PROPOSED MIXED-USE DEVELOPMENT
42 UNLEY ROAD. UNLEY

TRAFFIC AND PARKING REPORT

CIRQA™

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DOCUMENT CONTROL

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Project number:	22239
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Client contact:	Zoe Steele

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CIRQA Pty Ltd
ABN 17 606 952 309
PO Box 144, Glenside SA 5065
Level 1, 27 Halifax Street, Adelaide SA 5000
(08) 7078 1801
www.cirqa.com.au

1. INTRODUCTION

CIRQA has been engaged to provide design and assessment advice for a multi-storey mixed-use development at 42 Unley Road, Unley. Specifically, CIRQA has been engaged to provide advice in respect to traffic and parking aspects of the proposal.

This report provides a review of the subject site, the proposed development, its access and parking provisions and the associated traffic impact on the adjacent road network. The traffic and parking assessments have been based upon plans prepared by Enzo Caroscio Architecture (drawing no. A2.00, dated 22 January 2025, refer Appendix A).

2. BACKGROUND

2.1 SUBJECT SITE

The subject site is located on the western side of Unley Road, Unley. The site is bound by commercial properties to the north and south, Unley Road to the east and Irwin Lane to the west.

The Planning and Design Code identifies that the site is located within an 'Urban Corridor (Main Street)' Zone, with the following Overlays applicable:

- Airport Building Heights (Regulated) (All structures over 45 metres);
- Advertising Near Signalised Intersections;
- Affordable Housing;
- Building Near Airfields;
- Design;
- Noise and Air Emissions;
- Prescribed Wells Area;
- Regulated and Significant Tree;
- Traffic Generating Development; and
- Urban Transport Routes.

The subject site is currently occupied by two commercial buildings; one of which is occupied by three (3) retail tenancies (fronting Unley Road), whilst the other is used as a warehouse (located centrally within the site. Vehicle access is provided via a two-way access on Irwin Lane, at which all turning movements are permitted.

Figure 1 illustrates the location of the subject site with respect to the adjacent road network.

Figure 1 – Location of the subject site with respect to the adjacent road network

2.2 ADJACENT ROAD NETWORK

Unley Road is an arterial road under the care and control of the Department for Infrastructure and Transport (DIT). Adjacent the site, Unley Road comprises two traffic lanes and a bicycle lane in each direction. On-street parking adjacent the site on Unley Road (western side) is restricted to one hour from 9:00 am to 5:00 pm, Monday to Friday, and 9:00 am to 12:00 pm Saturday, with Clearway restrictions operable between 7:30 am and 9:00 am Monday to Friday. Footpaths are provided on both sides of Unley Road, facilitating both pedestrian and cyclist movements. Traffic data obtained from DIT indicates that this section of Unley Road has an Annual Average Daily Traffic (AADT) volume in the order of 28,000 vehicles per day (vpd), of which approximately 2.5% are commercial vehicles. Adjacent the site, a 60 km/h speed limit applies on Unley Road.

Irwin Lane is a laneway under the care and control of the City of Unley. Irwin Lane comprises a 4.8 m wide carriageway (approximate) accommodating two-way traffic movements. No Stopping restrictions apply on both sides of Irwin Lane. No footpaths are provided adjacent Irwin Lane and, as such, pedestrians and cyclists to share the carriageway with vehicles. While a 40 km/h speed limit applies on

Irwin Lane (as is applicable to local streets within the City of Unley), it is considered highly unlikely that such speeds would be realised due to the road characteristics of the laneway and the speed humps located intermittently on the length Irwin Lane.

2.3 PUBLIC TRANSPORT

Public transport services operate at high frequency within in the vicinity of the subject site. Specifically, 'Go Zone' bus stops are located on both sides of Unley Road within 170 m of the subject site. These stops are serviced by the following bus routes:

- Route 190 – Glenelg Interchange to City;
- Route 195, 195F, 196, 196F – Blackwood Interchange to City;
- Route 674 – Blackwood High School to City; and
- Route AO24 (special service) – Mitcham Square to Adelaide Oval.

