

# Traffic Impact and Parking Assessment

## Rutledge Street

Prepared for Village Building Co. / 15/05/2023

229044

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### Revision Register

Rev	Date	Prepared By	Approved By	Remarks
A	10/11/2022	RoCo	CP	Development Application
B	18/11/2022	RoCo	CP	Development Application
C	18/11/2022	RoCo	CP	Development Application
D	15/05/2023	RoCo	CP	TfNSW Comments

## 1.0 Introduction

TTW, on behalf of The Village Building Co, has undertaken a Traffic Impact and Parking Assessment for the proposed development at 6 Rutledge Street, 10-12 Rutledge Street and part 257 Crawford Street, Queanbeyan. The proposed development, with a site area of 5,036 m<sup>2</sup>, consists of two buildings to be used for ground floor commercial tenancies, residential apartments and two floors of basement parking. The site also includes two heritage-listed buildings, The Fire Station (former) and Dutton's Cottage, which are proposed to be repurposed for retail. The project site is southeast of The Q and the Council building which is currently under construction.

This Traffic Impact and Parking Assessment Report has been prepared to support the development application for the Rutledge Street Sites Queanbeyan project and shall be read in conjunction with the Architectural and Civil Engineering Plans accompanying the development application.

The report focusses on determining:

- The peak traffic expected to be generated by the development
- The parking demand of the development
- The compliance of the developments parking arrangements

## 2.0 Existing Conditions

### 2.1 Site Location

The project site is located within the Queanbeyan Central Business District at 6 Rutledge Street, 10-12 Rutledge Street and part of 257 Crawford Street. It is southeast of The Q and the Queanbeyan Palerang Regional Council Building, which is currently under construction. The site's zoning is B3 – Commercial Core (Queanbeyan Local Environmental Plan 2012 – Land Zoning Map) which encourages high-density residential use in conjunction with commercial uses.

The development includes works on the following lots identified in Figure 1:

- Lot 31 DP771673 (6 Rutledge Street, Queanbeyan City Library)
- Lot 2 DP748338 (10 Rutledge Street)
- Lot 18 DP548244 (12 Rutledge Street)
- Part of Lot 2 DP1179998 (257 Crawford Street)

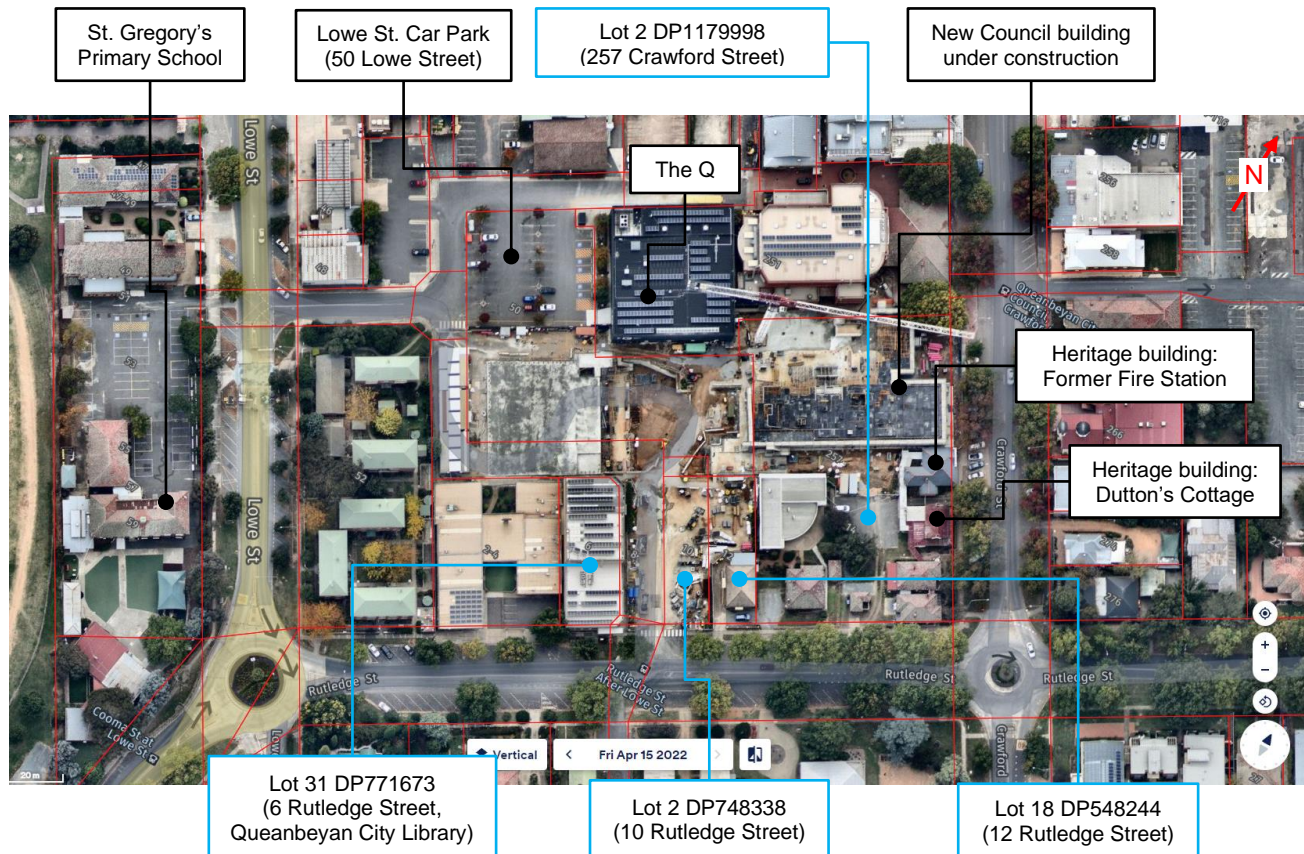


Figure 1. Project Locality Map (Source: nearmap.com)

## 2.2 Site Access

The site is currently accessed via Rutledge Street frontage for 10 and 12 Rutledge Street as well as 257 Crawford Street. Further access is provided to 257 Crawford Street via a driveway on Crawford Street frontage. Access to 6 Rutledge Street is provided through the Lowe Street Carpark to the north of the site, with the public roadway off Rutledge Street through to the Lowe Street carpark being the most direct route for access.

## 2.3 Surrounding Roads

The project site is located between four existing roads: Rutledge Street to the south, Crawford Street to the east, Lowe Street to the west and Monaro Street to the north. Refer to Figure 2 for details of the development site in relation to the surrounding road network.

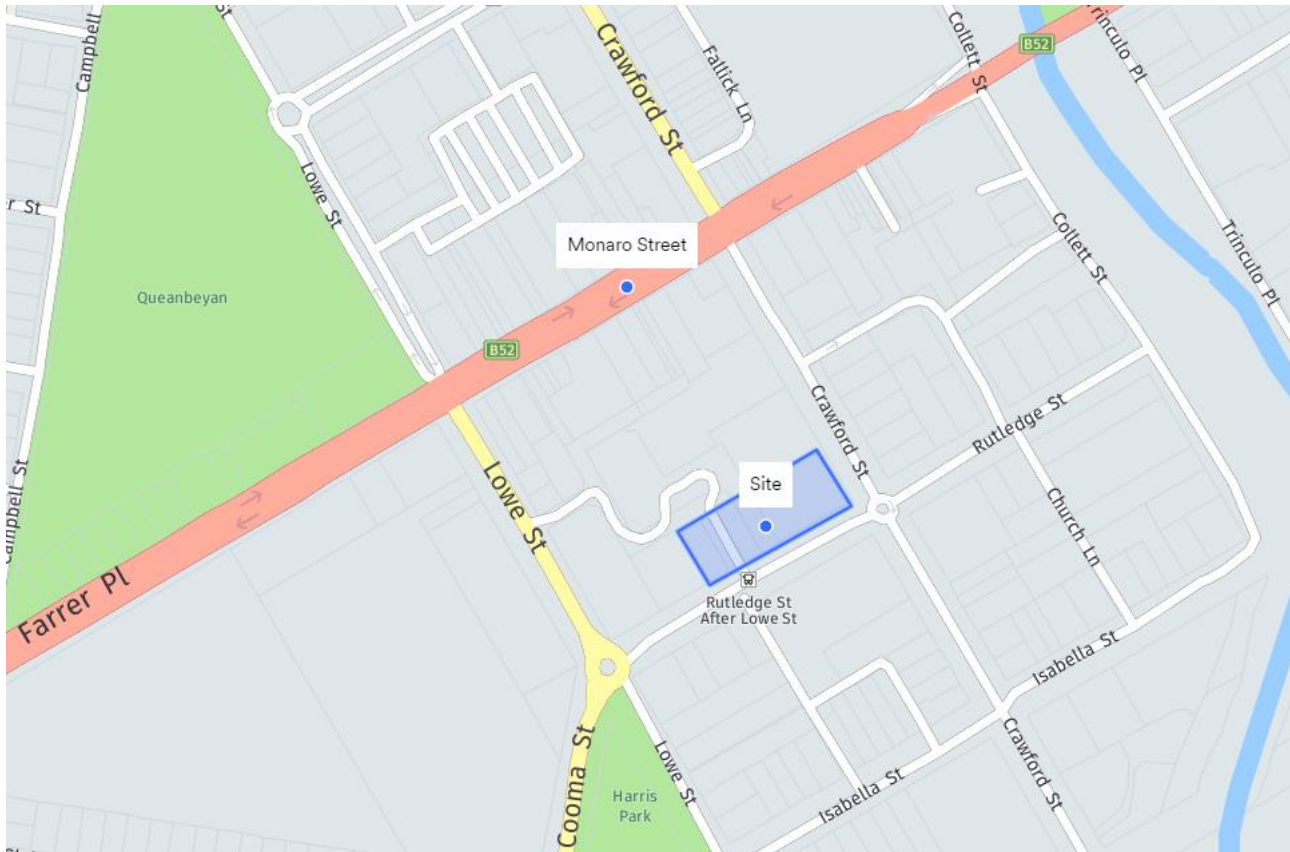


Figure 2: Surrounding Road Network

Table 1 below summarises the characteristics of roads surrounding the development.

Table 1. Characteristics of Streets Surrounding the Project Site

	Road Hierarchy <sup>1</sup>	Speed Limit	Parking within project locality	Description
<b>Rutledge Street</b>	Local Street	50kph. 40kph on school days	Indented 135° Rear In Parking is available on both eastbound and westbound lanes.	- Runs from Collett Street to Lowe Street - Has one eastbound and one westbound lane
<b>Crawford Street</b>	Collector Street	50kph	Indented 120° Rear In Parking is available on both northbound and southbound lanes.	- Crawford Street runs from Hirst Avenue to Monaro Street - Generally has one northbound and one southbound lane
<b>Lowe Street</b>	Collector Street	50kph. 40kph on school days	Indented 45° Parking is available on both northbound and southbound lanes.	- Lowe Street runs from Isabella Street to Monaro street - Generally has one northbound and one southbound lane
<b>Monaro Street</b>	Local Sub-Arterial Road	60kph	Indented parallel parking is available on both eastbound and westbound lanes.	- Runs from Lowe Street to Bungendore Road - Generally has two eastbound and two westbound lanes
<b>Unnamed Street off Lowe Street</b>	Access Street	25kph	None	- Runs from Lowe Street to the car park at 50 Lowe Street - Has one eastbound and one westbound lane
<b>Unnamed Street off Rutledge Street</b>	Access Street	25kph	Indented parallel parking on the northbound lane.	- Runs from Rutledge Street to the car park at 50 Lowe Street - Has one eastbound and one westbound lane.

<sup>1</sup>Per QPRC Development Design Specification D1 - Geometric Road Design Figures D1.2 to D1.8



## 2.4 Surrounding Intersections

There are four main intersections surrounding the site. Descriptions of these intersections are outlined in the following sections.

### 2.4.1 Roundabout of Lowe Street, Cooma Street and Rutledge Street

The Roundabout of Lowe Street, Cooma Street and Rutledge Street has four operational legs with each leg having traffic islands. The traffic islands on the south leg of Lowe Street and on Rutledge Street allow for pedestrian refuge. Approaches and exits of the roundabout are all single lanes. The Cooma Street approach is offset approximately 45 degrees from the other approaches, coming in from the south. All typical roundabout movements are permitted. The central roundabout island has a diameter of approx. 20m.



Figure 3. Roundabout of Lowe Street, Cooma Street and Rutledge Street



## 2.4.2 Roundabout of Crawford Street and Rutledge Street

The Roundabout of Crawford Street and Rutledge Street has four operational legs with each leg having central traffic islands. All islands, except that on the Rutledge Street east leg, have pedestrian refuges in the island. Approaches and exits of the roundabout are all single lanes. All typical roundabout movements are allowed. The central roundabout island has a diameter of approx. 12m.



Figure 4. Roundabout of Crawford Street and Rutledge Street



### 2.4.3 Intersection of Monaro Street and Crawford Street

The intersection of Monaro Street and Lowe Street is a signalised intersection with four operational legs and pedestrian crossing facilities on the four legs.

The intersection has the following form:

1. Crawford Street Southbound
  - a. A dedicated left turn lane.
  - b. One southbound through lane.
  - c. Right turns are not permitted from this approach.
2. Monaro Street Westbound
  - a. A dedicated left turn lane.
  - b. Two westbound through lanes.
  - c. Right turns are not permitted from this approach.
3. Crawford Street Northbound
  - a. A dedicated right turn lane.
  - b. A combined left turn and through lane.
4. Monaro Street Eastbound
  - a. A dedicated right turn lane.
  - b. A dedicated left turn lane.
  - c. Two eastbound through lanes.



Figure 5. Intersection of Monaro Street and Crawford Street



#### 2.4.4 Intersection of Monaro Street, Farrer Place and Lowe Street

The intersection of Monaro Street and Lowe Street is a signalised intersection with four operational legs and pedestrian crossing facilities on the four legs.

The intersection has the following form, generally facilitating all possible movements through the intersection:

1. Lowe Street Southbound
  - a. A dedicated right turn lane.
  - b. A dedicated left turn lane.
  - c. One southbound through lane.
2. Monaro Street Westbound
  - a. A dedicated right turn lane.
  - b. A dedicated left turn lane.
  - c. Two westbound through lanes.
3. Lowe Street Northbound
  - a. A dedicated right turn lane.
  - b. A dedicated left turn lane.
  - c. One northbound through lane.
4. Farrer Place Eastbound
  - a. A dedicated right turn lane.
  - b. A dedicated left turn lane.
  - c. Two eastbound through lanes.



Figure 6. Intersection of Monaro Street, Farrer Place and Lowe Street

2.5 Existing Peak Intersection Traffic Flow

The following figures show the existing peak hour intersection traffic counts as surveyed by Matrix Traffic and Transport Data on the 3rd and 10th March 2022, Job No. AUACT3184. Refer to Appendix A for the raw data.

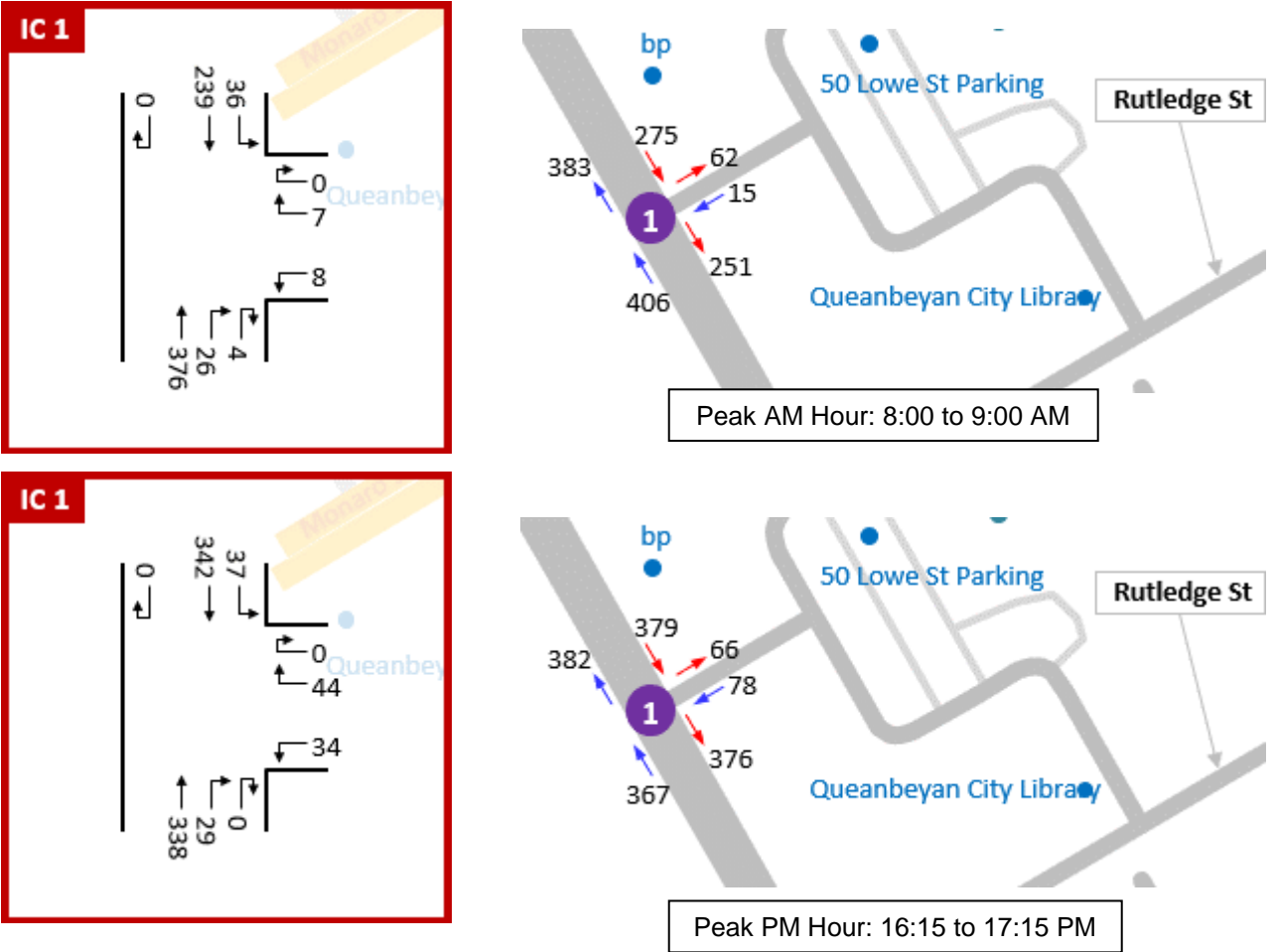


Figure 7. Intersection of Lowe Street and Lowe Street Car Park Access Street Peak Hour Traffic Counts (Source: Matrix Traffic and Transport Data, Job No. AUACT3184)



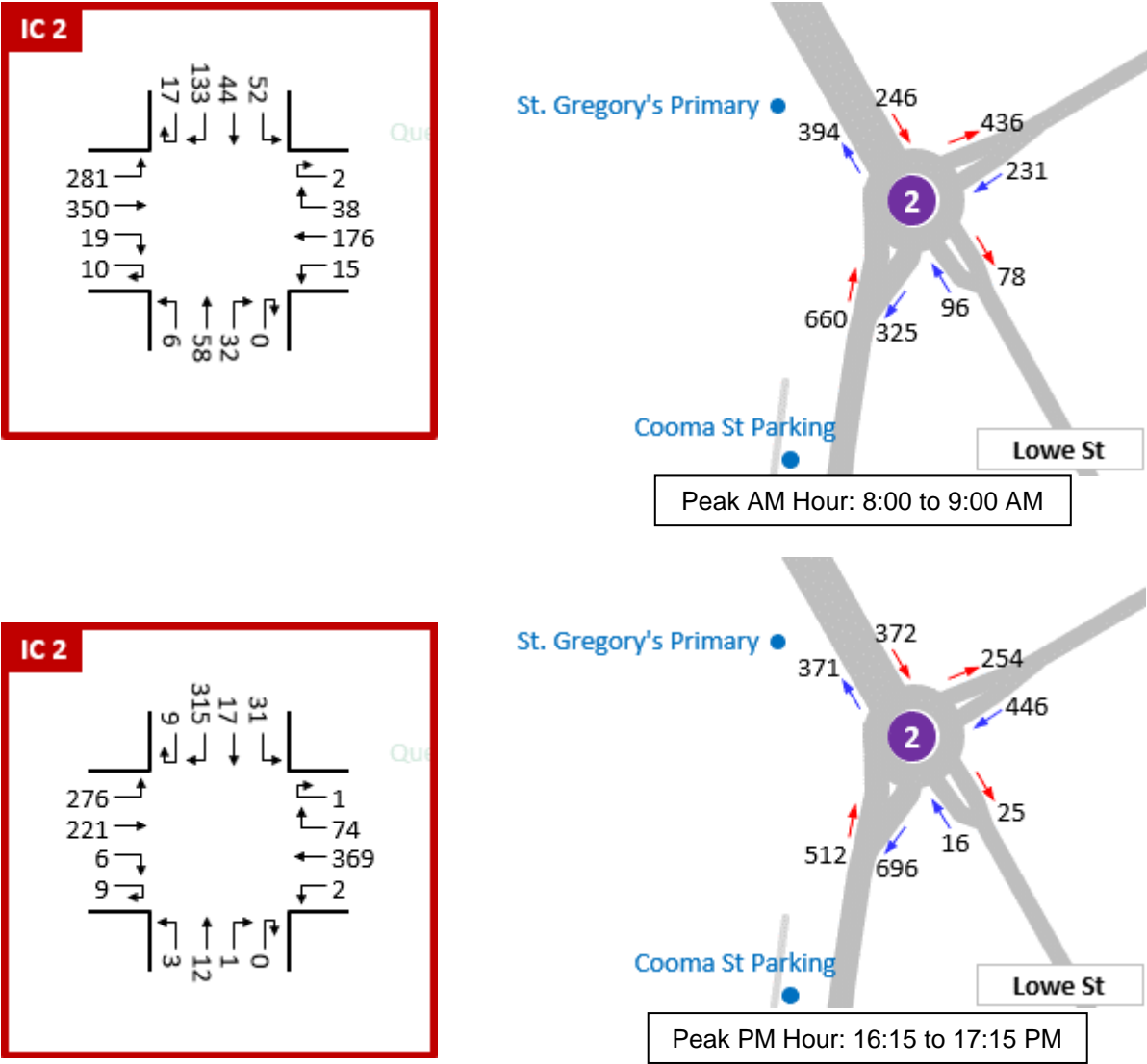


Figure 8. Roundabout of Lowe Street, Cooma Street and Rutledge Street (Source: Matrix Traffic and Transport Data, Job No. AUACT3184)

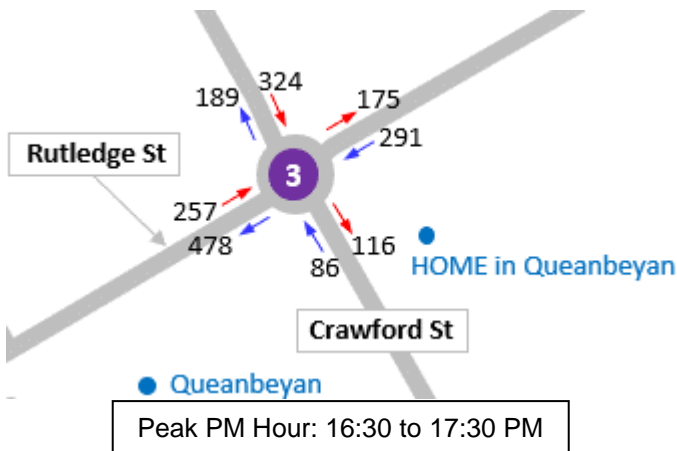
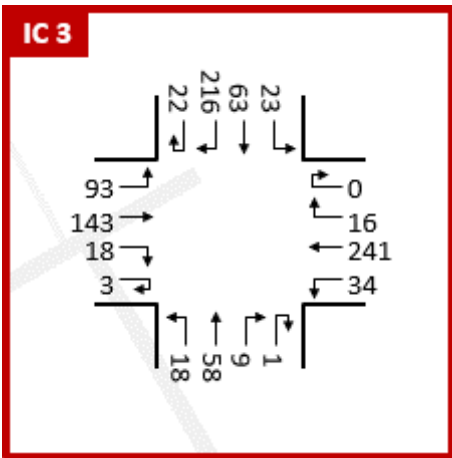
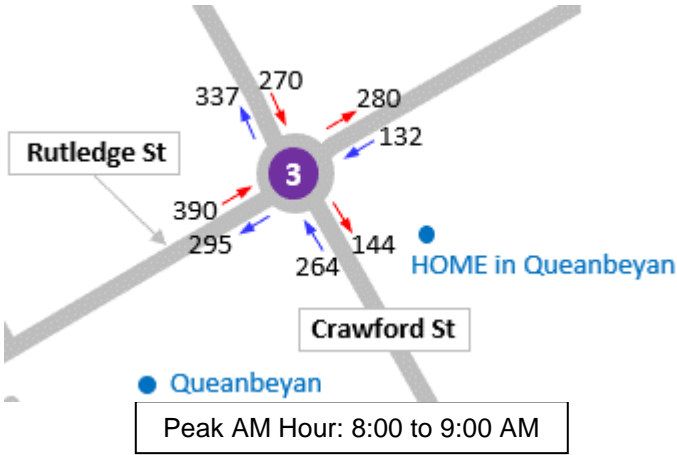
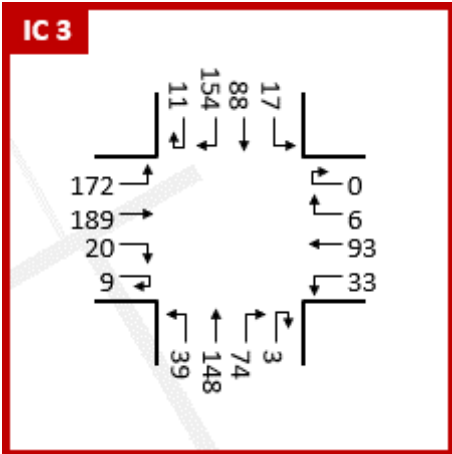


Figure 9. Roundabout of Crawford Street and Rutledge Street (Source: Matrix Traffic and Transport Data, Job No. AUACT3184)

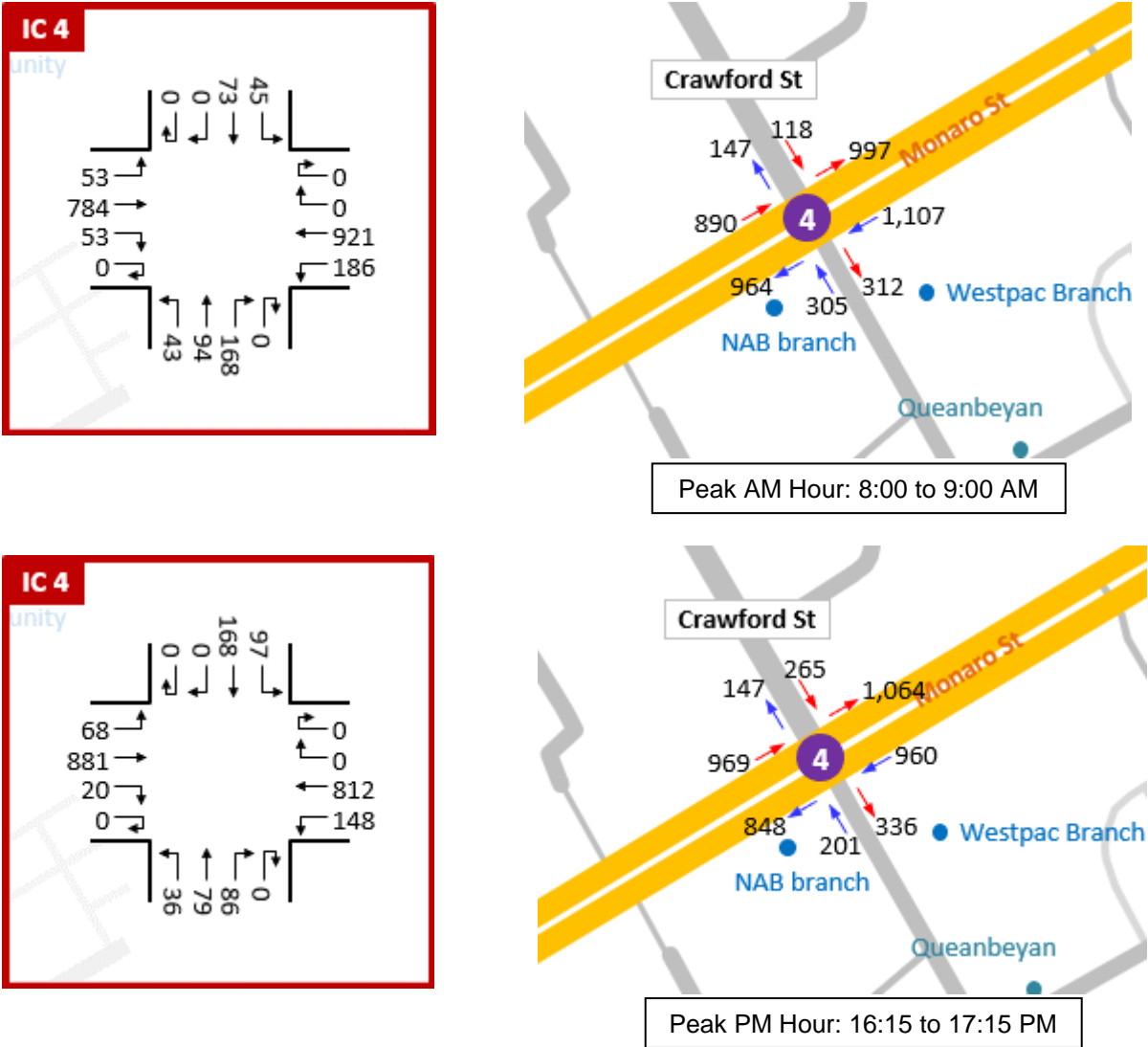


Figure 10. Intersection of Monaro Street and Crawford Street (Source: Matrix Traffic and Transport Data, Job No. AUACT3184)

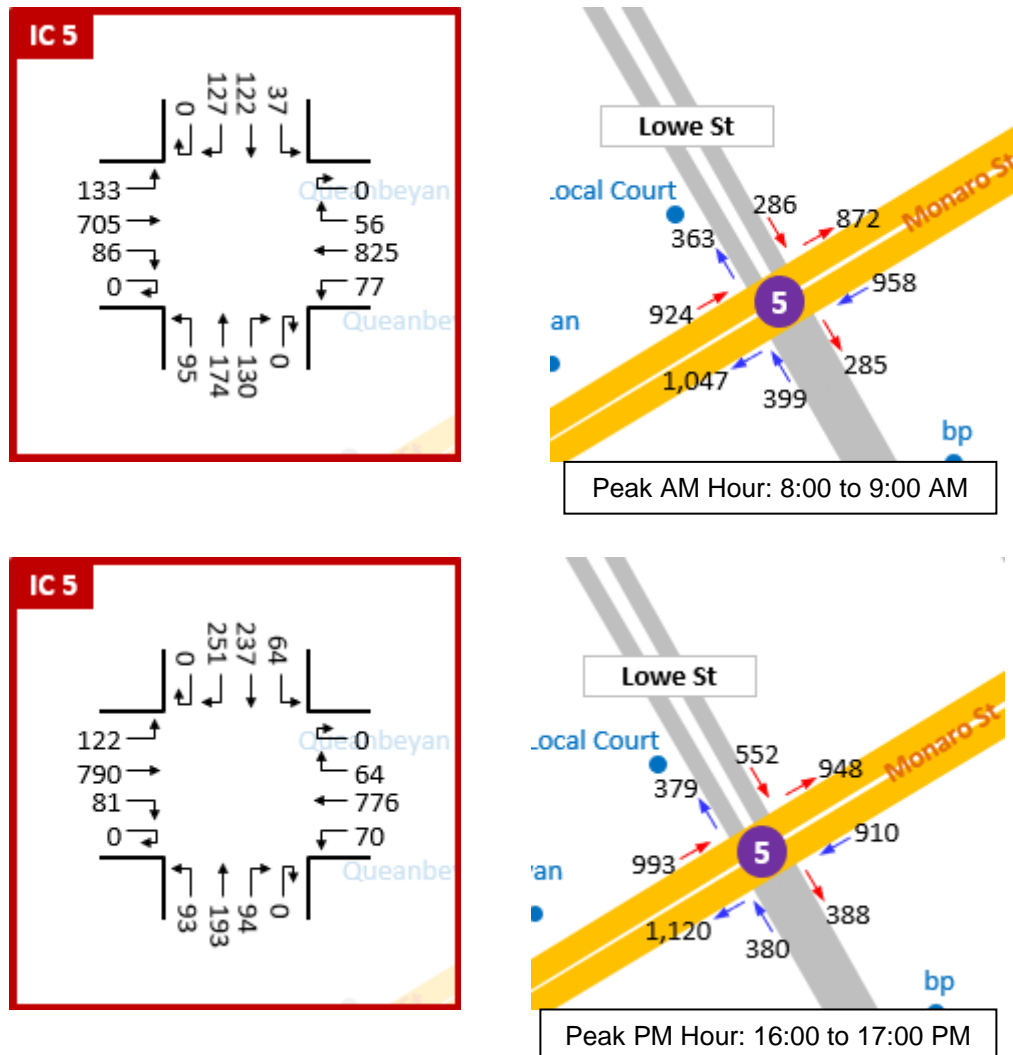


Figure 11. Intersection of Monaro Street and Crawford Street (Source: Matrix Traffic and Transport Data, Job No. AUACT3184)

## 2.6 Site Inspection of Existing Traffic

Inspections of the intersections surrounding the site were carried out by TTW during peak hour traffic for each intersection, the details of which are outlined in the following sections.

