



Figure 1 - Aerial of Site & surrounding features (ACTmapi November 2018)

Existing Traffic Conditions

Existing Road Network

As part of this updated traffic report, the following roads were investigated:

- **Moncrieff Street** – Bounds the Western edge of the site – 7m wide Access Street road with a nominal capacity of 1,000-2,000 vehicles per day (vpd both directions combined)
- **Morphett Street** – Bounds the Northern edge of the site – 9m wide Minor Collector road with a nominal capacity of 3,000-6,000 vehicles per day (vpd both directions combined)
- **Guthrie Street** – Bounds the Eastern edge of the site – 7m wide Access Street road with a nominal capacity of 1,000-2,000 vehicles per day (vpd both directions combined)
- **Hope Street** – 7m wide Access Street road with a nominal capacity of 1,000-2,000 vehicles per day (vpd both directions combined).

It is expected that these roads will be impacted by the proposed development. It is assumed that the majority of traffic will travel to Northbourne Avenue to the West and Cowper Street to the East via Morphett Street, Guthrie Street and Moncrieff Street. Consequently, it is assumed that a minority of vehicles will use Hope Street to access Northbourne Avenue and Cowper Street.

Existing Traffic data

Traffic counts for Morphet Street, Lowrie St, Challis St (near Morphet Street intersection), Guthrie Street and Hope Street were obtained from "Matrix traffic & Transport Data" from 26/02/2019 – 4/03/2019. Full details of this traffic count data are provided in Appendix A. Based on these counts, the peak periods on weekdays were greater than the peak periods on weekends. Hence, the peak periods occurring on weekdays were considered to be the governing peaks. The peak periods on weekdays were identified to be from 8:00am to 9:00am and 5:00pm to 6:00pm which is summarised in Table 1. It should be noted that the peak hours for Moncrieff Street, Guthrie Street and Hope Street appears to occur at 3:00pm which may be due to being situated in school zones. However, the total traffic within the area around 5:00pm – 6:00pm is still greater.

Table 1 – Existing Traffic Count Data

Location	Direction	Weekday Average (VPD)	8:00- 9:00 Peak (VPH)	5:00 – 6:00 Peak (VPH)
Challis St	Northbound	3528	244	477
Challis St	Southbound	3490	478	293
Morphett St (West of Challis St)	Eastbound	2276	200	237
Morphett St (West of Challis St)	Westbound	2476	221	224
Morphett St (West of Cowper St/First Driveway)	Eastbound	1216	233	195
Morphett St (West of Cowper St/First Driveway)	Westbound	1187	103	118
Moncrieff St	Northbound	1073	108	133
Moncrieff St	Southbound	537	137	54
Guthrie St	Northbound	169	31	16
Guthrie St	Southbound	174	24	27
Hope St (West of Guthrie St)	Eastbound	160	22	16
Hope St (West of Guthrie St)	Westbound	132	25	21
Hope St (East of Guthrie St)	Eastbound	225	25	39

From the traffic data, it can be observed that:

- ## Site Observations

- Challis Street was observed to experience minor delays in both directions. From 8:18am to 8:25am, it was observed that the Challis Street/Morphett Street intersection was free flowing approximately 75% of the time and had a maximum queuing length of 5 cars for vehicles entering Morphett Street from Challis Street. Furthermore, cars were observed to arrive in platoons (a closely spaced group of vehicles travelling together as a moving queue). These platoons were formed from the pedestrian use of the crossing north of the Challis Street/Morphett Street intersection.
- Morphett Street, Moncrieff Street and Guthrie Street were observed to experience minimal delays.
- From 8:25am to 8:30am, it was observed that 16 vehicles passed through Moncrieff Street which approximates to 192 vehicles per hour (vph) in both directions.
- From 8:32am to 8:37am, it was observed that 2 vehicles passed through Guthrie Street which approximates to 24 vehicles per hour (vph) in both directions.

Parking & Traffic Report
Blocks 1-6 Section 8 Dickson
CR171532-01 EC01

Existing Off-street Parking

Blocks 1-6, Section 8 Dickson consist of residential housing and some dual occupancy. These dwellings are assumed to contain private off-street parking for the occupants. Access to Block 1 and Blocks 2-6 are via driveway crossovers on Moncrieff Street and Morphett Street respectively.

Existing On-street Parking

From the site investigation conducted by Northrop Consulting Engineers, the parking restriction signs in the vicinity of the site include:

- No parking sign during schooldays (Monday – Friday) from 8:00am to 4:00pm on Morphett Street and Hope Street.
- No parking sign during Monday to Thursday from 9:00am to 11:00am and Friday from 7:30am to 6:00 pm on Hope Street.
- Bus zone sign during schooldays (Monday – Friday) from 8:00am to 4:00 pm.
- No stopping sign near the Challis Street/Morphett Street intersection, Moncrieff Street/Lowrie Street intersection and along the northern section of Moncrieff Street.
- No stopping sign during schooldays from 8:00am to 9:30am and 2:30pm and 4:30pm on the western section of Morphett Street.
- No parking sign during Monday to Friday from 7:30am to 6:00pm on Lowrie Street and Moncrieff Street.

The locations of the parking restriction signs are illustrated in Figure 2.



Figure 2 – Aerial of Parking Restriction Sign locations (ACTMapi March 2019)

Location	Type of accidents	Number of accidents
Intersection Cowper/Morphett	8 x Property Damage only	8 accident in total
Mid-Block – Morphett St (Cowper to Guthrie)	1 x Injury (received treatment) 1 x Property damage only	2 accidents in total
Intersection Guthrie/Morphett	1 x Property damage only	1 accident in total
Intersection Moncrieff/Morphett	2 x Property damage only	2 accidents in total
Mid-Block Morphett St (Moncrieff to Challis)	1 x Property damage only	1 accident in total
Intersection Challis/Morphett	15 x Property damage only	15 accident in total
Mid-Block Morphett St (Challis to Northbourne)	2 x Property damage only	2 accidents in total

Mid-block Lowrie St (Moncrieff to Moncrieff)	1 x Injury (received treatment) 1 x Property damage only	2 accidents in total
Mid-block Moncrieff St (Lowrie to Lowrie)	2 x Property damage only	2 accidents in total
Intersection Dooring/Moncrieff	1 x Injury (received treatment) 3 x Property damage only	4 accidents in total
Mid-block Hope St (Dooring to Guthrie)	2 x Property Damage	2 accidents in total

In summary:

- Only 3 accidents involving an injury were observed at 3 different locations. It should be noted that these accidents are not related to each other as they involved different vehicle movements.
- The largest number of accidents in the area occurred at the Intersection of Challis St and Morphett Street with 15 accidents observed over the 5-year period all of which were noted as property damage only.
- There were no reported accidents on the midblock of Morphett Street, Lowrie Street, Moncrieff Street and at the intersections of Lowrie Street/Moncrieff Street and Guthrie Street/Hope Street.
- There were no reported accidents on the midblock on Hope Street between Guthrie Street and Stockdale Street and at the intersection of Hope Street and Stockdale Street.

Under the Federal Government Black Spot program, for an area to be defined as a Black spot road (midblock or intersection) requiring modification, the road in question is required to meet the following condition.

“For individual sites such as intersections, mid-block or short road sections, there should be a history of at least three casualty crashes over a five-year period. For lengths of road, there should be an average of 0.2 casualty crashes per kilometre per annum over the length in question over five years.”

From the above definition, none of the locations listed in Table 2 meet the requirement of being a Black spot road. Based on the accident data, the majority of accidents occurred on a good dry surface with visibility unobstructed which suggests that these accidents are related to driver’s error.

New Developments

Public consultation has noted that the proposed development on Blocks 1-6 Section 8, Dickson along with other proposed multi-unit developments in the area will increase the amount of traffic generated and add additional pressure on the existing road network. In response to community feedback, the development applications within the area from 2017 – 2019 were investigated to determine their traffic impacts on the existing network. The ACTmapi ACT Government online mapping tool was used to determine development applications are new or have recently been approved, which were:

Blocks 11-12 Section 8, Dickson

Based on the site visit conducted by Northrop on the 14/03/2019, the site currently accommodates a multi-unit development with a singular vehicular access on Hope Street. From the site investigation, it was observed that the units appear to be occupied and as such, it was assumed that the traffic data provided by “Matrix Traffic & Transport Data” already incorporated the generated trips by this development.

Block 1 Section 9, Dickson

Based on the site visit conducted by Northrop on the 14/03/2019, the site currently accommodates a multi-unit development with a singular vehicular access on Guthrie Street. From the site investigation, it was observed that the units appear to be occupied and as such, it was assumed that the traffic data provided by Matrix already incorporated the generated trips by this development.

Blocks 36-38 Section 8, Dickson

Based on the access report provided by the Environment, Planning and Sustainable Development (EPD) customer services on the 19/03/2019, the proposed residential unit development will comprise of 13 units. These units will also include 2 units of adaptable house type c. In accordance with the ACT Government Estate Development Plan (May 2018), the total daily traffic generation rate is specified as 6 vpd per dwelling for multi-unit developments. As the development was assumed to have 13 units, the expected vpd for the development is 78 vpd.