Additional bus services are also available on George Street (to the east) and King William Road (to the west). The Greenhill Road Tram stop is also located approximately 600 m to the west, and is serviced by the high frequency ADLOOP, FESTVL and GLNELG services.

3. PROPOSED DEVELOPMENT

3.1 LAND USE AND YIELD

The proposed development comprises the demolition of the existing infrastructure on the subject site and the construction of a six-storey mixed-use development. The proposal would include the following key components:

- Commercial
  - 138 m^2 of total floor area;
- Residential apartments
  - 6x two-bedroom apartments;
  - 8x three-bedroom apartments; and
  - 1x four-bedroom apartment (penthouse).

The building has been designed such that the commercial tenancy is located on the ground floor, with residential apartments located on the floors above. A total of 27 parking spaces will be provided at the rear of the site (behind the commercial tenancy), with 20 spaces provided within a secure area. The remaining seven (7) spaces will be provided to the west of the 'secure line,

available for use by staff and visitors to the site (further discussion on parking allocation/breakdown is provided in Section 4.1). One (1) of the 25 spaces will be reserved exclusively for use by people with disabilities. A further 11 bicycle parking spaces are also proposed (within the secure parking area).

3.2 ACCESS AND PARKING DESIGN

The parking area will comply with the requirements of the Australian/New Zealand Standards for "*Parking Facilities Part 1: Off-street car parking*" (AS/NZS 2890.1:2004) and "*Parking Facilities Part 6: Off-street parking for people with disabilities*" (AS/NZS 2890.6:2009) in that:

- public parking spaces will be 2.6 m wide and 5.4 m long;
- staff parking spaces will be 2.4 m wide and 5.4 m long;
- residential parking spaces will be 2.4 m wide and 5.4 m long;
- the disabled parking space will be 2.4 m wide and 5.4 m long (with an adjacent shared space of the same dimension);
- the parking aisle will be at least 5.8 m;
- a clear height of at least 2.2 m will be provided throughout the parking area;
- a 1.0 m end-of-aisle extension will be provided beyond the last parking space in the aisle;
- columns will be located outside of the car clearance envelope;
- 0.3 m clearance will be provided to all objects greater than 0.15 m in height; and
- pedestrian sightlines will be provided where the site's access intersects with the site's property boundary.

Vehicle access to the site is proposed via a 7.0 m wide two-way crossover on Irwin Lane. The access point will accommodate simultaneous two-way vehicle movements (i.e. entering vehicles will be able to be driven past another vehicle stored waiting to exit the site).

3.3 SERVICING AND DELIVERIES

The site will be serviced by commercial vehicles up to 10 m in length. Such vehicles will be able to reverse into the site (from Irwin Lane) and store within the driveway whilst loading/unloading and/or collecting refuse (i.e. vehicles will not be required to enter the secure parking area in order to access the site). Commercial vehicles will then be able to be driven from the site in a forward direction.

The reversing of commercial vehicles in to the site is considered appropriate with regard to the subject proposal due to the low traffic volumes and speeds on Irwin

Lane, and the limited pedestrian activity (given that Irwin Lane typically only provides access to rear parking areas for both commercial properties and residential dwellings, with properties typically accommodating pedestrian access via higher-order frontage roads such as Unley Road or Salisbury Street).

Commercial vehicle movements associated with the site will be undertaken outside of peak periods (or opening hours) in order to minimise disruption to the site's parking area. A turn path of a 10 m commercial vehicle accessing the subject site is attached in Appendix B.