### 2.6.1 Roundabout of Lowe Street, Cooma Street and Rutledge Street

TTW conducted an observation of traffic flows at the roundabout to Lowe Street, Cooma Street and Rutledge Street on 20/07/22 from 4:40pm to 5:20pm. The observed traffic behaviours are as follows:

1. At the start of the observation most of the traffic was coming from Cooma Street onto Rutledge Street and from Lowe Street onto Cooma Street. The traffic volume coming from Cooma Street would peak at roughly four to six cars every three minutes. This would cause traffic queues on Lowes Street of three to six cars during the peaks. From the peak traffic queue on Lowe Street during the observation was eight cars which caused a four-car queue on Rutledge Street.
2. The pedestrian crossing on Lowe Street was used once during the observation. This Caused a 10-car queue along Lowe Street but did not affect traffic flows out of Lowe Street and Rutledge Street.
3. At roughly 5pm the traffic flows from Rutledge Street and Lowe Street increased in volume by 50% while the traffic flow from Cooma Street decreased significantly. This change in volume increased



the peak queues along Rutledge Street to five or six cars each three-minute peak. The peak queuing along Lowe Street did not change significantly as traffic flow from Cooma Street to Rutledge Street decreased. Queues along Rutledge Street were increased during this period by cars reversing out of the on-street parking. The maximum queue length observed on Rutledge Street after 5pm was 10-12 cars.

4. By the end of the observation at 5:20pm the majority of on-street carparking was vacant, increasing the flow of traffic and reducing the queue length of traffic along Rutledge Street. The overall traffic volume at the roundabout had decreased 30% from the peak between 5pm and 5:20pm.

TTW found that there were no significant traffic events at this intersection during the observed time. The traffic flow was consistently coming from Lowe Street towards Cooma Street throughout the duration of the observation while the flows from Cooma Street and Rutledge Street changed at around 5pm. The largest factor for traffic queuing along Rutledge Street was people leaving the on-street carparking and the increase of traffic flow from Lowe Street after 5pm.

### **2.6.2 Roundabout of Crawford Street and Rutledge Street**

TTW attended site on 20<sup>th</sup> July 2022 to observe traffic at the roundabout of Crawford Street and Rutledge Street during peak time from 4:50 to 5:20. The following was observed:

1. Primary direction of travel was southwest on Rutledge Street towards the roundabout, with a peak of up to 10 cars per minute, most travelling straight through.
2. Second busiest was southeast on Crawford Street towards roundabout, with vast majority of vehicles turning right onto Rutledge Street. The peaks from this road were generally tied to the Monaro Street - Crawford Street signalised intersection, arriving in groups after a change of phase, with a peak of around six cars per minute arriving at roundabout.
3. Third busiest approach was from Rutledge Street travelling northeast towards roundabout, with a peak of around four cars per minute arriving at roundabout, with around half turning left onto Crawford Street and half continuing straight.
4. Crawford Street travelling northwest had very little traffic.
5. Due to the conditions of the roundabout, Rutledge Street traffic travelling southwest was the most likely to queue, due to waiting for traffic on their immediate right. At peak up to four cars would queue and have to wait up to 10 seconds to enter roundabout.
6. Crawford travelling South-East was the second most likely to queue, due to waiting for traffic on their immediate right, although it was rare and not excessive.
7. There was negligible pedestrian activity observed.

### **2.6.3 Intersection of Monaro Street and Crawford Street**

TTW conducted observation of the Monaro Street and Crawford Street intersection on the 20<sup>th</sup> July 2022 between 4:40pm and 5:20pm. The following observations regarding the traffic conditions were observed:

1. The majority of the traffic flow prior to 4:50pm was headed westbound on Monaro Street.
2. Peak traffic through the intersection occurred around 4:55, with cars on Monaro Street westbound being up to 15 cars deep in both straight through lanes. All vehicles queued were able to clear the intersection during the green phase of the lights.
3. Traffic lights on Monaro Street linked up, preventing excessive queues of vehicles on the western leg of Monaro Street.
4. After 4:50, the prevailing flow of traffic changed to eastbound traffic flow.
5. Sporadic pedestrian use of the intersection was observed throughout the observation period, with approximately 20 pedestrians using the intersection. Pedestrians using the signalised crossings had negligible impact on the waiting times of waiting vehicles.

## 2.6.4 Intersection of Monaro Street, Lowe Street and Farrer Place

Traffic observations for the Monaro Street, Lowe Street and Farrer Place intersection were carried out by TTW on 20<sup>th</sup> July 2022 between 4:40 pm and 5:20pm. The following observations regarding the traffic conditions were observed.

1. Traffic flow prior to 4:50pm was greatest travelling westbound on Monaro Street towards Farrer Place.
2. Traffic peaked in this direction around 4:50pm and was approximately 10-12 cars deep, in both straight through lanes, prior to the lights changing to green and all vehicles waiting were able to clear the intersection, as well as additional incoming traffic from the Crawford Street intersection.
3. Around 4:50pm the direction of traffic flow changed, with the majority of traffic travelling east from Farrer Place to Monaro Street. This peaked between 5:00pm to 5:10pm, with a queue of up to 20 cars deep in both eastbound lanes on Farrer Place prior to the lights changing. Once lights changed to green, all vehicles queued were able to clear the intersection as well as additional incoming traffic.
4. During the 40min observation period, the intersection was used sporadically by pedestrians crossing at the lights, with approximately 10 pedestrians throughout the whole observation time. Pedestrians crossing had negligible impact on waiting times of vehicles at the lights.
5. Travel along Lowe Street was consistent throughout the entire observation with an average of four to five cars queueing to go straight through and two to three cars queueing to turn in both northbound and southbound directions. Traffic in these directions peaked at around 5:00 to 5:10pm, with maximum queues of six to eight vehicles queueing at a time.
6. During all light cycles, queues in both directions on Lowe Street were able to clear the intersection.

## 2.6.5 Lowe Street at St Gregory's Primary School

TTW also attended site on 26<sup>th</sup> May 2022 to observe traffic on Lowe Street during the peak pick-up time at Street Gregory's Primary School. The following was observed:

1. On that day, the peak school traffic period lasted 10 minutes from 3:00 to 3:10 pm.
2. A crossing guard was present from 3:00 to 3:30pm. The guard would collect a group of pedestrians before allowing them to cross in a group.
3. When pedestrians were crossing, traffic backed up from the crossing point to the upstream roundabout and intersection. The banking up of traffic was due to the pedestrians crossing in groups, taking up to 30 seconds to cross the road.

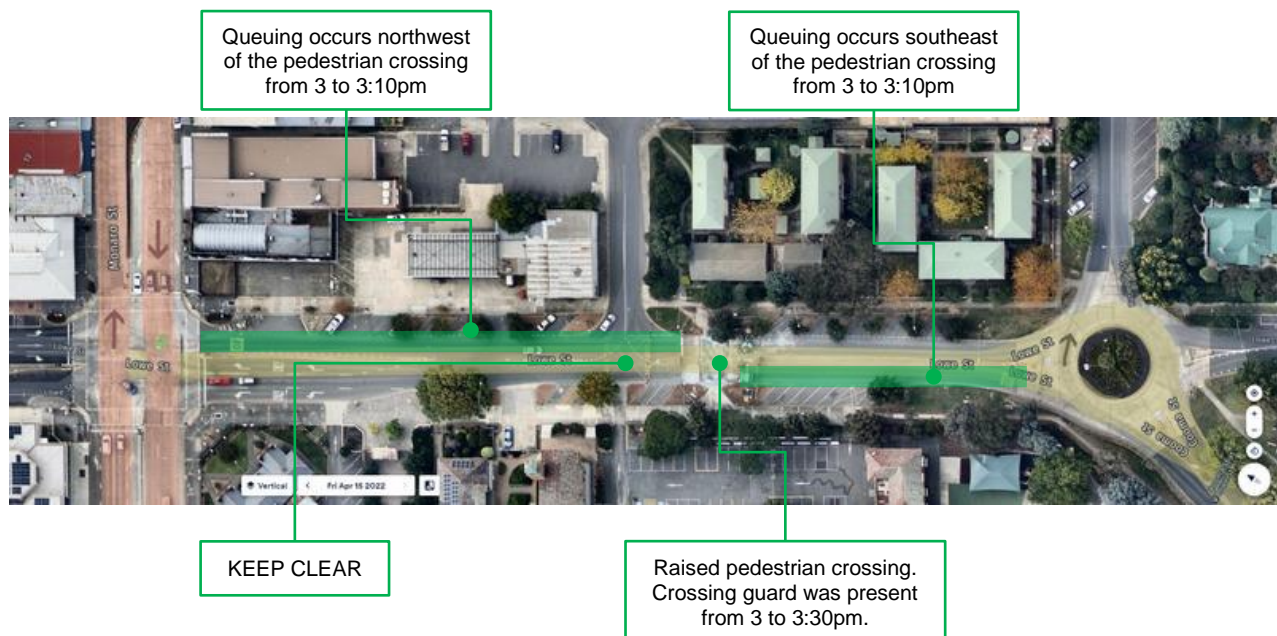


Figure 12. TTW Traffic Observations on 26<sup>th</sup> May 2022 during peak pick-up time at Street Gregory's Primary School



## 2.7 Existing Parking

### 2.7.1 Existing Parking Facilities

There are several public parking facilities within the vicinity of the site, most notably 50 Lowe Street carpark (adjacent to the site) 169 , Lot 3 Monaro Street parking 185 (175m walk), 9G Morisset Street parking 181 (350m walk), Cooma Street parking (350m walk) and 61 Collett Street parking (650m walk). This is further supplemented by on-street parking on many of the surrounding streets, notably all-day parking on Rutledge Street and Isabella Street and restricted parking on Crawford Street, Rutledge Street, Lowe Street and Monaro Street. Refer to Figure 13 for parking locality plan of unrestricted parking spaces within 350m of the site.



Figure 13: Existing Parking Facilities

These parking areas were assessed using satellite imagery from Nearmap to determine the amount of latent existing parking within the surrounding parking facilities. Imagery was only used from days pre-COVID-19 pandemic, outside of public and school holidays. The assessment only included long stay parking, with any parking that was time limited excluded, as well as parking spaces backing onto the public carparks that are notably tied to a specific development. Parking availability from these days is displayed Table 2.

Table 2: Existing Parking Availability

Date	50 Lowe Street	Lot 3 Monaro Street	9G Morisset Street	Cooma Street	Isabell Street On-street	Rutledge Street On-street	Total
18 <sup>th</sup> Oct 19	17	9	0	40	5	3	74
25 <sup>th</sup> Jul 19	15	13	9	28	2	8	75
26 <sup>th</sup> Mar 19	32	24	14	34	3	5	112
Average	19	12	11	39	3	4	88

From the parking assessment, the minimum available parking within the immediate area is approximately 74 parking spaces.

## 2.7.2 Existing Parking Requirements

The existing development at 12 Rutledge Street, 10 Rutledge Street and 257 Crawford Street are all believed to be office buildings with an approximate floor area of 1300m<sup>2</sup>, with parking for these spaces being calculated in accordance with Roads and Maritime Services (RMS) Guide to Traffic Generating Developments (GTGD). The existing development on 6 Rutledge Street is the Queanbeyan Public Library, with an approximate floor area of 1750m<sup>2</sup>. The GTGD does not provide parking requirements for libraries and as such, parking generation has been based on cultural facilities generation rates from Parking and Vehicular Access General Code for the ACT. The existing parking requirement for the development is shown below in Table 3.

Table 3: Existing Parking Generation

	Generation Rate	Units/floor area	Total parking
Office	1 space per 60m <sup>2</sup>	1300	22
Library	1 space per 100m <sup>2</sup>	1750	17.5
Total	-	-	40

From aerial imagery, the number of parking spaces provided within the existing developments total 14 spaces, requiring a further 36 spaces provided within the surrounding parking infrastructure.

## 2.8 Public Transport Network

Public transport servicing the development consists of the QCity Transit bus network. There are two bus stops within the vicinity of the site, providing access to the bus network, Queanbeyan City Council, Crawford St. (Stop ID 26208) and Cooma St at Lowe St. (Stop ID 262010). Refer to Figure 14 for bus stop localities.

Characteristics of these bus stops are shown below in Table 4.

Table 4. Characteristics of Bus Stops Proximate to Project Site

Bus Stop	Stop ID	Number of Regular Routes	Number of School bus routes
Queanbeyan City Council, Crawford St.	26208	5: Routes 835 to 839	14
Cooma St at Lowe St.	262010	5: Routes 835 to 839	26





Figure 14. Bus Stops Proximate to Project Site

The bus routes available at these stops connect the site with the southern Queanbeyan and the Queanbeyan Bus Interchange, which offers services to Canberra City Centre, other local hubs and the rest of Queanbeyan.

## 2.9 Pedestrian Network

Existing pedestrian footpaths are located within the Rutledge Street and Crawford Street near verges, providing pedestrian access to the site. Further access is provided by the Rutledge Street-Lowe Street Carpark access road, through the middle of the site, as well as along the access lane to the north of the site associated with the Queanbeyan City Council Precinct (QCCP).

As part of the QCCP upgrade, pedestrian access to the north of the site will be upgraded, allowing access along the northern side of the site between the Lowe Street carpark and Crawford Street.

### 3.0 Proposed Development

The redevelopment of the site proposes two new 10 storey shop top housing buildings with a combined basement. The new buildings will provide approximately 1900m<sup>2</sup> of ground floor commercial space split into several tenancies, 178 apartments over nine residential floors and two floors of basement parking, providing 324 parking spaces.

Ancillary works for the development will include a new landscape precinct around the heritage buildings on the eastern side of the site, two new verge crossings providing access to the site, a pedestrian precinct connecting Rutledge Street to the Lowe Street Carpark, egress from the Lowe Street carpark and consolidation of on-street parking within the Rutledge Street verge.

#### 3.1 Site Access

Site access for vehicles is split into two separate streams, basement parking access and service vehicle access. Access for the basement parking is proposed off Rutledge Street, with access for the service lane proposed through the Lowe Street carpark. Egress for both the carpark and the service lane is proposed onto Rutledge Street.

##### 3.1.1 Basement Access

The basement access to the site off Rutledge Street also acts as the access and egress point for the Council building basement, with access to both basements provided off the single ramp. Access to the Council basement is uncontrolled, with access to the basement proposed to have a control point within the first-floor basement, offline to the council basement.

With the existing 108 parking spaces within the council basement, as well as the 324 parking spaces proposed within the site's basement, a total of 433 parking spaces will be serviced by the basement access. Noting this, access to the basement car park for the site has been assessed against Table 3.1 of Australian/New Zealand Standard 2890.1 Parking Facilities Part 1: Off-street Car Parking (AS2890.1:2004) as a category 3 access driveway. As such the entry driveway has been designed to accommodate the following design criteria as noted in Table 3.2 of AS2890.1:2004:

- 1m separation between the entry and exit.
- 6m wide entry driveway.
- 4-6m wide exit driveway.

##### 3.1.2 Access Control and Queuing Distances

Access control for the basement is proposed to provide security for residents of the proposed development. As access control is proposed, queuing for vehicles entering the basement is required to prevent waiting vehicles from impacting the surrounding road network. The queuing distance has been calculated in accordance with Table 3.3 of AS2890.1:2004. With a total of 324 spaces provided within the basement, queuing for seven cars is required within the site, requiring a total of 42m queuing distance.

There is currently no access control proposed for the QPRC Council Building basement, and as such the introduction of a control point between the Council basement and Rutledge Street would impact the operation of the Council basement. As such, the access control for the proposed basement has been located to allow unimpeded access and egress between the Council basement and Rutledge Street. 36m queuing distance between the control point and the entry ramp to the Council Building has been provided, with a further vehicle able to wait side by side at the entry gate, providing the required seven vehicles worth of queuing distance.

### 3.1.3 Basement Ramp

Ramping into the basement for Rutledge Street provides a 9.7m section of ramp at 5% grade within the building, ending at the building line, providing a suitable flat location for vehicles to stop prior to leaving the building outline, in accordance with AS2890.1.

Grade changes for all ramps within the basement are 12.5% or less, with no section of ramp being over 20% grade. As such the ramps within the basement are deemed to be in accordance with AS2890.1.

### 3.1.4 Service Lane Access

Service access to the development is off a one-way lane between Rutledge Street and the Lowe Street carpark, keeping services separate from the basement access, removing any conflict between service operations and basement use.

At the request of Queanbeyan Palerang Regional Council, the lane has been opened to the public to provide a secondary exit from the Lowe Street carpark. It is noted that this is the existing scenario for the carpark, but it is not deemed necessary to the function of the Lowe Street carpark.

## 3.2 Pedestrian Network

The development does not propose to make significant changes to the pedestrian network along the Crawford Street or Rutledge Street frontage. Changes to the network proposed by the site include the removal of the Rutledge Street to Lowe Street Carpark laneway and the associated pedestrian facilities. These facilities will be replaced by a pedestrian precinct through the centre of the site, open to the public, with commercial tenancies opening onto pedestrian precinct. This precinct will connect the QCCP and the Lowe Street carpark with Rutledge Street, removing conflict with vehicles and improving the pedestrian amenity of the area.

## 4.0 Parking Assessment

### 4.1 Vehicle Parking Requirements

Under the Queanbeyan Development Control Plan (QDCP), Section 3D.1.1, all shop top buildings of three or more storeys and containing four or more dwellings must achieve the Design Quality Principles of SEPP 65, inclusive of the Residential Flat Design Code (RFDC), which was superseded in 2015 by the Apartment Design Guide. Within the Apartment Design Guide, Section 3J-1, parking requirements for apartments are noted to be in accordance with Roads and Maritime Services (RTA) Guide to Traffic Generating Developments (GTGD), or the car parking requirement prescribed by the relevant council, whichever is less.

The Apartment Design Guide also notes that Queanbeyan is considered a Regional Centre for the purpose of assessing parking requirements, the NSW Government Planning and Environment technical note Car parking requirements in SEPP65 notes that this should be assessed as Metropolitan Subregional Centre. As such, the high density residential flat metropolitan subregional centres parking requirements from the GTGD have been adopted for this development and are set out in Table 5 below.

Ground floor tenancies for the development are anticipated to be commercial in nature and as such, parking allocation rates for commercial premises have been adopted from the QPRC DCP.



*Table 5: Parking Requirements for Development under Guide to Generating Traffic Developments*

	<b>Parking Rate</b>	<b>Unit Numbers</b>	<b>Number of Spaces</b>
1 Bedroom Units	0.6 space per unit	62 units	37.2
2 Bedrooms Units	0.9 spaces per unit	79 units	71.1
3+ Bedroom Units	1.4 spaces per unit	37 units	51.8
Visitor Spaces	1 per 5 units	178 units	36
Commercial	1 space per 60m <sup>2</sup> GFA	1877	32
Total	-	-	229

## 4.2 Proposed Parking Facilities

The site proposes to provide 324 parking spaces within the basement for residents and commercial parking. 35 spaces are provided for employees of commercial tenancies within the first-floor basement, with 291 parking spaces provided across both floors of basement for residents.

In accordance with Part 2 Note 2 of the DCP visitor residential and commercial parking is proposed to be offsite for the development, within the surrounding parking facilities, with a monetary contribution to be made to QPRC to pay for the upkeep of existing public parking facilities.

### 4.2.1 Parking compliance

Parking within the basement has been classified User Class 1A in accordance with Figure 2.2 of AS2890.1, with 90-degree parking of 2.4m wide and 5.4m long, with aisle widths of 5.8m. Parking spaces and aisle widths within the basement meet the requirements for Class 1A parking. Parking within the basement complies with the following exceptions:

- 1m reversing distance not achieved in the eastern most corner of the car park on the first-floor basement.
- 1m reversing distance not achieved in the eastern most corner of the car park on the second-floor basement.

While these spaces do not strictly conform to AS 2809.1, there is enough space behind the parking space so as to allow a B85 vehicle to reverse out of the parking space in a single movement, refer Figure 15, while a B99 vehicle can exit in two movements, refer Figure 16. This is in accordance with the requirements for vehicles accessing residential parking spaces within Appendix B Section 4.8 of AS2890.1.

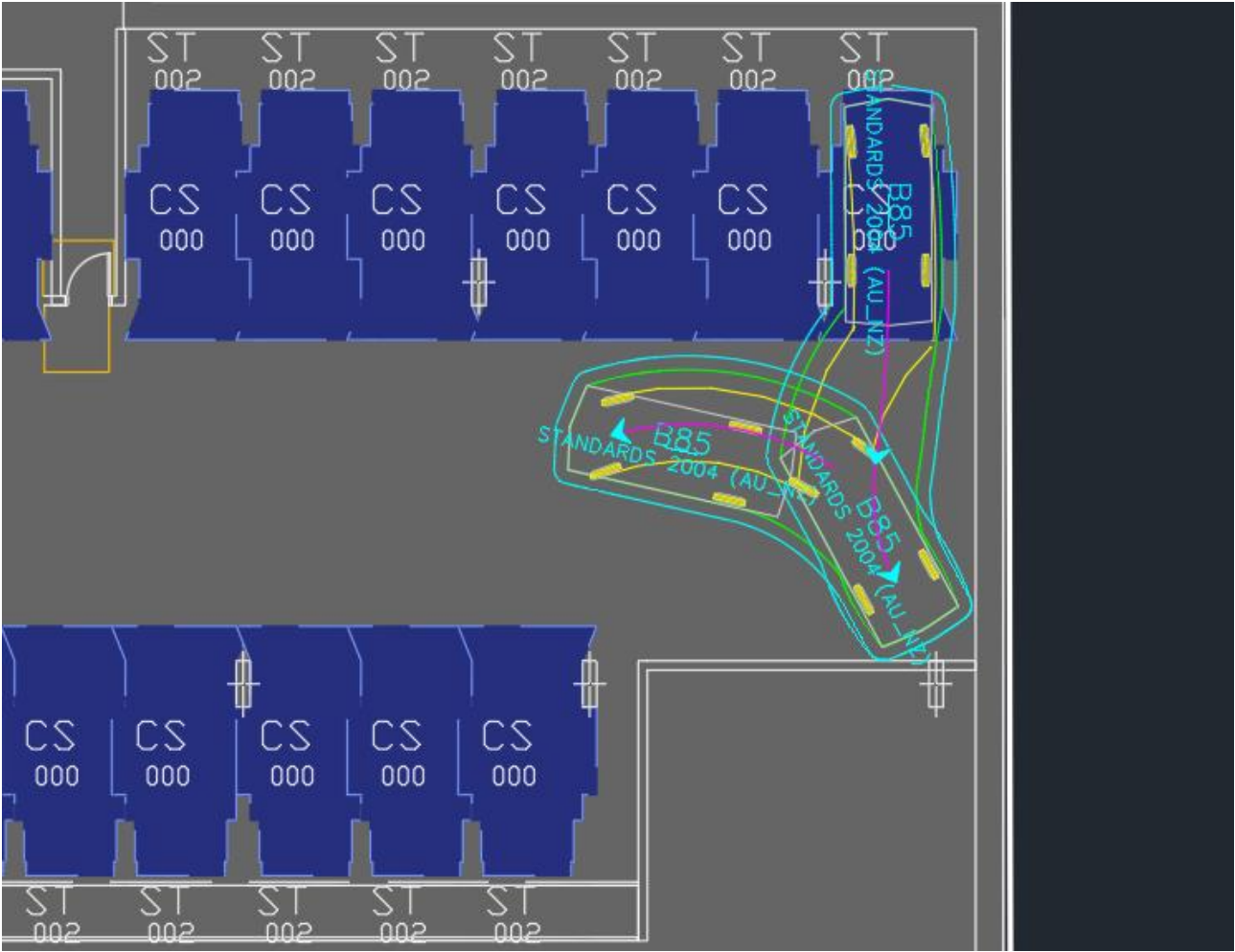
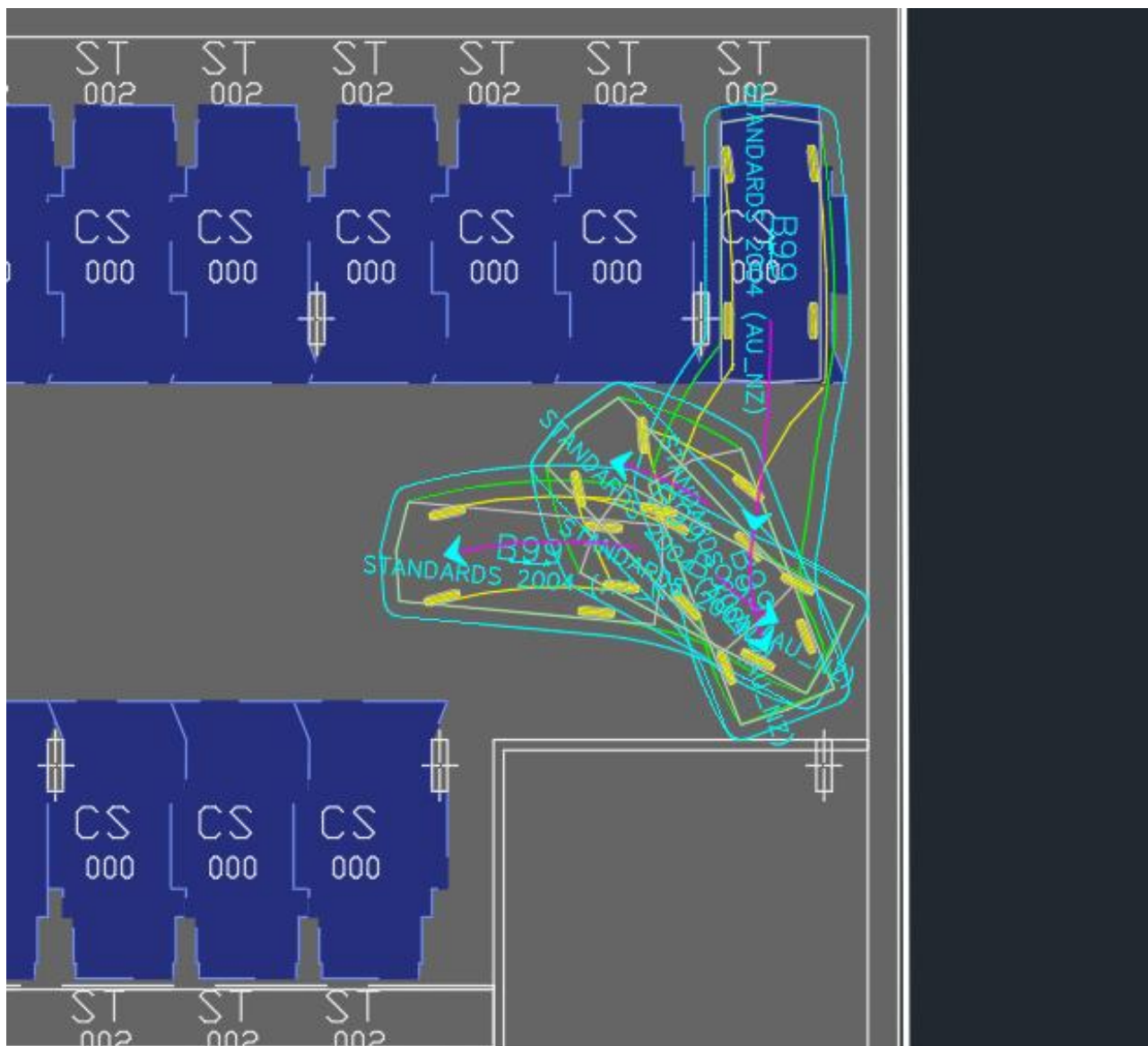


Figure 15: B85 Exiting Parking Space





Circulation within the basement is proposed to be mostly one-way, to improve traffic flow and control vehicles entering and exiting the basement. Circulation widths for one-way traffic flow is compliant to AS2890.1 throughout both levels of the basement. Indicative basement flows are shown in Figure 17 and Figure 18.