The RMS “TDT 2013/ 04a Updated traffic surveys” (August 2013) was adopted under the assumption that the development shared similar site conditions to the site conditions in Wollongong. It was noted that both Wollongong and Dickson both consist of single residential dwellings and multi-storey complexes. In accordance with Appendix B1 of the RMS updated traffic surveys, the AM Peak and PM Peak for a 9 unit residential are 6 and 2 respectively. As the development comprises of 13 units, a scaled factor of 1.5 was applied to these figures and an AM and PM Peak value of 9 and 3 were adopted respectively.

Block 1 & 6 Section 77, Dickson

As part of the development application for the Dickson SOHO Precincts 1+5, a traffic impact assessment was undertaken by SMEC to determine the traffic generation by the development. This report has been made publicly accessible as part of the public notification period.

From Table 2 of SMEC’s report, the total AM trips and PM trips are 222 and 222 respectively. In SMEC’s report, the vpd of the developments was calculated as:

$$vpd = 5 * (AM \text{ trips} + PM \text{ trips})$$

To understand the traffic impacts on the surround road network as a result of the Dickson SOHO development, SMEC undertook intersection performance analyses using a VISSIM micro-simulation model in the 2031 horizon year. The intersection's performance was evaluated based on the Average Delay, Level of Service and Average Queue. These three parameters are defined as per SMEC report:

- Average delay: represents the amount of additional travel time, in excess of free flow conditions, experienced by each vehicle on average.
- Level of Service (LoS): is a simplified expression of performance, from A (best) through F (failure).
- Average Queue: is the queue length on each approach that can be expected to be exceeded half of the time, expressed in metres.

Table 12 and Table 13 of SMEC’s report summarises the intersection performances in 2031. From these tables, the traffic conditions at the intersections of Northbourne Avenue/Morphett Street and Challis Street/Morphett Street were forecasted to have a LoS A (excellent conditions) where the maximum queuing length (in metres) for the Northbourne Avenue/Morphett Street intersection and Challis Street/Morphett intersection were 10m and 0m respectively. As the traffic conditions were determined to have a Level of Service of A, the traffic impacts caused by the Dickson SOHO development have been assessed as negligible.

Block 45, Section 6 Dickson

Based on the area plans provided by EPD customer services on the 08/04/2019, the proposed re-development at Blocks 27&28 (Block 45) Section 6 will comprise of 16 units. In accordance with the ACT Government Estate Development Plan (May 2018), the total daily traffic generation rate of the development was specified as 6 vpd per dwelling for multi-unit developments. As the development was assumed to comprise of 16 units, the expected vpd for the development is 96 vpd.

Based on the assumption that the development shares similar site conditions to the site conditions in Wollongong, the RMS “TDT 2013/ 04a Updated traffic surveys” (August 2013) was adopted to determine the AM Peak and PM peak for the development. In accordance with Appendix B1 of the updated RMS updated traffic surveys, the AM Peak and PM Peak for a 9 unit residential are 6 and 2 respectively. As the development comprises of 16 units, a scaled factor of 1.8 was applied to these figures and an AM and PM Peak value of 11 and 4 were adopted respectively.

Summary

Based on the previous investigations, it was determined that the proposed developments on Blocks1-6, Section 8, Dickson Blocks 36-38 Section 8, Dickson and Blocks 1 & 6 Section 77, Dickson, Block 26 Section 6, Dickson and Block 45 Section 6, Dickson will generate traffic trips in addition to the existing traffic counts.

Proposed Traffic Generation

The current proposal for the site will have the traffic generation rates as noted in the below tables. The traffic generated for the 6 existing single has also been noted below to allow a comparison between preconstruction to post construction traffic generation to be made. The traffic rates were determined by using the following source documents listed below, in order of priority:

1. ACT Government Estate Development Plan (May 2018)
2. RMS "TDT 2013/ 04a Updated traffic surveys" (August 2013)
3. RTA "Guide to Traffic Generating Developments" (October 2002)

These traffic generation rates and the estimated total traffic generated by the proposed development can be observed in Table 3 and Table 4.

Table 3 – Estimated daily traffic generation post development

Development Option	Traffic Generation rate (vpd)	Daily Traffic generated (vpd)
Existing Dwellings x6	9 vpd/ Dwelling	-54 vpd total
Proposed 15 x 2-bedroom unit (medium density housing)	6 vpd/ Dwelling	90 vpd total
Proposed 4 x 3-bedroom unit (medium density housing)	7 vpd/ Dwelling	28 vpd total
Proposed 2 x 4-bedroom unit (medium density housing)	7 vpd/ Dwelling	14 vpd total
Total additional traffic generated post development		78 vpd

Table 4 – Estimated peak Hour vehicle movements post development

Development Option	Peak Traffic Generation (vph)	Peak Traffic generated (vph)
Existing Dwellings x6	0.85 vph/ Dwelling	-5.1 vph total
Proposed 15 x 2-bedroom unit (medium density housing)	0.5 vph/ Dwelling	7.5 vph total
Proposed 4 x 3-bedroom unit (medium density housing)	0.65 vph/ Dwelling	2.6 vph total
Proposed 2 x 4-bedroom unit (medium density housing)	0.65 vph/ Dwelling	1.3 vph total
Total additional peak traffic generated post development		6.3 vph total

The directional distribution of traffic generated by the proposed development and the surrounding developments will be influenced by several factors including, but not limited to the:

- Configuration of access points to the site;
- Configuration of the arterial road network in the immediate vicinity of the subject site;
- The location of local schools, restaurants, supermarkets, shops and public facilities.

According to the Institution of Transportation Engineers (ITE) “Trip Generation Manual 9th Edition” (2012), the directional proportions (in:out) for Mid-rise apartment residential dwellings for the AM and PM Peaks are 31:69 and 58:42 respectively. A conservative 20:80 in:out split for the developments was adopted for the 8:00am – 9:00am peak (reversed during the 5:00pm – 6:00pm peak). The predicted peak hour generation for the subject site and nearby developments is shown in Table 5.

Table 5 – Development Peak Hour Trip Generation

Developments	TRIPS (veh/hr)	IN:OUT SPLIT (%)	IN:OUT SPLIT (veh)
8:00am - 9:00am Peak			
Block 1-6, Section 8 (Subject Site)	7	20:80	2:5
Blocks 36-38, Section 8	9	20:80	2:7
Block 1, Section 6	65	X ^{NOTE 1}	24:41
Block 6, Section 77	158	X ^{NOTE 1}	49:105
Block 45, Section 6	11	20:80	2:9
5:00pm - 6:00pm Peak			
Block 1-6, Section 8 (Subject Site)	7	80:20	5:2
Blocks 36-38, Section 8	3	80:20	3:0
Block 1, Section 6	65	X ^{NOTE 1}	35:30
Block 6, Section 6	158	X ^{NOTE 1}	92:66
Block 45, Section 6	3	80:20	3:1

Note:

1. The directional trip distribution rates for the SOHO development (Blocks 1 Section 6 and Block 6 Section 77, Dickson) are specified in Table 1 of SMEC's report "Dickson SOHO Precincts 1+5 Traffic Impact Assessment" (2017).

It is assumed that the majority of vehicle trips generated by the new developments will travel east to Northbourne Avenue and west to Cowper Street. For the purpose of this report, the following conservative estimates have been assumed for the traffic distribution:

- Block 1 Section 6, 65% of the development generated trips will travel West and 35% of the trips will travel East along Morphett Street;
- Block 6 Section 77, 80% of the development generated trips will travel North and 20% of the trips will travel South along Dooring Street;
- Blocks 36-38 Section 8, 80% of the development generated trips will travel North and 20% of the trips will travel South along Moncrieff Street;

- Block 45 Section 6, 80% of the development generated trips will travel North and 20% of the the trips will travel East along Lowrie Street;
- Blocks 1-6 Section 8 (Subject Site), 60% of the development generated trips will travel North along Morphett Street and 40% of the development generated trips will travel North along Guthrie Street.

The resulting distribution of development as a result from the subject site and surrounding developments for Morphett Street, Moncrieff Street and Guthrie Street are illustrated in Figure 4 and Figure 5 for the weekday 8:00am – 9:00am and 5:00pm – 6:00pm peak hours respectively.

