BARKER RYAN STEWART

# Deicorp Projects (Ashfield) Pty Ltd

# Loading Dock Management Plan

Polish Club
73-75 Norton Street, Ashfield

November 2020

Ref: SY200086

ENGINEERING
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# 1 Introduction

## 1.1 General

Barker Ryan Stewart have been engaged by Deicorp Projects (Ashfield) Pty Ltd to prepare a Waste and Loading Management Plan for a proposal for a mixed-use development comprised of 88 residential units and social club use at 73-75 Norton Street, Ashfield.

The purpose of this plan is to provide details of the operational roles and responsibilities for drivers of vehicles entering and leaving the site and in particular drivers of the waste collection vehicles operating in the waste and recycling collection bay.

The Waste and Loading Management plan will provide a guide that will aim to facilitate a safe environment for drivers of vehicles and pedestrians utilising the internal car park, waste collection bay and the local road network.

# 2 Site/Project Details

## 2.1 Site Location

The site is located at 73-75 Norton Street, Ashfield (Lots A and B, DP 336541 Lot 1 DP 180145, Lot 1 DP 170305 and Lot 12, DP 592302) and is currently occupied by the Polish Club. It is located within an area bounded by Liverpool Road to the north, Queen Street to the east and Holden Street to the west. Existing access to and from the site is off Norton Street which provides the southern boundary of the site.


**Figure 2.1: Site Location (NSW Land & Property Information SIX Maps 2013)**

## 2.2 Existing Road Network

Liverpool Road

Liverpool Road (A22) is the major road through Ashfield. It is a state road running in an east-west direction, north of the site. It connects Parramatta Road to the east with Copeland Street and Orange Grove Road to the west. It has an undivided 12.2 metre wide carriageway generally with two traffic lanes in each direction except for 1 hour parking through the Ashfield town centre outside of the morning and afternoon peak periods. The posted speed limit is 60km/hr with speed reduced to 40km/hr around schools.

Queen Street

Queen Street is a local road that provides a connection between Liverpool Road at the northern end and Old Canterbury road at the southern end. It generally has one traffic lane, and a parking lane in each direction, with a total carriageway width of 12 metres. Pedestrian footpaths are provided along both sides of the road. The posted speed limit on Queen Street is 50km/hr and it forms a roundabout intersection with Norton Street and a signalised intersection with Liverpool Road.

Holden Street
Holden Street is a local road that runs parallel to Queen Street and provides a connection between Liverpool Road at the northern end to Princess Street at the southern end of the road. It has a 12 metre wide carriage way with one traffic lane and one parking lane on each direction. Pedestrian footpaths are provided on each side of the road and the posted speed limit is 50km/hr. The Liverpool Road / Holden Street intersection and the Holden Street / Norton Street intersection are both under traffic signal control.

Norton Street
Norton Street is a local road that operates in a one-way direction in a westerly direction to the west of Victoria Street. It has a 6 metre wide pavement that generally consists of a single traffic lane with No Stopping restrictions along the southern side from Queen Street to Holden Street. A 50 metre long section of 2-hour parking (Monday-Friday 8am-6pm) is available along the northern side at the Queen Street end of the street and the remainder of the northern side is signposted as "No Parking" including across the frontage of the subject site. Pedestrian footpaths are provided on each side of the road and the posted speed limit is 50km/hr.

## 2.3 Existing Traffic volumes

Traffic counts were undertaken during the morning and afternoon peak periods to gauge the performance of the current road network. The traffic counts were undertaken between the hours of 7am – 9am and 3:30pm – 5:30pm on Tuesday 5th May 2020 at the following intersections:

- Liverpool Road / Queen Street signalised intersection
- Queen Street / Norton Street roundabout

The location of the intersections where the traffic counts were undertaken are highlighted by red circles in Figure 2.1 of this report.

It should be noted that the traffic counts were undertaken during the Coronavirus (COVID-19) pandemic lockdown and therefore the external traffic conditions are not that of a typical mid-week day. Consequently, the SCATS detector counts for the Liverpool Road / Queen Street signalised intersection were obtained from Transport for NSW for a typical mid-week day in February 2020 and compared to the physical counts conducted at this intersection. Accordingly, the AM and PM counts recorded at the surveyed intersections were factored by 1.58 and 1.22 (respectively) to obtain the external traffic conditions of a typical mid-week day. The traffic volumes for the intersections of Holden Street with Liverpool Road and Norton Street were obtained through SCATS data.