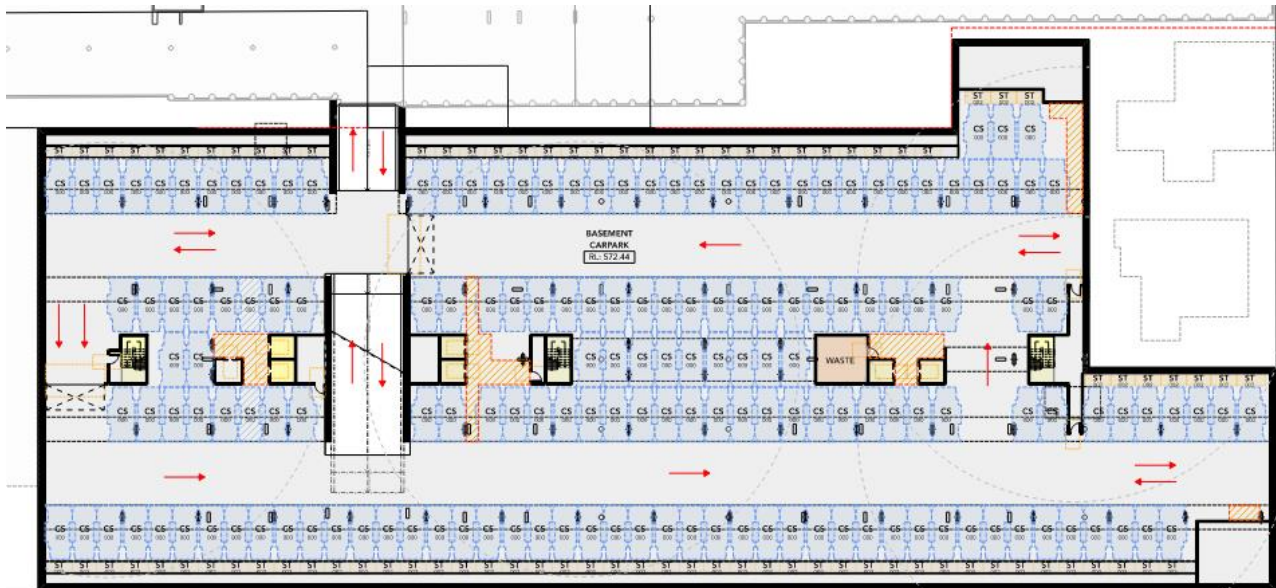


Figure 17: Basement 1 Circulation

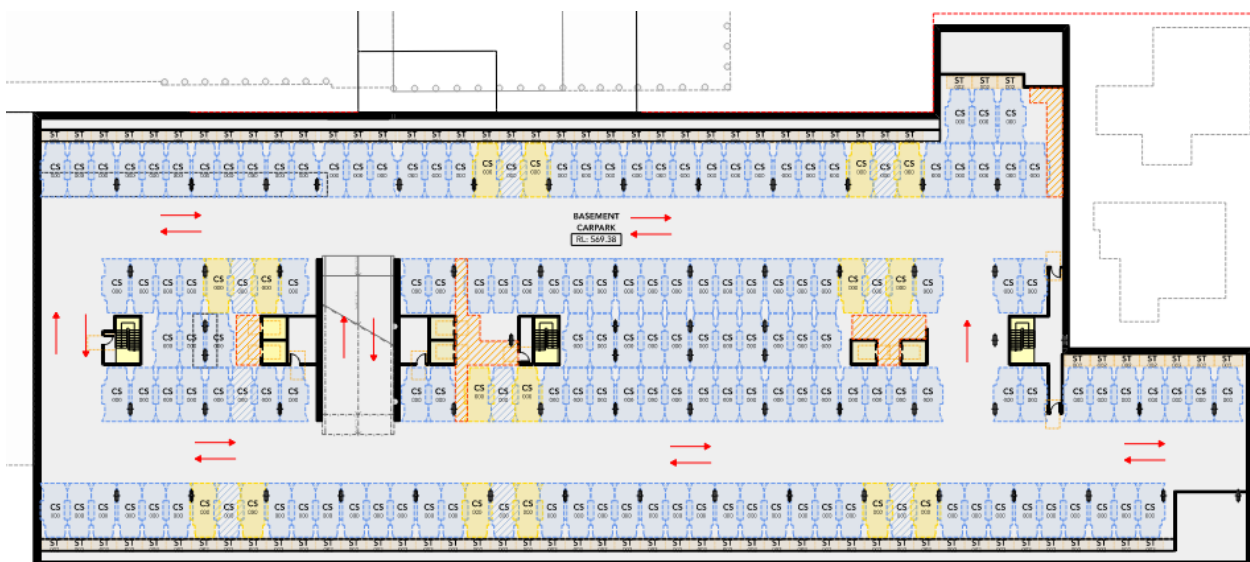


Figure 18: Basement 2 Circulation

Proposed works within the verge in front of the site requires the removal of approximately 10 on-street parking spaces on Rutledge Street that are loosely defined between driveways and street trees, to allow for the new access points for the proposed site. As part of the verge works, these spaces are proposed to be formalised, protecting the existing street trees and reducing ambiguity within the on-street parking of where the actual spaces are.

The on-street parking along Rutledge Street is classified as Low Turnover parking in accordance with 8.4 Table 3.2 of Australian Standard 2890 Parking Facilities Part 5: On-street parking (AS2890.5). As Rutledge Street is a 50km/h zone, dimensions for the parking spaces are to comply with Table 3.3 of AS2890.5, with parking width of 2.8m and 10m to the centre line of the road.

#### 4.2.2 Tandem Spaces

62 parking spaces within the basement are proposed to be tandem parking spaces. As the QPRC DCP has no controls around tandem parking, the City of Sydney provisions have been applied to the development to ensure adequate level of service is maintained for the development.

Based on the City of Sydney provisions, the following provisions for tandem parking spaces has been made:

- Tandem parking spaces are limited to two spaces deep.
- Tandem parking spaces are allocated to the same dwelling to prevent other vehicles being parked in by other units.
- Tandem spaces are clear of the entry and exit to the basement to ensure queuing caused by manoeuvring tandem vehicles does not impact the access to the council basement.

#### 4.2.3 Parking for People with Disabilities

Under Table 3 from the QDCP, parking for people with disabilities is required to be provided as one per adaptable residential unit within the development and 2% of all commercial car parking spaces.

The QDCP Section 3C.5.10 Access and mobility notes that 10% of all units are to be designed as suitable for adaptation for occupation by disabled/aged persons. As such, an allowance for 17 adaptable spaces has been made within the second-floor basement for accessible parking spaces.

With a total of 35 commercial parking spaces provided within the development, one parking space for people with disabilities is required to be provided in accordance with the DCP. The development proposes to provide four spaces within the first-floor basement, satisfying the requirements under the DCP.

#### 4.2.4 Bicycle Parking

Under the QPRC DCP it is noted that the development is to provide appropriate bicycle parking. As such, parking has been provided for all residences in the form of storage crates for each residential unit.

Since there are no controls within the DCP for bicycle parking allowance, the requirements in Table 5.1 of Austroads' Bicycle Parking Facilities: Updating the Austroads Guide to Traffic Management have been adopted for the development. Calculations for non-resident uses are shown in Table 6 below.

*Table 6: Bicycle Parking Allocation*

Development Use	Parking Allocation Rate	Unit Number	Bicycle Spaces
Residential Visitor	0.02 spaces per dwelling	178 Dwellings	4 spaces
Commercial Employee	0.1 spaces per 100m <sup>2</sup> NLA	1913m <sup>2</sup>	2 spaces
Commercial Visitor	0.4 spaces per 100m <sup>2</sup> NLA	1913m <sup>2</sup>	8 spaces
Total	-	-	14 spaces

A total of seven bicycle loops are proposed for the development on the eastern side of the site, within the heritage precinct, providing the minimum 14 recommended bicycle parking spaces for the development, satisfying the requirements with Austroads' Bicycle Parking Facilities. Refer to Figure 19 for the location of the bicycle parking within the development.



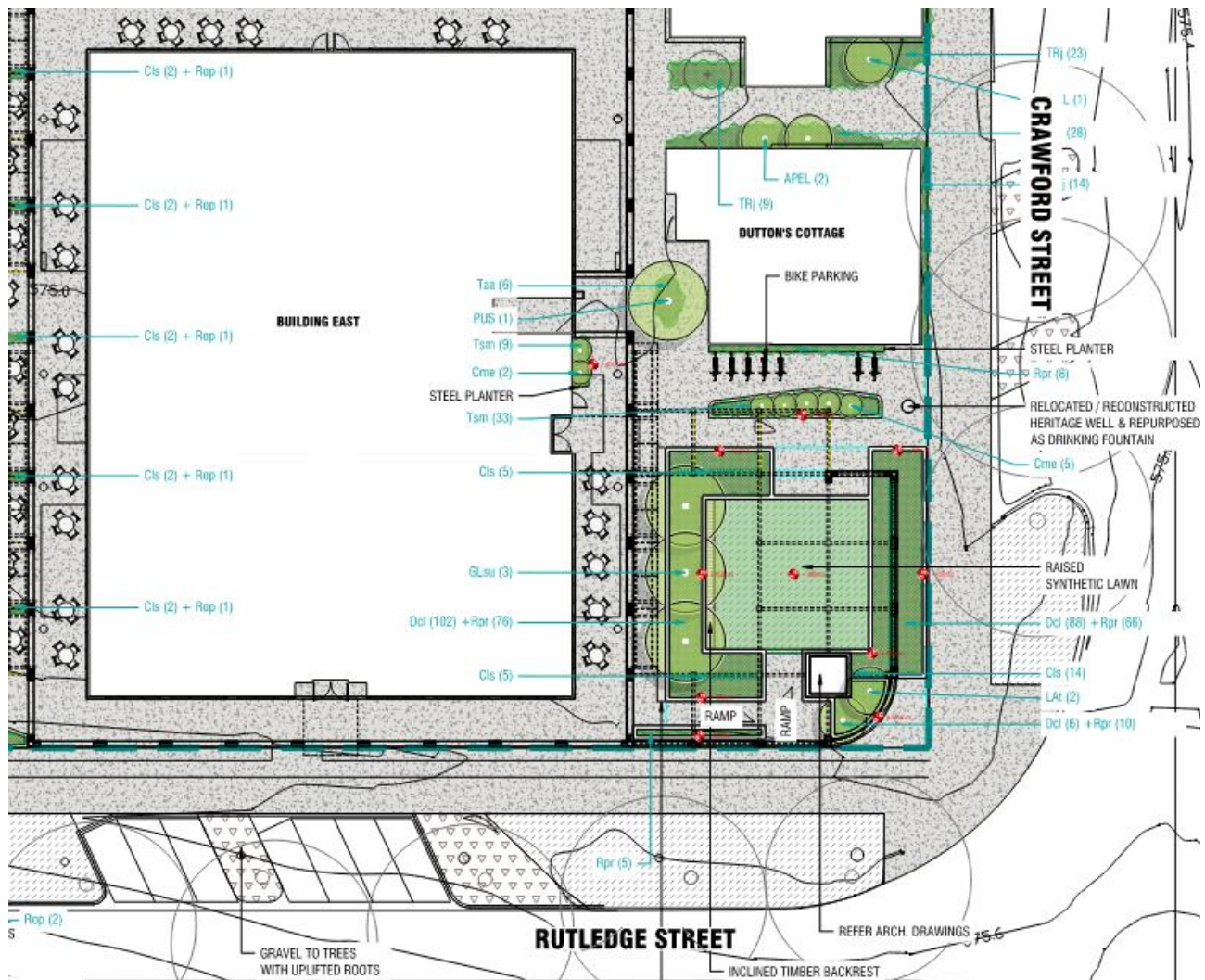


Figure 19: Bicycle Parking Location - Refer Place Logic drawing L401.1

### 4.3 Parking Impact

Given that 291 parking spaces are provided for residents within the basements and with only 161 required under the GTGD, the development satisfies the residential parking requirements. Further to this, with 80% more parking than required it is anticipated that there will be minimal impact on the surrounding parking facilities due to residents spilling into the parking facilities neighbouring the development.

This is expected with commercial parking as well, with 35 spaces in the basement providing sufficient parking for the required 32 parking spaces under the DCP, with two extra spaces, limiting the anticipated spill into neighbouring parking facilities.

A total of 36 residential visitor parking spaces will need to be provide offsite within the surrounding parking facilities. As noted in Section 2.7.1, a minimum of 74 parking spaces were nominated within the surrounding parking network a maximum of 350m walk from the site. Further to this, with 36 parking spaces thought to currently be utilised by the Library and offices being freed up by the redevelopment, it is anticipated that there will be negligible impact on the surrounding parking infrastructure.

This estimate is seen to be conservative, as visitor parking for the residential units will mostly be off peak to the commercial usage of the surrounding parking, with residential visitors expected to be highest on weekday evenings and weekends, outside of core business hours for offices. As such, the amount of parking available in the surrounding area for visitors is expected to be greater than the minimum recorded from satellite imagery for peak parking times.



Further to this, with 36 parking spaces thought to currently be utilised by the Library and offices being freed up by the redevelopment, there should be greater availability within the surrounding parking during commercial parking peak hours, further alleviating the potential impact of the development on the surrounding parking.

With the number of parking spaces within the basement greatly in excess of the requirements of the respective codes and the majority of offsite parking requirements being off peak to surrounding parking requirements, coupled with no net parking use of offsite parking, as well as existing latent parking within the area, the parking impact of the development is not deemed to significantly impact the parking facilities surrounding the development.

## 5.0 Traffic Assessment

### 5.1 Existing Generation

The existing buildings at 257 Crawford Street, are believed to be commercial/office buildings, with two of the buildings previously being directly connected to the old council building. The buildings at 10 and 12 Rutledge Street are understood to house commercial/office tenants as well, and as such have all been assessed as such for existing traffic purposes. Commercial development traffic generations are provided in the Roads and Maritime Services (RMS) Guide to Traffic Generating Developments (GTGD) Technical Direction 2013/04a, which have been adopted for the existing commercial units. Generation is shown in Table 7.

6 Rutledge Street is the Queanbeyan Public Library. Traffic generation for the library has been calculated based on the parking generation rate, with the parking rate 40% of the commercial parking rate, the same reduction in traffic generation has been adopted.

Table 7: Existing Traffic Generation

Site	Use	Area	Daily Generation Rate	Daily Vehicle Trips	Peak AM Generation Rate	Peak AM Vehicle Trips	Peak PM Generation Rate	Peak PM Vehicle Trips
257 Crawford Street	Office	1320	11 trips per 100m <sup>2</sup>	146	1.6 trips per 100m <sup>2</sup>	22	1.2 trips per 100m <sup>2</sup>	16
12 Rutledge Street	Office	300	11 trips per 100m <sup>2</sup>	33	1.6 trips per 100m <sup>2</sup>	5	1.2 trips per 100m <sup>2</sup>	4
10 Rutledge Street	Office	320	11 trips per 100m <sup>2</sup>	36	1.6 trips per 100m <sup>2</sup>	6	1.2 trips per 100m <sup>2</sup>	4
6 Rutledge Street	Library	1750	4.4 trips per 100m <sup>2</sup>	77	0.64 trips per 100m <sup>2</sup>	12	0.48 trips per 100m <sup>2</sup>	9
Total				292	-	45	-	33

It is noted that the Queanbeyan Library does not open until 10am on weekdays, and as such is expected to have its AM peak at a different time to the rest of the commercial lots within the Site. For the purpose of analysing the trip generation for the existing site, the Library has been excluded from the peak AM traffic, resulting in an existing peak AM trip generation of 33 trips.

## 5.2 Proposed Generation

Residential generation for the proposed development has been calculated in accordance with the RMS GTGD Technical Direction 2013/04a. As requested by Transport for New South Wales (TfNSW), the highest value for the traffic generation has been adopted from the technical direction. Per bedroom generation have been adopted as it is more representative of the unit breakdown within the development, with the majority of units being one- or two-bedroom units, with the per unit breakdown being representative of a majority of three-bedroom units.

Commercial generation rates have been taken from the RMS GTGD, with commercial break up the same as used for parking calculation in Section 4.1 of this report, with two tenancies of restaurant/café and two of office space. Due to the patronage times of restaurants being concentrated at lunch and dinner time, there is no morning peak associated with these tenancies. Due to the location of the precinct, it is not anticipated that cafés would specifically generate trips from outside the precinct, with cafes predominantly expected to be serviced by foot traffic from pedestrians in from the surrounding office and residential buildings. As such no AM peak traffic generation has been associated with the café tenancies.

Calculations for morning, evening and total traffic generations are shown in Table 8 below.

*Table 8: Proposed Development Traffic Generation*

Land Use	Generation Units	Daily Generation Rate	Daily Vehicle Trips	Peak AM Generation Rates	Peak AM Vehicle Trips	Peak PM Generation Rate	Peak PM Vehicle Trips
Residential	331 Bedrooms	2.26 trips per bedroom	749	0.22 trips per bedroom	73	0.22 trips per bedroom	73
Restaurant /Café	1128m <sup>2</sup> GFA	60 trips per 100m <sup>2</sup> GFA	677	N/A	-	5 trips per 100m <sup>2</sup> GFA	57
Office	785m <sup>2</sup> GFA	11 trips per 100m <sup>2</sup> GFA	87	1.6 trips per 100m <sup>2</sup> GFA	13	1.2 trips per 100m <sup>2</sup> GFA	10
Total	-	-	1503	-	86	-	140

As the QPRC Council Office shares the exit location with the development, the traffic generation has been taken into account when considering the traffic impacts of the proposed development. Calculations for the QPRC Council Office are shown in Table 9 below.

*Table 9: QPRC Council Building Traffic Generation*

Land Use	Generation Units	Daily Generation Rate	Daily Vehicle Trips	Peak AM Generation Rates	Peak AM Vehicle Trips	Peak PM Generation Rate	Peak PM Vehicle Trips
Office	4944m <sup>2</sup> GFA	11 trips per 100m <sup>2</sup> GFA	550	1.6 trips per 100m <sup>2</sup> GFA	80	1.2 trips per 100m <sup>2</sup> GFA	60
Retail	173m <sup>2</sup> GFA	55.5 trips per 100m <sup>2</sup> GFA	97	N/A	-	4.6 trips per 100m <sup>2</sup> GFA	8
Total	-	-	647	-	80	-	68

### 5.2.1 Lowe Street Carpark

Traffic counts for the Lowe Street carpark access were taken in March 2022, after the closure of the Rutledge Street exit due to the construction of the QPRC Council Building. With the carpark reduced to 60% capacity due to the closure, and with the total number of parking spaces to be reinstated post construction, the traffic numbers have been adjusted to account for 100% capacity car park.

### 5.3 Proposed Peak Intersection Traffic Flow

The following figures show the proposed intersection traffic flows for the peak AM and PM traffic times based on the additional traffic to the system for 2025 pre-development projections and post-development added to the traffic counts taken on the 3<sup>rd</sup> and 10<sup>th</sup> of March 2022.

#### 5.3.1 Lowe Street Carpark Access

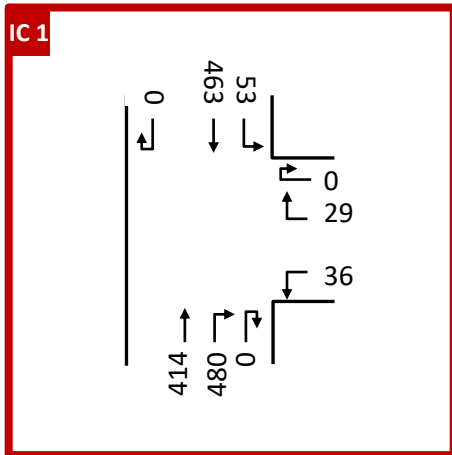


Figure 20: AM Peak Post-Development

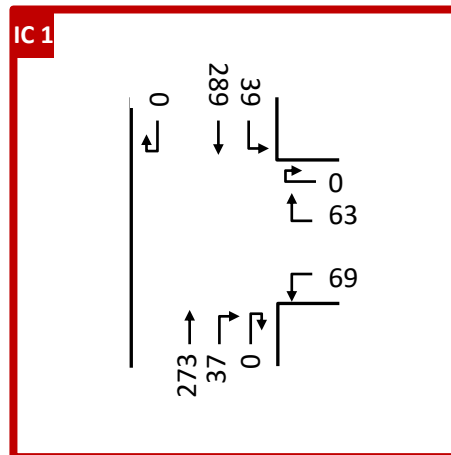


Figure 21: PM Peak Post-Development

#### 5.3.2 Rutledge Street, Lowe Street and Cooma Road Intersection

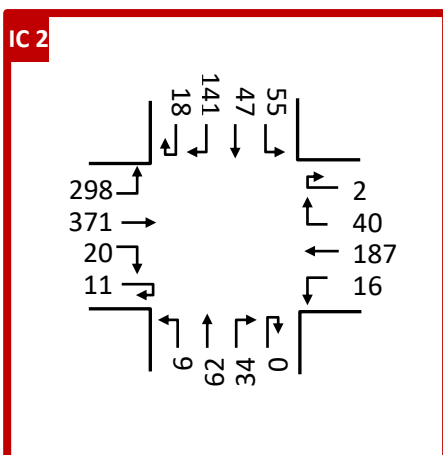


Figure 22: AM Peak 2025 Projection

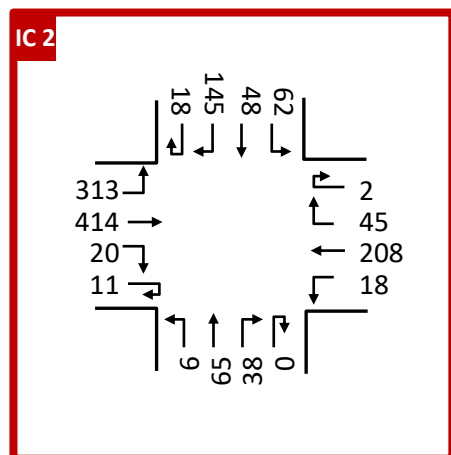


Figure 23: PM Peak 2025 Projection

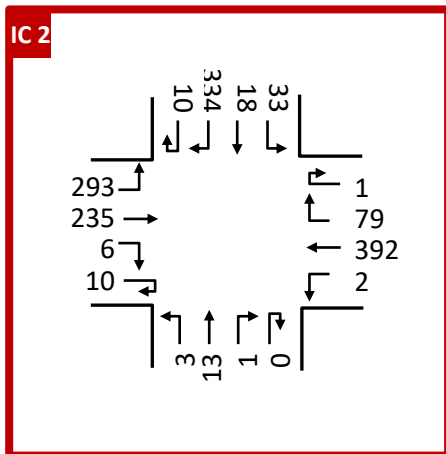


Figure 24: AM Peak Post-Development

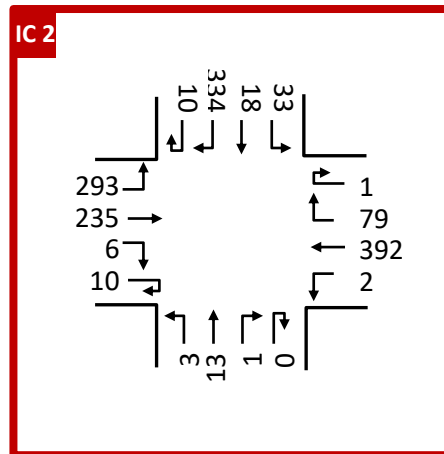


Figure 25: PM Peak Post-Development

### 5.3.3 Rutledge Street and Crawford Street Intersection

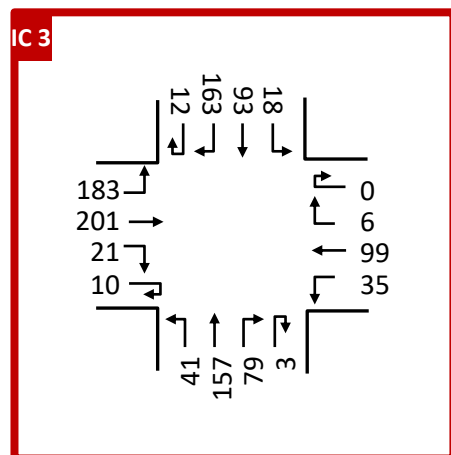


Figure 26: AM Peak 2025 Projection

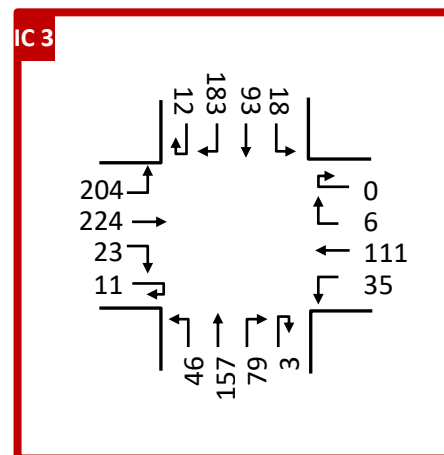


Figure 27: PM Peak 2025 Projection

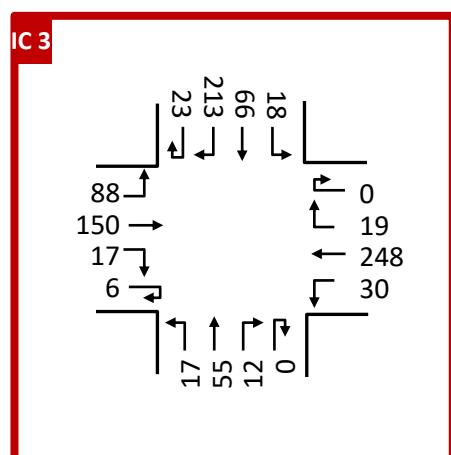


Figure 28: AM Post-Development

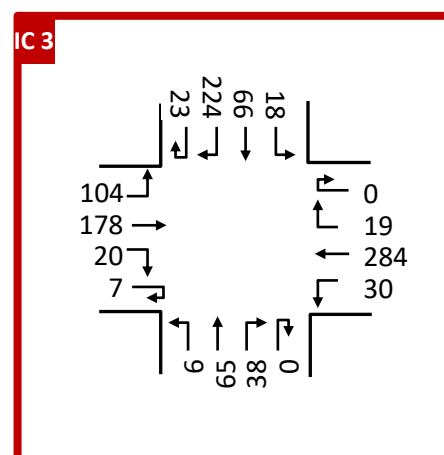


Figure 29: PM Post Development



5.3.4 Crawford Street and Monaro Street Intersection

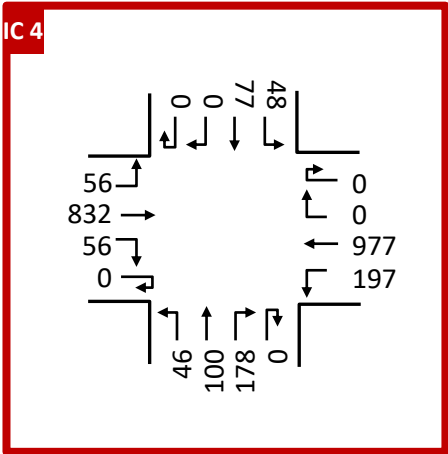


Figure 30: AM Peak 2025 Projection

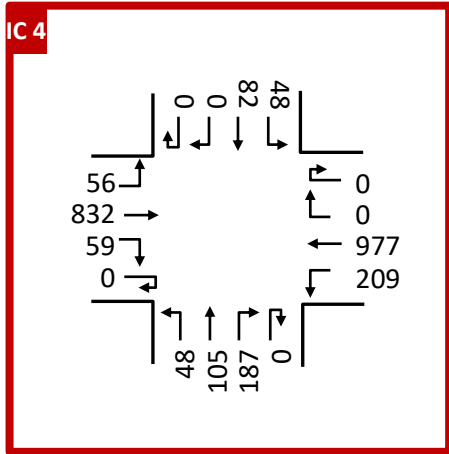


Figure 31: PM Peak 2025 Projection

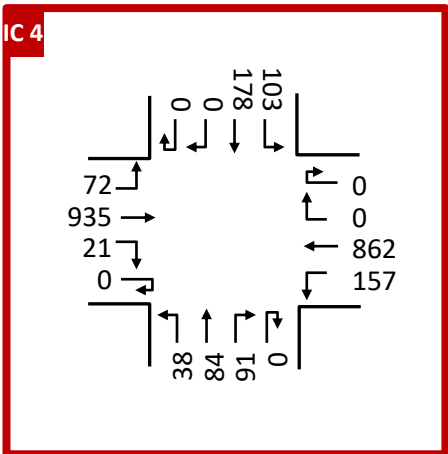


Figure 32: AM Peak Post Development

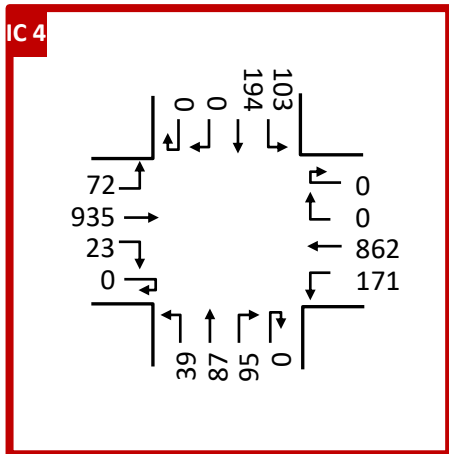


Figure 33: PM Peak Post-Development

### 5.3.5 Lowe Street, Monaro Street and Farrer Place Intersection

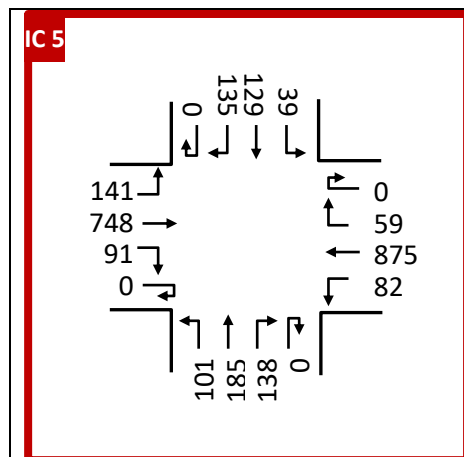


Figure 34: AM Peak 2025 Projection

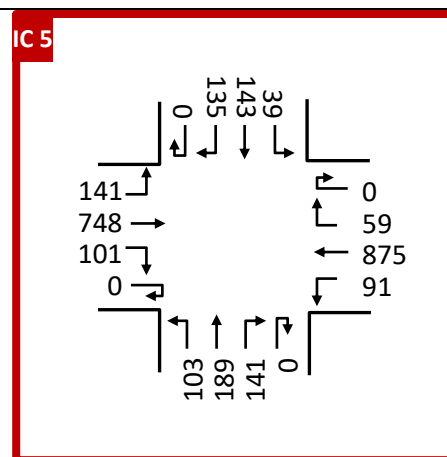


Figure 35: PM Peak 2025 Projection

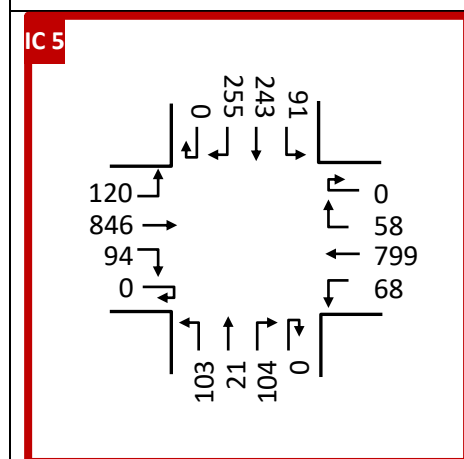


Figure 36: AM Peak Post-Development

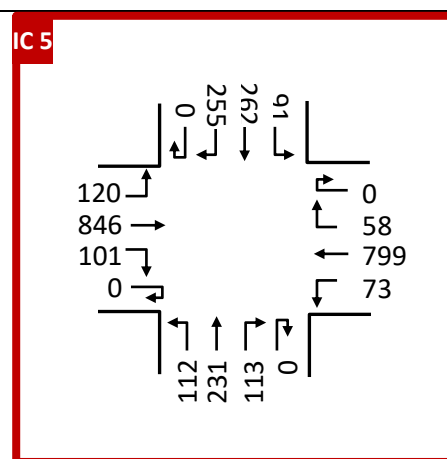


Figure 37: PM Peak Post-Development

## 5.4 Intersection Modelling

The critical intersections identified as being impacted by the proposed developments traffic generation are Rutledge Street, Lowe Street and Cooma Road intersection, Rutledge Street and Crawford Street intersection, Lowe Street and Monaro Street intersection, Crawford Street and Monaro Street intersection and the Lowe Street carpark entrance.