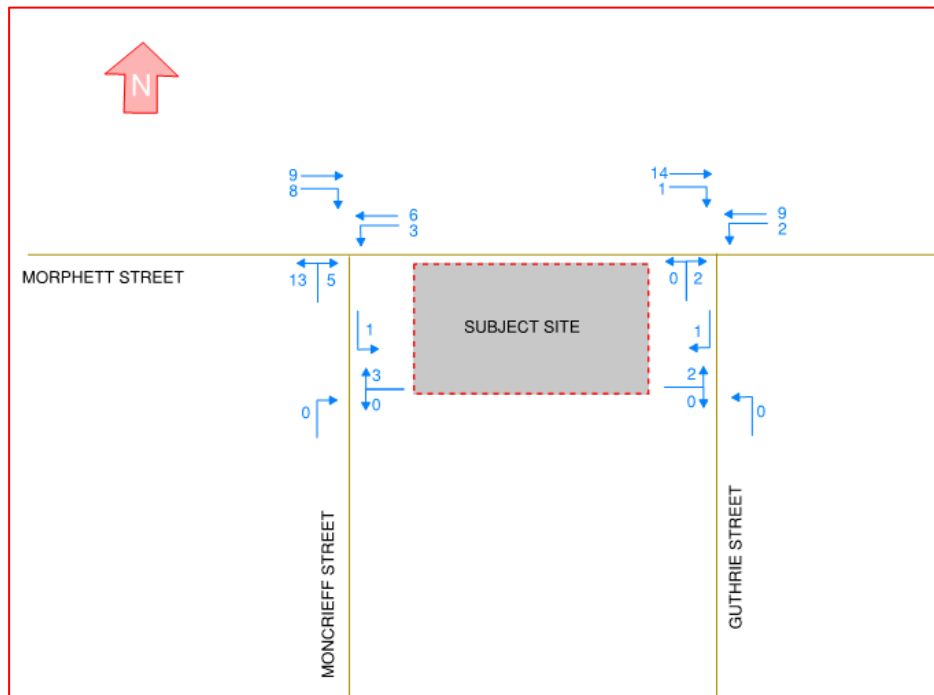


Figure 4 Predicted Weekday AM Peak Hour Distribution

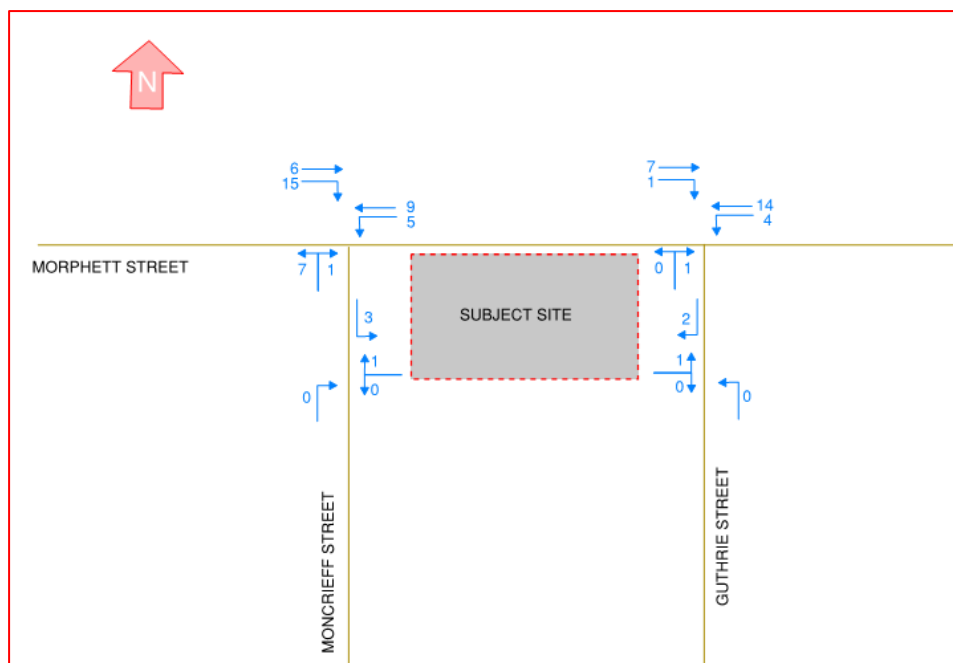


Figure 5 Predicted Weekday PM Peak Hour Distribution

The resulting traffic counts with the inclusion of the additional generated trips by the new developments within the vicinity of Morphett Street, Moncrieff Street and Guthrie Street are summarised in Table 6 and Table 7.

Table 6– Expected Vehicles Per Hour for Pre-Development and Post-Development Traffic

Location	Direction	Pre – Development Traffic Rates		Post – Development Traffic from other Developments		Post – Development Traffic from Subject Site		Post- Development Traffic from all developments	
		8:00am – 9:00am Peak (VPH)	5:00pm – 6:00pm Peak (VPH)	8:00am – 9:00am Peak (VPH)	5:00pm – 6:00pm Peak (VPH)	8:00am – 9:00am Peak (VPH)	5:00pm – 6:00pm Peak (VPH)	8:00am – 9:00am Peak (VPH)	5:00pm – 6:00pm Peak (VPH)
Morphett St (West of Cowper St/First Driveway)	Eastbound	247	195	13	6	2	1	262	202
Morphett St (West of Cowper St/First Driveway)	Westbound	103	118	10	16	1	2	114	136
Moncrieff St	Northbound	108	133	15	7	3	1	126	141
Moncrieff St	Southbound	137	54	10	17	1	3	148	74
Guthrie St	Northbound	31	16	0	0	2	1	33	17
Guthrie St	Southbound	24	27	2	3	1	2	27	32

From the Table 6, it can be observed that:

- The additional vehicles per hour on Morphett Street (Eastbound) for the 8:00am – 9:00am and 5:00pm – 6:00pm peaks are 15 vph and 7 vph respectively.
- The additional vehicles per hour on Morphett Street (Westbound) for the 8:00am – 9:00am and 5:00pm – 6:00pm peaks are 11 vph and 18 vph respectively.
- The additional vehicles per hour on Moncrieff Street (Northbound) for the 8:00am – 9:00am and 5:00pm – 6:00pm peaks are 18 vph and 8 vph respectively.
- The additional vehicles per hour on Moncrieff Street (Southbound) for the 8:00am – 9:00am and 5:00pm – 6:00pm peaks are 11 vph and 20 vph respectively.
- The additional vehicles per hour on Guthrie Street (Northbound) for the 8:00am – 9:00am and 5:00pm – 6:00pm peaks are 2 vph and 1 vph respectively.
- The additional vehicles per hour on Guthrie Street (Southbound) for the 8:00am – 9:00am and 5:00pm – 6:00pm peaks are 3 vph and 5 vph respectively.

Based on the assumed trip generation distribution, it is expected that approximately one fifth of the developments' generated trips will travel through Morphett Street, Moncrieff Street and Guthrie Street during the peak periods. From Table 6, it is apparent that the increase in the number of vehicles during the peak hour for Morphett Street, Moncrieff Street and Guthrie Street is relatively small. Given that the additional traffic generated by the proposed development is only a portion of the total increase in post development traffic, it is assumed that the proposed development will have a minor impact on the surrounding road network.

Table 7 – Expected Vehicles Per Day for Pre-Development and Post-Development Traffic

Location	Direction	Weekday Average (VPD)	Post-Development Weekday (VPD)
Morphett St (West of Cowper St/First Driveway)	Eastbound	1216	1337
Morphett St (West of Cowper St/First Driveway)	Westbound	1187	1301
Moncrieff St	Northbound	1073	1249
Moncrieff St	Southbound	537	689
Guthrie St	Northbound	169	280
Guthrie St	Southbound	174	208

From Table 7, the additional generated vehicles per day from the surrounding developments results in:

- Morphett Street is operating at 44% of its total nominal capacity on a weekday;
- Moncrieff Street is operating at 48% of its total nominal capacity on a weekday;
- Guthrie Street is operating at 12% of its total nominal capacity on a weekday.

It is evident that Morphett Street, Moncrieff Street and Guthrie Street have ample capacity to absorb the additional traffic generated by the proposed development as well as the other nearby developments.

Parking Generation/ Requirements

The vehicular parking demand, generated from the proposed development has been assessed against the requirements in the ACTPLA *Parking and Vehicular Access General Code* (25 May 2018).

Locational Parking Requirements

The locational requirements for long stay, short stay, operational and visitor parking are as follows (*Clause 3.1.4, Locational requirements, Residential zones*):

For Residential use:

- For long stay parking (resident parking), on site;
- For short stay/ visitor parking, on site or within 100m;

Parking Generation Rates

Table 8 notes the parking generation rates as per the requirements of the *Parking and Vehicular Access General Code* were used for the proposed development (*schedule 1 parking provision rates for Residential zones*).

Table 8 – Vehicular parking generation for the proposed development

Space/type	Num.	Rate	Parking Spaces Required
2-Bedroom Dwelling	15	1.5 spaces/apartment	23 Long stay spaces
3-Bedroom Dwelling	4	2.0 spaces/apartment	8 Long stay spaces
4-Bedroom Dwelling	2	2.0 spaces/apartment	4 Long stay spaces
Visitor Parking	N/A	1 space/ 4 dwellings	6 Visitor spaces
Total Parking Generated			35 Long stay spaces 6 Visitor spaces

43 car parking spaces have been provided in the basement which is inclusive of long stay spaces and visitor spaces.

Disabled Space Parking Requirements

The *Parking and Vehicular Access General Code* (Clause 2.2.4) sets out requirements for the number of Disabled spaces to be provided. Notwithstanding any provision in the Building Code of Australia, parking spaces for people with disabilities are to comprise a minimum of 3% (rounded up to the nearest whole number) of the total number of parking spaces required in accordance with the code.

Considering the total generation of parking spaces from the previous section is expected to be approximately 40 spaces a minimum of, $(0.03 \times 40) = (2)$ car parking spaces are required to be designated as disabled. At least 1 of these spaces should be considered for the visitor parking requirements of this site.

2 disabled car parking spaces have been provided on the basement with a shared space between them.

Delivery and Removalist Van Requirements

The Multi-Unit Housing Development Code (December 2018) notes that an additional parking space and suitable access for delivery/ removalist van is to be provided if a development has 40 or more dwellings.

This additional space is not required as the development has less than 40 dwellings.