4. PARKING ASSESSMENT

4.1 CAR PARKING

The Planning and Design Code identifies the following parking rates applicable to the proposed development within a designated area:

- Non-residential development
  - 3 spaces per 100 m^2 of gross leasable floor area;
- Residential component of a multi-storey building
  - 2 bedroom dwelling - 1 space per dwelling;
  - 3 or more bedroom dwelling - 1.25 spaces per dwelling; and
  - Visitor parking - 0.25 spaces per dwelling.

Based on the above rates, the proposed development would have a theoretical requirement of 18 spaces for residents. Given that 18 parking spaces are proposed within the site's secure parking area, the residential parking requirement of the Planning and Design Code is satisfied.

The proposed development also has a theoretical requirement for eight (8) commercial and residential visitor parking spaces (approximately 4 spaces associated with each the commercial and residential visitor components).

It is proposed that the two (2) surplus spaces within the secure parking be allocated as 'staff only' parking, for use by tenancy staff. These shall be located immediately within the secure parking area, immediately adjacent the roller door (i.e. one space on the northern and one space on the southern side of the parking aisle). The remaining two staff parking spaces shall be accommodated adjacent the secure roller door within the unsecured parking area.

With regard to visitors, the remaining five (5) spaces within the unsecured parking will readily accommodate the site's residential visitor parking requirements (with

a surplus of one (1) parking space). Accordingly, adequate on-site parking is provided to satisfy the requirements of the Planning and Design Code.

It should also be highlighted that, in reality, the peak parking demands associated with the commercial component will occur at different times to that associated with visitor parking demands. It is therefore expected that additional on-site parking availability would typically be available for both residential visitors and staff during associated peak periods.

It is also noted that Performance Outcome 5.1 of the General Development Policies (Transport, Access and Parking) states the following:

> *"Sufficient on-site vehicle parking and specifically marked accessible car parking places are provided to meet the needs of the development or land use having regard to factors that may support a reduced on-site rate such as:*
>
> *(a) availability of on-street car parking*
>
> *(b) ...*
>
> *(c) in relation to a mixed-use development, where the hours of operation of commercial activities complement the residential use of the site, the provision of vehicle parking may be shared*
>
> *(d) ...*

The Planning and Design Code therefore contemplates acceptance of lower parking provisions (than suggested by the specified rates) based on development and land use considerations. This further reinforces the acceptability of shared parking arrangements on a development site where complimentary uses (generating peak parking demands at staggered times) are proposed.

For example, the residential visitor peak would likely occur in the evening and on weekends (particularly on Friday and Saturday nights), while the peak parking demand associated with the commercial use would be expected to occur during typical business hours (i.e. weekdays during the day). It would therefore be expected that the site's parking provisions will readily accommodate parking demands associated with the site's uses. Notably, the site will not rely upon surrounding on-street parking in order to satisfy parking requirements.

In addition to the above, it is noted that three parked cars are able to be accommodated on-street directly adjacent the site's frontage on Unley Road. While parking is restricted at given times, Clearway restriction only applies between 7:30 am and 9:00 am Monday to Friday. This period aligns with when parking demands associated with both the residential visitor and commercial components would be negligible (if any at all).

Notwithstanding the above, as adequate on-site parking is provided in excess of the requirements of the Planning and Design Code, Performance Outcome 5.1 from 'Transport, Access and Parking' is satisfied.

4.2 BICYCLE PARKING

The Planning and Design Code identifies the following bicycle parking rates applicable to sites located within a 'Urban Corridor (Main Street)' Zone:

- Residential component of a multi-storey building
  - resident - 1 space for every 4 dwellings for residents; plus
  - visitor - 1 for every 10 dwellings.

As the specific use of the commercial component is not known, for the purposes of this assessment, it has been assumed to be utilised as an 'Office' use, as this use will have a comparatively higher requirement than that of 'shop' (i.e. is more conservative). The applicable 'office' rate is as follows:

- Office
  - employee - 1 space for every 200 m^2 of gross leasable floor area; plus
  - visitor - 2 spaces plus 1 space per 1000 m^2 of gross leasable floor area.