From traffic counts taken on Thursday 3<sup>rd</sup> of March 2022, three scenarios were considered for each intersection. Each intersection was modelled for existing conditions and post-development conditions in 2025. The Lowe Street carpark access was modelled for the completion of the Council Building, once the car park is back at 100% capacity, with all other intersections modelled at 2025 project pre-development completion. Post development scenarios consider the traffic generated by the Council Building, the proposed development and the 2025 projected increase in traffic.

Traffic models were calibrated using the on-site observations, noting the queuing times and maximum number of queuing vehicles in comparison to the existing scenario 95<sup>th</sup> percentile outputs from the SIDRA modelling, ensuring that both observations and 95<sup>th</sup> percentile outputs were aligned.

The 2025 future traffic increase projections are based on an assumed growth rate of 2% increase in traffic per year.

Assessment of each of the intersections has been outlined in the following sections. Detailed SIDRA outputs are contained within Appendix B.

#### **5.4.1 Rutledge Street, Lowe Street and Cooma Road Intersection**

##### **AM Peak**

Existing conditions for the Rutledge Street, Lowe Street and Cooma Road roundabout for peak morning traffic has a Level of Service (LOS) A for all legs of the intersection. This level of service is maintained through both the 2025 projection and the post development conditions of the intersection.

##### **PM Peak**

Existing conditions for the Rutledge Street, Lowe Street and Cooma Road roundabout for peak afternoon traffic has a LOS A for all legs of the intersection. This level of service is maintained through both the 2025 projection and the post development conditions of the intersection.

#### **5.4.2 Rutledge Street and Crawford Street Intersection**

##### **AM Peak**

The modelled conditions for the existing morning peak traffic at the Rutledge Street and Crawford Street roundabout achieves LOS A for all legs of the intersection. 2025 projection and post development conditions for the intersection also achieve LOS A.

##### **PM Peak**

The modelled conditions for the existing afternoon peak traffic at the Rutledge Street and Crawford Street roundabout achieves LOS A for all legs of the intersection. 2025 projection and post development conditions for the intersection also achieve LOS A.

#### **5.4.3 Lowe Street Carpark Access**

As previously noted, the Lowe Street carpark access was modelled for existing, post Council Building completion and post development completion. Modelling for the Lowe Street carpark access assumes worst case scenario, assuming the exit from the carpark directly on to Rutledge Street is blocked due to service vehicles, with all vehicles entering and exiting the carpark using the access to Lowe Street.

##### **AM Peak**

The existing morning conditions for the Lowe Street carpark access achieves LOS A for all movements except for vehicles doing U-turns, turning from northbound to southbound, which achieves LOS B. These levels of service are maintained for the completion of the Council Building and the post development condition for the intersection.

##### **PM Peak**

Existing afternoon conditions for the Low Street carpark access achieves LOS A for all legs and movements of the intersection. This level of service is maintained post the construction of the Council building. Post development afternoon traffic has a reduction in the level of service of the right turn from northbound traffic into the carpark and the right turn out of the car park northbound, with both movements dropping to a LOS B. While this is a slight reduction in the level of service for the intersection, LOS B is still seen as an acceptable LOS for a T-intersection.

#### 5.4.4 Lowe Street, Monaro Street and Farrer Place Intersection

##### AM Peak

Peak existing morning traffic conditions for the Lowe Street, Monaro Street and Farrer Place signalised intersection achieve a LOS B for the intersection, with movements achieving a LOS between A and D. Notably, the right turns from Lowe Street southbound, Monaro Street westbound and Farrer Place eastbound all are LOS D. This level of service is maintained for both the 2025 projection and the post development conditions.

As there is no change to the level of service between the existing and post development conditions, the intersection is not deemed to be significantly impacted by the proposed development for morning traffic.

##### PM Peak

Afternoon existing peak traffic conditions for the Lowe Street, Monaro Street and Farrer Place signalised intersection achieve LOS C, with movements mostly achieving LOS B and C, with only Lowe Street southbound right turn being the only movement with LOS D.

2025 projection traffic conditions maintain a LOS C for the intersection, but Monaro Street right turn to northbound, Lowe street southbound straight through and Farrer Place right turn to southbound movements all decreasing to a LOS D. These levels of service are all maintained through to the post development traffic conditions for the intersection.

From this it is noted that the level of service of the intersection will be impacted by the expected increase in traffic over time, with post development conditions not expected to decrease the level of service of the intersection greater than that of the 2025 projection.

#### 5.4.5 Crawford Street and Monaro Street Intersection

##### AM Peak

Existing morning peak traffic for the Monaro Street and Crawford Street signalised intersection achieves a LOS B. Crawford Street right turn onto Monaro Street eastbound, Crawford Street left turn onto Monaro Street eastbound and Monaro Street right turn onto Crawford Street southbound movements are all LOS D. The level of service for these movements and the intersection are all maintained through both the 2025 projection and the post development traffic conditions.

##### PM Peak

Existing evening peak traffic for the Monaro Street and Crawford Street signalised intersection achieves a LOS B. No movements within the intersection achieve a LOS less than C. This LOS is maintained through both the 2025 projection and the post development projection for the intersection.

### 5.5 Traffic Impact

The proposed development is anticipated to increase to total number of daily vehicle trips, as well as peak morning and afternoon vehicle trips. The increase in trips due to the proposed development is outlined in Table 10 below.

*Table 10: Proposed Increase in Vehicle Trips from the Development*

	AM Peak Vehicle Trips	PM Peak Vehicle Trips	Total Daily Vehicle Trips
Existing Trip Generation	33	33	292
Proposed Trip Generation	86	140	1503
Total Change in Trips	53	107	1211



The recorded morning peak traffic on Rutledge street was 1353 vehicle trips between 8am and 9am. The increase in morning traffic during peak time due to the development is less than a 4% increase in traffic. This is seen as comparable to two years of passive traffic growth within a town centre.

The evening recorded peak traffic on Rutledge Street was 1249 trips between 4:15pm and 5:15pm. This results in an approximate 8.6% increase in traffic on Rutledge Street. This is seen as a more significant increase to the surrounding road network than the morning peak traffic from the proposed development.

Although there is an increase in peak morning and evening traffic, it is anticipated that the impact due to this increase will be lessened by the developments tidal flows counteracting that of the surrounding developments. This is due to the proposed developments trip generation being mainly residential in nature, with the surrounding developments being mostly commercial.

These assumptions on the nature of the traffic increase are backed up by the SIDRA modelling, with all the post development intersection models except one showing a levels of service the same as the existing condition, with the only decrease in level of service coming from the Lowe Street carpark access. This level of service, while decreased, was deemed to still be at an acceptable level for the intersection.

From the SIDRA modelling, a satisfactory level of service is achieved for the Lowe Street carpark access point in both morning and evening peak times whilst assuming complete blockage to any other access or egress point for the carpark. This suggests that this exit is sufficient to service the Lowe Street carpark without further access or egress required onto Crawford or Rutledge Street.

As such, the increase in traffic by the development, while significant in the evening peak, is not anticipated to significantly impact the amenity of the surrounding road network.

## 6.0 Conclusion

The proposed development on Rutledge Street will accommodate all residential and commercial tenant parking within the site, with only visitor parking to be accommodated within the neighbouring parking facilities. With no parking proposed to be lost by the new development, and the greatest impact to parking expected to happen off-peak to the current parking peaks for the adjacent parking facilities, parking is not anticipated to be significantly impacted by the development.

With traffic anticipated to increase within the immediate vicinity of the surrounding development, especially during peak evening traffic, there is anticipated to be some amenity lost within the surrounding intersections. This is supported by the SIDRA modelling for the surrounding intersections, but the SIDRA modelling notes that the decrease in amenity for all intersections is deemed as acceptable under the RMS GTGD, with no intersection or intersection leg noted as failing.

Noting the above, the parking impact of the development is seen as negligible, while the traffic impact is seen as acceptable, and as such the development is recommended for development approval with regards to traffic and parking.

Prepared by  
**TTW (ACT) PTY LTD**



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**ROSS COSTELLO**  
Engineer

Authorised By  
**TTW (ACT) PTY LTD**



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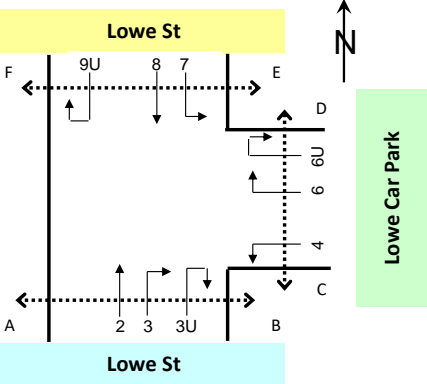
**CHRISTIE PLAYER**  
Associate Director

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## Appendix A

# Raw Traffic Counts

Job No.	: AUACT3184
Client	: SCT Consulting Pty Ltd
Suburb	: Queanbeyan
Location	: 1. Lowe St / Car park Access
Day/Date	: Thu, 3rd March 2022
Weather	: Fine
Description	: Classified Intersection Count
	: 15 mins Data



	Class 1	Class 2
Classifications	Lights	Heavies

Approach	Lowe St									Lowe Car Park								
Direction	Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 7:15	47	3	50	1	0	1	0	0	0	2	0	2	0	1	1	0	0	0
7:15 to 7:30	54	4	58	1	0	1	1	0	1	0	0	0	3	0	3	0	0	0
7:30 to 7:45	61	2	63	2	1	3	0	0	0	1	0	1	1	0	1	0	0	0
7:45 to 8:00	58	2	60	4	0	4	0	0	0	1	1	2	3	0	3	0	0	0
8:00 to 8:15	71	4	75	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0
8:15 to 8:30	107	1	108	5	0	5	3	0	3	1	0	1	0	0	0	0	0	0
8:30 to 8:45	91	3	94	8	0	8	0	0	0	4	0	4	3	0	3	0	0	0
8:45 to 9:00	97	2	99	7	0	7	1	0	1	3	0	3	4	0	4	0	0	0
AM Totals	586	21	607	34	1	35	5	0	5	12	1	13	14	1	15	0	0	0
16:00 to 16:15	60	0	60	4	1	5	1	0	1	5	0	5	14	1	15	0	0	0
16:15 to 16:30	90	1	91	6	0	6	0	0	0	9	1	10	9	0	9	0	0	0
16:30 to 16:45	87	4	91	12	0	12	0	0	0	6	0	6	12	0	12	0	0	0
16:45 to 17:00	85	0	85	6	0	6	0	0	0	7	0	7	12	0	12	0	0	0
17:00 to 17:15	70	1	71	5	0	5	0	0	0	11	0	11	10	1	11	0	0	0
17:15 to 17:30	89	0	89	8	0	8	0	0	0	13	0	13	12	0	12	0	0	0
17:30 to 17:45	84	0	84	12	0	12	0	0	0	11	0	11	2	0	2	0	0	0
17:45 to 18:00	67	2	69	15	0	15	0	0	0	9	0	9	9	0	9	0	0	0
PM Totals	632	8	640	68	1	69	1	0	1	71	1	72	80	2	82	0	0	0

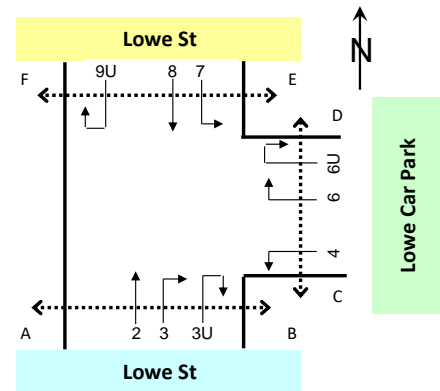
Approach	Lowe St								
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 7:15	4	0	4	20	1	21	0	0	0
7:15 to 7:30	1	0	1	21	3	24	0	0	0
7:30 to 7:45	6	0	6	25	2	27	0	0	0
7:45 to 8:00	3	0	3	20	1	21	0	0	0
8:00 to 8:15	7	0	7	43	2	45	0	0	0
8:15 to 8:30	8	0	8	52	1	53	0	0	0
8:30 to 8:45	9	0	9	76	2	78	0	0	0

Crossing Pedestrians									
B to A	A to B	D to C	C to D	F to E	E to F				Total
0	0	0	0	0	0				0
0	0	1	1	2	0				4
0	0	0	0	2	2				4
0	2	1	3	2	0				8
1	1	0	2	3	1				8
15	29	6	11	2	2				65
34	47	9	21	0	1				112



8:45 to 9:00	12	0	12	62	1	63			0	0	0			19	28	11	14	0	2		74
AM Totals	50	0	50	319	13	332			0	0	0			69	107	28	52	11	8		275
16:00 to 16:15	7	0	7	84	7	91			0	0	0			0	3	0	3	0	1		7
16:15 to 16:30	12	0	12	106	4	110			0	0	0			0	2	1	0	2	3		8
16:30 to 16:45	9	0	9	74	1	75			0	0	0			6	0	3	0	1	3		13
16:45 to 17:00	11	0	11	68	1	69			0	0	0			4	0	7	0	0	0		11
17:00 to 17:15	4	1	5	86	2	88			0	0	0			0	0	0	0	0	2		2
17:15 to 17:30	15	0	15	72	1	73			0	0	0			1	5	0	2	0	3		11
17:30 to 17:45	11	0	11	71	0	71			0	0	0			2	1	0	1	1	0		5
17:45 to 18:00	25	0	25	71	3	74			0	0	0			0	0	0	0	0	0		0
PM Totals	94	1	95	632	19	651			0	0	0			13	11	11	6	4	12		57

**Job No.** : AUACT3184  
**Client** : SCT Consulting Pty Ltd  
**Suburb** : Queanbeyan  
**Location** : 1. Lowe St / Car park Access  
  
**Day/Date** : Thu, 3rd March 2022  
**Weather** : Fine  
**Description** : Classified Intersection Count  
: Hourly Summary



Approach	Lowe St										Lowe Car Park									
Direction	Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 6 (Right Turn)			Direction 6U (U Turn)				
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total		
7:00 to 8:00	220	11	231	8	1	9	1	0	1	4	1	5	7	1	8	0	0	0		
7:15 to 8:15	244	12	256	13	1	14	1	0	1	2	1	3	7	0	7	0	0	0		
7:30 to 8:30	297	9	306	17	1	18	3	0	3	3	1	4	4	0	4	0	0	0		
7:45 to 8:45	327	10	337	23	0	23	3	0	3	6	1	7	6	0	6	0	0	0		
8:00 to 9:00	366	10	376	26	0	26	4	0	4	8	0	8	7	0	7	0	0	0		
AM Totals	586	21	607	34	1	35	5	0	5	12	1	13	14	1	15	0	0	0		
16:00 to 17:00	322	5	327	28	1	29	1	0	1	27	1	28	47	1	48	0	0	0		
16:15 to 17:15	332	6	338	29	0	29	0	0	0	33	1	34	43	1	44	0	0	0		
16:30 to 17:30	331	5	336	31	0	31	0	0	0	37	0	37	46	1	47	0	0	0		
16:45 to 17:45	328	1	329	31	0	31	0	0	0	42	0	42	36	1	37	0	0	0		
17:00 to 18:00	310	3	313	40	0	40	0	0	0	44	0	44	33	1	34	0	0	0		
PM Totals	632	8	640	68	1	69	1	0	1	71	1	72	80	2	82	0	0	0		

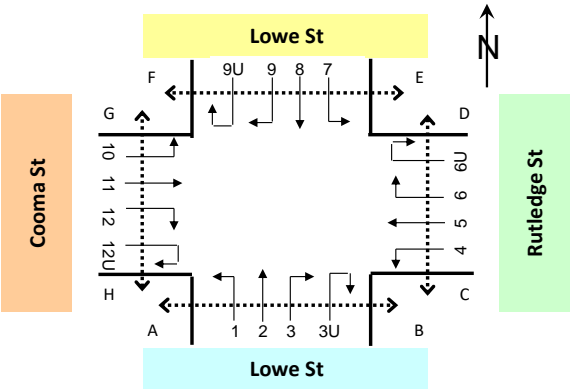
Approach	Lowe St																				Crossing Pedestrians							
Direction	Direction 7 (Left Turn)			Direction 8 (Through)				Direction 9U (U Turn)																				
Time Period	Lights	Heavies	Total	Lights	Heavies	Total		Lights	Heavies	Total											B to A	A to B	D to C	C to D	F to E	E to F		Total
7:00 to 8:00	14	0	14	86	7	93		0	0	0	0	2	2	4	6	2		16										
7:15 to 8:15	17	0	17	109	8	117		0	0	0	1	3	2	6	9	3		24										
7:30 to 8:30	24	0	24	140	6	146		0	0	0	16	32	7	16	9	5		85										

7:45 to 8:45	27	0	27	191	6	197
8:00 to 9:00	36	0	36	233	6	239
AM Totals	50	0	50	319	13	332
16:00 to 17:00	39	0	39	332	13	345
16:15 to 17:15	36	1	37	334	8	342
16:30 to 17:30	39	1	40	300	5	305
16:45 to 17:45	41	1	42	297	4	301
17:00 to 18:00	55	1	56	300	6	306
PM Totals	94	1	95	632	19	651

0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

50	79	16	37	7	4	193
69	105	26	48	5	6	259
69	107	28	52	11	8	275
10	5	11	3	3	7	39
10	2	11	0	3	8	34
11	5	10	2	1	8	37
7	6	7	3	1	5	29
3	6	0	3	1	5	18
13	11	11	6	4	12	57

Job No. : AUACT3184  
Client : SCT Consulting Pty Ltd  
Suburb : Queanbeyan  
Location : 2. Lowe St / Cooma St / Rutledge St  
  
Day/Date : Thu, 3rd March 2022  
Weather : Fine  
Description : Classified Intersection Count  
: 15 mins Data



	Class 1	Class 2
Classifications	Lights	Heavies

Approach	Lowe St												Rutledge St											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 7:15	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	21	1	22	4	0	4	0	0	0
7:15 to 7:30	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	26	0	26	5	0	5	0	0	0
7:30 to 7:45	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	28	2	30	3	1	4	0	0	0
7:45 to 8:00	0	0	0	2	0	2	0	0	0	0	0	0	2	0	2	36	1	37	8	0	8	0	0	0
8:00 to 8:15	1	0	1	6	1	7	1	0	1	0	0	0	3	1	4	40	0	40	2	1	3	1	0	1
8:15 to 8:30	2	0	2	15	0	15	5	0	5	0	0	0	1	0	1	41	0	41	7	0	7	0	0	0
8:30 to 8:45	2	0	2	20	0	20	12	6	18	0	0	0	4	0	4	42	0	42	16	1	17	0	0	0
8:45 to 9:00	1	0	1	15	1	16	5	3	8	0	0	0	6	0	6	53	0	53	11	0	11	1	0	1
AM Totals	6	0	6	61	3	64	24	9	33	0	0	0	16	1	17	287	4	291	56	3	59	2	0	2
16:00 to 16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	103	0	103	11	0	11	0	0	0
16:15 to 16:30	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	92	0	92	11	0	11	0	0	0
16:30 to 16:45	1	0	1	4	0	4	0	0	0	0	0	0	0	0	0	90	0	90	22	0	22	1	0	1
16:45 to 17:00	2	0	2	3	0	3	0	0	0	0	0	0	0	1	1	92	0	92	19	0	19	0	0	0
17:00 to 17:15	0	0	0	1	0	1	1	0	1	0	0	0	1	0	1	95	0	95	22	0	22	0	0	0
17:15 to 17:30	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	84	1	85	13	0	13	1	0	1
17:30 to 17:45	0	0	0	2	0	2	0	0	0	0	0	0	1	0	1	96	0	96	13	0	13	0	0	0
17:45 to 18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	1	91	16	0	16	1	0	1
PM Totals	3	0	3	14	0	14	2	0	2	0	0	0	2	1	3	742	2	744	127	0	127	3	0	3

Approach	Lowe St												Cooma St												Crossing Pedestrians									
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)												
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	B to A	A to B	D to C	C to D	F to E	E to F	H to G	G to H	Total	
7:00 to 7:15	3	0	3	2	0	2	16	1	17	0	0	0	47	3	50	45	3	48	0	0	0	1	0	1	0	1	0	1	0	0	0	0	2	
7:15 to 7:30	2	0	2	3	0	3	19	3	22	0	0	0	49	4	53	45	2	47	2	0	2	0	0	0	1	0	1	1	0	0	0	0	3	
7:30 to 7:45	8	0	8	2	0	2	16	2	18	1	0	1	58	1	59	78	2	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 to 8:00	5	1	6	3	0	3	11	1	12	1	0	1	56	2	58	85	5	90	3	0	3	0	0	0	1	0	1	1	0	0	0	0	3	
8:00 to 8:15	9	1	10	11	0	11	22	1	23	1	0	1	73	2	75	75	1	76	5	0	5	1	0	1	2	1	0	0	0	0	0	0	3	
8:15 to 8:30	16	0	16	11	0	11	21	1	22	6	0	6	84	1	85	99	2	101	7	0	7	0	1	1	1	0	3	2	0	0	0	0	6	
8:30 to 8:45	12	1	13	18	0	18	39	1	40	4	0	4	51	2	53	76	6	82	3	0	3	3	0	3	3	1	6	9	0	0	0	0	19	

8:45 to 9:00	13	0	13	4	0	4	47	1	48	6	0	6	67	1	68	88	3	91	4	0	4	5	0	5	1	0	3	2	1	0	0	0	7
AM Totals	68	3	71	54	0	54	191	11	202	19	0	19	485	16	501	591	24	615	24	0	24	10	1	11	9	3	14	16	1	0	0	0	43
16:00 to 16:15	13	0	13	3	0	3	78	7	85	2	0	2	56	1	57	48	0	48	0	0	0	2	0	2	1	0	0	0	0	0	0	0	1
16:15 to 16:30	8	0	8	9	0	9	86	5	91	5	0	5	74	1	75	46	2	48	1	0	1	2	0	2	1	1	0	0	0	0	0	0	2
16:30 to 16:45	9	0	9	3	0	3	67	1	68	0	0	0	79	4	83	49	1	50	0	0	0	1	0	1	3	1	0	3	1	0	0	0	8
16:45 to 17:00	5	0	5	1	0	1	69	1	70	2	0	2	64	0	64	54	1	55	4	0	4	4	0	4	0	0	4	3	0	0	0	0	7
17:00 to 17:15	9	0	9	4	0	4	84	2	86	2	0	2	53	1	54	67	1	68	1	0	1	2	0	2	0	0	0	1	0	0	0	0	1
17:15 to 17:30	7	0	7	2	0	2	74	1	75	3	0	3	82	0	82	64	1	65	3	0	3	1	0	1	4	0	4	3	0	0	0	0	11
17:30 to 17:45	6	0	6	3	0	3	70	0	70	1	0	1	75	0	75	36	1	37	1	0	1	1	0	1	0	0	2	4	0	0	0	0	6
17:45 to 18:00	12	1	13	4	0	4	60	2	62	2	0	2	62	2	64	53	0	53	1	0	1	0	0	0	1	0	2	1	0	0	0	0	4
PM Totals	69	1	70	29	0	29	588	19	607	17	0	17	545	9	554	417	7	424	11	0	11	13	0	13	10	2	12	15	1	0	0	0	40

Job No.

: AUACT3184

Client

: SCT Consulting Pty Ltd

Suburb

: Queanbeyan

Location

: 2. Lowe St / Cooma St / Rutledge St

Day/Date

: Thu, 3rd March 2022

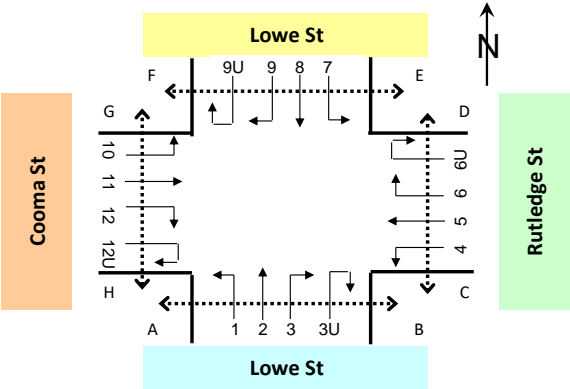
Weather

: Fine

Description

: Classified Intersection Count

: Hourly Summary



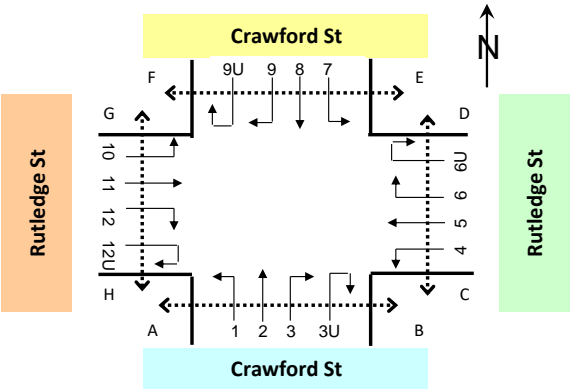
Approach	Lowe St												Rutledge St											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 8:00	0	0	0	5	1	6	1	0	1	0	0	0	2	0	2	111	4	115	20	1	21	0	0	0
7:15 to 8:15	1	0	1	10	2	12	1	0	1	0	0	0	5	1	6	130	3	133	18	2	20	1	0	1
7:30 to 8:30	3	0	3	24	2	26	6	0	6	0	0	0	6	1	7	145	3	148	20	2	22	1	0	1
7:45 to 8:45	5	0	5	43	1	44	18	6	24	0	0	0	10	1	11	159	1	160	33	2	35	1	0	1
8:00 to 9:00	6	0	6	56	2	58	23	9	32	0	0	0	14	1	15	176	0	176	36	2	38	2	0	2
AM Totals	6	0	6	61	3	64	24	9	33	0	0	0	16	1	17	287	4	291	56	3	59	2	0	2
16:00 to 17:00	3	0	3	11	0	11	0	0	0	0	0	0	0	1	1	377	0	377	63	0	63	1	0	1
16:15 to 17:15	3	0	3	12	0	12	1	0	1	0	0	0	1	1	2	369	0	369	74	0	74	1	0	1
16:30 to 17:30	3	0	3	8	0	8	2	0	2	0	0	0	1	1	2	361	1	362	76	0	76	2	0	2
16:45 to 17:45	2	0	2	6	0	6	2	0	2	0	0	0	2	1	3	367	1	368	67	0	67	1	0	1
17:00 to 18:00	0	0	0	3	0	3	2	0	2	0	0	0	2	0	2	365	2	367	64	0	64	2	0	2
PM Totals	3	0	3	14	0	14	2	0	2	0	0	0	2	1	3	742	2	744	127	0	127	3	0	3

Approach	Lowe St												Cooma St												Crossing Pedestrians								
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)											
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	B to A	A to B	D to C	C to D	F to E	E to F	H to G	G to H	Total
7:00 to 8:00	18	1	19	10	0	10	62	7	69	2	0	2	210	10	220	253	12	265	5	0	5	1	0	1	2	1	2	3	0	0	0	0	8
7:15 to 8:15	24	2	26	19	0	19	68	7	75	3	0	3	236	9	245	283	10	293	10	0	10	1	0	1	4	1	2	2	0	0	0	0	9
7:30 to 8:30	38	2	40	27	0	27	70	5	75	9	0	9	271	6	277	337	10	347	15	0	15	1	1	2	4	1	4	3	0	0	0	0	12



7:45 to 8:45	42	3	45	43	0	43	93	4	97	12	0	12	264	7	271	335	14	349	18	0	18	4	1	5	7	2	10	12	0	0	0	0	31
8:00 to 9:00	50	2	52	44	0	44	129	4	133	17	0	17	275	6	281	338	12	350	19	0	19	9	1	10	7	2	12	13	1	0	0	0	35
AM Totals	68	3	71	54	0	54	191	11	202	19	0	19	485	16	501	591	24	615	24	0	24	10	1	11	9	3	14	16	1	0	0	0	43
16:00 to 17:00	35	0	35	16	0	16	300	14	314	9	0	9	273	6	279	197	4	201	5	0	5	9	0	9	5	2	4	6	1	0	0	0	18
16:15 to 17:15	31	0	31	17	0	17	306	9	315	9	0	9	270	6	276	216	5	221	6	0	6	9	0	9	4	2	4	7	1	0	0	0	18
16:30 to 17:30	30	0	30	10	0	10	294	5	299	7	0	7	278	5	283	234	4	238	8	0	8	8	0	8	7	1	8	10	1	0	0	0	27
16:45 to 17:45	27	0	27	10	0	10	297	4	301	8	0	8	274	1	275	221	4	225	9	0	9	8	0	8	4	0	10	11	0	0	0	0	25
17:00 to 18:00	34	1	35	13	0	13	288	5	293	8	0	8	272	3	275	220	3	223	6	0	6	4	0	4	5	0	8	9	0	0	0	0	22
PM Totals	69	1	70	29	0	29	588	19	607	17	0	17	545	9	554	417	7	424	11	0	11	13	0	13	10	2	12	15	1	0	0	0	40

Job No. : AUACT3184  
Client : SCT Consulting Pty Ltd  
Suburb : Queanbeyan  
Location : 3. Rutledge St / Crawford St  
  
Day/Date : Thu, 10th March 2022  
Weather : Fine  
Description : Classified Intersection Count  
: 15 mins Data



