

TRAFFIC IMPACT ASSESSMENT (TIA)

Proposed Industrial Development 330 Edgar Street, Condell Park

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CONTENTS

1.	Introduction	1
2.	Location and Site	2
3.	Existing Traffic Conditions	5
	3.1 Road Network	5
	3.2 Public Transport	7
4.	Description of Proposed Development	9
5.	Parking Requirements	10
	5.1 Car Parking	10
	5.2 Accessible Parking	11
	5.3 Bicycle Parking	11
	5.4 Refuse Collection and Servicing	11
6.	Traffic and Transport Impacts	12
	6.1 Existing Site Generation	12
	6.2 Development Trip Generation	12
	6.3 Net Trip Generation	13
7.	Access and Internal Design Aspects	14
	7.1 Vehicular Access	14
	7.2 Internal Design	14
	7.3 Summary	15
8.	Conclusions	16

Appendices

Appendix A: Reduced Plans Appendix B: Swept Path Analysis



1. INTRODUCTION

TRAFFIX has been commissioned by Yield Me Pty Ltd to undertake a traffic impact assessment (TIA) in support of a development application (DA) relating to industrial development at 330 Edgar Street, Condell Park. The development is located within the Canterbury-Bankstown Council Local Government Area (LGA) and has been assessed under that Council's controls.

This report documents the findings of our investigations and should be read in the context of the Statement of Environmental Effects (SEE) prepared separately. The development is a minor development and does not require referral to TfNSW under the provisions of SEPP (Transport and Infrastructure) 2021.

The report is structured as follows:

- Section 2: Describes the site and its location
- Section 3: Documents existing traffic conditions
- Section 4: Describes the proposed development
- Section 5: Assesses the parking requirements
- Section 6: Assesses traffic impacts
- Section 7: Discusses access and internal design aspects
- Section 8: Presents the overall study conclusions

2. LOCATION AND SITE

The subject site is known as 330 Edgar Street, Condell Park (Lot 32 of DP564483) and is located on the western side of Edgar Street, about 450 metres north of Milperra Road. It is also located about 2.6 kilometres southwest of Bankstown Railway Station, 2.8 kilometres northeast of Panania Railway Station and 19.9 kilometres southwest of the Sydney CBD.

The site has a total site area of approximately 3,305m² and consists of two (2) industrial buildings. It has an eastern frontage of 45 metres to Edgar Street and is bounded to the south, east, and west by industrial developments.

Vehicular access to the site is currently provided via two (2) separate driveways via Edgar Street.

A Location Plan is presented in Figure 1, with a Site Plan presented in Figure 2.





Figure 1: Location Plan



Figure 2: Site Plan

3. EXISTING TRAFFIC CONDITIONS

3.1 Road Network

The road hierarchy in the vicinity of the site is shown in **Figure 3** with the following roads of particular interest:

Milperra Road:	a TfNSW Main Road (MR 167) which traverses east to west		
	between Canterbury Road in the east and Newbridge Road in		
	the west. Milperra Road is subject to a speed zone of 70 km/h in		
	the vicinity of the site and accommodates three (3) lanes of		
	traffic in either direction. Kerbside parking is generally restricted		
	along either side of the road with clearway conditions being		
	enforced between 6am-7pm Mon-Fri, and 9am-6pm Sat-Sun-		
	Public holiday.		
Edgar Street:	an Unclassified Regional Road (URR 7122) that traverses north to		
	south between Hume Highway in the north and Milperra Road in		
	the south. In the vicinity of the site, Edgar Street is subject to a		
	60km/h speed zoning and accommodates two (2) lanes of traffic		
	in either direction. Kerbside parking is generally permitted along		
	either side of the road.		
Eldridge Road:	is a local road except for the section connecting Edgar Street		
	being an Unclassified Regional Road (URR 7120) which traverses		
	east to west between Chapel Road in the east and Ethel Street		
	in the west. Eldrige Road is subject to a speed zone of 60 km/h in		
	the vicinity of the site and accommodates a single lane of traffic		
	in either direction. Unrestricted kerbside parking is generally		



Figure 3: Road Hierarchy

3.2 Public Transport

The Integrated Public Transport Service Planning Guidelines state that bus services influence the travel mode choices of sites within 400 metres (approximately 5 minutes' walk) of a bus stop. As shown in **Figure 4**, the site is conveniently located to bi-directional bus stops providing access to bus route 925 – East Hills to Lidcombe.

The above nominated bus route provides regular bus services to Revesby, Chullora, Berala, and Greenacre which provides access to the wider public transport network across the Greater Sydney region.

As such, the site is conveniently located with respect to the local public transport services, providing frequent and reliable connections to the wider Sydney transport network. Further information regarding buses is available from the Transport for NSW information website: <u>https://www.transportnsw.info</u>.