Based upon the above rates, the site would have a total requirement for 9 bicycle parking spaces (4 resident, 1 commercial and 4 visitor). The site's secure bicycle parking room will have capacity to accommodate the site's entire bicycle parking requirement, therefore satisfying the bicycle parking requirements of the Planning and Design Code.

In addition, it is also common for residents to store their bicycles (particularly high-value bicycles) within their apartments, rather than in a common (albeit secure) bicycle room. The apartment products proposed are large with ample space to accommodate a bicycle if desired. The site's bicycle requirements are therefore considered more than satisfied.

5. TRAFFIC ASSESSMENT

The RTA's *"Guide to Traffic Generating Developments"* (now referred to as the RMA Guide), and its subsequent updates, identifies the following peak period traffic generation rates for the uses proposed:

- High Density Residential – 0.53 am and 0.32 pm peak hour trips per dwelling.

The commercial use has conservatively been assessed as a high traffic generating 'shop' use. The Guide identifies a peak hour (Thursday) traffic generation of 12.3 peak hour trips per 100 m² of gross leasable floor area for shopping centres with a total floor area between 0 and 10,000 m². However, such a rate is not considered to be appropriate for application to the subject proposal's commercial component. This is due to the large-scale nature and variety of offerings of a shopping centre compared to that of a standalone tenancy such as that of the proposal. In reality, it would be expected that the commercial component (if utilised for retail rather than office) would generate in the order of 7.5 to 9.0 pm peak hour trips per 100 m² of floor area. Such rates have recently been adopted (and accepted) for small retail shops throughout metropolitan Adelaide. For conservatism, the commercial use has been assessed as wholly comprising retail (whereas in reality, lower generating uses such as offices could also be developed within these tenancies).

It should also be noted that the am peak hour generation of 'shops' is typically 50% of that associated with the pm peak hour. As such, rates of 4.5 am and 9.0 pm trips per 100 m² have conservatively been adopted for this assessment.

Based on the above rates, the proposed development is forecast to generate 15 am and 18 pm peak hour trips. It should be noted that the traffic forecasts do not take into consideration traffic generated by the site's existing uses. Accordingly, the additional traffic generated by the proposed development will be significantly less than that identified.

In order to determine the impact on the adjacent road network, the following traffic distribution assumptions have been applied to the traffic forecasts:

- 70% of traffic will be distributed to/from Young Street;
- 30% of traffic will be distributed to/from Salisbury Street (via Park Lane);
- residential – 70% of trips will exit the site and 30% will enter during the am peak hour (and vice versa during the pm peak hour); and
- commercial (retail) – 50% of trips will exit the site and 50% will enter during both peak hours.

Based on the above assumptions the following turning movements are forecast at the site's access point on Irwin Lane.

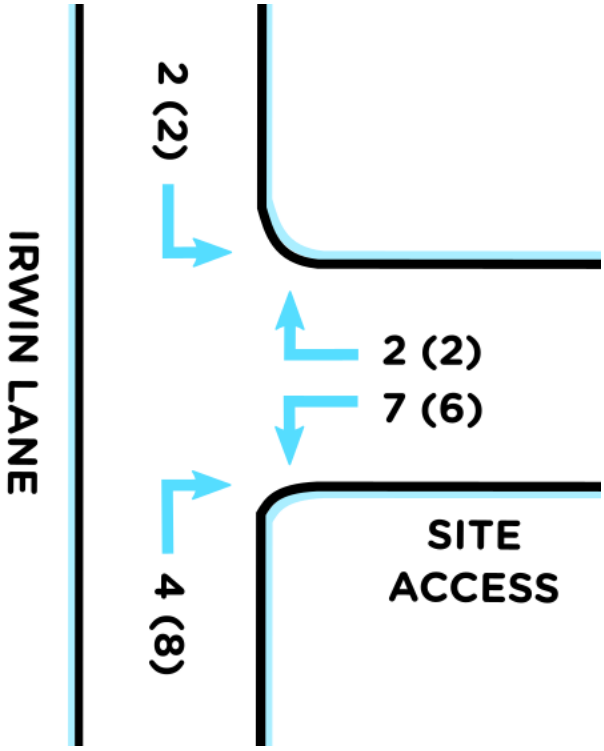


Figure 2 - Forecast traffic at the site access point during the am (pm) peak hours