	Class 1	Class 2
Classifications	Lights	Heavies

Approach	Crawford St												Rutledge St											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 7:15	2	0	2	7	0	7	1	0	1	0	0	0	4	0	4	15	0	15	1	0	1	0	0	0
7:15 to 7:30	3	0	3	16	0	16	1	0	1	0	0	0	0	0	0	11	0	11	0	0	0	0	0	0
7:30 to 7:45	0	0	0	16	0	16	2	0	2	0	0	0	3	1	4	12	0	12	0	0	0	1	0	1
7:45 to 8:00	2	0	2	8	1	9	6	1	7	0	0	0	6	0	6	20	0	20	1	0	1	0	0	0
8:00 to 8:15	4	0	4	16	0	16	3	0	3	2	0	2	4	0	4	25	0	25	3	0	3	0	0	0
8:15 to 8:30	4	0	4	30	1	31	9	0	9	0	0	0	5	1	6	18	0	18	1	0	1	0	0	0
8:30 to 8:45	19	0	19	65	2	67	39	0	39	0	0	0	12	0	12	22	0	22	1	0	1	0	0	0
8:45 to 9:00	12	0	12	34	0	34	23	0	23	1	0	1	11	0	11	28	0	28	1	0	1	0	0	0
AM Totals	46	0	46	192	4	196	84	1	85	3	0	3	45	2	47	151	0	151	8	0	8	1	0	1
16:00 to 16:15	3	0	3	15	0	15	4	0	4	0	0	0	14	0	14	61	0	61	8	0	8	0	0	0
16:15 to 16:30	1	0	1	14	0	14	5	0	5	0	0	0	5	0	5	50	0	50	5	0	5	0	0	0
16:30 to 16:45	2	0	2	7	0	7	2	0	2	0	0	0	6	0	6	58	1	59	4	0	4	0	0	0
16:45 to 17:00	6	0	6	14	0	14	0	0	0	0	0	0	7	0	7	61	0	61	6	0	6	0	0	0
17:00 to 17:15	7	0	7	17	0	17	4	0	4	0	0	0	10	0	10	63	1	64	3	0	3	0	0	0
17:15 to 17:30	3	0	3	20	0	20	3	0	3	1	0	1	11	0	11	57	0	57	3	0	3	0	0	0
17:30 to 17:45	6	0	6	12	0	12	8	0	8	0	0	0	3	0	3	46	0	46	4	0	4	0	0	0
17:45 to 18:00	1	0	1	8	0	8	2	0	2	0	0	0	3	0	3	46	0	46	3	0	3	0	0	0
PM Totals	29	0	29	107	0	107	28	0	28	1	0	1	59	0	59	442	2	444	36	0	36	0	0	0

Approach	Crawford St												Rutledge St												Crossing Pedestrians								
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)											
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	B to A	A to B	D to C	C to D	F to E	E to F	H to G	G to H	Total
7:00 to 7:15	0	0	0	6	0	6	10	0	10	1	0	1	14	1	15	13	0	13	3	0	3	1	0	1	0	0	0	1	0	0	2	1	4
7:15 to 7:30	3	0	3	0	1	1	7	1	8	1	0	1	18	3	21	29	0	29	2	1	3	1	0	1	1	1	0	0	0	0	0	2	
7:30 to 7:45	1	0	1	5	0	5	17	3	20	1	0	1	30	0	30	35	0	35	2	0	2	0	0	0	0	1	1	1	0	0	0	0	3
7:45 to 8:00	1	0	1	14	0	14	16	2	18	1	0	1	29	4	33	70	1	71	2	0	2	1	0	1	0	1	0	1	0	0	0	0	2
8:00 to 8:15	6	1	7	14	2	16	30	0	30	0	0	0	35	2	37	54	0	54	2	0	2	3	0	3	0	2	0	0	0	3	0	0	5
8:15 to 8:30	5	0	5	22	0	22	26	0	26	1	0	1	34	1	35	49	0	49	5	0	5	1	0	1	1	0	1	3	0	0	5	2	12
8:30 to 8:45	4	0	4	29	1	30	54	1	55	7	0	7	35	9	44	36	0	36	3	7	10	3	0	3	0	0	2	2	0	0	0	2	6

8:45 to 9:00	1	0	1	17	3	20	42	1	43	3	0	3	51	5	56	49	1	50	2	1	3	2	0	2	0	1	0	4	0	0	2	8	15
AM Totals	21	1	22	107	7	114	202	8	210	15	0	15	246	25	271	335	2	337	21	9	30	12	0	12	2	6	4	12	0	0	12	13	49
16:00 to 16:15	7	0	7	9	0	9	71	0	71	3	0	3	23	0	23	22	0	22	2	0	2	0	0	0	2	1	7	3	0	0	2	1	16
16:15 to 16:30	5	0	5	13	0	13	50	0	50	5	0	5	13	2	15	29	1	30	3	0	3	3	0	3	0	0	0	1	0	0	0	1	2
16:30 to 16:45	4	0	4	16	0	16	50	0	50	7	0	7	20	0	20	40	0	40	5	0	5	1	0	1	0	0	0	1	0	0	0	0	1
16:45 to 17:00	3	0	3	14	0	14	47	0	47	5	0	5	30	1	31	30	1	31	5	0	5	2	0	2	0	1	2	1	0	0	2	1	7
17:00 to 17:15	5	0	5	19	0	19	54	0	54	5	0	5	16	1	17	40	0	40	3	0	3	0	0	0	1	0	0	1	0	0	1	3	6
17:15 to 17:30	11	0	11	14	0	14	65	0	65	5	0	5	25	0	25	32	0	32	5	0	5	0	0	0	0	0	0	1	0	0	1	1	3
17:30 to 17:45	5	0	5	14	0	14	46	0	46	7	0	7	15	0	15	41	0	41	2	0	2	0	0	0	0	0	0	1	0	0	1	1	3
17:45 to 18:00	6	0	6	15	0	15	46	1	47	2	0	2	28	0	28	42	0	42	1	0	1	0	0	0	4	2	3	0	0	0	3	0	12
PM Totals	46	0	46	114	0	114	429	1	430	39	0	39	170	4	174	276	2	278	26	0	26	6	0	6	7	4	12	9	0	0	10	8	50

Job No.

: AUACT3184

Client

: SCT Consulting Pty Ltd

Suburb

: Queanbeyan

Location

: 3. Rutledge St / Crawford St

Day/Date

: Thu, 10th March 2022

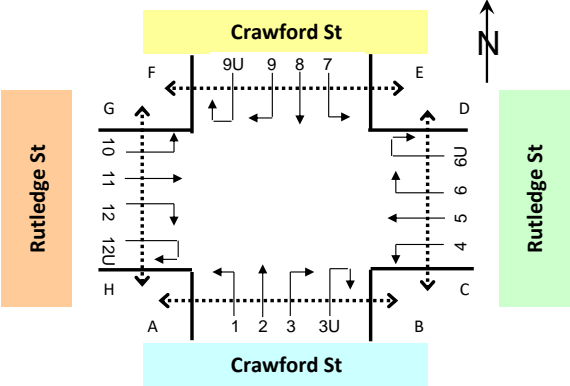
Weather

: Fine

Description

: Classified Intersection Count

: Hourly Summary



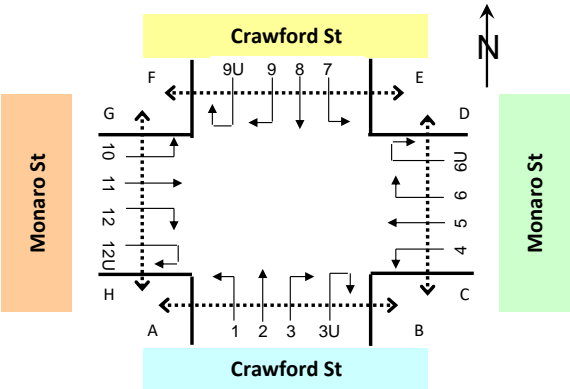
Approach	Crawford St												Rutledge St											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 8:00	7	0	7	47	1	48	10	1	11	0	0	0	13	1	14	58	0	58	2	0	2	1	0	1
7:15 to 8:15	9	0	9	56	1	57	12	1	13	2	0	2	13	1	14	68	0	68	4	0	4	1	0	1
7:30 to 8:30	10	0	10	70	2	72	20	1	21	2	0	2	18	2	20	75	0	75	5	0	5	1	0	1
7:45 to 8:45	29	0	29	119	4	123	57	1	58	2	0	2	27	1	28	85	0	85	6	0	6	0	0	0
8:00 to 9:00	39	0	39	145	3	148	74	0	74	3	0	3	32	1	33	93	0	93	6	0	6	0	0	0
AM Totals	46	0	46	192	4	196	84	1	85	3	0	3	45	2	47	151	0	151	8	0	8	1	0	1
16:00 to 17:00	12	0	12	50	0	50	11	0	11	0	0	0	32	0	32	230	1	231	23	0	23	0	0	0
16:15 to 17:15	16	0	16	52	0	52	11	0	11	0	0	0	28	0	28	232	2	234	18	0	18	0	0	0
16:30 to 17:30	18	0	18	58	0	58	9	0	9	1	0	1	34	0	34	239	2	241	16	0	16	0	0	0
16:45 to 17:45	22	0	22	63	0	63	15	0	15	1	0	1	31	0	31	227	1	228	16	0	16	0	0	0
17:00 to 18:00	17	0	17	57	0	57	17	0	17	1	0	1	27	0	27	212	1	213	13	0	13	0	0	0
PM Totals	29	0	29	107	0	107	28	0	28	1	0	1	59	0	59	442	2	444	36	0	36	0	0	0

Approach	Crawford St												Rutledge St												Crossing Pedestrians								
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)											
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	B to A	A to B	D to C	C to D	F to E	E to F	H to G	G to H	Total
7:00 to 8:00	5	0	5	25	1	26	50	6	56	4	0	4	91	8	99	147	1	148	9	1	10	3	0	3	1	3	1	3	0	0	2	1	11
7:15 to 8:15	11	1	12	33	3	36	70	6	76	3	0	3	112	9	121	188	1	189	8	1	9	5	0	5	1	5	1	2	0	0	3	0	12
7:30 to 8:30	13	1	14	55	2	57	89	5	94	3	0	3	128	7	135	208	1	209	11	0	11	5	0	5	1	4	2	5	0	0	8	2	22

7:45 to 8:45	16	1	17	79	3	82	126	3	129	9	0	9	133	16	149	209	1	210	12	7	19	8	0	8	1	3	3	6	0	0	8	4	25
8:00 to 9:00	16	1	17	82	6	88	152	2	154	11	0	11	155	17	172	188	1	189	12	8	20	9	0	9	1	3	3	9	0	0	10	12	38
AM Totals	21	1	22	107	7	114	202	8	210	15	0	15	246	25	271	335	2	337	21	9	30	12	0	12	2	6	4	12	0	0	12	13	49
16:00 to 17:00	19	0	19	52	0	52	218	0	218	20	0	20	86	3	89	121	2	123	15	0	15	6	0	6	2	2	9	6	0	0	4	3	26
16:15 to 17:15	17	0	17	62	0	62	201	0	201	22	0	22	79	4	83	139	2	141	16	0	16	6	0	6	1	1	2	4	0	0	3	5	16
16:30 to 17:30	23	0	23	63	0	63	216	0	216	22	0	22	91	2	93	142	1	143	18	0	18	3	0	3	1	1	2	4	0	0	4	5	17
16:45 to 17:45	24	0	24	61	0	61	212	0	212	22	0	22	86	2	88	143	1	144	15	0	15	2	0	2	1	1	2	4	0	0	5	6	19
17:00 to 18:00	27	0	27	62	0	62	211	1	212	19	0	19	84	1	85	155	0	155	11	0	11	0	0	0	5	2	3	3	0	0	6	5	24
PM Totals	46	0	46	114	0	114	429	1	430	39	0	39	170	4	174	276	2	278	26	0	26	6	0	6	7	4	12	9	0	0	10	8	50



Job No. : AUACT3184  
Client : SCT Consulting Pty Ltd  
Suburb : Queanbeyan  
Location : 4. Crawford St / Monaro St  
  
Day/Date : Thu, 3rd March 2022  
Weather : Fine  
Description : Classified Intersection Count  
: 15 mins Data



	Class 1	Class 2
Classifications	Lights	Heavies

Approach	Crawford St												Monaro St											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 7:15	4	0	4	7	3	10	22	0	22	0	0	0	16	0	16	140	23	163	0	0	0	0	0	0
7:15 to 7:30	4	0	4	11	3	14	26	0	26	0	0	0	17	0	17	168	23	191	0	0	0	0	0	0
7:30 to 7:45	6	0	6	15	1	16	25	0	25	0	0	0	18	3	21	210	21	231	0	0	0	0	0	0
7:45 to 8:00	4	0	4	8	4	12	28	4	32	0	0	0	24	1	25	208	10	218	0	0	0	0	0	0
8:00 to 8:15	7	0	7	9	1	10	25	0	25	0	0	0	30	0	30	220	15	235	0	0	0	0	0	0
8:15 to 8:30	8	0	8	15	0	15	44	2	46	0	0	0	44	2	46	211	11	222	0	0	0	0	0	0
8:30 to 8:45	14	0	14	31	1	32	47	5	52	0	0	0	65	0	65	238	14	252	0	0	0	0	0	0
8:45 to 9:00	14	0	14	35	2	37	40	5	45	0	0	0	42	3	45	201	11	212	0	0	0	0	0	0
AM Totals	61	0	61	131	15	146	257	16	273	0	0	0	256	9	265	1,596	128	1,724	0	0	0	0	0	0
16:00 to 16:15	12	0	12	12	0	12	15	1	16	0	0	0	27	0	27	202	1	203	0	0	0	0	0	0
16:15 to 16:30	12	0	12	10	0	10	25	2	27	0	0	0	35	0	35	199	7	206	0	0	0	0	0	0
16:30 to 16:45	10	0	10	18	1	19	14	0	14	0	0	0	36	0	36	210	7	217	0	0	0	0	0	0
16:45 to 17:00	5	0	5	18	1	19	23	0	23	0	0	0	42	0	42	207	5	212	0	0	0	0	0	0
17:00 to 17:15	9	0	9	30	1	31	22	0	22	0	0	0	35	0	35	173	4	177	0	0	0	0	0	0
17:15 to 17:30	8	0	8	11	0	11	22	0	22	0	0	0	36	1	37	198	4	202	0	0	0	0	0	0
17:30 to 17:45	7	0	7	11	1	12	18	0	18	0	0	0	40	0	40	170	2	172	0	0	0	0	0	0
17:45 to 18:00	8	0	8	17	0	17	19	0	19	0	0	0	47	0	47	181	1	182	0	0	0	0	0	0
PM Totals	71	0	71	127	4	131	158	3	161	0	0	0	298	1	299	1,540	31	1,571	0	0	0	0	0	0

Approach	Crawford St												Monaro St												Crossing Pedestrians									
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)												
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	B to A	A to B	D to C	C to D	F to E	E to F	H to G	G to H	Total	
7:00 to 7:15	7	0	7	5	2	7	0	0	0	0	0	0	7	2	9	132	13	145	4	0	4	0	0	0	0	0	0	1	2	3	9	0	1	16
7:15 to 7:30	11	1	12	11	1	12	0	0	0	0	0	0	12	1	13	162	9	171	3	0	3	0	0	0	0	0	0	0	6	3	1	0	10	
7:30 to 7:45	13	1	14	14	1	15	0	0	0	0	0	0	14	2	16	194	9	203	3	0	3	0	0	0	0	0	0	1	1	7	0	1	10	
7:45 to 8:00	14	1	15	13	1	14	0	0	0	0	0	0	14	0	14	183	9	192	2	0	2	0	0	0	0	0	0	0	10	6	1	5	24	
8:00 to 8:15	6	1	7	12	3	15	0	0	0	0	0	0	12	0	12	159	11	170	13	0	13	0	0	0	0	0	0	1	3	8	2	2	1	17
8:15 to 8:30	10	2	12	15	1	16	0	0	0	0	0	0	10	0	10	175	9	184	10	1	11	0	0	0	1	0	3	4	4	9	4	2	27	
8:30 to 8:45	10	0	10	24	0	24	0	0	0	0	0	0	14	0	14	202	17	219	13	1	14	0	0	0	0	1	1	4	3	4	2	5	5	24

8:45 to 9:00	15	1	16	17	1	18	0	0	0	0	0	0	17	0	17	194	17	211	14	1	15	0	0	0	1	0	8	5	5	3	5	7	34
AM Totals	86	7	93	111	10	121	0	0	0	0	0	0	100	5	105	1,401	94	1,495	62	3	65	0	0	0	2	1	17	20	41	41	18	22	162
16:00 to 16:15	23	0	23	48	0	48	0	0	0	0	0	0	19	0	19	178	20	198	5	0	5	0	0	0	0	1	3	5	1	6	6	3	25
16:15 to 16:30	21	1	22	34	0	34	0	0	0	0	0	0	13	0	13	214	2	216	3	0	3	0	0	0	0	0	0	1	6	1	2	0	10
16:30 to 16:45	20	1	21	41	0	41	0	0	0	0	0	0	18	0	18	223	12	235	4	0	4	0	0	0	0	0	2	3	8	3	2	0	18
16:45 to 17:00	30	0	30	46	1	47	0	0	0	0	0	0	19	0	19	215	6	221	5	0	5	0	0	0	1	0	2	4	5	6	5	0	23
17:00 to 17:15	23	1	24	46	0	46	0	0	0	0	0	0	17	1	18	205	4	209	8	0	8	0	0	0	0	0	2	5	2	5	1	3	18
17:15 to 17:30	27	0	27	26	0	26	1	0	1	0	0	0	24	0	24	208	4	212	7	1	8	0	0	0	0	0	2	2	6	3	1	4	18
17:30 to 17:45	27	2	29	40	0	40	1	0	1	0	0	0	25	0	25	201	4	205	11	0	11	0	0	0	0	0	4	1	1	7	3	5	21
17:45 to 18:00	18	1	19	32	1	33	0	0	0	0	0	0	33	0	33	195	7	202	9	0	9	1	0	1	0	0	7	6	6	10	2	6	37
PM Totals	189	6	195	313	2	315	2	0	2	0	0	0	168	1	169	1,639	59	1,698	52	1	53	1	0	1	1	1	22	27	35	41	22	21	170

Job No.

: AUACT3184

Client

: SCT Consulting Pty Ltd

Suburb

: Queanbeyan

Location

: 4. Crawford St / Monaro St

Day/Date

: Thu, 3rd March 2022

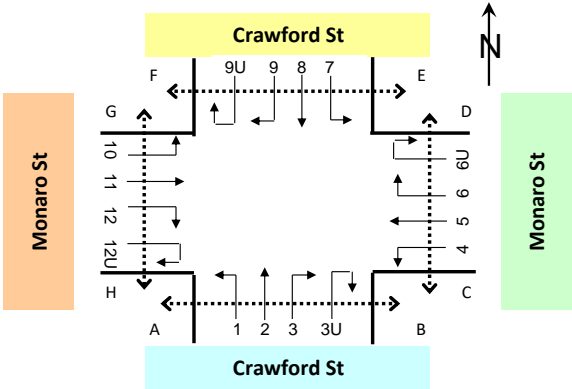
Weather

: Fine

Description

: Classified Intersection Count

: Hourly Summary

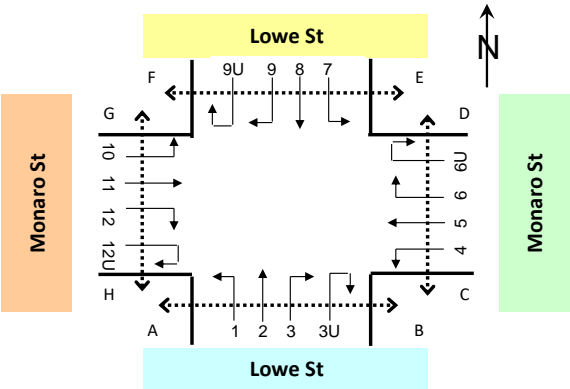


Approach	Crawford St												Monaro St											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 8:00	18	0	18	41	11	52	101	4	105	0	0	0	75	4	79	726	77	803	0	0	0	0	0	0
7:15 to 8:15	21	0	21	43	9	52	104	4	108	0	0	0	89	4	93	806	69	875	0	0	0	0	0	0
7:30 to 8:30	25	0	25	47	6	53	122	6	128	0	0	0	116	6	122	849	57	906	0	0	0	0	0	0
7:45 to 8:45	33	0	33	63	6	69	144	11	155	0	0	0	163	3	166	877	50	927	0	0	0	0	0	0
8:00 to 9:00	43	0	43	90	4	94	156	12	168	0	0	0	181	5	186	870	51	921	0	0	0	0	0	0
AM Totals	61	0	61	131	15	146	257	16	273	0	0	0	256	9	265	1,596	128	1,724	0	0	0	0	0	0
16:00 to 17:00	39	0	39	58	2	60	77	3	80	0	0	0	140	0	140	818	20	838	0	0	0	0	0	0
16:15 to 17:15	36	0	36	76	3	79	84	2	86	0	0	0	148	0	148	789	23	812	0	0	0	0	0	0
16:30 to 17:30	32	0	32	77	3	80	81	0	81	0	0	0	149	1	150	788	20	808	0	0	0	0	0	0
16:45 to 17:45	29	0	29	70	3	73	85	0	85	0	0	0	153	1	154	748	15	763	0	0	0	0	0	0
17:00 to 18:00	32	0	32	69	2	71	81	0	81	0	0	0	158	1	159	722	11	733	0	0	0	0	0	0
PM Totals	71	0	71	127	4	131	158	3	161	0	0	0	298	1	299	1,540	31	1,571	0	0	0	0	0	0

Approach	Crawford St												Monaro St												Crossing Pedestrians								
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)											
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	B to A	A to B	D to C	C to D	F to E	E to F	H to G	G to H	Total
7:00 to 8:00	45	3	48	43	5	48	0	0	0	0	0	0	47	5	52	671	40	711	12	0	12	0	0	0	0	0	1	5	20	25	2	7	60
7:15 to 8:15	44	4	48	50	6	56	0	0	0	0	0	0	52	3	55	698	38	736	21	0	21	0	0	0	0	0	1	6	25	18	4	7	61
7:30 to 8:30	43	5	48	54	6	60	0	0	0	0	0	0	50	2	52	711	38	749	28	1	29	0	0	0	1	0	4	10	23	24	7	9	78

7:45 to 8:45	40	4	44	64	5	69	0	0	0	0	0	0	0	50	0	50	719	46	765	38	2	40	0	0	0	1	1	8	12	26	19	12	13	92
8:00 to 9:00	41	4	45	68	5	73	0	0	0	0	0	0	0	53	0	53	730	54	784	50	3	53	0	0	0	2	1	16	15	21	16	16	15	102
AM Totals	86	7	93	111	10	121	0	0	0	0	0	0	0	100	5	105	1,401	94	1,495	62	3	65	0	0	0	2	1	17	20	41	41	18	22	162
16:00 to 17:00	94	2	96	169	1	170	0	0	0	0	0	0	0	69	0	69	830	40	870	17	0	17	0	0	0	1	1	7	13	20	16	15	3	76
16:15 to 17:15	94	3	97	167	1	168	0	0	0	0	0	0	0	67	1	68	857	24	881	20	0	20	0	0	0	1	0	6	13	21	15	10	3	69
16:30 to 17:30	100	2	102	159	1	160	1	0	1	0	0	0	0	78	1	79	851	26	877	24	1	25	0	0	0	1	0	8	14	21	17	9	7	77
16:45 to 17:45	107	3	110	158	1	159	2	0	2	0	0	0	0	85	1	86	829	18	847	31	1	32	0	0	0	1	0	10	12	14	21	10	12	80
17:00 to 18:00	95	4	99	144	1	145	2	0	2	0	0	0	0	99	1	100	809	19	828	35	1	36	1	0	1	0	0	15	14	15	25	7	18	94
PM Totals	189	6	195	313	2	315	2	0	2	0	0	0	0	168	1	169	1,639	59	1,698	52	1	53	1	0	1	1	1	22	27	35	41	22	21	170

Job No. : AUACT3184  
Client : SCT Consulting Pty Ltd  
Suburb : Queanbeyan  
Location : 5. Manaro St / Lowe St  
  
Day/Date : Thu, 3rd March 2022  
Weather : Fine  
Description : Classified Intersection Count  
: 15 mins Data



	Class 1	Class 2
Classifications	Lights	Heavies

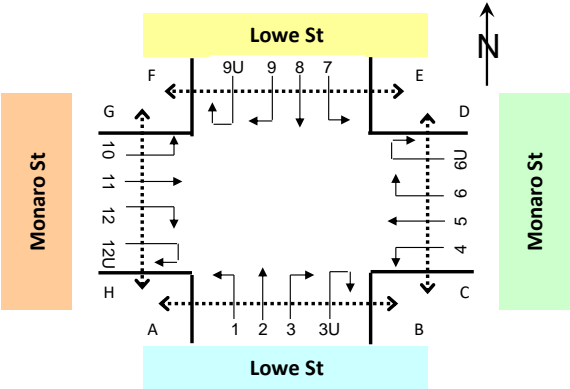
Approach	Lowe St												Monaro St											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 7:15	4	1	5	18	1	19	26	3	29	0	0	0	6	0	6	128	19	147	6	1	7	0	0	0
7:15 to 7:30	11	0	11	25	3	28	23	1	24	0	0	0	9	0	9	162	25	187	1	0	1	0	0	0
7:30 to 7:45	9	0	9	27	1	28	22	1	23	0	0	0	12	0	12	194	22	216	6	1	7	0	0	0
7:45 to 8:00	13	0	13	26	1	27	23	0	23	0	0	0	6	0	6	212	9	221	6	0	6	0	0	0
8:00 to 8:15	10	0	10	35	2	37	32	0	32	0	0	0	14	0	14	189	16	205	8	2	10	0	0	0
8:15 to 8:30	29	2	31	43	0	43	30	0	30	0	0	0	18	0	18	190	11	201	14	0	14	0	0	0
8:30 to 8:45	26	1	27	47	2	49	34	1	35	0	0	0	31	0	31	203	12	215	13	0	13	0	0	0
8:45 to 9:00	27	0	27	44	1	45	32	1	33	0	0	0	14	0	14	192	12	204	19	0	19	0	0	0
AM Totals	129	4	133	265	11	276	222	7	229	0	0	0	110	0	110	1,470	126	1,596	73	4	77	0	0	0
16:00 to 16:15	18	0	18	32	1	33	21	0	21	0	0	0	18	0	18	197	1	198	21	0	21	0	0	0
16:15 to 16:30	27	0	27	58	1	59	18	0	18	0	0	0	16	1	17	182	6	188	14	0	14	0	0	0
16:30 to 16:45	23	0	23	46	3	49	27	1	28	0	0	0	14	0	14	201	7	208	17	1	18	0	0	0
16:45 to 17:00	25	0	25	52	0	52	27	0	27	0	0	0	21	0	21	177	5	182	11	0	11	0	0	0
17:00 to 17:15	21	1	22	40	1	41	25	0	25	0	0	0	11	1	12	171	4	175	12	0	12	0	0	0
17:15 to 17:30	19	0	19	48	0	48	40	0	40	0	0	0	17	0	17	165	4	169	7	0	7	0	0	0
17:30 to 17:45	20	0	20	46	0	46	16	0	16	0	0	0	15	0	15	149	1	150	16	1	17	0	0	0
17:45 to 18:00	23	0	23	42	2	44	19	0	19	0	0	0	23	0	23	151	1	152	12	0	12	0	0	0
PM Totals	176	1	177	364	8	372	193	1	194	0	0	0	135	2	137	1,393	29	1,422	110	2	112	0	0	0

Approach	Lowe St												Monaro St												Crossing Pedestrians								
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)											
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	B to A	A to B	D to C	C to D	F to E	E to F	H to G	G to H	Total
7:00 to 7:15	8	0	8	14	0	14	13	2	15	0	0	0	14	1	15	104	12	116	6	0	6	0	0	0	1	0	1	0	0	6	0	2	10
7:15 to 7:30	11	0	11	11	3	14	16	0	16	0	0	0	22	2	24	150	9	159	5	0	5	0	0	0	0	0	0	0	3	1	3	1	8
7:30 to 7:45	6	1	7	10	2	12	20	2	22	0	0	0	22	1	23	177	9	186	8	0	8	0	0	0	0	1	0	0	6	1	1	9	
7:45 to 8:00	13	1	14	10	1	11	22	2	24	0	0	0	31	1	32	162	8	170	9	0	9	0	0	0	1	1	2	2	6	1	1	0	14
8:00 to 8:15	9	1	10	22	1	23	41	2	43	0	0	0	26	0	26	136	9	145	17	1	18	0	0	0	1	0	1	1	2	3	0	0	8
8:15 to 8:30	8	1	9	21	1	22	28	5	33	0	0	0	28	1	29	162	12	174	19	0	19	0	0	0	1	0	2	6	4	1	2	2	18
8:30 to 8:45	10	0	10	42	2	44	26	0	26	0	0	0	35	2	37	175	16	191	26	0	26	0	0	0	2	1	4	3	0	0	17	1	28



8:45 to 9:00	8	0	8	32	1	33	25	0	25	0	0	0	41	0	41	178	17	195	23	0	23	0	0	0	2	1	1	0	3	2	6	6	21
<b>AM Totals</b>	<b>73</b>	<b>4</b>	<b>77</b>	<b>162</b>	<b>11</b>	<b>173</b>	<b>191</b>	<b>13</b>	<b>204</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>219</b>	<b>8</b>	<b>227</b>	<b>1,244</b>	<b>92</b>	<b>1,336</b>	<b>113</b>	<b>1</b>	<b>114</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>4</b>	<b>11</b>	<b>12</b>	<b>18</b>	<b>20</b>	<b>30</b>	<b>13</b>	<b>116</b>
16:00 to 16:15	7	1	8	55	7	62	70	1	71	0	0	0	31	0	31	166	19	185	16	0	16	0	0	0	0	1	0	1	2	3	1	0	8
16:15 to 16:30	20	0	20	71	3	74	57	1	58	0	0	0	28	0	28	202	2	204	32	0	32	0	0	0	0	1	0	0	3	0	1	1	6
16:30 to 16:45	16	2	18	53	1	54	67	1	68	0	0	0	33	0	33	185	9	194	19	0	19	0	0	0	0	0	3	0	0	2	0	0	5
16:45 to 17:00	18	0	18	47	0	47	53	1	54	0	0	0	27	3	30	201	6	207	13	1	14	0	0	0	0	3	2	0	2	0	4	2	13
17:00 to 17:15	30	0	30	52	2	54	60	0	60	0	0	0	22	0	22	188	4	192	24	0	24	0	0	0	1	0	0	0	2	1	1	0	5
17:15 to 17:30	19	0	19	56	0	56	52	0	52	0	0	0	28	0	28	183	5	188	18	0	18	0	0	0	0	0	0	1	1	1	1	4	8
17:30 to 17:45	16	0	16	50	0	50	42	1	43	0	0	0	34	0	34	205	4	209	16	0	16	0	0	0	0	1	0	2	0	1	0	1	5
17:45 to 18:00	20	0	20	44	3	47	44	0	44	0	0	0	30	1	31	194	7	201	32	0	32	0	0	0	0	2	2	0	1	3	0	0	8
<b>PM Totals</b>	<b>146</b>	<b>3</b>	<b>149</b>	<b>428</b>	<b>16</b>	<b>444</b>	<b>445</b>	<b>5</b>	<b>450</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>233</b>	<b>4</b>	<b>237</b>	<b>1,524</b>	<b>56</b>	<b>1,580</b>	<b>170</b>	<b>1</b>	<b>171</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>8</b>	<b>7</b>	<b>4</b>	<b>11</b>	<b>11</b>	<b>8</b>	<b>8</b>	<b>58</b>