Motorcycle Parking Requirements

As per the requirements of *Clause 2.4, Parking for motorcycles and motor scooters, Parking and Vehicular Access General Code*, the provision rate for motorcycles is three (3) dedicated spaces per (100) vehicle parking spaces, with a minimum of one space for car parks with a minimum of (30) parking spaces. These spaces are to be provided in addition to the number of car parking spaces required under this code.

Considering the total generation of parking spaces from the previous section is expected to be approximately 43 spaces a minimum of, $(0.03 \times 40) = (2)$ additional motorcycle spaces are to be provided for the site.

2 motorcycle parking spaces have been provided on the ground floor of the development.

Bicycle Parking Requirements

In Accordance with the ACTPLA Bicycle Parking General Code (October 2013), Table 9 outlines the bicycle parking provisions which are to be met onsite in addition to the above mentioned vehicle parking requirements.

Table 9 – Bicycle parking generation for the proposed development

Development Type	Bicycle Parking type	Rate	Bicycle Parking Required
Apartment	Class 1 or 2	1 per apartment	21 x class 1 or class 2 spaces
Visitor Parking	Class 3	1 per 12 apartments after the first 12 apartments	2 x class 3 space
<i>Total Parking Generated</i>			21 x class 1 or 2 class spaces 2 x class 3 space

The classes of bicycle parking are defined as follows:

- Class 1 - Bicycle Locker - Fully enclosed individual locker
- Class 2 - Bicycle Enclosure - Locked cages or compounds containing Bicycle Rail installations for multiple users
- Class 3 – Fixed to the ground loop or hoop rails which a bike can be securely fixed to; located in areas with at least good passive surveillance.

The development contains facilities for both resident and visitor bicycle parking. It has been assumed the residential bicycle parking will be in the resident's storage area which is similar to a class 1 bicycle parking locker. There is designated visitor bicycle parking available on the ground floor. 1 rail has been shown on the plan to indicate bicycle parking for 2 visitors.

Parking & Traffic Provision Conclusions

It was concluded that:

- Based on the current *Parking and Vehicular Access Code*, the proposed development on Blocks 1-6 Section 8 requires 35 parking spaces for residents & 6 parking spaces for visitors (40 spaces in total). The current proposal shows 43 parking spaces onsite as well as 1 shared space.
- 2 of the onsite parking spaces are designated as disabled accessible including the associated shared zone.
- 2 motorcycle spaces are shown on the ground floor near the proposed waste enclosure.
- 21 class 1 or 2 bicycle parking spaces are to be provided for residents. The current proposal shows that each parking space in the basement has a storage unit which provides a fully enclosed individual locker (Class 1 bicycle storage) for each dwelling.
- Class 3 bicycle parking spaces are currently shown on the ground floor near the motorcycle parking. This is currently nominated as "visitor bicycle parking"
- From the additional accident data provided by Roads ACT, none of the accidents meet the requirement of being a black spot road.
- Based on the site visit conducted by Northrop Consulting Engineers conducted on the 14th March 2019, the observed vehicles per hour validate the updated traffic counts provided by Matrix.
- From the traffic data obtained from Matrix, the nearby roads of Moncrieff Street, Morphet Street and Guthrie Street are assessed to have capacity to absorb the additional traffic generated by the proposed development as well as the new developments located on Blocks 36-38 Section 8 (Dickson), Blocks 1&6 Section 77 (Dickson) and Block 45 Section 6, Dickson.
- As the additional traffic movements generated by the proposed developments is a small portion of the additional traffic generated by the surround developments, it is assessed that the development related traffic will have a minimal impact to the surrounding road network.

Based on the existing traffic conditions, proposed traffic generation for this development and other proposed developments and the required parking spaces being noted onsite; the current development proposal on Blocks 1-6 Section 6 Dickson appears to be viable on parking & traffic grounds.

Don't hesitate to contact the undersigned if you have any questions.

NORTHROP CONSULTING ENGINEERS

Sincerely,



Kerry Pham Van Khanh
Graduate Civil Engineer

Reviewed by:



Joey Wiltshire
Civil Engineer

Appendix A: Roads ACT Accident Data 2013-2017

History Location:	MORPHETT STREET - showing Intersections and Midblocks									
Report Date Range:	01/01/2013 12:00:00 AM -> 31/12/2017 11:59:59 PM									
Location Type	Intersection									
Location Description	COWPER/MORPHE TT									
Location : Chainage	Police Reference	Date/Time	Severity	Injury Type	Crash Type	Number of Casualties	Number of Vehicles	Road Surface	Weather	Rum Code
		Direction	Lane	Position	Movement	Visibility				
COWPER/MORPHETT	2013-1129272	28/03/2013 17:50	Property Damage Only		6	0	2	Wet surface	Light rain	301
	Vehicle 1	North bound	1st (kerb or left) lane	Within intersection	Straight ahead	Not obstructed				
	Vehicle 2	North bound	1st (kerb or left) lane	Within intersection	Straight ahead	Not obstructed				
COWPER/MORPHETT	2013-1154840	6/08/2013 18:05	Property Damage Only		2	0	2	Wet surface	Light rain	102
	Vehicle 1	South bound	1st (kerb or left) lane	Within intersection	Straight ahead	Not obstructed				
	Vehicle 2	East bound	1st (kerb or left) lane	Within intersection	Right turn	Other				

COWPER/MORPHETT	2014-1117888	8/10/2014 10:00	Property Damage Only		6	0	2	Good dry surface	Fine	303
	Vehicle 1	South bound	1st (kerb or left) lane	Within intersecti on	Right turn	Not obstructed				
	Vehicle 2	South bound	1st (kerb or left) lane	Within intersecti on	Straight ahead	Not obstructed				
COWPER/MORPHETT	2014-1093567	30/12/2014 10:45	Property Damage Only		6	0	2	Good dry surface	Fine	302
	Vehicle 1	East bound	1st (kerb or left) lane	Approach ing intersecti on	Left turn	Not obstructed				
	Vehicle 2	East bound	1st (kerb or left) lane	Within intersecti on	Left turn	Not obstructed				
COWPER/MORPHETT	2016-1127719	24/03/2016 12:40	Property Damage Only		6	0	2	Good dry surface	Fine	303
	Vehicle 1	South bound	1st (kerb or left) lane	Approach ing intersecti on	Straight ahead	Not obstructed				
	Vehicle 2	South bound	1st (kerb or left) lane	Within intersecti on	Right turn	Not obstructed				
COWPER/MORPHETT	2016-2225804	29/05/2016 18:30	Property Damage Only		2	0	2	Good dry surface	Fine	104
	Vehicle 1	East bound	1st (kerb or left) lane	Within intersecti on	Right turn	Not obstructed				
	Vehicle 2	North bound	1st (kerb or left) lane	Within intersecti on	Straight ahead	Not obstructed				

COWPER/MORPHETT	2016-1099867	9/09/2016 7:45	Property Damage Only		6	0	2	Good dry surface	Fine	302
	Vehicle 1	East bound	1st (kerb or left) lane	Within intersecti on	Left turn	Not obstructed				
	Vehicle 2	East bound	1st (kerb or left) lane	Within intersecti on	Left turn	Not obstructed				
COWPER/MORPHETT	2016-1093469	28/09/2016 11:30	Property Damage Only		2	0	2	Good dry surface	Fine	105
	Vehicle 1	South bound	1st (kerb or left) lane	Within intersecti on	Right turn	Not obstructed				
	Vehicle 2	East bound	1st (kerb or left) lane	Within intersecti on	Right turn	Not obstructed				
Crashes = 8										
Location Type	Mid Block									
Location Description	MORPHETT STREET (COWPER -> GUTHRIE)									
Location : Chainage	Police Reference	Date/Time	Severity	Injury Type	Crash Type	Number of Casualties	Number of Vehicles	Road Surface	Weather	Rum Code
		Direction	Lane	Position	Movement	Visibility				
MORPHETT STREET (COWPER -> GUTHRIE) : 109	2015-2019400	13/04/2015 12:20	Injury	Received medical treatmen t	19	1	1	Good dry surface	Fine	704
	Vehicle 1	East bound	1st (kerb or left) lane	Not related to intersecti	Straight ahead	Not obstructed				

				on						
MORPHETT STREET (COWPER -> GUTHRIE) : 173	2016-1233948	24/06/2016 23:00	Property Damage Only		7	0	2	Good dry surface	Fine	601
	Vehicle 1	East bound	1st (kerb or left) lane	Not related to intersecti on	Straight ahead	Not obstructed				
	Vehicle 2	East bound	1st (kerb or left) lane	Not related to intersecti on	Parked	Not obstructed				
Crashes = 2										
Location Type	Intersection									
Location Description	GUTHRIE/MORPHE TT									
Location : Chainage	Police Reference	Date/Time	Severity	Injury Type	Crash Type	Number of Casualties	Number of Vehicles	Road Surface	Weather	Rum Code
		Direction	Lane	Position	Movement	Visibility				
GUTHRIE/MORPHETT	2013-2228273	12/06/2013 16:30	Property Damage Only		2	0	2	Wet surface	Light rain	104
	Vehicle 1	North bound	1st (kerb or left) lane	Within intersecti on	Right turn	Not obstructed				
	Vehicle 2	West bound	1st (kerb or left) lane	Within intersecti on	Straight ahead	Not obstructed				
Crashes = 1										
Location Type	Mid Block									

