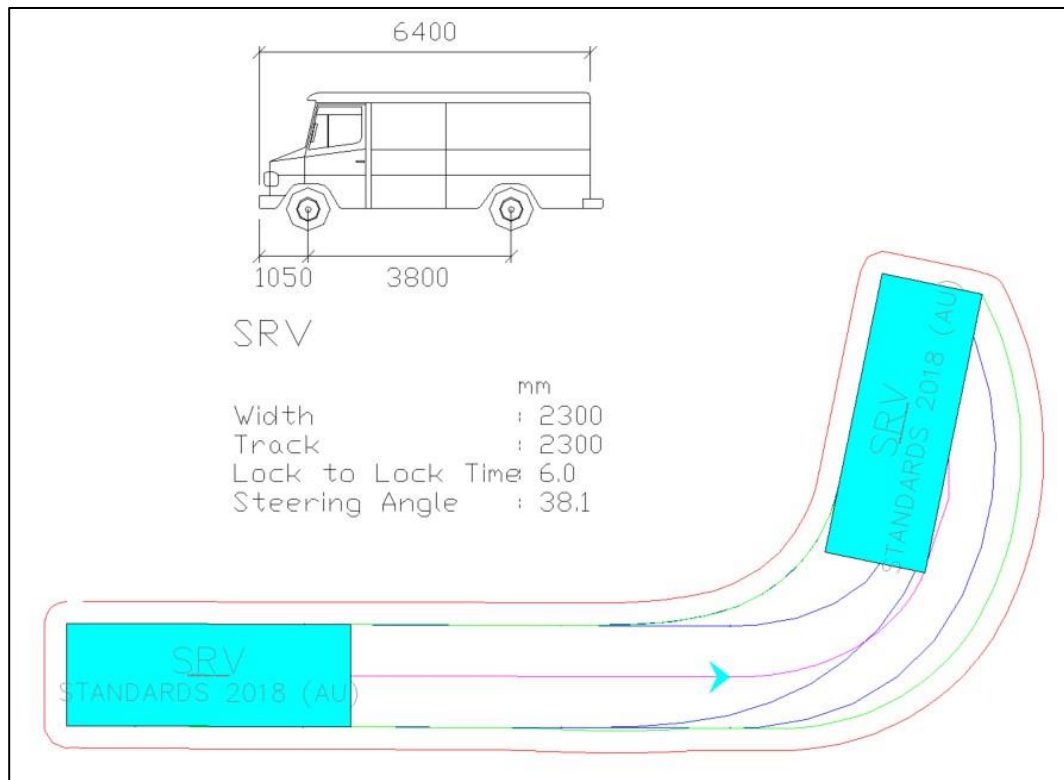
AUSTRALIAN STANDARD 85TH PERCENTILE SIZE VEHICLE (B85)



AUSTRALIAN STANDARD 99.8TH PERCENTILE SIZE VEHICLE (B99)