As illustrated in Figure 2, the peak hour traffic volumes forecast to be generated by the proposed development are very low. Such movements would be readily accommodated via Irwin Lane and distributed to both Young Street and Salisbury Street (and then broader road network) without impacting upon their nature or function (hierarchy).

Furthermore, it is again reiterated that the forecasts identified in Figure 2 do not take into consideration traffic volumes generated by the site's existing use. Therefore additional traffic volumes realised at the site's access during peak periods will be less than that illustrated above. Accordingly, the proposed development is considered to have negligible impact upon the surrounding road network (particularly Irwin Lane).

6. SUMMARY

The proposal comprises the construction of a mixed-use development with associated access and parking provisions. Vehicle access to the site will be provided via a two-way access point on Irwin Lane.

A total of 27 parking spaces will be provided on-site. Such a provision will satisfy the residential parking requirements of the Planning and Design Code. Such a provision satisfies the parking requirement of the Planning and Design Code. Furthermore, the complimentary mix of land uses will enable shared parking arrangements within the unsecure parking area, in line with Performance

Outcome 5.1 of the Planning and Design Code. The parking area will be provided in accordance with the relevant Australian Standard.

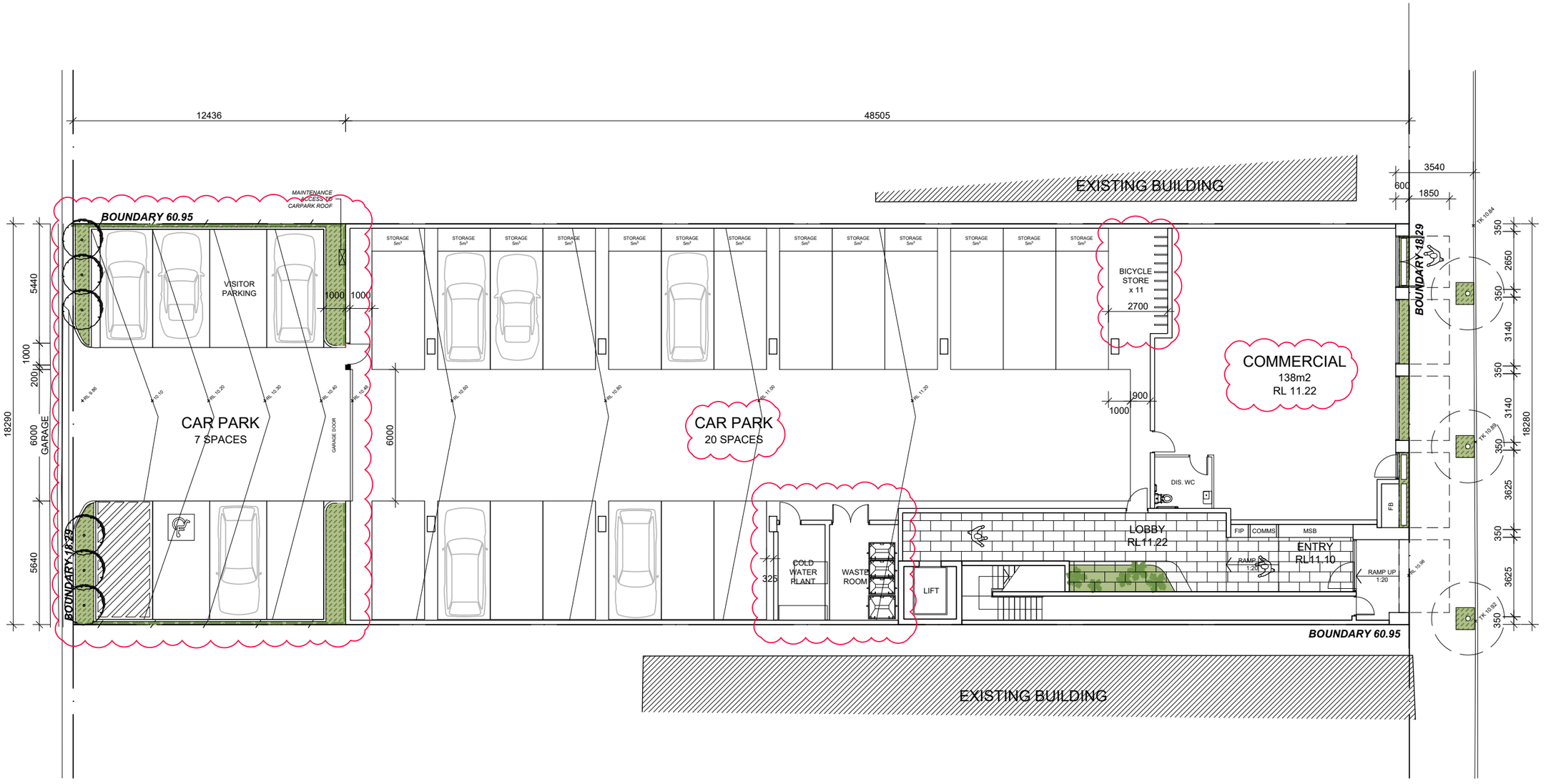
A total of 11 bicycle parking spaces will be provided on-site within a secure facility. Such a provision will satisfy the requirements of the Planning and Design Code. Additional bicycle parking opportunities would also be available within each residential apartment.