Location Description	MORPHETT STREET (GUTHRIE -> MONCRIEFF)									
Location : Chainage	Police Reference	Date/Time	Severity	Injury Type	Crash Type	Number of Casualties	Number of Vehicles	Road Surface	Weather	Rum Code
		Direction	Lane	Position	Movement	Visibility				
Crashes = 0										
Location Type	Intersection									
Location Description	MONCRIEFF/MORPHETT									
Location : Chainage	Police Reference	Date/Time	Severity	Injury Type	Crash Type	Number of Casualties	Number of Vehicles	Road Surface	Weather	Rum Code
		Direction	Lane	Position	Movement	Visibility				
MONCRIEFF/MORPHETT	2014-2124551	4/09/2014 11:00	Property Damage Only		6	0	2	Good dry surface	Fine	302
	Vehicle 1	North bound	1st (kerb or left) lane	Within intersection	Left turn	Not obstructed				
	Vehicle 2	North bound	1st (kerb or left) lane	Within intersection	Left turn	Not obstructed				
MONCRIEFF/MORPHETT	2017-1106019	24/05/2017 8:50	Property Damage Only		2	0	2	Wet surface	Fine	107
	Vehicle 1	North bound	1st (kerb or left) lane	Within intersection	Left turn	Not obstructed				
	Vehicle 2	West bound	1st (kerb or left) lane	Within intersection	Straight ahead	Not obstructed				

				on						
Crashes = 2										
Location Type	Mid Block									
Location Description	MORPHETT STREET (MONCRIEFF -> CHALLIS)									
Location : Chainage	Police Reference	Date/Time	Severity	Injury Type	Crash Type	Number of Casualties	Number of Vehicles	Road Surface	Weather	Rum Code
		Direction	Lane	Position	Movement	Visibility				
MORPHETT STREET (MONCRIEFF -> CHALLIS) : 28	2016-1085218	11/11/2016 7:46	Property Damage Only		8	0	2	Good dry surface	Fine	404
	Vehicle 1	West bound	1st (kerb or left) lane	Approaching intersection	Straight ahead	Not obstructed				
	Vehicle 2	West bound	1st (kerb or left) lane	Approaching intersection	Backing	Other				
Crashes = 1										
History Location:	GUTHRIE STREET - showing Intersections and Midblocks									
Report Date Range:	01/01/2013 12:00:00 AM -> 31/12/2017 11:59:59 PM									
Location Type	Intersection									
Location Description	GUTHRIE/HOPE									

Location : Chainage	Police Reference	Date/Time	Severity	Injury Type	Crash Type	Number of Casualties	Number of Vehicles	Road Surface	Weather	Rum Code
		Direction	Lane	Position	Movement	Visibility				
Crashes = 0										
Location Type	Mid Block									
Location Description	GUTHRIE STREET (HOPE -> MORPHETT)									
Location : Chainage	Police Reference	Date/Time	Severity	Injury Type	Crash Type	Number of Casualties	Number of Vehicles	Road Surface	Weather	Rum Code
		Direction	Lane	Position	Movement	Visibility				
Crashes = 0										
Location Type	Intersection									
Location Description	GUTHRIE/MORPHETT									
Location : Chainage	Police Reference	Date/Time	Severity	Injury Type	Crash Type	Number of Casualties	Number of Vehicles	Road Surface	Weather	Rum Code
		Direction	Lane	Position	Movement	Visibility				
GUTHRIE/MORPHETT	2013-2228273	12/06/2013 16:30	Property Damage Only		2	0	2	Wet surface	Light rain	104
	Vehicle 1	North bound	1st (kerb or left) lane	Within intersection	Right turn	Not obstructed				
	Vehicle 2	West bound	1st (kerb or left) lane	Within intersection	Straight ahead	Not obstructed				

				on						
Crashes = 1										
History Location:	HOPE STREET - showing Intersections and Midblocks									
Report Date Range:	01/01/2013 12:00:00 AM -> 31/12/2017 11:59:59 PM									
Location Type	Intersection									
Location Description	DOORING/HOPE									
Location : Chainage	Police Reference	Date/Time	Severity	Injury Type	Crash Type	Number of Casualties	Number of Vehicles	Road Surface	Weather	Rum Code
		Direction	Lane	Position	Movement	Visibility				
Crashes = 0										
Location Type	Mid Block									
Location Description	HOPE STREET (DOORING -> GUTHRIE)									
Location : Chainage	Police Reference	Date/Time	Severity	Injury Type	Crash Type	Number of Casualties	Number of Vehicles	Road Surface	Weather	Rum Code
		Direction	Lane	Position	Movement	Visibility				
HOPE STREET (DOORING -> GUTHRIE) : 166	2013-1016864	21/08/2013 23:45	Property Damage Only		7	0	3	Good dry surface	Fine	601
	Vehicle 1	South bound	1st (kerb or left) lane	Not related to intersect	Parked	Not obstructed				

				on						
	Vehicle 2	South bound	1st (kerb or left) lane	Not related to intersection	Parked	Not obstructed				
	Vehicle 3									
HOPE STREET (DOORING -> GUTHRIE) : 169	2013-1108364	5/11/2013 20:30	Property Damage Only		7	0	2	Good dry surface	Fine	601
	Vehicle 1	West bound	1st (kerb or left) lane	Not related to intersection	Parked	Not obstructed				
	Vehicle 2	West bound	1st (kerb or left) lane	Within intersection	Straight ahead	Not obstructed				
Crashes = 2										
Location Type	Intersection									
Location Description	GUTHRIE/HOPE									
Location : Chainage	Police Reference	Date/Time	Severity	Injury Type	Crash Type	Number of Casualties	Number of Vehicles	Road Surface	Weather	Rum Code
		Direction	Lane	Position	Movement	Visibility				
Crashes = 0										

Job No	A99 - Dickson	Menu
Client	Northrop Engineering	
Site	ATC 1 - Challis St	
Location	Dickson	
Site No	1	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	NB	

Hour Starting	Day of Week							W'Day	7 Day
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	4-Mar	26-Feb	27-Feb	28-Feb	1-Mar	2-Mar	3-Mar		
AM Peak	218	244	240	235	242	195	190	Ave	Ave
PM Peak	426	395	477	391	440	213	198	3528	3240
0:00	10	5	5	3	15	20	27	8	12
1:00	6	4	6	4	10	9	28	6	10
2:00	4	2	3	5	12	5	7	5	5
3:00	6	3	2	6	3	8	11	4	6
4:00	6	8	8	4	9	7	6	7	7
5:00	20	20	23	12	17	8	5	18	15
6:00	60	61	64	74	92	48	25	70	61
7:00	135	147	171	163	164	59	37	156	125
8:00	218	244	240	235	242	119	66	236	195
9:00	218	192	216	223	223	160	94	214	189
10:00	148	172	171	102	169	166	149	152	154
11:00	203	208	232	102	220	195	190	193	193
12:00	204	227	234	140	273	213	193	216	212
13:00	245	220	251	109	219	199	185	209	204
14:00	197	230	216	125	286	181	152	211	198
15:00	320	274	267	290	366	165	171	303	265
16:00	253	292	296	277	301	163	171	284	250
17:00	426	395	477	391	440	207	179	426	359
18:00	306	354	377	323	291	198	198	330	292
19:00	147	175	181	189	208	188	159	180	178
20:00	124	116	95	165	164	125	128	133	131
21:00	86	58	64	113	124	122	76	89	92
22:00	44	38	42	65	74	83	42	53	55
23:00	16	14	10	43	44	65	28	25	31
Total	3402	3459	3651	3163	3966	2713	2327	3528	3240

7-19	2873	2955	3148	2480	3194	2025	1785	2930	2637
6-22	3290	3365	3552	3021	3782	2508	2173	3402	3099
6-24	3350	3417	3604	3129	3900	2656	2243	3480	3186
0-24	3402	3459	3651	3163	3966	2713	2327	3528	3240

Job No	A99 - Dickson	Menu
Client	Northrop Engineering	
Site	ATC 1 - Challis St	
Location	Dickson	
Site No	1	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	SB	



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 4-Mar	Tue 26-Feb	Wed 27-Feb	Thu 28-Feb	Fri 1-Mar	Sat 2-Mar	Sun 3-Mar		
AM Peak	387	409	417	478	396	204	176		
PM Peak	255	267	293	251	329	230	229	3490	3214
0:00	9	9	14	20	21	25	26	15	18
1:00	10	7	9	15	14	25	23	11	15
2:00	2	5	3	7	13	13	17	6	9
3:00	3	4	2	6	7	12	8	4	6
4:00	7	5	10	9	6	7	7	7	7
5:00	20	19	17	19	19	13	3	19	16
6:00	52	65	80	86	80	35	13	73	59
7:00	212	227	250	235	213	58	30	227	175
8:00	387	409	417	478	396	105	46	417	320
9:00	201	178	202	189	208	126	108	196	173
10:00	141	163	167	168	181	191	138	164	164
11:00	183	164	186	187	181	204	176	180	183
12:00	186	199	205	198	234	227	164	204	202
13:00	225	233	219	191	256	230	229	225	226
14:00	171	212	202	207	227	192	190	204	200
15:00	247	228	196	217	329	179	145	243	220
16:00	245	267	239	237	263	151	134	250	219
17:00	255	254	293	251	277	165	168	266	238
18:00	167	201	214	231	191	166	156	201	189
19:00	154	160	197	205	169	195	164	177	178
20:00	134	169	174	163	181	157	149	164	161
21:00	107	142	143	135	133	143	104	132	130
22:00	60	55	76	77	96	92	59	73	74
23:00	22	26	21	38	49	52	25	31	33
Total	3200	3401	3536	3569	3744	2763	2282	3490	3214