**Job No.** : AUACT3184  
**Client** : SCT Consulting Pty Ltd  
**Suburb** : Queanbeyan  
**Location** : 5. Manaro St / Lowe St  
  
**Day/Date** : Thu, 3rd March 2022  
**Weather** : Fine  
**Description** : Classified Intersection Count  
: Hourly Summary



Approach	Lowe St												Monaro St											
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)		
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total
7:00 to 8:00	37	1	38	96	6	102	94	5	99	0	0	0	33	0	33	696	75	771	19	2	21	0	0	0
7:15 to 8:15	43	0	43	113	7	120	100	2	102	0	0	0	41	0	41	757	72	829	21	3	24	0	0	0
7:30 to 8:30	61	2	63	131	4	135	107	1	108	0	0	0	50	0	50	785	58	843	34	3	37	0	0	0
7:45 to 8:45	78	3	81	151	5	156	119	1	120	0	0	0	69	0	69	794	48	842	41	2	43	0	0	0
8:00 to 9:00	92	3	95	169	5	174	128	2	130	0	0	0	77	0	77	774	51	825	54	2	56	0	0	0
<b>AM Totals</b>	<b>129</b>	<b>4</b>	<b>133</b>	<b>265</b>	<b>11</b>	<b>276</b>	<b>222</b>	<b>7</b>	<b>229</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>110</b>	<b>0</b>	<b>110</b>	<b>1,470</b>	<b>126</b>	<b>1,596</b>	<b>73</b>	<b>4</b>	<b>77</b>	<b>0</b>	<b>0</b>	<b>0</b>
16:00 to 17:00	93	0	93	188	5	193	93	1	94	0	0	0	69	1	70	757	19	776	63	1	64	0	0	0
16:15 to 17:15	96	1	97	196	5	201	97	1	98	0	0	0	62	2	64	731	22	753	54	1	55	0	0	0
16:30 to 17:30	88	1	89	186	4	190	119	1	120	0	0	0	63	1	64	714	20	734	47	1	48	0	0	0
16:45 to 17:45	85	1	86	186	1	187	108	0	108	0	0	0	64	1	65	662	14	676	46	1	47	0	0	0
17:00 to 18:00	83	1	84	176	3	179	100	0	100	0	0	0	66	1	67	636	10	646	47	1	48	0	0	0
<b>PM Totals</b>	<b>176</b>	<b>1</b>	<b>177</b>	<b>364</b>	<b>8</b>	<b>372</b>	<b>193</b>	<b>1</b>	<b>194</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>135</b>	<b>2</b>	<b>137</b>	<b>1,393</b>	<b>29</b>	<b>1,422</b>	<b>110</b>	<b>2</b>	<b>112</b>	<b>0</b>	<b>0</b>	<b>0</b>

Approach	Lowe St												Monaro St												Crossing Pedestrians								
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)											
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	B to A	A to B	D to C	C to D	F to E	E to F	H to G	G to H	Total
7:00 to 8:00	38	2	40	45	6	51	71	6	77	0	0	0	89	5	94	593	38	631	28	0	28	0	0	0	2	2	3	2	9	14	5	4	41
7:15 to 8:15	39	3	42	53	7	60	99	6	105	0	0	0	101	4	105	625	35	660	39	1	40	0	0	0	2	2	3	3	11	11	5	2	39
7:30 to 8:30	36	4	40	63	5	68	111	11	122	0	0	0	107	3	110	637	38	675	53	1	54	0	0	0	3	2	5	9	12	11	4	3	49

7:45 to 8:45	40	3	43	95	5	100	117	9	126	0	0	0	120	4	124	635	45	680	71	1	72	0	0	0	5	2	9	12	12	5	20	3	68
8:00 to 9:00	35	2	37	117	5	122	120	7	127	0	0	0	130	3	133	651	54	705	85	1	86	0	0	0	6	2	8	10	9	6	25	9	75
AM Totals	73	4	77	162	11	173	191	13	204	0	0	0	219	8	227	1,244	92	1,336	113	1	114	0	0	0	8	4	11	12	18	20	30	13	116
16:00 to 17:00	61	3	64	226	11	237	247	4	251	0	0	0	119	3	122	754	36	790	80	1	81	0	0	0	0	5	5	1	7	5	6	3	32
16:15 to 17:15	84	2	86	223	6	229	237	3	240	0	0	0	110	3	113	776	21	797	88	1	89	0	0	0	1	4	5	0	7	3	6	3	29
16:30 to 17:30	83	2	85	208	3	211	232	2	234	0	0	0	110	3	113	757	24	781	74	1	75	0	0	0	1	3	5	1	5	4	6	6	31
16:45 to 17:45	83	0	83	205	2	207	207	2	209	0	0	0	111	3	114	777	19	796	71	1	72	0	0	0	1	4	2	3	5	3	6	7	31
17:00 to 18:00	85	0	85	202	5	207	198	1	199	0	0	0	114	1	115	770	20	790	90	0	90	0	0	0	1	3	2	3	4	6	2	5	26
PM Totals	146	3	149	428	16	444	445	5	450	0	0	0	233	4	237	1,524	56	1,580	170	1	171	0	0	0	1	8	7	4	11	11	8	8	58

## Appendix B

# SIDRA Modelling Outputs

# MOVEMENT SUMMARY

 **Site: 101 [Lowe St. + Carpark Access AM Peak 8-9am Pre Dev (Site Folder: General)]**

New Site  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ veh/h veh/h ]		DEMAND FLOWS [ Total HV ] [ veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] [ veh m ]		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: Lowe SE														
22	T1	376	10	396	2.7	0.577	6.9	LOS A	5.6	40.3	0.71	0.83	1.11	39.1
23	R2	26	0	27	0.0	0.577	12.7	LOS A	5.6	40.3	0.71	0.83	1.11	30.6
23u	U	4	0	4	0.0	0.577	18.9	LOS B	5.6	40.3	0.71	0.83	1.11	33.3
Approach		406	10	427	2.5	0.577	7.4	NA	5.6	40.3	0.71	0.83	1.11	38.5
NorthEast: Carpark														
24	L2	8	0	8	0.0	0.026	10.2	LOS A	0.1	0.6	0.54	0.92	0.54	29.5
26	R2	7	0	7	0.0	0.026	10.9	LOS A	0.1	0.6	0.54	0.92	0.54	30.0
Approach		15	0	16	0.0	0.026	10.6	LOS A	0.1	0.6	0.54	0.92	0.54	29.8
NorthWest: Lowe NW														
27	L2	36	0	38	0.0	0.359	9.7	LOS A	2.4	17.2	0.60	0.52	0.69	27.0
28	T1	239	6	252	2.5	0.359	4.2	LOS A	2.4	17.2	0.60	0.52	0.69	44.3
Approach		275	6	289	2.2	0.359	4.9	NA	2.4	17.2	0.60	0.52	0.69	41.4
All Vehicles		696	16	733	2.3	0.577	6.5	NA	5.6	40.3	0.66	0.71	0.93	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
Vehicle movement LOS values are based on average delay per movement.  
Minor Road Approach LOS values are based on average delay for all vehicle movements.  
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



# MOVEMENT SUMMARY

 **Site: 101 [Lowe St. + Carpark Access AM Peak 8-9am Post Council (Site Folder: General)]**

New Site

Site Category: (None)

Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h veh/h		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: Lowe SE														
22	T1	376	10	396	2.7	0.601	7.3	LOS A	6.1	43.6	0.72	0.87	1.17	38.0
23	R2	44	0	46	0.0	0.601	13.4	LOS A	6.1	43.6	0.72	0.87	1.17	29.7
23u	U	4	0	4	0.0	0.601	19.3	LOS B	6.1	43.6	0.72	0.87	1.17	32.5
Approach		424	10	446	2.4	0.601	8.0	NA	6.1	43.6	0.72	0.87	1.17	37.1
NorthEast: Carpark														
24	L2	14	0	15	0.0	0.047	10.3	LOS A	0.2	1.1	0.56	0.95	0.56	29.2
26	R2	12	0	13	0.0	0.047	11.4	LOS A	0.2	1.1	0.56	0.95	0.56	29.8
Approach		26	0	27	0.0	0.047	10.8	LOS A	0.2	1.1	0.56	0.95	0.56	29.5
NorthWest: Lowe NW														
27	L2	61	0	64	0.0	0.372	9.8	LOS A	2.7	19.4	0.61	0.51	0.71	26.4
28	T1	239	6	252	2.5	0.372	4.3	LOS A	2.7	19.4	0.61	0.51	0.71	43.1
Approach		300	6	316	2.0	0.372	5.5	NA	2.7	19.4	0.61	0.51	0.71	38.9
All Vehicles		750	16	789	2.1	0.601	7.1	NA	6.1	43.6	0.67	0.73	0.97	37.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

 **Site: 101 [Lowe St. + Carpark Access AM Peak 8-9am Post Dev (Site Folder: General)]**

New Site  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ veh/h % ]		DEMAND FLOWS [ Total HV ] [ veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] [ veh m ]		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: Lowe SE														
22	T1	399	2.7	420	2.7	0.636	7.9	LOS A	7.0	49.9	0.74	0.92	1.27	36.9
23	R2	44	0.0	46	0.0	0.636	14.4	LOS A	7.0	49.9	0.74	0.92	1.27	28.8
23u	U	4	0.0	4	0.0	0.636	20.7	LOS B	7.0	49.9	0.74	0.92	1.27	31.6
Approach		447	2.4	471	2.4	0.636	8.7	NA	7.0	49.9	0.74	0.92	1.27	36.1
NorthEast: Carpark														
24	L2	14	0.0	15	0.0	0.049	10.5	LOS A	0.2	1.1	0.58	0.96	0.58	28.9
26	R2	12	0.0	13	0.0	0.049	11.9	LOS A	0.2	1.1	0.58	0.96	0.58	29.4
Approach		26	0.0	27	0.0	0.049	11.1	LOS A	0.2	1.1	0.58	0.96	0.58	29.1
NorthWest: Lowe NW														
27	L2	61	0.0	64	0.0	0.394	10.1	LOS A	3.0	21.4	0.62	0.53	0.75	26.3
28	T1	254	2.5	267	2.5	0.394	4.6	LOS A	3.0	21.4	0.62	0.53	0.75	42.7
Approach		315	2.0	332	2.0	0.394	5.6	NA	3.0	21.4	0.62	0.53	0.75	38.7
All Vehicles		788	2.2	829	2.2	0.636	7.5	NA	7.0	49.9	0.68	0.76	1.04	36.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
Vehicle movement LOS values are based on average delay per movement.  
Minor Road Approach LOS values are based on average delay for all vehicle movements.  
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

 **Site: 101 [Lowe St. + Carpark Access PM Peak 1615-1715 Pre Dev (Site Folder: General)]**

New Site  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h veh/h		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: Lowe SE														
22	T1	338	6	356	1.8	0.521	6.0	LOS A	4.5	31.8	0.67	0.75	0.98	40.7
23	R2	29	0	31	0.0	0.521	13.4	LOS A	4.5	31.8	0.67	0.75	0.98	31.8
Approach		367	6	386	1.6	0.521	6.6	NA	4.5	31.8	0.67	0.75	0.98	40.0
NorthEast: Carpark														
24	L2	34	1	36	2.9	0.162	12.2	LOS A	0.6	3.9	0.64	1.00	0.64	27.5
26	R2	44	1	46	2.3	0.162	12.3	LOS A	0.6	3.9	0.64	1.00	0.64	28.1
Approach		78	2	82	2.6	0.162	12.3	LOS A	0.6	3.9	0.64	1.00	0.64	27.8
NorthWest: Lowe NW														
27	L2	37	1	39	2.7	0.506	11.5	LOS A	4.6	33.2	0.67	0.68	0.95	25.4
28	T1	342	8	360	2.3	0.506	5.9	LOS A	4.6	33.2	0.67	0.68	0.95	41.0
Approach		379	9	399	2.4	0.506	6.4	NA	4.6	33.2	0.67	0.68	0.95	39.1
All Vehicles		824	17	867	2.1	0.521	7.1	NA	4.6	33.2	0.67	0.74	0.94	38.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
Vehicle movement LOS values are based on average delay per movement.  
Minor Road Approach LOS values are based on average delay for all vehicle movements.  
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

 **Site: 101 [Lowe St. + Carpark Access PM Peak 1615-1715 Post Council (Site Folder: General)]**

New Site  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h veh/h		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: Lowe SE														
22	T1	338	6	356	1.8	0.554	6.4	LOS A	5.0	35.3	0.68	0.80	1.05	39.1
23	R2	49	0	52	0.0	0.554	14.3	LOS A	5.0	35.3	0.68	0.80	1.05	30.5
Approach		387	6	407	1.6	0.554	7.4	NA	5.0	35.3	0.68	0.80	1.05	38.0
NorthEast: Carpark														
24	L2	58	2	61	3.4	0.286	13.1	LOS A	1.1	8.0	0.69	1.04	0.80	26.2
26	R2	75	2	79	2.7	0.286	13.8	LOS A	1.1	8.0	0.69	1.04	0.80	26.8
Approach		133	4	140	3.0	0.286	13.5	LOS A	1.1	8.0	0.69	1.04	0.80	26.5
NorthWest: Lowe NW														
27	L2	63	2	66	3.2	0.520	11.6	LOS A	5.1	36.7	0.68	0.66	0.99	24.9
28	T1	342	8	360	2.3	0.520	6.1	LOS A	5.1	36.7	0.68	0.66	0.99	40.0
Approach		405	10	426	2.5	0.520	7.0	NA	5.1	36.7	0.68	0.66	0.99	37.1
All Vehicles		925	20	974	2.2	0.554	8.1	NA	5.1	36.7	0.68	0.77	0.99	35.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
Vehicle movement LOS values are based on average delay per movement.  
Minor Road Approach LOS values are based on average delay for all vehicle movements.  
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

 **Site: 101 [Lowe St. + Carpark Access PM Peak 1615-1715 Post Dev (Site Folder: General)]**

New Site  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ Total veh/h % ]		DEMAND FLOWS [ Total HV ] [ Total veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] [ Veh. m ]		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: Lowe SE														
22	T1	359	1.8	378	1.8	0.586	6.9	LOS A	5.6	40.1	0.70	0.84	1.13	38.2
23	R2	49	0.0	52	0.0	0.586	15.3	LOS B	5.6	40.1	0.70	0.84	1.13	29.8
Approach		408	1.6	429	1.6	0.586	7.9	NA	5.6	40.1	0.70	0.84	1.13	37.2
NorthEast: Carpark														
24	L2	58	3.4	61	3.4	0.303	13.7	LOS A	1.2	8.6	0.71	1.04	0.85	25.5
26	R2	75	2.7	79	2.7	0.303	14.7	LOS B	1.2	8.6	0.71	1.04	0.85	26.1
Approach		133	3.0	140	3.0	0.303	14.2	LOS A	1.2	8.6	0.71	1.04	0.85	25.8
NorthWest: Lowe NW														
27	L2	63	3.2	66	3.2	0.550	12.1	LOS A	5.8	41.2	0.70	0.70	1.05	24.5
28	T1	363	2.3	382	2.3	0.550	6.5	LOS A	5.8	41.2	0.70	0.70	1.05	39.3
Approach		426	2.5	448	2.5	0.550	7.4	NA	5.8	41.2	0.70	0.70	1.05	36.6
All Vehicles		967	2.2	1018	2.2	0.586	8.6	NA	5.8	41.2	0.70	0.81	1.06	35.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
Vehicle movement LOS values are based on average delay per movement.  
Minor Road Approach LOS values are based on average delay for all vehicle movements.  
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



# MOVEMENT SUMMARY

 Site: 101 [Rutledge St+Lowe St+Cooma St AM Existing (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ veh/h % ]		DEMAND FLOWS [ Total HV ] [ veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] [ veh m ]		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lowe Street South														
1	L2	6	0.0	6	0.0	0.136	4.1	LOS A	0.6	4.9	0.52	0.57	0.52	34.5
2	T1	58	3.4	61	3.4	0.136	3.7	LOS A	0.6	4.9	0.52	0.57	0.52	36.2
3	R2	32	28.1	34	28.1	0.136	8.7	LOS A	0.6	4.9	0.52	0.57	0.52	35.2
Approach		96	11.5	101	11.5	0.136	5.4	LOS A	0.6	4.9	0.52	0.57	0.52	35.7
East: Rutledge Street														
4	L2	15	6.7	16	6.7	0.221	2.9	LOS A	1.2	8.6	0.43	0.40	0.43	35.2
5	T1	176	0.0	185	0.0	0.221	2.3	LOS A	1.2	8.6	0.43	0.40	0.43	37.6
6	R2	38	5.3	40	5.3	0.221	6.7	LOS A	1.2	8.6	0.43	0.40	0.43	38.3
6u	U	2	0.0	2	0.0	0.221	8.1	LOS A	1.2	8.6	0.43	0.40	0.43	25.9
Approach		231	1.3	243	1.3	0.221	3.1	LOS A	1.2	8.6	0.43	0.40	0.43	37.4
North: Lowe Street North														
7	L2	52	3.8	55	3.8	0.276	4.3	LOS A	1.7	11.9	0.62	0.67	0.62	31.3
8	T1	44	0.0	46	0.0	0.276	3.7	LOS A	1.7	11.9	0.62	0.67	0.62	34.5
9	R2	133	3.0	140	3.0	0.276	8.1	LOS A	1.7	11.9	0.62	0.67	0.62	35.3
9u	U	17	0.0	18	0.0	0.276	9.4	LOS A	1.7	11.9	0.62	0.67	0.62	26.7
Approach		246	2.4	259	2.4	0.276	6.6	LOS A	1.7	11.9	0.62	0.67	0.62	33.7
West: Cooma Street														
10	L2	281	2.1	296	2.1	0.532	2.7	LOS A	4.0	29.0	0.46	0.39	0.46	35.1
11	T1	350	3.4	368	3.4	0.532	2.2	LOS A	4.0	29.0	0.46	0.39	0.46	38.0
12	R2	19	0.0	20	0.0	0.532	6.5	LOS A	4.0	29.0	0.46	0.39	0.46	39.5
12u	U	10	10.0	11	10.0	0.532	8.1	LOS A	4.0	29.0	0.46	0.39	0.46	42.3
Approach		660	2.9	695	2.9	0.532	2.6	LOS A	4.0	29.0	0.46	0.39	0.46	36.9
All Vehicles		1233	3.2	1298	3.2	0.532	3.7	LOS A	4.0	29.0	0.49	0.46	0.49	36.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: Y:\2022\2290\229044\Civil Design\229044 model - TfNSW Option 1.sip9

# MOVEMENT SUMMARY

 Site: 101 [Rutledge St+Lowe St+Cooma St AM 2025 (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ veh/h % ]		DEMAND FLOWS [ Total HV ] [ veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] [ veh m ]		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lowe Street South														
1	L2	6	0.0	6	0.0	0.148	4.3	LOS A	0.7	5.4	0.54	0.59	0.54	34.3
2	T1	62	3.4	65	3.4	0.148	3.9	LOS A	0.7	5.4	0.54	0.59	0.54	36.1
3	R2	34	28.1	36	28.1	0.148	8.9	LOS A	0.7	5.4	0.54	0.59	0.54	35.0
Approach		102	11.5	107	11.5	0.148	5.6	LOS A	0.7	5.4	0.54	0.59	0.54	35.6
East: Rutledge Street														
4	L2	16	6.7	17	6.7	0.237	3.0	LOS A	1.3	9.4	0.46	0.41	0.46	35.1
5	T1	187	0.0	197	0.0	0.237	2.4	LOS A	1.3	9.4	0.46	0.41	0.46	37.5
6	R2	40	5.3	42	5.3	0.237	6.8	LOS A	1.3	9.4	0.46	0.41	0.46	38.1
6u	U	2	0.0	2	0.0	0.237	8.1	LOS A	1.3	9.4	0.46	0.41	0.46	25.8
Approach		245	1.3	258	1.3	0.237	3.2	LOS A	1.3	9.4	0.46	0.41	0.46	37.3
North: Lowe Street North														
7	L2	55	3.8	58	3.8	0.300	4.5	LOS A	1.9	13.4	0.65	0.70	0.65	31.1
8	T1	47	0.0	49	0.0	0.300	3.9	LOS A	1.9	13.4	0.65	0.70	0.65	34.3
9	R2	141	3.0	148	3.0	0.300	8.3	LOS A	1.9	13.4	0.65	0.70	0.65	35.0
9u	U	18	0.0	19	0.0	0.300	9.7	LOS A	1.9	13.4	0.65	0.70	0.65	26.5
Approach		261	2.4	275	2.4	0.300	6.8	LOS A	1.9	13.4	0.65	0.70	0.65	33.4
West: Cooma Street														
10	L2	298	2.1	314	2.1	0.569	2.8	LOS A	4.5	32.6	0.50	0.41	0.50	34.9
11	T1	371	3.4	391	3.4	0.569	2.4	LOS A	4.5	32.6	0.50	0.41	0.50	37.7
12	R2	20	0.0	21	0.0	0.569	6.6	LOS A	4.5	32.6	0.50	0.41	0.50	39.3
12u	U	11	10.0	12	10.0	0.569	8.2	LOS A	4.5	32.6	0.50	0.41	0.50	42.0
Approach		700	2.9	737	2.9	0.569	2.8	LOS A	4.5	32.6	0.50	0.41	0.50	36.6
All Vehicles		1308	3.2	1377	3.2	0.569	3.9	LOS A	4.5	32.6	0.53	0.48	0.53	35.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: Y:\2022\2290\229044\Civil Design\229044 model - TfNSW Option 1.sip9

# MOVEMENT SUMMARY

 Site: 101 [Rutledge St+Lowe St+Cooma St AM Post Dev (Site Folder: General)]

New Site

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ Veh/h % ]		DEMAND FLOWS [ Total HV ] [ Veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lowe Street South														
1	L2	6	0.0	6	0.0	0.163	4.6	LOS A	0.8	6.1	0.56	0.62	0.56	34.1
2	T1	65	3.4	68	3.4	0.163	4.2	LOS A	0.8	6.1	0.56	0.62	0.56	35.7
3	R2	38	28.1	40	28.1	0.163	9.2	LOS A	0.8	6.1	0.56	0.62	0.56	34.7
Approach		109	11.9	115	11.9	0.163	6.0	LOS A	0.8	6.1	0.56	0.62	0.56	35.3
East: Rutledge Street														
4	L2	18	6.7	19	6.7	0.266	3.1	LOS A	1.5	11.0	0.48	0.42	0.48	35.0
5	T1	208	0.0	219	0.0	0.266	2.5	LOS A	1.5	11.0	0.48	0.42	0.48	37.3
6	R2	45	5.3	47	5.3	0.266	6.8	LOS A	1.5	11.0	0.48	0.42	0.48	37.9
6u	U	2	0.0	2	0.0	0.266	8.2	LOS A	1.5	11.0	0.48	0.42	0.48	25.7
Approach		273	1.3	287	1.3	0.266	3.3	LOS A	1.5	11.0	0.48	0.42	0.48	37.1
North: Lowe Street North														
7	L2	62	3.8	65	3.8	0.332	4.9	LOS A	2.1	15.3	0.70	0.74	0.70	30.7
8	T1	48	0.0	51	0.0	0.332	4.3	LOS A	2.1	15.3	0.70	0.74	0.70	33.9
9	R2	145	3.0	153	3.0	0.332	8.7	LOS A	2.1	15.3	0.70	0.74	0.70	34.6
9u	U	18	0.0	19	0.0	0.332	10.1	LOS A	2.1	15.3	0.70	0.74	0.70	26.2
Approach		273	2.5	287	2.5	0.332	7.2	LOS A	2.1	15.3	0.70	0.74	0.70	33.0
West: Cooma Street														
10	L2	313	2.1	329	2.1	0.623	3.0	LOS A	5.4	38.5	0.56	0.43	0.56	34.5
11	T1	414	3.4	436	3.4	0.623	2.6	LOS A	5.4	38.5	0.56	0.43	0.56	37.3
12	R2	20	0.0	21	0.0	0.623	6.8	LOS A	5.4	38.5	0.56	0.43	0.56	38.9
12u	U	11	10.0	12	10.0	0.623	8.4	LOS A	5.4	38.5	0.56	0.43	0.56	41.5
Approach		758	2.9	798	2.9	0.623	3.0	LOS A	5.4	38.5	0.56	0.43	0.56	36.2
All Vehicles		1413	3.2	1487	3.2	0.623	4.1	LOS A	5.4	38.5	0.57	0.50	0.57	35.6



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: Y:\2022\2290\229044\Civil Design\229044 model - TfNSW Option 1.sip9

# MOVEMENT SUMMARY

 Site: 101 [Rutledge St+Lowe St+Cooma St PM Existing (Site Folder: General)]

New Site

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ Veh/h % ]		DEMAND FLOWS [ Total HV ] [ Veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] [ Veh. m ]		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lowe Street South														
1	L2	3	0.0	3	0.0	0.032	8.6	LOS A	0.2	1.1	0.71	0.67	0.71	35.7
2	T1	12	0.0	13	0.0	0.032	8.4	LOS A	0.2	1.1	0.71	0.67	0.71	36.8
3	R2	1	0.0	1	0.0	0.032	12.9	LOS A	0.2	1.1	0.71	0.67	0.71	33.4
Approach		16	0.0	17	0.0	0.032	8.7	LOS A	0.2	1.1	0.71	0.67	0.71	36.3
East: Rutledge Street														
4	L2	2	50.0	2	50.0	0.469	6.7	LOS A	3.2	22.3	0.65	0.63	0.65	36.2
5	T1	369	0.3	388	0.3	0.469	5.1	LOS A	3.2	22.3	0.65	0.63	0.65	39.1
6	R2	74	0.0	78	0.0	0.469	9.6	LOS A	3.2	22.3	0.65	0.63	0.65	32.5
6u	U	1	0.0	1	0.0	0.469	11.4	LOS A	3.2	22.3	0.65	0.63	0.65	32.9
Approach		446	0.5	469	0.5	0.469	5.9	LOS A	3.2	22.3	0.65	0.63	0.65	37.9
North: Lowe Street North														
7	L2	31	0.0	33	0.0	0.349	4.3	LOS A	2.2	15.5	0.50	0.65	0.50	33.3
8	T1	17	0.0	18	0.0	0.349	4.2	LOS A	2.2	15.5	0.50	0.65	0.50	37.3
9	R2	315	1.7	332	1.7	0.349	8.8	LOS A	2.2	15.5	0.50	0.65	0.50	36.9
9u	U	9	0.0	9	0.0	0.349	10.5	LOS A	2.2	15.5	0.50	0.65	0.50	28.6
Approach		372	1.4	392	1.4	0.349	8.2	LOS A	2.2	15.5	0.50	0.65	0.50	36.4
West: Cooma Street														
10	L2	276	1.8	291	1.8	0.390	3.4	LOS A	2.7	18.9	0.33	0.43	0.33	39.6
11	T1	221	1.7	233	1.7	0.390	3.3	LOS A	2.7	18.9	0.33	0.43	0.33	43.0
12	R2	6	0.0	6	0.0	0.390	7.8	LOS A	2.7	18.9	0.33	0.43	0.33	44.6
12u	U	9	0.0	9	0.0	0.390	9.6	LOS A	2.7	18.9	0.33	0.43	0.33	47.3
Approach		512	1.7	539	1.7	0.390	3.5	LOS A	2.7	18.9	0.33	0.43	0.33	41.2
All Vehicles		1346	1.2	1417	1.2	0.469	5.7	LOS A	3.2	22.3	0.48	0.56	0.48	38.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: Y:\2022\2290\229044\Civil Design\229044 model - TfNSW Option 1.sip9

# MOVEMENT SUMMARY

 Site: 101 [Rutledge St+Lowe St+Cooma St PM 2025 (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h %		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lowe Street South														
1	L2	3	0.0	3	0.0	0.036	9.2	LOS A	0.2	1.3	0.74	0.70	0.74	35.0
2	T1	13	0.0	14	0.0	0.036	9.1	LOS A	0.2	1.3	0.74	0.70	0.74	35.9
3	R2	1	0.0	1	0.0	0.036	13.6	LOS A	0.2	1.3	0.74	0.70	0.74	32.7
Approach		17	0.0	18	0.0	0.036	9.4	LOS A	0.2	1.3	0.74	0.70	0.74	35.5
East: Rutledge Street														
4	L2	2	50.0	2	50.0	0.509	7.2	LOS A	3.7	26.2	0.69	0.69	0.71	35.8
5	T1	392	0.3	413	0.3	0.509	5.6	LOS A	3.7	26.2	0.69	0.69	0.71	38.6
6	R2	79	0.0	83	0.0	0.509	10.1	LOS A	3.7	26.2	0.69	0.69	0.71	32.2
6u	U	1	0.0	1	0.0	0.509	11.9	LOS A	3.7	26.2	0.69	0.69	0.71	32.6
Approach		474	0.4	499	0.4	0.509	6.3	LOS A	3.7	26.2	0.69	0.69	0.71	37.5
North: Lowe Street North														
7	L2	33	0.0	35	0.0	0.376	4.5	LOS A	2.4	17.2	0.53	0.67	0.53	33.1
8	T1	18	0.0	19	0.0	0.376	4.3	LOS A	2.4	17.2	0.53	0.67	0.53	37.1
9	R2	334	1.7	352	1.7	0.376	8.9	LOS A	2.4	17.2	0.53	0.67	0.53	36.7
9u	U	10	0.0	11	0.0	0.376	10.7	LOS A	2.4	17.2	0.53	0.67	0.53	28.5
Approach		395	1.4	416	1.4	0.376	8.4	LOS A	2.4	17.2	0.53	0.67	0.53	36.2
West: Cooma Street														
10	L2	293	1.8	308	1.8	0.418	3.5	LOS A	3.0	21.0	0.35	0.43	0.35	39.4
11	T1	235	1.7	247	1.7	0.418	3.3	LOS A	3.0	21.0	0.35	0.43	0.35	42.8
12	R2	6	0.0	6	0.0	0.418	7.8	LOS A	3.0	21.0	0.35	0.43	0.35	44.4
12u	U	10	0.0	11	0.0	0.418	9.6	LOS A	3.0	21.0	0.35	0.43	0.35	47.0
Approach		544	1.7	573	1.7	0.418	3.6	LOS A	3.0	21.0	0.35	0.43	0.35	41.0
All Vehicles		1430	1.2	1505	1.2	0.509	5.9	LOS A	3.7	26.2	0.52	0.59	0.52	38.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: Y:\2022\2290\229044\Civil Design\229044 model - TfNSW Option 1.sip9