The peak hour periods, calibrated traffic volumes and layouts for each of these intersections are summarised below in Figures 2 to 5.

### 2.3.1 Peak Hour Traffic Volumes

The calibrated traffic counts and SCATS data for the 4 intersections for this assessment provide data on the current hourly volumes and an indication of the existing peak hour operational performance of each of the roads in the area surrounding the site.

Below is an overview of the hourly traffic volumes and the current operational performance of the surrounding network, based on the 'Guide to Traffic Generating Developments' that states:

'typical one-way mid-block lane capacities on urban arterial roads under interrupted flow conditions are 900-1000 veh/hr/lane. This calculation assumes Clearway conditions. The capacity falls to 600 veh/hr/lane for a kerbside lane with occasional parked vehicles. These capacities at times may increase under ideal conditions to 1200-1400 veh/hr.'

Liverpool Road

AM – 2,369 vehicles per hour two-way (1,530 eastbound and 838 westbound). The eastbound carriageway (2 lanes) averaged 765 vehicles per lane (LoS C). The westbound carriageway (2 lanes) averaged 419 vehicles per lane (LoS A).
PM – 2,456 vehicles per hour, two-way (986 eastbound and 1,470 westbound). The eastbound carriageway (2 lanes) averaged 493 vehicles per lane (LoS B). The westbound carriageway (2 lanes) averaged 735 vehicles per lane (LoS B).

Queen Street

AM – 627 vehicles per hour, two-way (343 northbound and 284 southbound). (LoS A
PM - 788 vehicles per hour, two-way (279 northbound and 509 southbound) (LoS C).

Holden Street

AM - 670 vehicles per hour, two-way (408 northbound and 262 southbound) (LoS C).
PM - 806 vehicles per hour, two-way (342 northbound and 464 southbound) (LoS C).

Norton Street

AM - 350 vehicles per hour, one-way (LoS B).
PM - 580 vehicles per hour, one-way (LoS C).

These hourly volumes indicate that the road network surrounding the site is operating at a high level of service with ample spare capacity to cater for the additional traffic that will be generated by developments in the area.

### 2.3.2 Daily Traffic Volumes

An indication of daily traffic volumes on Liverpool Road and the growth trends in recent years has been obtained from a permanent counting station (Stn ID: 28022) on Liverpool road at Strathfield South. The traffic volumes recorded at this counting station show that daily volumes increased from 51,373 vehicles per day in 2009 to 57,133 vehicles per day in 2019, an increase of 11.2% over 10 years - an average of 1.1% per annum.

# 3 Proposed Development

## 3.1 Development Yield

The proposed development is comprised of residential and non-residential components consisting of 88 residential apartments and a new facility for the existing Polish Club.

The Club facilities will consist of a private dining area (41m²), a restaurant (160m²), a lounge area (162m²), bar (103m²) and an auditorium with capacity for 300 seats. It is proposed that the Club will provide employment for 30 staff.

The basement level parking is spread over three levels and comprises 192 spaces (75 Polish Club spaces in Basement 1 and 117 residential spaces in Basements 2 and 3), including 12 accessible spaces.

It is also proposed to provide 14 bicycle spaces and 8 motorcycle parking spaces.

## 3.2 Access Arrangements

Access to the site will be provided via a 7.6 metre wide vehicle crossing off Norton Street near the western boundary of the site that will provides access for both passenger vehicles and service vehicles. This width driveway is consistent with the requirements for a Category 2 driveway in accordance AS 2890.1: 2004 that specifies a driveway width of 6 to 9 metres.

The access will operate safely and efficiently as the full width of Norton Street (6 metres) will be available to provide for vehicles turning into the site without hindering westbound through vehicles. In addition, as Norton Street has a one-way traffic flow there will be no opposing traffic to delay vehicles turning into the site.

The access has been designed in accordance with Figure 3.3 of AS 2890.1: 2004 to provide minimum sight lines for pedestrian safety.