7-19	2620	2735	2790	2789	2956	1994	1684	2778	2510
6-22	3067	3271	3384	3378	3519	2524	2114	3324	3037
6-24	3149	3352	3481	3493	3664	2668	2198	3428	3144
0-24	3200	3401	3536	3569	3744	2763	2282	3490	3214

Job No A99 - Dickson
Client Northrop Engineering
Site ATC 1 - Challis St
Location Dickson
Site No 1
Start Date 26-Feb-19
Description Volume Summary
Direction Combined

[Menu](#)


Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 4-Mar	Tue 26-Feb	Wed 27-Feb	Thu 28-Feb	Fri 1-Mar	Sat 2-Mar	Sun 3-Mar		
AM Peak	605	653	657	713	638	399	366		
PM Peak	681	649	770	642	717	440	414	7018	6454
0:00	19	14	19	23	36	45	53	22	30
1:00	16	11	15	19	24	34	51	17	24
2:00	6	7	6	12	25	18	24	11	14
3:00	9	7	4	12	10	20	19	8	12
4:00	13	13	18	13	15	14	13	14	14
5:00	40	39	40	31	36	21	8	37	31
6:00	112	126	144	160	172	83	38	143	119
7:00	347	374	421	398	377	117	67	383	300
8:00	605	653	657	713	638	224	112	653	515
9:00	419	370	418	412	431	286	202	410	363
10:00	289	335	338	270	350	357	287	316	318
11:00	386	372	418	289	401	399	366	373	376
12:00	390	426	439	338	507	440	357	420	414
13:00	470	453	470	300	475	429	414	434	430
14:00	368	442	418	332	513	373	342	415	398
15:00	567	502	463	507	695	344	316	547	485
16:00	498	559	535	514	564	314	305	534	470
17:00	681	649	770	642	717	372	347	692	597
18:00	473	555	591	554	482	364	354	531	482
19:00	301	335	378	394	377	383	323	357	356
20:00	258	285	269	328	345	282	277	297	292
21:00	193	200	207	248	257	265	180	221	221
22:00	104	93	118	142	170	175	101	125	129
23:00	38	40	31	81	93	117	53	57	65
Total	6602	6860	7187	6732	7710	5476	4609	7018	6454

7-19	5493	5690	5938	5269	6150	4019	3469	5708	5147
6-22	6357	6636	6936	6399	7301	5032	4287	6726	6135
6-24	6499	6769	7085	6622	7564	5324	4441	6908	6329
0-24	6602	6860	7187	6732	7710	5476	4609	7018	6454

Job No	A99 - Dickson	<div>Menu</div> 
Client	Northrop Engineering	
Site	ATC 2 - Morphet St (West of Challis St)	
Location	Dickson	
Site No	2	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	EB	

Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	4-Mar	26-Feb	27-Feb	28-Feb	1-Mar	2-Mar	3-Mar		
AM Peak	180	143	182	200	197	131	159		
PM Peak	234	207	237	229	229	160	160	2276	2191
0:00	10	0	2	1	18	10	29	6	10
1:00	7	4	3	0	10	10	16	5	7
2:00	4	0	0	2	10	6	13	3	5
3:00	5	1	0	5	7	5	10	4	5
4:00	4	2	3	2	5	8	4	3	4
5:00	21	7	17	3	13	7	6	12	11
6:00	48	48	45	38	60	28	21	48	41
7:00	93	87	118	101	103	36	28	100	81
8:00	180	134	182	200	197	83	43	179	146
9:00	146	130	141	124	142	105	69	137	122
10:00	124	132	131	31	121	110	123	108	110
11:00	156	143	149	31	155	131	159	127	132
12:00	149	150	159	43	187	157	143	138	141
13:00	172	137	155	26	136	160	160	125	135
14:00	139	152	148	29	229	127	145	139	138
15:00	185	176	181	152	207	114	146	180	166
16:00	172	198	194	181	194	140	157	188	177
17:00	234	174	237	200	222	156	138	213	194
18:00	175	207	218	229	185	160	157	203	190
19:00	122	131	142	140	159	142	125	139	137
20:00	98	79	39	130	136	103	110	96	99
21:00	84	23	31	76	106	99	67	64	69
22:00	41	12	10	54	68	74	41	37	43
23:00	19	2	3	38	48	57	23	22	27
Total	2388	2129	2308	1836	2718	2028	1933	2276	2191

7-19	1925	1820	2013	1347	2078	1479	1468	1837	1733
6-22	2277	2101	2270	1731	2539	1851	1791	2184	2080
6-24	2337	2115	2283	1823	2655	1982	1855	2243	2150
0-24	2388	2129	2308	1836	2718	2028	1933	2276	2191

Job No	A99 - Dickson	Menu
Client	Northrop Engineering	
Site	ATC 2 - Morphet St (West of Challis St)	
Location	Dickson	
Site No	2	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	WB	



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	4-Mar	26-Feb	27-Feb	28-Feb	1-Mar	2-Mar	3-Mar		
AM Peak	178	167	195	221	209	149	130		
PM Peak	203	211	224	219	270	160	178	2476	2327
0:00	12	8	8	14	21	19	33	13	16
1:00	7	8	6	13	12	21	21	9	13
2:00	3	4	3	7	13	11	17	6	8
3:00	4	3	2	4	7	11	11	4	6
4:00	6	4	6	7	4	5	6	5	5
5:00	19	14	13	16	18	15	4	16	14
6:00	46	57	69	73	70	36	19	63	53
7:00	113	102	138	112	118	40	17	117	91
8:00	178	167	195	221	209	81	46	194	157
9:00	148	113	152	138	136	84	86	137	122
10:00	97	122	114	139	134	149	116	121	124
11:00	146	121	128	120	121	146	130	127	130
12:00	133	138	143	173	181	154	130	154	150
13:00	166	169	174	150	193	160	178	170	170
14:00	143	152	151	149	179	142	155	155	153
15:00	180	182	164	175	270	133	108	194	173
16:00	169	190	174	190	186	119	109	182	162
17:00	203	211	224	219	190	125	123	209	185
18:00	128	142	162	158	137	116	113	145	137
19:00	133	108	153	146	123	153	124	133	134
20:00	106	141	125	131	134	129	124	127	127
21:00	96	103	107	98	118	123	91	104	105
22:00	49	42	69	67	82	71	47	62	61
23:00	24	17	16	33	46	41	22	27	28
Total	2309	2318	2496	2553	2702	2084	1830	2476	2327

7-19	1804	1809	1919	1944	2054	1449	1311	1906	1756
6-22	2185	2218	2373	2392	2499	1890	1669	2333	2175
6-24	2258	2277	2458	2492	2627	2002	1738	2422	2265
0-24	2309	2318	2496	2553	2702	2084	1830	2476	2327

Job No	A99 - Dickson	Menu
Client	Northrop Engineering	
Site	ATC 2 - Morphet St (West of Challis St)	
Location	Dickson	
Site No	2	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	Combined	



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 4-Mar	Tue 26-Feb	Wed 27-Feb	Thu 28-Feb	Fri 1-Mar	Sat 2-Mar	Sun 3-Mar		
AM Peak	358	301	377	421	406	277	289		
PM Peak	437	388	461	419	477	320	338	4751	4519
0:00	22	8	10	15	39	29	62	19	26
1:00	14	12	9	13	22	31	37	14	20
2:00	7	4	3	9	23	17	30	9	13
3:00	9	4	2	9	14	16	21	8	11
4:00	10	6	9	9	9	13	10	9	9
5:00	40	21	30	19	31	22	10	28	25
6:00	94	105	114	111	130	64	40	111	94
7:00	206	189	256	213	221	76	45	217	172
8:00	358	301	377	421	406	164	89	373	302
9:00	294	243	293	262	278	189	155	274	245
10:00	221	254	245	170	255	259	239	229	235
11:00	302	264	277	151	276	277	289	254	262
12:00	282	288	302	216	368	311	273	291	291
13:00	338	306	329	176	329	320	338	296	305
14:00	282	304	299	178	408	269	300	294	291
15:00	365	358	345	327	477	247	254	374	339
16:00	341	388	368	371	380	259	266	370	339
17:00	437	385	461	419	412	281	261	423	379
18:00	303	349	380	387	322	276	270	348	327
19:00	255	239	295	286	282	295	249	271	272
20:00	204	220	164	261	270	232	234	224	226
21:00	180	126	138	174	224	222	158	168	175
22:00	90	54	79	121	150	145	88	99	104
23:00	43	19	19	71	94	98	45	49	56
Total	4697	4447	4804	4389	5420	4112	3763	4751	4519

7-19	3729	3629	3932	3291	4132	2928	2779	3743	3489
6-22	4462	4319	4643	4123	5038	3741	3460	4517	4255
6-24	4595	4392	4741	4315	5282	3984	3593	4665	4415
0-24	4697	4447	4804	4389	5420	4112	3763	4751	4519