Blue – Tyre Path
 Green – Vehicle Body
 Red – 300mm Clearance

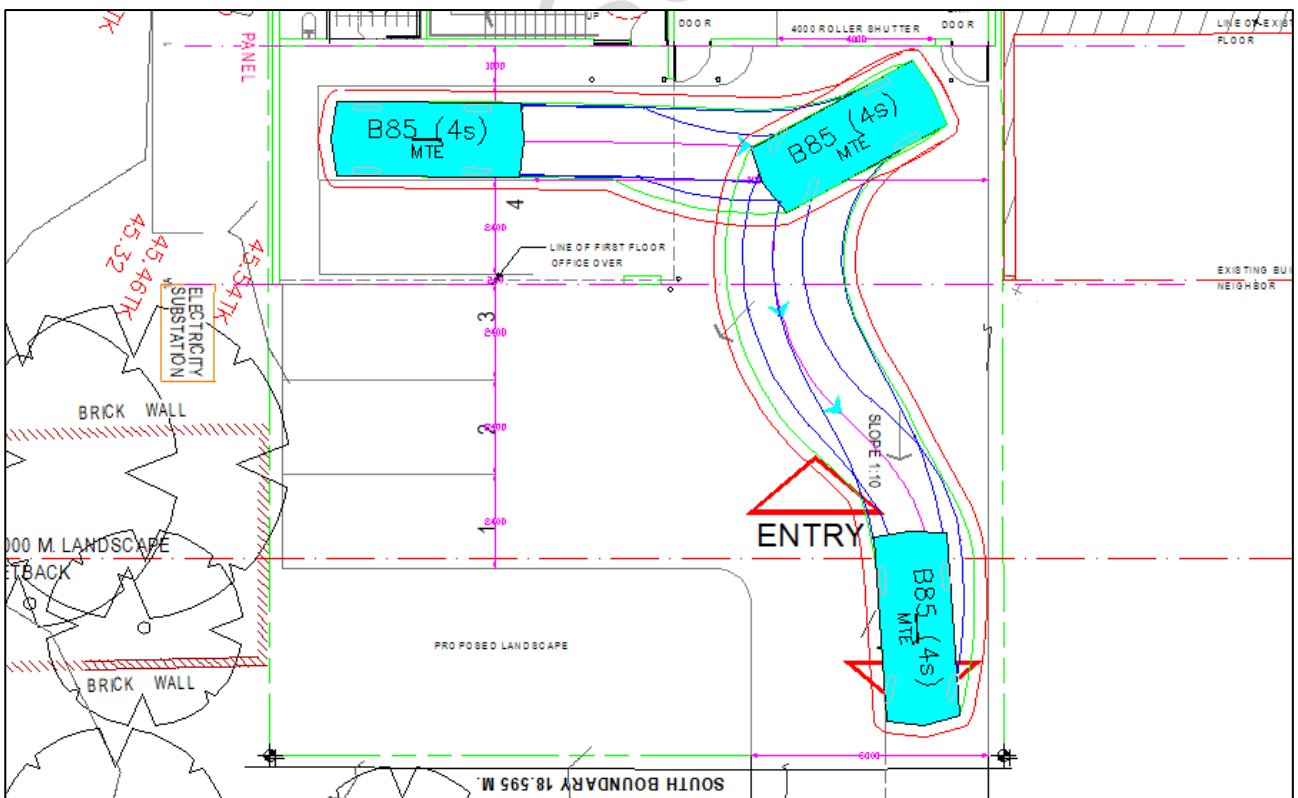
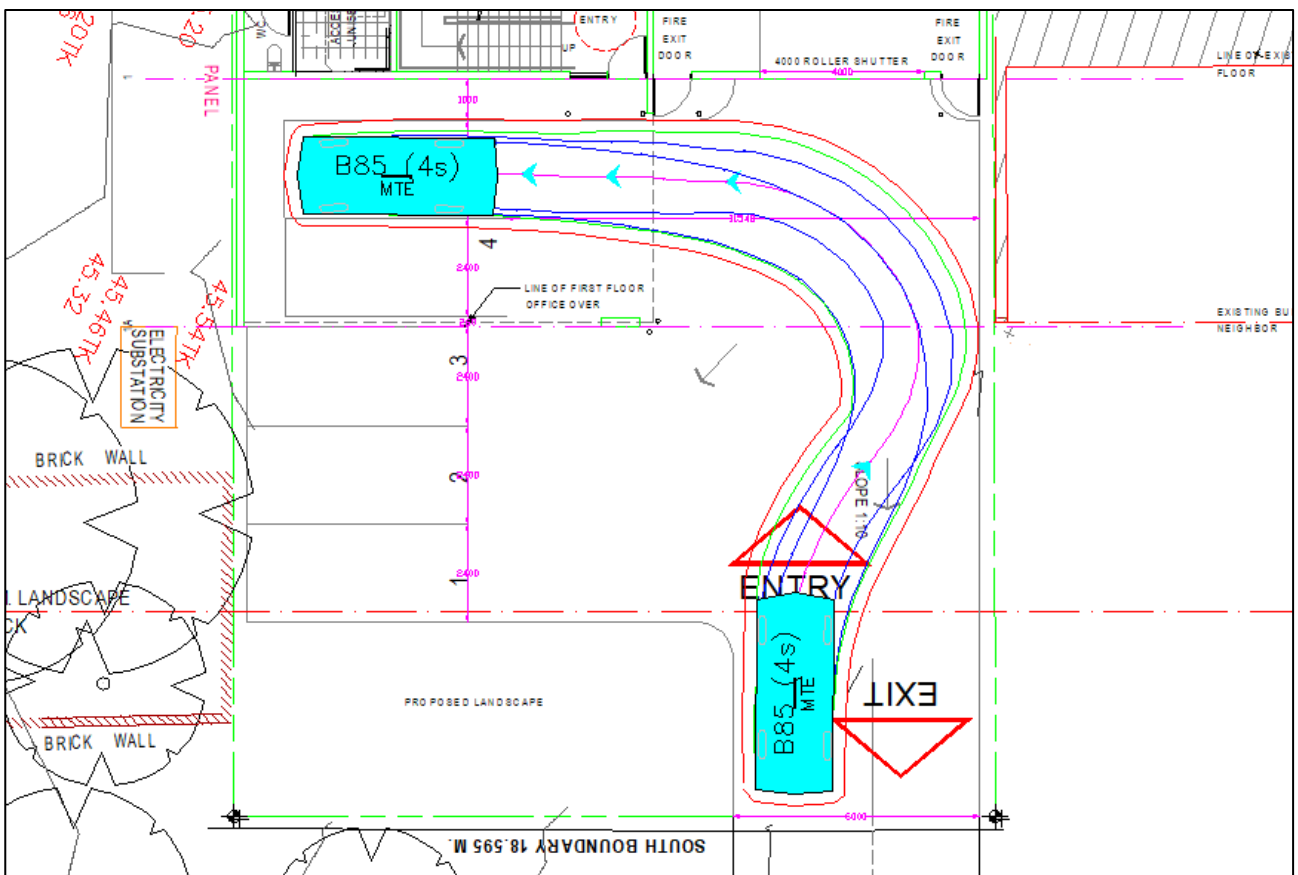
All tests performed at 10km/h on public roads and 5km/h internally.



AUSTRALIAN STANDARD SMALL RIGID VEHICLE (SRV)

Blue – Tyre Path
Green – Vehicle Body
Red – 500mm Clearance

All tests performed at 10km/h on public roads and 5km/h internally.



B85 Entry / Exit from Space 05

1 Manoeuvre FORWARD IN / 2 Manoeuvres REVERSE OUT

Successful