The loading area is located at ground level and will be offset from the driveway towards the middle of the site. It will cater for waste and recycling collection vehicles as well as delivery vehicles. Access to and from the three basement carparks will be via a driveway and ramp adjacent to the western boundary of the site. The loading bay is offset sufficiently from the driveway and access to the basement carparking so that, once a waste collection or delivery vehicle is parked, they will not impede access or egress for other vehicles between Norton Street and the basement parking.

## 3.3 Vehicles Types

The majority of vehicle movements onsite will be B85 vehicles associated with the high-density residential component of the site and the Polish Club visitors and staff.

It is anticipated that the majority of delivery vehicles to the Polish Club and delivery and removalist vehicles to the residences will be light commercial vehicles, Small Rigid Vehicles (SRV's) and Medium Rigid Vehicles (MRV's).

General waste and recycling removal will be undertaken at ground level in the loading bay facilitated by 9.4 metre waste collection vehicle. There may also be SRV and MRV emergency vehicle movements that will operate in this area.

Heavy vehicle swept turning path plans have been provided in **Appendix A** in accordance with AS/NZS 2890.1-2004 Parking Facilities – Off-Street Car Parking and AS 2890.2-2018 Off-Street Commercial Vehicle Facilities. The swept path analysis indicates that the 9.4 metre waste collection vehicle used by Inner West Council will be able to enter the site in a forward direction from Norton Street, manoeuvre within the site and exit onto Norton Street in a forward direction.

# 4 General Traffic Management

## 4.1 Emergencies

The ground floor loading bay area will be capable of providing for emergency vehicles including a Bariatric Ambulance (7.3 metres in length) and the largest NSW Fire Brigade appliance (10.1 metres in length). To ensure unimpeded access for emergency vehicles to the loading bay area, a clear vehicle emergency egress path is to be available at all times to allow continuous movement of traffic. This will assist emergency vehicles to access this area in the event of an emergency situation.

Smaller ambulance vehicles such as a Landcruiser will be able to access the basement parking areas as this size vehicle is classified as an Austroads B99 (large passenger vehicle).

Other access locations for emergency vehicles will be the driveway alongside the Polish House, the common driveway servicing properties on Liverpool Road accessed from Norton Street and the goods delivery area at the rear of the kitchen.

## 4.2 Signage

External

Norton Street shall be line marked and signposted to ensure the following occurs:

- Clear Vehicle Emergency egress is provided; and
- No parking zones in close proximity to the access points are maintained.

Internal

The following regulatory signs should be installed at the exit driveway to manage traffic exiting the site and improve safety for pedestrians.

- Stop sign (R1-1)
- All Traffic Right (R2-14R)
- Give Way to Pedestrians (R2-10)

Vehicles within the car park should be provided with, and must comply with:

- specified safe routes;
- clear safety signs at parking areas;
- clear speed limit signs; and
- information and instruction on safe driving practices.

Internal signage will be required to clearly indicate the direction of travel and the location of the various parking zones. Warning signs will also be placed in areas accessed by delivery vehicles to ensure the safety of pedestrians internal to the car park including maximum clearance signs.

All pedestrian walkways will be marked and signposted to provide clear paths in and out of the site.

## 4.3 Management of Loading Bay

The car park will operate 24 hours a day 7 days a week for access and egress by residents. The use of the loading bay area should be restricted to ensure that waste and recycling collection and deliveries are conducted outside of the peak pedestrian periods of 8.00am to 10.00am and 3.00pm to 6.00pm Monday to Friday, excluding Public Holidays.

In addition, it is recommended that all vehicles accessing the loading bay should be managed by appropriately trained staff, particularly during reversing manoeuvres to ensure that any other vehicles entering the site are stopped well clear of the reversing vehicle.

The highest inbound trip rate is estimated to be 47 vehicles per hour (average of 1 vehicle every 75 seconds). The reversing manoeuvre should not take any longer than 60 seconds, therefore the longest queue length is expected to be one vehicle.

There is sufficient space to store 2 vehicles within the site between the heavy vehicle turning path and the kerb line in Norton Street, therefore no impact on traffic flow in Norton Street is expected while heavy vehicles are reversing into the loading bay.

A register should be established to ensure the safe and efficient operation of the loading dock and waste collection area. The register should be managed by an on-site building manager.