# MOVEMENT SUMMARY

 Site: 101 [Rutledge St+Lowe St+Cooma St PM Post Dev (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h %		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lowe Street South														
1	L2	3	0.0	3	0.0	0.043	10.0	LOS A	0.2	1.6	0.77	0.73	0.77	34.0
2	T1	14	0.0	15	0.0	0.043	9.9	LOS A	0.2	1.6	0.77	0.73	0.77	34.7
3	R2	2	0.0	2	0.0	0.043	14.4	LOS A	0.2	1.6	0.77	0.73	0.77	31.7
Approach		19	0.0	20	0.0	0.043	10.4	LOS A	0.2	1.6	0.77	0.73	0.77	34.2
East: Rutledge Street														
4	L2	2	50.0	2	50.0	0.554	8.1	LOS A	4.5	31.9	0.74	0.77	0.80	35.4
5	T1	415	0.3	437	0.3	0.554	6.3	LOS A	4.5	31.9	0.74	0.77	0.80	38.1
6	R2	84	0.0	88	0.0	0.554	10.8	LOS A	4.5	31.9	0.74	0.77	0.80	31.7
6u	U	1	0.0	1	0.0	0.554	12.6	LOS A	4.5	31.9	0.74	0.77	0.80	32.1
Approach		502	0.4	528	0.4	0.554	7.1	LOS A	4.5	31.9	0.74	0.77	0.80	37.0
North: Lowe Street North														
7	L2	38	0.0	40	0.0	0.419	4.8	LOS A	2.8	19.9	0.58	0.69	0.58	32.9
8	T1	19	0.0	20	0.0	0.419	4.7	LOS A	2.8	19.9	0.58	0.69	0.58	36.8
9	R2	357	1.7	376	1.7	0.419	9.2	LOS A	2.8	19.9	0.58	0.69	0.58	36.5
9u	U	10	0.0	11	0.0	0.419	11.0	LOS A	2.8	19.9	0.58	0.69	0.58	28.3
Approach		424	1.4	446	1.4	0.419	8.7	LOS A	2.8	19.9	0.58	0.69	0.58	35.9
West: Cooma Street														
10	L2	312	1.8	328	1.8	0.462	3.5	LOS A	3.5	24.7	0.39	0.44	0.39	39.1
11	T1	270	1.7	284	1.7	0.462	3.4	LOS A	3.5	24.7	0.39	0.44	0.39	42.5
12	R2	6	0.0	6	0.0	0.462	7.9	LOS A	3.5	24.7	0.39	0.44	0.39	44.1
12u	U	10	0.0	11	0.0	0.462	9.7	LOS A	3.5	24.7	0.39	0.44	0.39	46.7
Approach		598	1.7	629	1.7	0.462	3.6	LOS A	3.5	24.7	0.39	0.44	0.39	40.8
All Vehicles		1543	1.2	1624	1.2	0.554	6.2	LOS A	4.5	31.9	0.56	0.62	0.58	37.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: Y:\2022\2290\229044\Civil Design\229044 model - TfNSW Option 1.sip9

# MOVEMENT SUMMARY

 Site: 101 [Rutledge St+Crawford St AM Existing (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h %		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: RoadName														
1	L2	39	0.0	41	0.0	0.255	3.7	LOS A	1.3	9.4	0.45	0.53	0.45	33.1
2	T1	148	2.0	156	2.0	0.255	3.4	LOS A	1.3	9.4	0.45	0.53	0.45	36.6
3	R2	74	0.0	78	0.0	0.255	6.8	LOS A	1.3	9.4	0.45	0.53	0.45	27.9
3u	U	3	0.0	3	0.0	0.255	8.2	LOS A	1.3	9.4	0.45	0.53	0.45	38.0
Approach		264	1.1	278	1.1	0.255	4.4	LOS A	1.3	9.4	0.45	0.53	0.45	33.3
NorthEast: Rutledge Street Westbound														
4	L2	33	3.0	35	3.0	0.144	5.6	LOS A	0.9	6.5	0.56	0.57	0.56	34.1
5	T1	93	0.0	98	0.0	0.144	5.6	LOS A	0.9	6.5	0.56	0.57	0.56	35.5
6	R2	6	0.0	6	0.0	0.144	9.2	LOS A	0.9	6.5	0.56	0.57	0.56	36.9
Approach		132	0.8	139	0.8	0.144	5.8	LOS A	0.9	6.5	0.56	0.57	0.56	35.1
NorthWest: Crawford Street Southbound														
7	L2	17	5.9	18	5.9	0.270	5.1	LOS A	1.5	10.6	0.49	0.65	0.49	32.8
8	T1	88	6.8	93	6.8	0.270	5.1	LOS A	1.5	10.6	0.49	0.65	0.49	35.6
9	R2	154	1.3	162	1.3	0.270	8.6	LOS A	1.5	10.6	0.49	0.65	0.49	34.7
9u	U	11	0.0	12	0.0	0.270	10.2	LOS A	1.5	10.6	0.49	0.65	0.49	31.0
Approach		270	3.3	284	3.3	0.270	7.3	LOS A	1.5	10.6	0.49	0.65	0.49	34.7
SouthWest: RoadName														
10	L2	172	9.9	181	9.9	0.391	4.2	LOS A	2.7	19.6	0.55	0.55	0.55	32.9
11	T1	189	0.5	199	0.5	0.391	3.7	LOS A	2.7	19.6	0.55	0.55	0.55	35.3
12	R2	20	40.0	21	40.0	0.391	8.1	LOS A	2.7	19.6	0.55	0.55	0.55	35.4
12u	U	9	0.0	9	0.0	0.391	11.5	LOS A	2.7	19.6	0.55	0.55	0.55	27.5
Approach		390	6.7	411	6.7	0.391	4.3	LOS A	2.7	19.6	0.55	0.55	0.55	34.0
All Vehicles		1056	3.7	1112	3.7	0.391	5.3	LOS A	2.7	19.6	0.51	0.58	0.51	34.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: Y:\2022\2290\229044\Civil Design\229044 model - TfNSW Option 1.sip9

# MOVEMENT SUMMARY

 Site: 101 [Rutledge St+Crawford St AM 2025 (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h %		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: RoadName														
1	L2	41	0.0	43	0.0	0.275	3.8	LOS A	1.5	10.4	0.47	0.54	0.47	33.0
2	T1	157	2.0	165	2.0	0.275	3.5	LOS A	1.5	10.4	0.47	0.54	0.47	36.4
3	R2	79	0.0	83	0.0	0.275	7.0	LOS A	1.5	10.4	0.47	0.54	0.47	27.8
3u	U	3	0.0	3	0.0	0.275	8.3	LOS A	1.5	10.4	0.47	0.54	0.47	37.9
Approach		280	1.1	295	1.1	0.275	4.6	LOS A	1.5	10.4	0.47	0.54	0.47	33.2
NorthEast: Rutledge Street Westbound														
4	L2	35	3.0	37	3.0	0.157	5.7	LOS A	1.0	7.1	0.58	0.59	0.58	34.0
5	T1	99	0.0	104	0.0	0.157	5.8	LOS A	1.0	7.1	0.58	0.59	0.58	35.3
6	R2	6	0.0	6	0.0	0.157	9.4	LOS A	1.0	7.1	0.58	0.59	0.58	36.6
Approach		140	0.8	147	0.8	0.157	5.9	LOS A	1.0	7.1	0.58	0.59	0.58	34.9
NorthWest: Crawford Street Southbound														
7	L2	18	5.9	19	5.9	0.293	5.2	LOS A	1.6	11.8	0.51	0.67	0.51	32.6
8	T1	93	6.8	98	6.8	0.293	5.2	LOS A	1.6	11.8	0.51	0.67	0.51	35.4
9	R2	163	1.3	172	1.3	0.293	8.7	LOS A	1.6	11.8	0.51	0.67	0.51	34.5
9u	U	12	0.0	13	0.0	0.293	10.3	LOS A	1.6	11.8	0.51	0.67	0.51	30.9
Approach		286	3.3	301	3.3	0.293	7.4	LOS A	1.6	11.8	0.51	0.67	0.51	34.6
SouthWest: RoadName														
10	L2	183	9.9	193	9.9	0.423	4.3	LOS A	3.0	21.8	0.59	0.57	0.59	32.6
11	T1	201	0.5	212	0.5	0.423	3.9	LOS A	3.0	21.8	0.59	0.57	0.59	35.0
12	R2	21	40.0	22	40.0	0.423	8.3	LOS A	3.0	21.8	0.59	0.57	0.59	35.2
12u	U	10	0.0	11	0.0	0.423	11.7	LOS A	3.0	21.8	0.59	0.57	0.59	27.4
Approach		415	6.6	437	6.6	0.423	4.5	LOS A	3.0	21.8	0.59	0.57	0.59	33.7
All Vehicles		1121	3.7	1180	3.7	0.423	5.4	LOS A	3.0	21.8	0.54	0.59	0.54	33.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: Y:\2022\2290\229044\Civil Design\229044 model - TfNSW Option 1.sip9



# MOVEMENT SUMMARY

 Site: 101 [Rutledge St+Crawford St AM Post Dev (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h %		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: RoadName														
1	L2	46	0.0	48	0.0	0.287	4.0	LOS A	1.6	11.0	0.50	0.57	0.50	32.8
2	T1	157	2.0	165	2.0	0.287	3.7	LOS A	1.6	11.0	0.50	0.57	0.50	36.2
3	R2	79	0.0	83	0.0	0.287	7.2	LOS A	1.6	11.0	0.50	0.57	0.50	27.7
3u	U	3	0.0	3	0.0	0.287	8.5	LOS A	1.6	11.0	0.50	0.57	0.50	37.7
Approach		285	1.1	300	1.1	0.287	4.8	LOS A	1.6	11.0	0.50	0.57	0.50	33.0
NorthEast: Rutledge Street Westbound														
4	L2	35	3.0	37	3.0	0.175	6.0	LOS A	1.1	8.1	0.61	0.61	0.61	33.8
5	T1	111	0.0	117	0.0	0.175	6.0	LOS A	1.1	8.1	0.61	0.61	0.61	35.0
6	R2	6	0.0	6	0.0	0.175	9.6	LOS A	1.1	8.1	0.61	0.61	0.61	36.4
Approach		152	0.7	160	0.7	0.175	6.1	LOS A	1.1	8.1	0.61	0.61	0.61	34.7
NorthWest: Crawford Street Southbound														
7	L2	18	5.9	19	5.9	0.320	5.4	LOS A	1.8	13.3	0.55	0.69	0.55	32.3
8	T1	93	6.8	98	6.8	0.320	5.4	LOS A	1.8	13.3	0.55	0.69	0.55	35.2
9	R2	183	1.3	193	1.3	0.320	8.9	LOS A	1.8	13.3	0.55	0.69	0.55	34.2
9u	U	12	0.0	13	0.0	0.320	10.5	LOS A	1.8	13.3	0.55	0.69	0.55	30.6
Approach		306	3.2	322	3.2	0.320	7.7	LOS A	1.8	13.3	0.55	0.69	0.55	34.3
SouthWest: RoadName														
10	L2	204	9.9	215	9.9	0.469	4.4	LOS A	3.4	25.5	0.61	0.59	0.61	32.4
11	T1	224	0.5	236	0.5	0.469	4.0	LOS A	3.4	25.5	0.61	0.59	0.61	34.8
12	R2	23	40.0	24	40.0	0.469	8.5	LOS A	3.4	25.5	0.61	0.59	0.61	35.0
12u	U	11	0.0	12	0.0	0.469	11.8	LOS A	3.4	25.5	0.61	0.59	0.61	27.2
Approach		462	6.6	486	6.6	0.469	4.6	LOS A	3.4	25.5	0.61	0.59	0.61	33.5
All Vehicles		1205	3.7	1268	3.7	0.469	5.6	LOS A	3.4	25.5	0.57	0.61	0.57	33.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: Y:\2022\2290\229044\Civil Design\229044 model - TfNSW Option 1.sip9

# MOVEMENT SUMMARY

 Site: 101 [Rutledge St+Crawford St PM Existing (Site Folder: General)]

New Site

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h veh/h		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: RoadName														
1	L2	16	0	17	0.0	0.089	4.5	LOS A	0.4	3.1	0.54	0.56	0.54	33.0
2	T1	52	0	55	0.0	0.089	4.2	LOS A	0.4	3.1	0.54	0.56	0.54	36.6
3	R2	11	0	12	0.0	0.089	7.7	LOS A	0.4	3.1	0.54	0.56	0.54	32.5
Approach		79	0	83	0.0	0.089	4.7	LOS A	0.4	3.1	0.54	0.56	0.54	35.2
East: Rutledge Street Westbound														
4	L2	28	0	29	0.0	0.312	6.0	LOS A	2.2	15.5	0.63	0.63	0.63	33.5
5	T1	236	2	248	0.8	0.312	6.2	LOS A	2.2	15.5	0.63	0.63	0.63	34.6
6	R2	18	0	19	0.0	0.312	9.7	LOS A	2.2	15.5	0.63	0.63	0.63	36.0
Approach		282	2	297	0.7	0.312	6.4	LOS A	2.2	15.5	0.63	0.63	0.63	34.5
North: Crawford Street Southbound														
7	L2	17	0	18	0.0	0.264	4.3	LOS A	1.4	9.7	0.36	0.61	0.36	33.3
8	T1	62	0	65	0.0	0.264	4.3	LOS A	1.4	9.7	0.36	0.61	0.36	35.8
9	R2	201	0	212	0.0	0.264	7.9	LOS A	1.4	9.7	0.36	0.61	0.36	35.0
9u	U	22	0	23	0.0	0.264	9.5	LOS A	1.4	9.7	0.36	0.61	0.36	31.2
Approach		302	0	318	0.0	0.264	7.1	LOS A	1.4	9.7	0.36	0.61	0.36	34.8
West: RoadName														
10	L2	85	2	89	2.4	0.207	2.8	LOS A	1.2	8.5	0.30	0.39	0.30	35.2
11	T1	142	1	149	0.7	0.207	2.6	LOS A	1.2	8.5	0.30	0.39	0.30	37.4
12	R2	16	0	17	0.0	0.207	6.1	LOS A	1.2	8.5	0.30	0.39	0.30	37.5
12u	U	6	0	6	0.0	0.207	10.4	LOS A	1.2	8.5	0.30	0.39	0.30	28.9
Approach		249	3	262	1.2	0.207	3.1	LOS A	1.2	8.5	0.30	0.39	0.30	36.3
All Vehicles		912	5	960	0.5	0.312	5.6	LOS A	2.2	15.5	0.44	0.55	0.44	35.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.  
Intersection and Approach LOS values are based on average delay for all vehicle movements.  
Roundabout Capacity Model: SIDRA Standard.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

 Site: 101 [Rutledge St+Crawford St PM 2025 (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ veh/h % ]		DEMAND FLOWS [ Total HV ] [ veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: RoadName														
1	L2	17	0.0	18	0.0	0.097	4.7	LOS A	0.5	3.4	0.56	0.58	0.56	32.8
2	T1	55	0.0	58	0.0	0.097	4.3	LOS A	0.5	3.4	0.56	0.58	0.56	36.4
3	R2	12	0.0	13	0.0	0.097	7.8	LOS A	0.5	3.4	0.56	0.58	0.56	32.3
Approach		84	0.0	88	0.0	0.097	4.9	LOS A	0.5	3.4	0.56	0.58	0.56	35.0
East: Rutledge Street Westbound														
4	L2	30	0.0	32	0.0	0.335	6.2	LOS A	2.4	16.9	0.66	0.65	0.66	33.3
5	T1	248	0.8	261	0.8	0.335	6.4	LOS A	2.4	16.9	0.66	0.65	0.66	34.3
6	R2	19	0.0	20	0.0	0.335	9.9	LOS A	2.4	16.9	0.66	0.65	0.66	35.7
Approach		297	0.7	313	0.7	0.335	6.6	LOS A	2.4	16.9	0.66	0.65	0.66	34.3
North: Crawford Street Southbound														
7	L2	18	0.0	19	0.0	0.282	4.4	LOS A	1.5	10.5	0.38	0.61	0.38	33.2
8	T1	66	0.0	69	0.0	0.282	4.3	LOS A	1.5	10.5	0.38	0.61	0.38	35.7
9	R2	213	0.0	224	0.0	0.282	7.9	LOS A	1.5	10.5	0.38	0.61	0.38	34.9
9u	U	23	0.0	24	0.0	0.282	9.6	LOS A	1.5	10.5	0.38	0.61	0.38	31.1
Approach		320	0.0	337	0.0	0.282	7.1	LOS A	1.5	10.5	0.38	0.61	0.38	34.7
West: RoadName														
10	L2	88	2.4	93	2.4	0.219	2.9	LOS A	1.3	9.1	0.32	0.40	0.32	35.1
11	T1	150	0.7	158	0.7	0.219	2.6	LOS A	1.3	9.1	0.32	0.40	0.32	37.3
12	R2	17	0.0	18	0.0	0.219	6.1	LOS A	1.3	9.1	0.32	0.40	0.32	37.4
12u	U	6	0.0	6	0.0	0.219	10.5	LOS A	1.3	9.1	0.32	0.40	0.32	28.8
Approach		261	1.2	275	1.2	0.219	3.1	LOS A	1.3	9.1	0.32	0.40	0.32	36.2
All Vehicles		962	0.5	1013	0.5	0.335	5.7	LOS A	2.4	16.9	0.46	0.56	0.46	35.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.  
Intersection and Approach LOS values are based on average delay for all vehicle movements.  
Roundabout Capacity Model: SIDRA Standard.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



# MOVEMENT SUMMARY

 Site: 101 [Rutledge St+Crawford St PM Post Dev (Site Folder: General)]

New Site

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h veh/h		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Crawford Street														
1	L2	20	0	21	0.0	0.107	5.2	LOS A	0.6	4.0	0.61	0.62	0.61	32.4
2	T1	55	0	58	0.0	0.107	4.8	LOS A	0.6	4.0	0.61	0.62	0.61	35.9
3	R2	12	0	13	0.0	0.107	8.3	LOS A	0.6	4.0	0.61	0.62	0.61	32.0
Approach		87	0	92	0.0	0.107	5.4	LOS A	0.6	4.0	0.61	0.62	0.61	34.5
East: Rutledge Street Westbound														
4	L2	30	0	32	0.0	0.392	6.7	LOS A	2.9	20.6	0.72	0.70	0.72	33.0
5	T1	286	2	301	0.7	0.392	6.9	LOS A	2.9	20.6	0.72	0.70	0.72	33.8
6	R2	19	0	20	0.0	0.392	10.4	LOS A	2.9	20.6	0.72	0.70	0.72	35.2
Approach		335	2	353	0.6	0.392	7.0	LOS A	2.9	20.6	0.72	0.70	0.72	33.8
North: Crawford Street Southbound														
7	L2	18	0	19	0.0	0.319	4.6	LOS A	1.8	12.4	0.42	0.64	0.42	32.8
8	T1	66	0	69	0.0	0.319	4.6	LOS A	1.8	12.4	0.42	0.64	0.42	35.4
9	R2	244	0	257	0.0	0.319	8.2	LOS A	1.8	12.4	0.42	0.64	0.42	34.5
9u	U	23	0	24	0.0	0.319	9.8	LOS A	1.8	12.4	0.42	0.64	0.42	30.8
Approach		351	0	369	0.0	0.319	7.4	LOS A	1.8	12.4	0.42	0.64	0.42	34.4
West: Rutledge Street														
10	L2	106	2	112	1.9	0.259	2.9	LOS A	1.6	11.2	0.33	0.40	0.33	35.0
11	T1	179	1	188	0.6	0.259	2.6	LOS A	1.6	11.2	0.33	0.40	0.33	37.2
12	R2	20	0	21	0.0	0.259	6.1	LOS A	1.6	11.2	0.33	0.40	0.33	37.3
12u	U	7	0	7	0.0	0.259	10.5	LOS A	1.6	11.2	0.33	0.40	0.33	28.7
Approach		312	3	328	1.0	0.259	3.1	LOS A	1.6	11.2	0.33	0.40	0.33	36.2
All Vehicles		1085	5	1142	0.5	0.392	5.9	LOS A	2.9	20.6	0.50	0.59	0.50	34.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.  
Intersection and Approach LOS values are based on average delay for all vehicle movements.  
Roundabout Capacity Model: SIDRA Standard.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: Y:\2022\2290\229044\Civil Design\229044 model - TfNSW Option 1.sip9

# MOVEMENT SUMMARY

 **Site: 101 [Crawford St+Monaro St AM Existing (Site Folder: General)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 80 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ veh/h % ]		DEMAND FLOWS [ Total HV ] [ veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] [ veh m ]		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Crawford Street Northbound														
1	L2	43	0.0	45	0.0	0.241	26.0	LOS B	4.2	29.8	0.77	0.67	0.77	24.6
2	T1	94	4.3	99	4.3	0.241	21.5	LOS B	4.2	29.8	0.77	0.67	0.77	25.0
3	R2	168	7.1	177	7.1	* 0.728	44.0	LOS D	7.2	53.8	1.00	0.89	1.16	14.9
Approach		305	5.2	321	5.2	0.728	34.5	LOS C	7.2	53.8	0.90	0.79	0.98	18.6
East: Monaro Street Westbound														
4	L2	186	2.7	196	2.7	0.188	12.3	LOS A	3.4	24.5	0.48	0.68	0.48	29.5
5	T1	921	5.5	969	5.5	* 0.708	22.4	LOS B	17.1	125.7	0.88	0.79	0.90	26.9
Approach		1107	5.1	1165	5.1	0.708	20.7	LOS B	17.1	125.7	0.82	0.77	0.83	27.2
North: Crawford Street Southbound														
7	L2	45	8.9	47	8.9	0.307	44.0	LOS D	1.9	14.0	0.97	0.74	0.97	18.3
8	T1	73	6.8	77	6.8	* 0.423	38.7	LOS C	3.0	22.2	0.98	0.75	0.98	18.7
Approach		118	7.6	124	7.6	0.423	40.7	LOS C	3.0	22.2	0.98	0.75	0.98	18.5
West: Monaro Street Eastbound														
10	L2	53	0.0	56	0.0	0.061	15.0	LOS B	1.1	7.6	0.53	0.66	0.53	32.8
11	T1	784	6.9	825	6.9	0.419	11.8	LOS A	9.8	72.3	0.64	0.56	0.64	34.5
12	R2	53	5.7	56	5.7	* 0.417	45.7	LOS D	2.2	16.5	0.99	0.75	0.99	16.4
Approach		890	6.4	937	6.4	0.419	14.0	LOS A	9.8	72.3	0.65	0.57	0.65	32.5
All Vehicles		2420	5.7	2547	5.7	0.728	21.0	LOS B	17.1	125.7	0.77	0.70	0.79	27.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped      Dist ] ped              m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Crawford Street Northbound												
P1	Full	3	3	34.2	LOS D	0.0	0.0	0.93	0.93	199.8	215.2	1.08
East: Monaro Street Westbound												
P2	Full	31	33	34.3	LOS D	0.1	0.1	0.93	0.93	205.3	222.3	1.08
North: Crawford Street Southbound												
P3	Full	37	39	34.3	LOS D	0.1	0.1	0.93	0.93	198.3	213.2	1.08
West: Monaro Street Eastbound												
P4	Full	31	33	34.3	LOS D	0.1	0.1	0.93	0.93	205.8	223.0	1.08
All Pedestrians		102	107	34.3	LOS D	0.1	0.1	0.93	0.93	202.7	219.0	1.08

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

# MOVEMENT SUMMARY

 **Site: 101 [Crawford St+Monaro St AM 2025 (Site Folder: General)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 80 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ veh/h % ]		DEMAND FLOWS [ Total HV ] [ veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] [ veh m ]		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Crawford Street Northbound														
1	L2	46	0.0	48	0.0	0.257	26.2	LOS B	4.5	32.0	0.78	0.67	0.78	24.5
2	T1	100	4.3	105	4.3	0.257	21.6	LOS B	4.5	32.0	0.78	0.67	0.78	24.9
3	R2	178	7.1	187	7.1	* 0.771	45.2	LOS D	7.9	58.3	1.00	0.92	1.22	14.6
Approach		324	5.2	341	5.2	0.771	35.2	LOS C	7.9	58.3	0.90	0.81	1.02	18.4
East: Monaro Street Westbound														
4	L2	197	2.7	207	2.7	0.199	12.3	LOS A	3.6	26.1	0.48	0.68	0.48	29.4
5	T1	977	5.5	1028	5.5	* 0.760	24.5	LOS B	19.6	144.0	0.91	0.85	0.97	25.8
Approach		1174	5.1	1236	5.1	0.760	22.4	LOS B	19.6	144.0	0.83	0.82	0.89	26.2
North: Crawford Street Southbound														
7	L2	48	8.9	51	8.9	0.327	44.1	LOS D	2.0	14.9	0.98	0.74	0.98	18.3
8	T1	77	6.8	81	6.8	* 0.446	38.9	LOS C	3.2	23.5	0.98	0.75	0.98	18.6
Approach		125	7.6	132	7.6	0.446	40.9	LOS C	3.2	23.5	0.98	0.75	0.98	18.5
West: Monaro Street Eastbound														
10	L2	56	0.0	59	0.0	0.065	15.0	LOS B	1.1	8.0	0.53	0.66	0.53	32.8
11	T1	195	6.9	205	6.9	0.102	9.6	LOS A	1.9	14.4	0.52	0.41	0.52	36.6
12	R2	56	5.7	59	5.7	* 0.440	45.8	LOS D	2.4	17.5	0.99	0.75	0.99	16.4
Approach		307	5.4	323	5.4	0.440	17.2	LOS B	2.4	17.5	0.61	0.52	0.61	30.0
All Vehicles		1930	5.3	2032	5.3	0.771	25.0	LOS B	19.6	144.0	0.82	0.76	0.87	24.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped      Dist ] ped              m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Crawford Street Northbound												
P1	Full	3	3	34.2	LOS D	0.0	0.0	0.93	0.93	199.8	215.2	1.08
East: Monaro Street Westbound												
P2	Full	31	33	34.3	LOS D	0.1	0.1	0.93	0.93	205.3	222.3	1.08
North: Crawford Street Southbound												
P3	Full	37	39	34.3	LOS D	0.1	0.1	0.93	0.93	198.3	213.2	1.08
West: Monaro Street Eastbound												
P4	Full	31	33	34.3	LOS D	0.1	0.1	0.93	0.93	205.8	223.0	1.08
All Pedestrians		102	107	34.3	LOS D	0.1	0.1	0.93	0.93	202.7	219.0	1.08

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.