Figure 4: Public Transport



4. DESCRIPTION OF PROPOSED DEVELOPMENT

A detailed description of the proposed development is provided in the Statement of Environmental Effects prepared separately. In summary, the development for which approval is now sought is an industrial development comprising of the following components:

- Demolition of existing structures;
- Onstruction of 22 industrial units comprising a total GFA of 2,982m²; and,
- S Construction of at-grade, open-air carparking area comprising 30 car spaces.

The parking and traffic impacts arising from the development are discussed in **Section 5** and **Section 6**. Reference should be made to the plans submitted separately to Council which are presented at reduced scale in **Appendix A**.



5. PARKING REQUIREMENTS

5.1 Car Parking

5.1.1 Council Controls

The Canterbury-Bankstown Council Development Control Plan (DCP) 2021, Section 2 – Off-Street Parking Requirements, requires parking for industrial developments to be determined by the rates shown in **Table 1**:

Туре	Area	Parking Rate	Spaces Required	Spaces Provided
Industries	2,982m²	 1 car space per 100m² GFA Note 1: Where a retailing component is involved and provided this does not exceed 15% of the gross floor area (covering the retail component only), 1 car space per 100m² gross floor area is to be provided. 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. 	29.8 (30)	30

Table 1: Council Parking Rates and Provision

It is evident from **Table 1** that the proposed development requires a minimum of 30 car spaces under Council's DCP. In response the development provides a total of 30 parking spaces. Accordingly, the proposed car parking provision satisfies the requirements of Council's DCP and is considered acceptable.

5.2 Accessible Parking

Council's DCP specify the following rates for accessible parking for commercial and industrial premises:

- 1 accessible car space per 50 car spaces for staff; and,
- 1 accessible car space for visitors per 50 car spaces where a car park has less than 500 car spaces.

In response, the development makes provision for two (2) accessible parking spaces, one (1) space to be assigned to staff and the other to be assigned to visitors. In this regard the provision meets the requirements of Councils DCP and is considered acceptable.

5.3 Bicycle Parking

Council's DCP specify the following rates for bicycle parking:

I bicycle parking space per 20 staff.

Whilst staff data is not expected to be available at early DA stage depending on individual tenant needs, it is reasonable to assume each industrial unit would not exceed 20 staff. In this regard, each industrial unit would be able to comfortably accommodate at least one (1) bicycle space. In the circumstance, it is deemed that the proposed development meets the requirements of Council's DCP and is considered acceptable.

5.4 Refuse Collection and Servicing

Refuse collection, loading/unloading needs for the proposed development is to be undertaken by commercial vehicles up to and including 6.4m Small Rigid vehicles (SRV).

Each industrial unit will be provided with a minimum of one (1) internal loading bay which will be able to accommodate the loading and servicing needs of each individual unit and is expected to operate satisfactorily.

6. TRAFFIC AND TRANSPORT IMPACTS

6.1 Existing Site Generation

The subject site is estimated to comprise a cumulative industrial GFA of approximately 1,000m².

The TfNSW Guide to Transport Impact Assessment, TS 00085, Version 1.1 (GTIA) does not provide trip generation rates for industrial developments. As such, the TfNSW Technical Direction TDT 2013/04a has been utilised to estimate the trip generation for the existing industrial development. The relevant trip rates are as follows:

0.52 vehicle trip per 100m² of GFA during the AM peak hour; and,

0.56 vehicle trip per 100m² of GFA during the PM peak hour.

Accordingly, application of the general industrial trip rates to existing use of the site and adopting a 60:40 split results in the following predicted trip generation volumes:

5 trips per hour in the AM peak period	(3 in, 2 out); and,
6 trips per hour in the PM peak period	(2 in, 4 out).

6.2 Development Trip Generation

The impacts of the proposed development on the external road network have been assessed having regard for the indicative yield scenarios as summarised in **Section 4** above.

The TfNSW Guide to Transport Impact Assessment, TS 00085, Version 1.1 (GTIA) provides trip generation rates for business parks. The average Sydney weekday trip rates have been adopted for assessing the traffic generating potential of the proposed development.

The relevant trip rates are as follows:

- 1.11 vehicle trips per hour per 100m² GFA during the AM peak; and,
- 1.00 vehicle trips per hour per 100m² GFA during the PM peak.

Application of these trip rates to the proposed 2,985 m² GFA and adopting an 80/20 split, results in the following predicted trip generation volumes:



33 vehicle trips per hour during the AM peak period	(26 in, 7 out); and,
30 vehicle trips per hour during the PM peak period	(6 in, 24 out).

6.3 Net Trip Generation

The above traffic generation is considered a minor change over existing conditions and the proposed development is anticipated to result in the following net traffic generation:

+28 trips per hour in the morning peak period	(+23 in, +5 out); and,
+24 trips per hour in the evening peak period	(+4 in, +20 out).

As seen from the above, the proposed development will result an additional vehicle trip every 2 minutes in the AM and PM peak periods. Therefore, the proposed development is considered supportable from a traffic planning perspective and no external network improvements are required.