The register will provide opportunities for the Polish Club and residents to reserve a time period for deliveries and servicing outside the regular waste collection times and will help to ensure that no service vehicles are required to wait on public streets to enter the site.

## 4.4 Pedestrian Safety

Appropriate safety signage should be provided during deliveries/pickups to ensure pedestrians and other users internal to the car park are alerted to their presence.

Smaller vehicles such as light vans could enter the basement car park area, provided they are less than 2.2m in height. Loading / unloading could occur within an available car parking space in the basement with pedestrians going back and forth to the residential lifts.

The proposed driveway locations comply with Figure 3.3 – Minimum Sight Distance for Pedestrian Safety AS2890.1.

# 5 Waste Collection / Loading Bay

## 5.1 Vehicle Access and Waste Management

General residential waste removal is anticipated to be by Council's Commercial Waste Services from the designated waste collection area.

Council waste collection vehicles have dimensions of 9.4 metres in length, 2.5 metres wide and 4.5 metres high. These vehicles will be able to enter the site via a 7.6 metre wide vehicle crossing off Norton Street near the western boundary of the site that will provides access for both passenger vehicles and service vehicles, reverse into the loading bay and leave the site in a forward direction in accordance with AS 2890.2-2002 Off Street Commercial Vehicle Facilities. The swept path analysis for the council waste collection vehicle is shown at **Appendix A**.

In accordance with discussions with Council's Waste officer the loading bay areas have been designed with a 4.5m high clearance and sufficient manoeuvring area to cater for Council's standard Waste Collection Vehicle.

Removalist vehicles will similarly be able to use the loading dock area as the 4.5m clearance will allow entry and exit in a forward direction.

The number of deliveries to the Polish Club is expected to be 15 per week with an average of 2 to 3 deliveries per day. These deliveries will occur between 10.00am and 2.00pm Monday to Friday which is outside the AM and PM peak periods when arrivals and departures by other vehicles will be minimal.

## 5.2 Waste Collection / Delivery Vehicle Routes

Deliveries by light commercial and smaller vehicles will not be subject to any route restrictions and will utilise normal road rules to access the site from the Norton Street frontage.

Since Norton Street is restricted to a one-way westbound traffic flow all vehicles will enter from the eastern end of Norton Street and depart by turning right towards Holden Street.

## 5.3 Building Waste Management Plan

Residents will place their waste in the waste discharge room via garbage chutes in their building and the building manager would organise the bins to be moved from that room using the designated service lifts to the bin holding area within the loading dock. The bins will be collected by Council waste collection services.

The Polish Club will have waste serviced by a private contractor, and similar to the residential waste collection, waste will be transferred to the commercial waste room via garbage chutes. The bins within this room would be moved to the loading / waste collection area.

## 5.4 WH&S Requirements

### 4.3.1 Signage

A person conducting a business or undertaking has a duty of care under the Work Health and Safety Act to ensure that all personnel are aware that they have a responsibility, so far as is reasonably practicable, for the health, safety and welfare of all users and that any plant or systems of work which may be used are safe and without risks to health. This includes employers providing all employees with information,

instruction, training and supervision to ensure not only their own health and safety but also that of others working or attending the vicinity.

### 4.3.2 High-visibility Clothing

All persons attending or working within the waste / delivery loading bay are required to wear high-visibility clothing, in order to minimise risks associated with vehicle movements.

These can be in the form of high-visibility vests or uniforms and must meet the requirements of AS/NZS 4602.

### 4.3.3 Reversing

Reversing accidents are a major cause of workplace injury and damage to vehicles, equipment and premises.

To limit the risk of accidents, the following measures must be implemented and maintained:

- providing clearly marked reversing areas visible to drivers and pedestrians
- preventing pedestrians from entering the garbage collection bay area during its operation.
- ensuring visiting drivers are familiar with routes and reversing areas;
- place fixed mirrors at blind corners; and
- ensure all delivery and garbage collection vehicles are fitted with reversing alarms and flashing reversing lights.

# 6 Complaint Management Procedures

## 6.1 General

The building management will be responsible for recording and acting on all parking and loading related complaints. All safety incidents within the site must be promptly reported to management.

Upon receipt of a complaint management should investigate the complaints and, where necessary, put in place remedial action and inform the necessary individual of the action taken.