The proposal is forecast to generate in the order of 15 am and 18 pm peak hour trips. These traffic forecasts do not take into consideration traffic generated by the site's existing uses and, as such, the additional traffic generated by development on the site would be less than that identified above. Notwithstanding, the traffic forecasts will be readily accommodated at the proposed site access and on the adjacent road network with negligible impact upon their operation.

APPENDIX A

ENZO CAROSCIO ARCHITECTURE PLANS

GROUND FLOOR



ENZO CAROSCIO ARCHITECTURE

ENZO CAROSCIO ARCHITECTURE
70 Halifax Street
Adelaide SA 5000
T.+61 8 8155 6063
enzocaroscio.com

CLIENT
OTELLO

PROJECT
UNLEY ROAD APARTMENTS
42-46 UNLEY ROAD, UNLEY, SA.

DRAWING
GROUND FLOOR PLAN

PROJECT NO.
22006

DATE
22.01.2025

DRAWING NO.
A2.00

SCALE
1:200 @ A3

REVISION.
[A4]

0 1 2 5 10m

APPENDIX B

10m REFUSE VEHICLE TURN PATH PLANS

CIRQA™
ABN: 17 606 952 309 | PO Box 144, Glenside SA 5065 | E: info@cirqa.com.au

DRAWING AMENDMENTS

VER	DATE	DESCRIPTION	DWN	CHK
A	13/12/2022	FOR REVIEW	ABH	TAW
B	20/06/2023	FOR SUBMISSION	ABH	TAW
C	16/12/2024	UPDATE TURN PATH	TAW	TAW
D	10/02/2025	UPDATED PLAN	TAW	TAW

C22239_01D.DWG 10/2/2025 4:13 PM

N
1:250
@ A3

MIXED USE DEVELOPMENT

42-46 UNLEY ROAD UNLEY

10 m REFUSE COLLECTION VEHICLE (600 mm CLEARANCE LINE)

PROJECT # 22239 SHEET # 01_SH01