7. ACCESS AND INTERNAL DESIGN ASPECTS

7.1 Vehicular Access

The development proposes a total of 30 parking spaces with access to a local road and provides employee and visitor parking (Class 1, 1A and Class 2). It will therefore require a Category 2 access driveway under AS 2890.1 (2004), being a combined width of 6.0-9.0 metres.

In response, the development proposes a 7.9m wide combined access driveway in compliance with AS 2890.1 (2004) requirements.

Reference should also be made to the swept path analysis provided in **Appendix B** showing the satisfactory operation of the largest design vehicle (6.4m SRV) will be able to enter and exit the site whilst travelling in a forward direction at all times.

7.2 Internal Design

The internal car park complies with the requirements of AS 2890.1 (2004), AS 2890.2 (2018), and AS 2890.6 (2022), and the following characteristics are noteworthy:

7.2.1 Parking Modules

- All standard car parking spaces have been designed in accordance with User Class 2. These spaces are provided with a minimum space length of 5.4m, a minimum width of 2.5m and a minimum aisle width of 5.8m.
- All spaces located adjacent to obstructions of greater than 150mm in height are provided with an additional width of 300mm.
- Dead-end aisles are provided with the required 1.0m aisle extension in accordance with Figure 2.3 of AS2890.1 (2004).
- All accessible parking spaces have been designed in accordance with AS 2890.6 (2009), being 2.4m wide, 5.4m long and situated immediately adjacent to a dedicated shared area of the same dimension. Dedicated shared area bollard is to be located 750mm-1750mm from end of the shared area.

7.2.2 Loading

- Service and manoeuvring areas have been designed in accordance with AS2890.2 (2018) for commercial vehicles up to and including 6.4m SRVs.
- A minimum clear head height of 3.5 metres is to be provided for all trafficable areas of the service vehicles, as required under AS 2890.2 (2018).

7.2.3 Other Considerations

- Visual splay has been provided at the access driveway in accordance with Figure 3.3 of AS 2890.1 (2004) and AS 2890.2 (2018).
- A series of swept path analysis are presented in **Appendix B** demonstrating a 6.4m SRV will be able to satisfactorily enter and exit the internal loading bay for every industrial unit.
- The site has also been designed to allow an 8.8m MRV to satisfactorily circulate the site as shown in the swept path analysis presented in Appendix B, demonstrating general fire appliances (i.e. emergency vehicles) can satisfactorily access and egress the site in accordance with NSW Fire Safety Guideline Access for Fire Brigade Vehicles and Firefighters (version 05 dated 4 October 2019).

7.3 Summary

In summary, the internal configuration of the car park has been designed in accordance with AS 2890.1 (2004), AS 2890.2 (2018), and AS 2890.6 (2022). It is however envisaged that a condition of consent would be imposed requiring compliance with these standards and as such any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.



8. CONCLUSIONS

In summary:

- The proposal seeks approval to construct an industrial development at 330 Edgar Street in Condell Park, comprising 22 industrial units with a cumulative GFA of 2,985m² and 30 car park spaces.
- The proposed development provides 30 parking spaces which complies with the requirements of the Canterbury-Bankstown Council DCP (2021). As such, all normal parking demands will be readily accommodated on-site.
- The site is conveniently located with respect to the local public transport services, providing frequent and reliable connections to the wider Sydney transport network.
- The traffic generation arising from the development has been assessed as a net change over existing conditions and equates to an additional 28 vehicle trips per hour during the AM peak period and 24 vehicle trips per hour during the PM peak period. These are considered minor increase and as such, no external improvements are required to facilitate the proposed development. The traffic impacts of the development are therefore considered acceptable.
- The proposed at-grade, open-air carparking area has been assessed to comply with the requirements of AS 2890.1 (2004), AS 2890.2 (2018), and AS 2890.6 (2022) to ensure safe and efficient operation.
- Swept path analysis has been undertaken for the largest design vehicle being a 6.4m SRV to access each individual industrial units, and an 8.8m MRV to circulate the site, demonstrating satisfactory access/egress in accordance with AS 2890.2 (2018) and emergency vehicle access requirements.

This traffic impact assessment therefore demonstrates that the subject application is supportable on traffic planning grounds. TRAFFIX anticipates an ongoing involvement during the development approval process.



Reduced Plans



BY TITLE4722m² DP 564483 LOT 32 No. 330



PRELIMINARY-DA

PROPOSED SITE PLAN



APPENDIX B

Swept Path Analysis



Notes:

This drawing is prepared for information purposes only. It is not to be used for construction.

TRAFFIX is responsible for vehicle swept path diagrams and/or drawing mark-ups only. Base drawing prepared by others.

Vehicle swept path diagrams prepared using computer generated turning path software and associated CAD drawing platforms. Vehicle data based upon relevant Australian Standards (AS/NZS 2890.1:2004 Parking facilities - Off-street car parking, and/or AS2890.2:2002 Parking facilities - Off-street commercial vehicle facilities). These standards embody a degree of tolerance, however the vehicle characteristics in these standards represent a suitable design vehicle and do not account for all variations in vehicle dimensions / specifications and/or driver ability or behaviour.





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