Where the complainant believes that adequate action was not taken, the matter should be relayed to the body corporate for action.

# 7 Ongoing Review

Building management will be required to review the provisions of the Waste and Loading Management Plan on an annual basis. Notwithstanding, the plan will also be reviewed and updated in the event of a serious incident to ensure the safety of residents, visitors and the general public and the effective operation of the overall development.

It is further required that regular consultation with residents, visitors and service providers are undertaken. This will further inform management of issues and lead to identifying practical risk solutions and ensure users have a sense of ownership of any safety changes.

# 8 References

Australian Standards, "*AS2890.1:2004 Off-Street Car Parking*".

Australian Standards, "*AS2890.2:2018 Off-Street Commercial Vehicle Facilities*".

NSW Roads and Traffic Authority, "*Guide to Traffic Generating Developments*" Version 2.2 dated October 2002.

Austroads "*Guide to Road Design*".

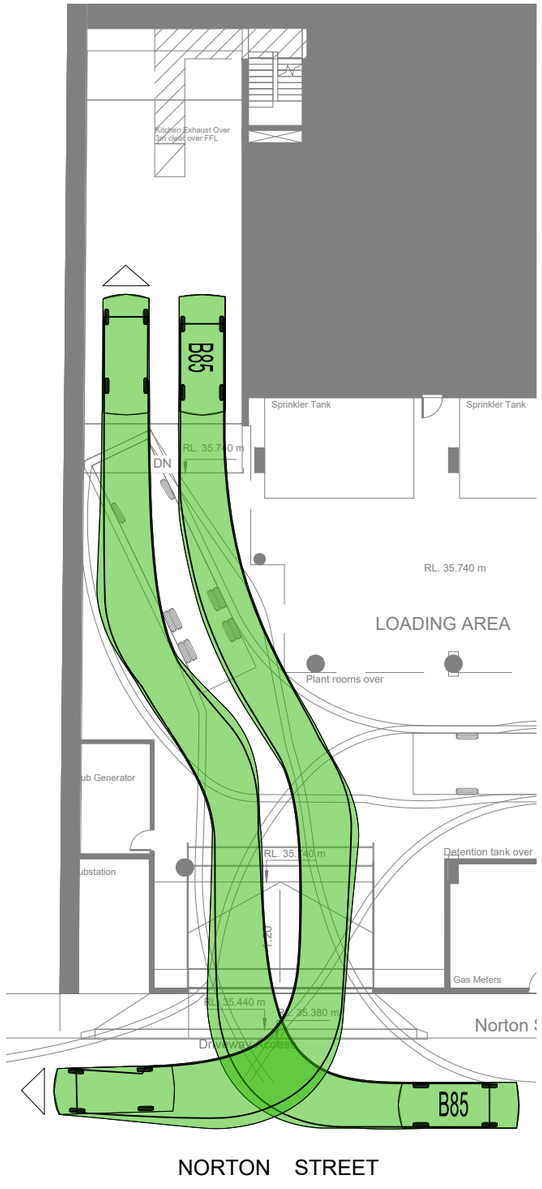
NSW Department of Planning and Infrastructure, "*SEPP (Infrastructure) 2007*"

Spatial Information Exchange (SIX) Maps – NSW Government Land and Property Information http://maps.six.nsw.gov.au (last updated)

# Appendix A
# Loading Bay Swept Path Analysis

A3


9.4m GARBAGE TRUCK
REVERSING TO LOADING DOCK
SCALE 1:250




B85 TURNING PATHS
SCALE 1:250


B99 TURNING PATHS
SCALE 1:250

2.5 0 2.5 5 7.5 10 12.5
METRES
1:250

| REV | AMENDMENT | ISSUED | DATE |
|---|---|---|---|
| A | FIRST ISSUE | JB | 27/10/2020 |

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73-75 NORTON STREET, ASHFIELD
PROPOSED DEVELOPMENT

GROUND FLOOR TURNING PATHS

Designed: JB
Drawn: JB
Checked: RD

Scales: Plan 1:250
Horiz. -
Vert. -
X-Sect. -

Datum: A.H.D.

Plan No.
SY20086-02-101
File Ref. SY20086
REV. A