# MOVEMENT SUMMARY

 **Site: 101 [Crawford St+Monaro St AM Post Dev (Site Folder: General)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 80 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ veh/h % ]		DEMAND FLOWS [ Total HV ] [ veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] [ veh m ]		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Crawford Street Northbound														
1	L2	48	0.0	51	0.0	0.270	26.3	LOS B	4.7	33.7	0.78	0.68	0.78	24.5
2	T1	105	4.3	111	4.3	0.270	21.7	LOS B	4.7	33.7	0.78	0.68	0.78	24.9
3	R2	187	7.1	197	7.1	* 0.810	46.8	LOS D	8.5	62.9	1.00	0.96	1.29	14.3
Approach		340	5.2	358	5.2	0.810	36.2	LOS C	8.5	62.9	0.90	0.83	1.06	18.1
East: Monaro Street Westbound														
4	L2	209	2.7	220	2.7	0.211	12.4	LOS A	3.9	27.9	0.49	0.68	0.49	29.4
5	T1	977	5.5	1028	5.5	* 0.764	24.6	LOS B	19.8	145.4	0.91	0.85	0.97	25.8
Approach		1186	5.0	1248	5.0	0.764	22.5	LOS B	19.8	145.4	0.83	0.82	0.89	26.2
North: Crawford Street Southbound														
7	L2	48	8.9	51	8.9	0.327	44.1	LOS D	2.0	14.9	0.98	0.74	0.98	18.3
8	T1	82	6.8	86	6.8	* 0.475	39.0	LOS C	3.4	25.1	0.99	0.76	0.99	18.6
Approach		130	7.6	137	7.6	0.475	40.9	LOS C	3.4	25.1	0.98	0.75	0.98	18.4
West: Monaro Street Eastbound														
10	L2	56	0.0	59	0.0	0.065	15.0	LOS B	1.1	8.0	0.53	0.66	0.53	32.8
11	T1	195	6.9	205	6.9	0.102	9.6	LOS A	1.9	14.4	0.52	0.41	0.52	36.6
12	R2	59	5.7	62	5.7	* 0.464	45.9	LOS D	2.5	18.5	1.00	0.75	1.00	16.4
Approach		310	5.4	326	5.4	0.464	17.5	LOS B	2.5	18.5	0.61	0.52	0.61	29.8
All Vehicles		1966	5.3	2069	5.3	0.810	25.3	LOS B	19.8	145.4	0.82	0.77	0.88	24.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped      Dist ] ped              m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Crawford Street Northbound												
P1	Full	3	3	34.2	LOS D	0.0	0.0	0.93	0.93	199.8	215.2	1.08
East: Monaro Street Westbound												
P2	Full	31	33	34.3	LOS D	0.1	0.1	0.93	0.93	205.3	222.3	1.08
North: Crawford Street Southbound												
P3	Full	37	39	34.3	LOS D	0.1	0.1	0.93	0.93	198.3	213.2	1.08
West: Monaro Street Eastbound												
P4	Full	31	33	34.3	LOS D	0.1	0.1	0.93	0.93	205.8	223.0	1.08
All Pedestrians		102	107	34.3	LOS D	0.1	0.1	0.93	0.93	202.7	219.0	1.08

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

# MOVEMENT SUMMARY

 **Site: 101 [Crawford St+Monaro St PM Existing (Site Folder: General)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 70 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ veh/h veh/h ]		DEMAND FLOWS [ Total HV ] [ veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] [ veh m ]		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Crawford Street Northbound														
1	L2	36	0	38	0.0	0.200	23.9	LOS B	3.0	21.5	0.76	0.65	0.76	28.0
2	T1	79	3	83	3.8	0.200	18.4	LOS B	3.0	21.5	0.76	0.65	0.76	29.2
3	R2	86	2	91	2.3	* 0.578	41.9	LOS C	3.3	23.2	1.00	0.79	1.07	16.1
Approach		201	5	212	2.5	0.578	29.4	LOS C	3.3	23.2	0.86	0.71	0.89	22.1
East: Monaro Street Westbound														
4	L2	148	0	156	0.0	0.171	15.3	LOS B	2.8	19.8	0.56	0.72	0.56	28.0
5	T1	812	23	855	2.8	* 0.661	21.3	LOS B	12.7	91.1	0.90	0.78	0.90	30.3
Approach		960	23	1011	2.4	0.661	20.4	LOS B	12.7	91.1	0.85	0.77	0.85	30.0
North: Crawford Street Southbound														
7	L2	97	3	102	3.1	0.433	37.7	LOS C	3.4	24.5	0.96	0.77	0.96	21.3
8	T1	168	1	177	0.6	* 0.654	32.9	LOS C	6.1	43.2	0.99	0.84	1.08	22.1
Approach		265	4	279	1.5	0.654	34.7	LOS C	6.1	43.2	0.98	0.82	1.04	21.8
West: Monaro Street Eastbound														
10	L2	68	1	72	1.5	0.081	15.3	LOS B	1.3	9.0	0.55	0.69	0.55	35.5
11	T1	881	24	927	2.7	0.481	11.8	LOS A	10.5	75.1	0.69	0.60	0.69	39.0
12	R2	20	0	21	0.0	* 0.132	39.5	LOS C	0.7	5.0	0.95	0.70	0.95	18.6
Approach		969	25	1020	2.6	0.481	12.6	LOS A	10.5	75.1	0.68	0.61	0.68	38.0
All Vehicles		2395	57	2521	2.4	0.661	19.6	LOS B	12.7	91.1	0.80	0.71	0.81	30.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped      Dist ] ped              m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Crawford Street Northbound												
P1	Full	1	1	29.3	LOS C	0.0	0.0	0.91	0.91	194.8	215.2	1.10
East: Monaro Street Westbound												
P2	Full	22	23	29.3	LOS C	0.0	0.0	0.92	0.92	200.3	222.3	1.11
North: Crawford Street Southbound												
P3	Full	38	40	29.3	LOS C	0.1	0.1	0.92	0.92	193.3	213.2	1.10
West: Monaro Street Eastbound												
P4	Full	16	17	29.3	LOS C	0.0	0.0	0.91	0.91	200.8	223.0	1.11
All Pedestrians		77	81	29.3	LOS C	0.1	0.1	0.92	0.92	196.9	217.9	1.11

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

# MOVEMENT SUMMARY

 **Site: 101 [Crawford St+Monaro St PM 2025 (Site Folder: General)]**

New Site  
Site Category: (None)  
Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 70 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h %		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Crawford Street Northbound														
1	L2	38	0.0	40	0.0	0.212	24.0	LOS B	3.2	22.9	0.76	0.66	0.76	27.9
2	T1	84	3.8	88	3.8	0.212	18.5	LOS B	3.2	22.9	0.76	0.66	0.76	29.1
3	R2	91	2.3	96	2.3	* 0.612	42.2	LOS C	3.5	24.8	1.00	0.81	1.10	16.0
Approach		213	2.5	224	2.5	0.612	29.6	LOS C	3.5	24.8	0.86	0.72	0.90	22.0
East: Monaro Street Westbound														
4	L2	157	0.0	165	0.0	0.182	15.3	LOS B	3.0	21.1	0.57	0.72	0.57	28.0
5	T1	862	2.8	907	2.8	* 0.712	22.6	LOS B	14.3	102.9	0.92	0.83	0.96	29.5
Approach		1019	2.4	1073	2.4	0.712	21.5	LOS B	14.3	102.9	0.87	0.81	0.90	29.3
North: Crawford Street Southbound														
7	L2	103	3.1	108	3.1	0.459	37.8	LOS C	3.6	26.1	0.97	0.78	0.97	21.3
8	T1	178	0.6	187	0.6	* 0.693	33.6	LOS C	6.6	46.5	1.00	0.87	1.12	21.8
Approach		281	1.5	296	1.5	0.693	35.1	LOS C	6.6	46.5	0.99	0.83	1.07	21.6
West: Monaro Street Eastbound														
10	L2	72	1.5	76	1.5	0.086	15.3	LOS B	1.3	9.5	0.55	0.69	0.55	35.5
11	T1	935	2.7	984	2.7	0.521	12.0	LOS A	11.2	80.3	0.70	0.62	0.70	38.7
12	R2	21	0.0	22	0.0	* 0.139	39.5	LOS C	0.7	5.2	0.96	0.70	0.96	18.6
Approach		1028	2.6	1082	2.6	0.521	12.8	LOS A	11.2	80.3	0.70	0.62	0.70	37.7
All Vehicles		2541	2.4	2675	2.4	0.712	20.2	LOS B	14.3	102.9	0.81	0.73	0.84	30.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
Vehicle movement LOS values are based on average delay per movement.  
Intersection and Approach LOS values are based on average delay for all vehicle movements.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped Dist ] ped m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Crawford Street Northbound												
P1	Full	1	1	29.3	LOS C	0.0	0.0	0.91	0.91	194.8	215.2	1.10
East: Monaro Street Westbound												
P2	Full	22	23	29.3	LOS C	0.0	0.0	0.92	0.92	200.3	222.3	1.11
North: Crawford Street Southbound												
P3	Full	38	40	29.3	LOS C	0.1	0.1	0.92	0.92	193.3	213.2	1.10
West: Monaro Street Eastbound												
P4	Full	16	17	29.3	LOS C	0.0	0.0	0.91	0.91	200.8	223.0	1.11
All Pedestrians		77	81	29.3	LOS C	0.1	0.1	0.92	0.92	196.9	217.9	1.11

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.



## MOVEMENT SUMMARY

 **Site: 101 [Crawford St+Monaro St PM Post Dev (Site Folder: General)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ veh/h % ]		DEMAND FLOWS [ Total HV ] [ veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] [ veh m ]		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Crawford Street Northbound														
1	L2	39	0.0	41	0.0	0.219	24.1	LOS B	3.3	23.8	0.76	0.66	0.76	27.9
2	T1	87	3.8	92	3.8	0.219	18.5	LOS B	3.3	23.8	0.76	0.66	0.76	29.1
3	R2	95	2.3	100	2.3	* 0.639	42.5	LOS C	3.6	26.0	1.00	0.82	1.13	15.9
Approach		221	2.5	233	2.5	0.639	29.8	LOS C	3.6	26.0	0.86	0.73	0.92	21.9
East: Monaro Street Westbound														
4	L2	171	0.0	180	0.0	0.198	15.4	LOS B	3.3	23.3	0.57	0.72	0.57	27.9
5	T1	862	2.8	907	2.8	* 0.713	22.6	LOS B	14.4	103.3	0.92	0.83	0.96	29.4
Approach		1033	2.4	1087	2.4	0.713	21.5	LOS B	14.4	103.3	0.86	0.81	0.90	29.2
North: Crawford Street Southbound														
7	L2	103	3.1	108	3.1	0.459	37.8	LOS C	3.6	26.1	0.97	0.78	0.97	21.3
8	T1	194	0.6	204	0.6	* 0.756	35.1	LOS C	7.4	52.4	1.00	0.91	1.20	21.2
Approach		297	1.5	313	1.5	0.756	36.0	LOS C	7.4	52.4	0.99	0.86	1.12	21.3
West: Monaro Street Eastbound														
10	L2	72	1.5	76	1.5	0.086	15.3	LOS B	1.3	9.5	0.55	0.69	0.55	35.5
11	T1	935	2.7	984	2.7	0.522	12.0	LOS A	11.2	80.1	0.70	0.62	0.70	38.7
12	R2	23	0.0	24	0.0	* 0.152	39.6	LOS C	0.8	5.7	0.96	0.70	0.96	18.6
Approach		1030	2.6	1084	2.6	0.522	12.8	LOS A	11.2	80.1	0.70	0.62	0.70	37.7
All Vehicles		2581	2.4	2717	2.4	0.756	20.4	LOS B	14.4	103.3	0.81	0.73	0.84	30.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped      Dist ] ped              m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Crawford Street Northbound												
P1	Full	1	1	29.3	LOS C	0.0	0.0	0.91	0.91	194.8	215.2	1.10
East: Monaro Street Westbound												
P2	Full	22	23	29.3	LOS C	0.0	0.0	0.92	0.92	200.3	222.3	1.11
North: Crawford Street Southbound												
P3	Full	38	40	29.3	LOS C	0.1	0.1	0.92	0.92	193.3	213.2	1.10
West: Monaro Street Eastbound												
P4	Full	16	17	29.3	LOS C	0.0	0.0	0.91	0.91	200.8	223.0	1.11
All Pedestrians		77	81	29.3	LOS C	0.1	0.1	0.92	0.92	196.9	217.9	1.11

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

## MOVEMENT SUMMARY

 **Site: 104 [Monaro St+Lowe St AM Existing (Site Folder: General)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h veh/h		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lowe Street														
1	L2	95	3	100	3.2	0.259	21.8	LOS B	2.2	16.0	0.87	0.75	0.87	32.3
2	T1	174	5	183	2.9	* 0.638	36.4	LOS C	7.1	50.9	0.99	0.83	1.03	20.6
3	R2	130	2	137	1.5	0.542	41.9	LOS C	5.2	37.1	0.98	0.79	0.98	18.2
Approach		399	10	420	2.5	0.638	34.7	LOS C	7.1	50.9	0.96	0.80	0.98	22.3
East: Monaro Street														
4	L2	77	0	81	0.0	0.078	14.0	LOS A	1.4	10.0	0.48	0.68	0.48	31.7
5	T1	825	51	868	6.2	0.713	24.8	LOS B	15.0	110.3	0.90	0.81	0.93	34.7
6	R2	56	2	59	3.6	* 0.434	46.8	LOS D	2.4	17.2	0.99	0.75	0.99	20.4
Approach		958	53	1008	5.5	0.713	25.2	LOS B	15.0	110.3	0.88	0.79	0.90	33.5
North: Lowe Street														
7	L2	37	2	39	5.4	0.116	23.4	LOS B	0.9	6.9	0.86	0.71	0.86	25.2
8	T1	122	5	128	4.1	0.541	37.2	LOS C	5.0	35.9	0.98	0.78	0.98	15.3
9	R2	127	7	134	5.5	* 0.665	45.5	LOS D	5.4	39.8	1.00	0.84	1.11	22.3
Approach		286	14	301	4.9	0.665	39.1	LOS C	5.4	39.8	0.98	0.80	1.02	20.1
West: Farrer Place														
10	L2	133	3	140	2.3	0.180	13.6	LOS A	2.0	14.2	0.65	0.73	0.65	40.8
11	T1	705	54	742	7.7	* 0.714	17.3	LOS B	9.8	73.3	0.94	0.83	0.99	39.4
12	R2	86	1	91	1.2	0.562	46.3	LOS D	3.7	25.9	1.00	0.78	1.04	21.3
Approach		924	58	973	6.3	0.714	19.5	LOS B	9.8	73.3	0.91	0.81	0.95	37.2
All Vehicles		2567	135	2702	5.3	0.714	26.2	LOS B	15.0	110.3	0.91	0.80	0.94	31.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped      Dist ] ped              m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Lowe Street												
P1	Full	8	8	34.2	LOS D	0.0	0.0	0.93	0.93	201.3	217.2	1.08
East: Monaro Street												
P2	Full	23	24	34.3	LOS D	0.1	0.1	0.93	0.93	206.4	223.8	1.08
North: Lowe Street												
P3	Full	38	40	17.3	LOS B	0.1	0.1	0.85	0.85	184.4	217.2	1.18
West: Farrer Place												
P4	Full	43	45	34.3	LOS D	0.1	0.1	0.93	0.93	206.4	223.8	1.08
All Pedestrians		112	118	28.5	LOS C	0.1	0.1	0.90	0.90	198.6	221.1	1.11

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

# MOVEMENT SUMMARY

 **Site: 104 [Monaro St+Lowe St AM 2025 (Site Folder: General)]**

New Site  
Site Category: (None)  
Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 80 seconds (Site Optimum Cycle Time - Minimum Delay)  
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ veh/h % ]		DEMAND FLOWS [ Total HV ] [ veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lowe Street														
1	L2	101	3.2	106	3.2	0.275	21.9	LOS B	2.4	17.1	0.87	0.75	0.87	32.3
2	T1	185	2.9	195	2.9	* 0.678	37.1	LOS C	7.7	55.0	1.00	0.85	1.08	20.4
3	R2	138	1.5	145	1.5	0.575	42.2	LOS C	5.6	39.6	0.98	0.80	0.99	18.1
Approach		424	2.5	446	2.5	0.678	35.1	LOS C	7.7	55.0	0.96	0.81	1.00	22.1
East: Monaro Street														
4	L2	82	0.0	86	0.0	0.083	14.1	LOS A	1.5	10.7	0.48	0.68	0.48	31.7
5	T1	875	6.2	921	6.2	0.759	26.6	LOS B	16.6	122.5	0.92	0.86	1.00	33.7
6	R2	59	3.6	62	3.6	* 0.457	46.9	LOS D	2.5	18.1	1.00	0.75	1.00	20.4
Approach		1016	5.5	1069	5.5	0.759	26.8	LOS B	16.6	122.5	0.89	0.84	0.95	32.6
North: Lowe Street														
7	L2	39	5.4	41	5.4	0.122	23.4	LOS B	1.0	7.3	0.86	0.71	0.86	25.2
8	T1	129	4.1	136	4.1	0.572	37.5	LOS C	5.3	38.2	0.99	0.79	1.00	15.3
9	R2	135	5.5	142	5.5	* 0.707	46.2	LOS D	5.9	42.9	1.00	0.86	1.16	22.1
Approach		303	4.9	319	4.9	0.707	39.6	LOS C	5.9	42.9	0.98	0.81	1.05	20.0
West: Farrer Place														
10	L2	141	2.3	148	2.3	0.191	13.7	LOS A	2.1	15.2	0.66	0.73	0.66	40.7
11	T1	748	7.7	787	7.7	* 0.763	19.0	LOS B	11.1	83.0	0.96	0.87	1.06	38.1
12	R2	91	1.2	96	1.2	0.594	46.6	LOS D	3.9	27.6	1.00	0.80	1.06	21.2
Approach		980	6.3	1032	6.3	0.763	20.8	LOS B	11.1	83.0	0.92	0.84	1.00	36.3
All Vehicles		2723	5.3	2866	5.3	0.763	27.3	LOS B	16.6	122.5	0.92	0.83	0.99	30.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped      Dist ] ped              m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Lowe Street												
P1	Full	8	8	34.2	LOS D	0.0	0.0	0.93	0.93	201.3	217.2	1.08
East: Monaro Street												
P2	Full	23	24	34.3	LOS D	0.1	0.1	0.93	0.93	206.4	223.8	1.08
North: Lowe Street												
P3	Full	38	40	17.3	LOS B	0.1	0.1	0.85	0.85	184.4	217.2	1.18
West: Farrer Place												
P4	Full	43	45	34.3	LOS D	0.1	0.1	0.93	0.93	206.4	223.8	1.08
All Pedestrians		112	118	28.5	LOS C	0.1	0.1	0.90	0.90	198.6	221.1	1.11

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

## MOVEMENT SUMMARY

 **Site: 104 [Monaro St+Lowe St AM Post Dev (Site Folder: General)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h %		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lowe Street														
1	L2	103	3.2	108	3.2	0.281	21.9	LOS B	2.4	17.4	0.88	0.76	0.88	32.3
2	T1	189	2.9	199	2.9	* 0.693	37.4	LOS C	7.9	56.6	1.00	0.86	1.09	20.3
3	R2	141	1.5	148	1.5	0.588	42.3	LOS C	5.7	40.7	0.99	0.81	1.00	18.1
Approach		433	2.5	456	2.5	0.693	35.3	LOS C	7.9	56.6	0.97	0.82	1.01	22.1
East: Monaro Street														
4	L2	91	0.0	96	0.0	0.092	14.1	LOS A	1.7	11.9	0.49	0.69	0.49	31.6
5	T1	875	6.2	921	6.2	0.762	26.7	LOS B	16.7	122.8	0.92	0.86	1.00	33.6
6	R2	59	3.6	62	3.6	* 0.457	46.9	LOS D	2.5	18.1	1.00	0.75	1.00	20.4
Approach		1025	5.5	1079	5.5	0.762	26.8	LOS B	16.7	122.8	0.89	0.84	0.95	32.5
North: Lowe Street														
7	L2	39	5.4	41	5.4	0.122	23.4	LOS B	1.0	7.3	0.86	0.71	0.86	25.2
8	T1	143	4.1	151	4.1	0.634	38.2	LOS C	6.0	43.1	1.00	0.83	1.06	15.0
9	R2	135	5.5	142	5.5	* 0.707	46.2	LOS D	5.9	42.9	1.00	0.86	1.16	22.1
Approach		317	4.9	334	4.9	0.707	39.8	LOS C	6.0	43.1	0.98	0.83	1.08	19.7
West: Farrer Place														
10	L2	141	2.3	148	2.3	0.191	13.7	LOS A	2.1	15.2	0.66	0.73	0.66	40.7
11	T1	748	7.7	787	7.7	* 0.763	19.0	LOS B	11.1	83.0	0.96	0.87	1.06	38.1
12	R2	101	1.2	106	1.2	0.660	47.3	LOS D	4.4	31.1	1.00	0.83	1.13	21.0
Approach		990	6.2	1042	6.2	0.763	21.1	LOS B	11.1	83.0	0.92	0.84	1.01	36.0
All Vehicles		2765	5.2	2911	5.2	0.763	27.6	LOS B	16.7	122.8	0.92	0.84	1.00	30.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.



Intersection and Approach LOS values are based on average delay for all vehicle movements.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped      Dist ] ped              m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Lowe Street												
P1	Full	8	8	34.2	LOS D	0.0	0.0	0.93	0.93	201.3	217.2	1.08
East: Monaro Street												
P2	Full	23	24	34.3	LOS D	0.1	0.1	0.93	0.93	206.4	223.8	1.08
North: Lowe Street												
P3	Full	38	40	17.3	LOS B	0.1	0.1	0.85	0.85	184.4	217.2	1.18
West: Farrer Place												
P4	Full	43	45	34.3	LOS D	0.1	0.1	0.93	0.93	206.4	223.8	1.08
All Pedestrians		112	118	28.5	LOS C	0.1	0.1	0.90	0.90	198.6	221.1	1.11

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

# MOVEMENT SUMMARY

 **Site: 104 [Monaro St+Lowe St PM Existing (Site Folder: General)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Practical Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] veh/h veh/h		DEMAND FLOWS [ Total HV ] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lowe Street														
1	L2	97	1	102	1.0	0.176	24.5	LOS B	2.6	18.1	0.76	0.74	0.76	30.8
2	T1	201	5	212	2.5	0.772	35.5	LOS C	7.8	55.6	1.00	0.92	1.23	21.0
3	R2	98	1	103	1.0	0.356	35.2	LOS C	3.3	23.2	0.93	0.77	0.93	20.4
Approach		396	7	417	1.8	0.772	32.7	LOS C	7.8	55.6	0.93	0.84	1.04	23.2
East: Monaro Street														
4	L2	64	2	67	3.1	0.072	14.7	LOS B	1.2	8.3	0.53	0.69	0.53	31.0
5	T1	753	22	793	2.9	0.805	30.2	LOS C	14.2	102.2	0.98	0.95	1.17	31.8
6	R2	55	1	58	1.8	0.368	40.7	LOS C	2.0	14.3	0.98	0.74	0.98	22.3
Approach		872	25	918	2.9	0.805	29.7	LOS C	14.2	102.2	0.95	0.92	1.11	31.1
North: Lowe Street														
7	L2	86	2	91	2.3	0.158	24.4	LOS B	2.3	16.1	0.76	0.74	0.76	24.8
8	T1	229	6	241	2.6	* 0.880	41.5	LOS C	9.8	70.1	1.00	1.05	1.48	14.1
9	R2	240	3	253	1.3	* 0.873	46.2	LOS D	10.2	72.3	1.00	1.03	1.45	22.2
Approach		555	11	584	2.0	0.880	40.9	LOS C	10.2	72.3	0.96	0.99	1.36	19.6
West: Farrer Place														
10	L2	113	3	119	2.7	0.127	15.0	LOS B	2.1	15.0	0.55	0.70	0.55	39.6
11	T1	797	21	839	2.6	* 0.894	38.6	LOS C	17.9	127.9	0.99	1.10	1.41	27.7
12	R2	89	1	94	1.1	* 0.593	42.0	LOS C	3.4	23.9	1.00	0.80	1.08	22.6
Approach		999	25	1052	2.5	0.894	36.2	LOS C	17.9	127.9	0.94	1.03	1.28	28.2
All Vehicles		2822	68	2971	2.4	0.894	34.6	LOS C	17.9	127.9	0.94	0.96	1.21	26.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped ped      Dist ] m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Lowe Street												
P1	Full	5	5	29.3	LOS C	0.0	0.0	0.91	0.91	196.3	217.2	1.11
East: Monaro Street												
P2	Full	6	6	29.3	LOS C	0.0	0.0	0.91	0.91	201.4	223.8	1.11
North: Lowe Street												
P3	Full	12	13	29.3	LOS C	0.0	0.0	0.91	0.91	196.3	217.2	1.11
West: Farrer Place												
P4	Full	9	9	29.3	LOS C	0.0	0.0	0.91	0.91	201.4	223.8	1.11
All Pedestrians		32	34	29.3	LOS C	0.0	0.0	0.91	0.91	198.7	220.3	1.11

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

# MOVEMENT SUMMARY

 **Site: 104 [Monaro St+Lowe St PM 2025 (Site Folder: General)]**

New Site  
Site Category: (None)  
Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 80 seconds (Site Practical Cycle Time)  
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total veh/h      HV ] %		DEMAND FLOWS [ Total veh/h      HV ] %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh.      Dist ] veh            m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lowe Street														
1	L2	103	1.0	108	1.0	0.196	28.2	LOS B	3.2	22.4	0.78	0.75	0.78	28.8
2	T1	213	2.5	224	2.5	0.779	39.8	LOS C	9.3	66.6	1.00	0.92	1.20	19.5
3	R2	104	1.0	109	1.0	0.365	38.9	LOS C	3.9	27.9	0.93	0.77	0.93	19.2
Approach		420	1.8	442	1.8	0.779	36.7	LOS C	9.3	66.6	0.93	0.84	1.03	21.6
East: Monaro Street														
4	L2	68	3.1	72	3.1	0.072	14.5	LOS B	1.3	9.3	0.49	0.68	0.49	31.2
5	T1	799	2.9	841	2.9	0.755	28.6	LOS C	15.6	112.2	0.94	0.87	1.02	32.6
6	R2	58	1.8	61	1.8	0.444	46.8	LOS D	2.5	17.5	0.99	0.75	0.99	20.5
Approach		925	2.9	974	2.9	0.755	28.7	LOS C	15.6	112.2	0.91	0.85	0.98	31.6
North: Lowe Street														
7	L2	91	2.3	96	2.3	0.175	28.0	LOS B	2.8	19.9	0.78	0.74	0.78	23.0
8	T1	243	2.6	256	2.6	* 0.889	47.1	LOS D	11.9	84.9	1.00	1.06	1.45	12.8
9	R2	255	1.3	268	1.3	* 0.897	53.5	LOS D	12.7	89.7	1.00	1.04	1.48	20.2
Approach		589	2.0	620	2.0	0.897	46.9	LOS D	12.7	89.7	0.97	1.00	1.36	17.8
West: Farrer Place														
10	L2	120	2.7	126	2.7	0.129	15.4	LOS B	2.4	17.4	0.52	0.70	0.52	39.3
11	T1	846	2.6	891	2.6	* 0.845	34.3	LOS C	18.9	135.2	0.96	0.98	1.18	29.5
12	R2	94	1.1	99	1.1	* 0.716	49.3	LOS D	4.2	29.7	1.00	0.85	1.22	20.5
Approach		1060	2.5	1116	2.5	0.845	33.5	LOS C	18.9	135.2	0.91	0.93	1.11	29.4
All Vehicles		2994	2.4	3152	2.4	0.897	35.1	LOS C	18.9	135.2	0.92	0.91	1.11	26.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.  
Delay Model: SIDRA Standard (Geometric Delay is included).  
Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped      Dist ] ped              m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Lowe Street												
P1	Full	5	5	34.2	LOS D	0.0	0.0	0.93	0.93	201.3	217.2	1.08
East: Monaro Street												
P2	Full	6	6	34.2	LOS D	0.0	0.0	0.93	0.93	206.4	223.8	1.08
North: Lowe Street												
P3	Full	12	13	34.2	LOS D	0.0	0.0	0.93	0.93	201.3	217.2	1.08
West: Farrer Place												
P4	Full	9	9	34.2	LOS D	0.0	0.0	0.93	0.93	206.4	223.8	1.08
All Pedestrians		32	34	34.2	LOS D	0.0	0.0	0.93	0.93	203.7	220.3	1.08

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

## MOVEMENT SUMMARY

 **Site: 104 [Monaro St+Lowe St PM Post Dev (Site Folder: General)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site Practical Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [ Total HV ] [ veh/h % ]		DEMAND FLOWS [ Total HV ] [ veh/h % ]		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [ Veh. Dist ] [ veh m ]		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Lowe Street														
1	L2	112	1.0	118	1.0	0.205	27.5	LOS B	3.4	24.1	0.77	0.75	0.77	29.2
2	T1	231	2.5	243	2.5	0.780	39.0	LOS C	10.1	71.9	1.00	0.93	1.19	19.7
3	R2	113	1.0	119	1.0	0.397	39.1	LOS C	4.3	30.5	0.94	0.78	0.94	19.1
Approach		456	1.8	480	1.8	0.780	36.2	LOS C	10.1	71.9	0.93	0.85	1.03	21.8
East: Monaro Street														
4	L2	73	3.1	77	3.1	0.079	15.1	LOS B	1.4	10.3	0.51	0.69	0.51	30.7
5	T1	799	2.9	841	2.9	0.788	31.0	LOS C	16.3	116.8	0.96	0.91	1.08	31.4
6	R2	58	1.8	61	1.8	0.444	46.8	LOS D	2.5	17.5	0.99	0.75	0.99	20.5
Approach		930	2.9	979	2.9	0.788	30.7	LOS C	16.3	116.8	0.92	0.88	1.03	30.6
North: Lowe Street														
7	L2	91	2.3	96	2.3	0.168	27.2	LOS B	2.7	19.5	0.76	0.74	0.76	23.4
8	T1	262	2.6	276	2.6	* 0.885	46.1	LOS D	12.7	91.0	1.00	1.06	1.42	13.0
9	R2	255	1.3	268	1.3	* 0.897	53.5	LOS D	12.7	89.7	1.00	1.04	1.48	20.2
Approach		608	2.0	640	2.0	0.897	46.4	LOS D	12.7	91.0	0.96	1.00	1.35	17.8
West: Farrer Place														
10	L2	120	2.7	126	2.7	0.132	15.9	LOS B	2.5	17.9	0.54	0.70	0.54	38.9
11	T1	846	2.6	891	2.6	* 0.882	39.4	LOS C	20.4	145.9	0.97	1.05	1.30	27.4
12	R2	101	1.1	106	1.1	* 0.769	50.4	LOS D	4.6	32.5	1.00	0.89	1.30	20.2
Approach		1067	2.5	1123	2.5	0.882	37.8	LOS C	20.4	145.9	0.93	1.00	1.21	27.6
All Vehicles		3061	2.4	3222	2.4	0.897	37.1	LOS C	20.4	145.9	0.93	0.94	1.16	25.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.  
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Queue Model: SIDRA Standard.  
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [ Ped      Dist ] ped              m		Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
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P1	Full	5	5	34.2	LOS D	0.0	0.0	0.93	0.93	201.3	217.2	1.08
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P2	Full	6	6	34.2	LOS D	0.0	0.0	0.93	0.93	206.4	223.8	1.08
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West: Farrer Place												
P4	Full	9	9	34.2	LOS D	0.0	0.0	0.93	0.93	206.4	223.8	1.08
All Pedestrians		32	34	34.2	LOS D	0.0	0.0	0.93	0.93	203.7	220.3	1.08

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.



24 June 2024

229044

The Village Building Company  
Argyle Corner  
92 Hoskins Street  
Mitchell ACT 2911

Attention George Danassis

## **Rutledge Street**

### **Response to Traffic for NSW TIA Comments**

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Dear George,

Please find TTW's responses addressing the Traffic for NSW comments on the Traffic Impact Assessment for the proposed development at Rutledge Street Queanbeyan, dated 28<sup>th</sup> March 2023. This statement of response is to be read in conjunction with TTW's Traffic Impact and Parking Assessment – Revision D, dated 15<sup>th</sup> May 2023.

- TTW notes that the SIDRA modelling undertaken as part of the TIA was calibrated by ensuring that the 95<sup>th</sup> percentile queuing distances from the SIDRA modelled aligned with the observed queueing distances observed onsite. Refer to Section 5.4 of the TIA for more information.
- In reference to the daily trip generation, TTW notes that the generation rates were updated within Revision D of the TIA to reflect the maximum generation rate provided within the TDT2013 04a, refer to Section 5.2 of Revision D to the TIA. No noticeable change to the Peak AM traffic was noted, and only minor impact in the evening peak noted. There were no level of service changes due to the change in generation.
- As noted in Section 5.2 of the TTW's TIA Revision D, the per unit trip rate is skewed by developments where there are little to no 1-bedroom units present. Based on the per bedroom to per unit ratio, the average bedroom number for the surveyed level is 3 bedrooms, the Rutledge Street development has an average of 1.86 bedrooms per unit, therefore a per bedroom rate has been adopted. The per bedroom ratio of similar sized developments within the surveyed developments was 0.21 peak trips per bedroom, slightly lower than modelled generation rate.

Further to this, if the per unit trip generation rate was used, this would result in a total of 47 extra vehicles in the morning peak hour, which results in a 2.1% increase in traffic at the Rutledge Street and Crawford Street intersection as the most impacted intersection, by the time traffic reached the Monaro Street intersections, it will be 0.5% of total traffic. This is seen as having a negligible impact on the critical intersections around the proposed development.

- As noted in Section 5.2 of TTW's TIA Revision D, based on the location of the development, it is not anticipated that a significant number of vehicle trips will be made specifically to any cafe in the morning, with most usage coming from the offices, residences and businesses in the surrounding area, which would all be in walking distance.
- The assessment of the peak traffic as a percentage of the total traffic in the AM does not consider that restaurant/cafe generation rates skew the peak percentages against the total. When looking at the commercial office tenancies, the peak generation is at 15% for peak AM and 11.5% for peak PM, and the residential generation is just under 10% for traffic generation, which is aligned with the existing case.

- Traffic distribution diagrams have been added to Section 5.3 of TTW's TIPA Revision D.
- The electronic copy of the SIDRA model can be provided to the Council on request.
- It is noted within Section 5.4 and Section 5.5 of TTW's TIPA that there is no loss in LoS due to the proposed development at any of the surrounding intersections, so any upgrades being considered by Council would not be required for the sake of the proposed development.

TTW trusts that the above comments address the concerns outlined within the TfNSW comments.

Should you require anything further please contact the undersigned.

Yours faithfully,  
**TTW (ACT) PTY LTD**

A handwritten signature in black ink, appearing to read 'Ross Costello', with a stylized, flowing script.

**Ross Costello**  
**Senior Civil Engineer**