Job No A99 - Dickson
Client Northrop Engineering
Site ATC 3 - Moncrieff St
Location Dickson
Site No 3
Start Date 26-Feb-19
Description Volume Summary
Direction NB

[Menu](#)


Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 4-Mar	Tue 26-Feb	Wed 27-Feb	Thu 28-Feb	Fri 1-Mar	Sat 2-Mar	Sun 3-Mar		
AM Peak	68	108	87	78	78	61	42		
PM Peak	123	121	133	112	117	58	53	1073	966
0:00	5	2	4	5	4	8	14	4	6
1:00	2	6	4	5	0	2	10	3	4
2:00	1	3	5	4	4	5	2	3	3
3:00	0	3	2	1	2	2	5	2	2
4:00	3	9	5	2	2	3	2	4	4
5:00	4	12	7	5	3	4	1	6	5
6:00	16	12	15	23	18	14	5	17	15
7:00	31	52	58	42	34	22	12	43	36
8:00	68	108	87	78	78	47	22	84	70
9:00	51	53	57	66	56	54	37	57	53
10:00	44	37	50	57	61	51	42	50	49
11:00	51	59	60	60	57	61	42	57	56
12:00	60	73	69	74	77	58	49	71	66
13:00	69	62	73	53	70	43	53	65	60
14:00	76	79	58	67	88	56	37	74	66
15:00	92	82	74	102	112	55	42	92	80
16:00	79	86	86	75	58	43	44	77	67
17:00	123	121	133	112	117	58	43	121	101
18:00	91	98	109	80	76	46	47	91	78
19:00	36	53	57	47	43	52	35	47	46
20:00	27	46	54	33	30	37	26	38	36
21:00	20	36	38	37	35	30	19	33	31
22:00	15	34	39	15	19	13	11	24	21
23:00	4	13	7	10	12	19	9	9	11
Total	968	1139	1151	1053	1056	783	609	1073	966


7-19	835	910	914	866	884	594	470	882	782
6-22	934	1057	1078	1006	1010	727	555	1017	910
6-24	953	1104	1124	1031	1041	759	575	1051	941
0-24	968	1139	1151	1053	1056	783	609	1073	966

Job No	A99 - Dickson	Menu
Client	Northrop Engineering	
Site	ATC 3 - Moncrieff St	
Location	Dickson	
Site No	3	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	SB	



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 4-Mar	Tue 26-Feb	Wed 27-Feb	Thu 28-Feb	Fri 1-Mar	Sat 2-Mar	Sun 3-Mar		
AM Peak	115	137	76	86	74	31	38		
PM Peak	54	31	48	39	54	35	34	537	488
0:00	1	2	2	0	1	2	2	1	1
1:00	3	4	0	0	1	3	2	2	2
2:00	0	0	0	2	0	0	1	0	0
3:00	0	0	1	0	1	0	1	0	0
4:00	2	4	2	1	1	1	0	2	2
5:00	1	3	4	2	0	1	1	2	2
6:00	12	17	9	5	10	2	1	11	8
7:00	46	82	35	53	43	6	4	52	38
8:00	115	137	76	86	74	7	7	98	72
9:00	50	65	34	29	43	22	14	44	37
10:00	19	21	13	10	21	28	24	17	19
11:00	25	29	15	26	22	31	38	23	27
12:00	34	31	32	20	40	35	21	31	30
13:00	34	23	16	19	41	30	34	27	28
14:00	29	20	21	23	24	18	34	23	24
15:00	54	30	28	31	47	28	31	38	36
16:00	36	30	24	20	36	21	29	29	28
17:00	48	31	48	21	54	28	31	40	37
18:00	34	31	42	39	33	27	29	36	34
19:00	26	21	19	12	22	17	18	20	19
20:00	15	13	19	18	22	16	26	17	18
21:00	10	11	12	22	5	20	12	12	13
22:00	5	6	8	9	13	9	5	8	8
23:00	1	1	2	3	5	12	4	2	4
Total	600	612	462	451	559	364	369	537	488

7-19	524	530	384	377	478	281	296	459	410
6-22	587	592	443	434	537	336	353	519	469
6-24	593	599	453	446	555	357	362	529	481
0-24	600	612	462	451	559	364	369	537	488

Job No	A99 - Dickson	<div>Menu</div> 
Client	Northrop Engineering	
Site	ATC 3 - Moncrieff St	
Location	Dickson	
Site No	3	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	Combined	

Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	4-Mar	26-Feb	27-Feb	28-Feb	1-Mar	2-Mar	3-Mar		
AM Peak	183	245	163	164	152	92	80		
PM Peak	171	152	181	133	171	93	87	1610	1454
0:00	6	4	6	5	5	10	16	5	7
1:00	5	10	4	5	1	5	12	5	6
2:00	1	3	5	6	4	5	3	4	4
3:00	0	3	3	1	3	2	6	2	3
4:00	5	13	7	3	3	4	2	6	5
5:00	5	15	11	7	3	5	2	8	7
6:00	28	29	24	28	28	16	6	27	23
7:00	77	134	93	95	77	28	16	95	74
8:00	183	245	163	164	152	54	29	181	141
9:00	101	118	91	95	99	76	51	101	90
10:00	63	58	63	67	82	79	66	67	68
11:00	76	88	75	86	79	92	80	81	82
12:00	94	104	101	94	117	93	70	102	96
13:00	103	85	89	72	111	73	87	92	89
14:00	105	99	79	90	112	74	71	97	90
15:00	146	112	102	133	159	83	73	130	115
16:00	115	116	110	95	94	64	73	106	95
17:00	171	152	181	133	171	86	74	162	138
18:00	125	129	151	119	109	73	76	127	112
19:00	62	74	76	59	65	69	53	67	65
20:00	42	59	73	51	52	53	52	55	55
21:00	30	47	50	59	40	50	31	45	44
22:00	20	40	47	24	32	22	16	33	29
23:00	5	14	9	13	17	31	13	12	15
Total	1568	1751	1613	1504	1615	1147	978	1610	1454


7-19	1359	1440	1298	1243	1362	875	766	1340	1192
6-22	1521	1649	1521	1440	1547	1063	908	1536	1378
6-24	1546	1703	1577	1477	1596	1116	937	1580	1422
0-24	1568	1751	1613	1504	1615	1147	978	1610	1454

Job No	A99 - Dickson	Menu
Client	Northrop Engineering	
Site	ATC 4 - Morphett St (West of Cowper St/ First Driveway)	
Location	Dickson	
Site No	4	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	EB	



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 4-Mar	Tue 26-Feb	Wed 27-Feb	Thu 28-Feb	Fri 1-Mar	Sat 2-Mar	Sun 3-Mar		
AM Peak	233	165	171	194	187	63	36		
PM Peak	169	104	195	156	180	64	59	1216	1061
0:00	4	2	1	1	2	8	4	2	3
1:00	1	1	0	2	1	5	6	1	2
2:00	1	0	0	2	3	1	3	1	1
3:00	0	0	2	1	1	1	5	1	1
4:00	2	0	1	2	3	0	1	2	1
5:00	2	4	7	13	8	5	3	7	6
6:00	41	15	20	41	33	12	15	30	25
7:00	80	40	115	97	93	15	10	85	64
8:00	233	165	171	194	187	38	27	190	145
9:00	102	59	64	101	80	41	30	81	68
10:00	40	33	50	75	68	55	36	53	51
11:00	58	43	42	79	55	63	35	55	54
12:00	56	40	51	67	69	54	49	57	55
13:00	62	39	64	71	76	55	41	62	58
14:00	43	46	49	53	52	57	40	49	49
15:00	113	75	85	90	112	38	36	95	78
16:00	78	71	60	95	89	37	50	79	69
17:00	169	104	195	156	180	55	45	161	129
18:00	105	73	100	77	92	64	59	89	81
19:00	53	25	39	46	63	59	33	45	45
20:00	41	22	23	40	41	33	28	33	33
21:00	21	17	20	23	24	31	17	21	22
22:00	12	7	6	21	16	17	8	12	12
23:00	2	1	2	8	11	14	6	5	6
Total	1319	882	1167	1355	1359	758	587	1216	1061

7-19	1139	788	1046	1155	1153	572	458	1056	902
6-22	1295	867	1148	1305	1314	707	551	1186	1027
6-24	1309	875	1156	1334	1341	738	565	1203	1045
0-24	1319	882	1167	1355	1359	758	587	1216	1061

Job No	A99 - Dickson	Menu
Client	Northrop Engineering	
Site	ATC 4 - Morphet St (West of Cowper St/ First Driveway)	
Location	Dickson	
Site No	4	
Start Date	26-Feb-19	
Description	Volume Summary	 Traffic and Transport Data
Direction	WB	

Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	4-Mar	26-Feb	27-Feb	28-Feb	1-Mar	2-Mar	3-Mar		
AM Peak	95	103	98	103	84	81	57		
PM Peak	118	109	111	106	113	82	77	1187	1104
0:00	5	2	7	6	8	4	8	6	6
1:00	4	2	2	2	4	3	6	3	3
2:00	1	1	2	1	2	4	5	1	2
3:00	0	4	1	3	4	2	5	2	3
4:00	1	1	2	3	2	5	1	2	2
5:00	8	7	7	11	8	5	3	8	7
6:00	35	23	29	33	30	14	9	30	25
7:00	60	73	98	62	56	24	21	70	56
8:00	95	103	98	103	84	58	17	97	80
9:00	54	49	68	70	67	46	41	62	56
10:00	69	67	72	54	70	58	49	66	63
11:00	74	46	64	59	80	81	57	65	66
12:00	64	52	73	56	73	72	60	64	64
13:00	69	62	78	59	70	82	77	68	71
14:00	66	71	81	64	102	72	69	77	75
15:00	113	98	90	92	96	65	60	98	88
16:00	91	109	82	89	113	53	64	97	86
17:00	118	94	111	106	113	60	63	108	95
18:00	72	80	93	99	81	70	62	85	80
19:00	57	62	77	73	69	71	53	68	66
20:00	46	44	37	59	56	48	38	48	47
21:00	31	33	36	37	50	39	24	37	36
22:00	24	18	8	13	23	25	15	17	18
23:00	6	9	3	12	15	19	9	9	10
Total	1163	1110	1219	1166	1276	980	816	1187	1104

7-19	945	904	1008	913	1005	741	640	955	879
6-22	1114	1066	1187	1115	1210	913	764	1138	1053
6-24	1144	1093	1198	1140	1248	957	788	1165	1081
0-24	1163	1110	1219	1166	1276	980	816	1187	1104

Job No	A99 - Dickson	Menu
Client	Northrop Engineering	
Site	ATC 4 - Morphet St (West of Cowper St/ First Driveway)	
Location	Dickson	
Site No	4	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	Combined	



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 4-Mar	Tue 26-Feb	Wed 27-Feb	Thu 28-Feb	Fri 1-Mar	Sat 2-Mar	Sun 3-Mar		
AM Peak	328	268	269	297	271	144	92		
PM Peak	287	198	306	262	293	137	121	2403	2165
0:00	9	4	8	7	10	12	12	8	9
1:00	5	3	2	4	5	8	12	4	6
2:00	2	1	2	3	5	5	8	3	4
3:00	0	4	3	4	5	3	10	3	4
4:00	3	1	3	5	5	5	2	3	3
5:00	10	11	14	24	16	10	6	15	13
6:00	76	38	49	74	63	26	24	60	50
7:00	140	113	213	159	149	39	31	155	121
8:00	328	268	269	297	271	96	44	287	225
9:00	156	108	132	171	147	87	71	143	125
10:00	109	100	122	129	138	113	85	120	114
11:00	132	89	106	138	135	144	92	120	119
12:00	120	92	124	123	142	126	109	120	119
13:00	131	101	142	130	146	137	118	130	129
14:00	109	117	130	117	154	129	109	125	124
15:00	226	173	175	182	208	103	96	193	166
16:00	169	180	142	184	202	90	114	175	154
17:00	287	198	306	262	293	115	108	269	224
18:00	177	153	193	176	173	134	121	174	161
19:00	110	87	116	119	132	130	86	113	111
20:00	87	66	60	99	97	81	66	82	79
21:00	52	50	56	60	74	70	41	58	58
22:00	36	25	14	34	39	42	23	30	30
23:00	8	10	5	20	26	33	15	14	17
Total	2482	1992	2386	2521	2635	1738	1403	2403	2165

7-19	2084	1692	2054	2068	2158	1313	1098	2011	1781
6-22	2409	1933	2335	2420	2524	1620	1315	2324	2079
6-24	2453	1968	2354	2474	2589	1695	1353	2368	2127
0-24	2482	1992	2386	2521	2635	1738	1403	2403	2165

Job No	A99 - Dickson	Menu
Client	Northrop Engineering	
Site	ATC 5 - Guthrie St	
Location	Dickson	
Site No	5	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	NB	



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 4-Mar	Tue 26-Feb	Wed 27-Feb	Thu 28-Feb	Fri 1-Mar	Sat 2-Mar	Sun 3-Mar		
AM Peak	26	21	27	31	28	10	7		
PM Peak	29	17	20	35	34	10	10	169	148
0:00	1	0	0	1	1	2	2	1	1
1:00	1	0	3	0	0	0	1	1	1
2:00	0	1	0	0	0	1	1	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	1	1	1	1	0	0	1	1
5:00	0	0	1	0	0	0	0	0	0
6:00	0	2	0	1	0	1	0	1	1
7:00	5	10	6	9	6	2	4	7	6
8:00	26	21	27	31	28	7	2	27	20
9:00	9	5	7	10	13	10	3	9	8
10:00	14	7	6	4	13	8	4	9	8
11:00	11	8	8	16	10	6	7	11	9
12:00	9	8	9	13	5	10	5	9	8
13:00	12	5	2	9	6	6	8	7	7
14:00	13	8	12	7	14	6	4	11	9
15:00	29	16	20	35	34	6	4	27	21
16:00	10	17	12	9	8	8	5	11	10
17:00	13	13	11	16	13	10	7	13	12
18:00	4	8	9	8	3	5	6	6	6
19:00	2	6	8	6	4	8	3	5	5
20:00	4	6	7	7	7	5	10	6	7
21:00	7	7	8	5	4	6	4	6	6
22:00	2	2	2	2	2	3	0	2	2
23:00	0	0	0	0	3	1	1	1	1
Total	172	151	159	190	175	111	81	169	148


7-19	155	126	129	167	153	84	59	146	125
6-22	168	147	152	186	168	104	76	164	143
6-24	170	149	154	188	173	108	77	167	146
0-24	172	151	159	190	175	111	81	169	148

Job No A99 - Dickson
Client Northrop Engineering
Site ATC 5 - Guthrie St
Location Dickson
Site No 5
Start Date 26-Feb-19
Description Volume Summary
Direction SB

[Menu](#)



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	4-Mar	26-Feb	27-Feb	28-Feb	1-Mar	2-Mar	3-Mar		
AM Peak	15	24	12	17	16	12	7		
PM Peak	43	23	27	32	49	13	8	174	152
0:00	0	0	1	1	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	1	1	0	0
4:00	0	2	1	1	0	1	0	1	1
5:00	1	3	1	1	1	1	1	1	1
6:00	3	4	2	3	4	1	5	3	3
7:00	7	10	7	8	8	4	4	8	7
8:00	15	24	12	17	16	9	6	17	14
9:00	11	12	12	7	10	12	5	10	10
10:00	9	8	5	6	6	5	7	7	7
11:00	14	6	5	7	9	10	4	8	8
12:00	4	5	4	9	9	4	4	6	6
13:00	7	5	1	10	4	10	3	5	6
14:00	8	6	10	12	8	5	2	9	7
15:00	43	23	21	32	49	8	4	34	26
16:00	10	7	7	10	13	13	4	9	9
17:00	27	18	26	17	23	7	7	22	18
18:00	12	17	27	9	14	8	8	16	14
19:00	7	4	8	6	6	7	7	6	6
20:00	3	3	5	6	4	5	2	4	4
21:00	1	5	8	5	3	1	2	4	4
22:00	1	2	0	2	2	1	0	1	1
23:00	1	1	1	0	1	0	2	1	1
Total	184	165	164	169	190	113	78	174	152

7-19	167	141	137	144	169	95	58	152	130
6-22	181	157	160	164	186	109	74	170	147
6-24	183	160	161	166	189	110	76	172	149
0-24	184	165	164	169	190	113	78	174	152

Job No	A99 - Dickson	<div>Menu</div> 
Client	Northrop Engineering	
Site	ATC 5 - Guthrie St	
Location	Dickson	
Site No	5	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	Combined	


Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	4-Mar	26-Feb	27-Feb	28-Feb	1-Mar	2-Mar	3-Mar		
AM Peak	41	45	39	48	44	22	11		
PM Peak	72	39	41	67	83	21	14	344	300
0:00	1	0	1	2	1	2	2	1	1
1:00	1	0	3	0	0	0	1	1	1
2:00	0	1	0	0	0	1	1	0	0
3:00	0	0	0	0	0	1	1	0	0
4:00	0	3	2	2	1	1	0	2	1
5:00	1	3	2	1	1	1	1	2	1
6:00	3	6	2	4	4	2	5	4	4
7:00	12	20	13	17	14	6	8	15	13
8:00	41	45	39	48	44	16	8	43	34
9:00	20	17	19	17	23	22	8	19	18
10:00	23	15	11	10	19	13	11	16	15
11:00	25	14	13	23	19	16	11	19	17
12:00	13	13	13	22	14	14	9	15	14
13:00	19	10	3	19	10	16	11	12	13
14:00	21	14	22	19	22	11	6	20	16
15:00	72	39	41	67	83	14	8	60	46
16:00	20	24	19	19	21	21	9	21	19
17:00	40	31	37	33	36	17	14	35	30
18:00	16	25	36	17	17	13	14	22	20
19:00	9	10	16	12	10	15	10	11	12
20:00	7	9	12	13	11	10	12	10	11
21:00	8	12	16	10	7	7	6	11	9
22:00	3	4	2	4	4	4	0	3	3
23:00	1	1	1	0	4	1	3	1	2
Total	356	316	323	359	365	224	159	344	300

7-19	322	267	266	311	322	179	117	298	255
6-22	349	304	312	350	354	213	150	334	290
6-24	353	309	315	354	362	218	153	339	295
0-24	356	316	323	359	365	224	159	344	300

Job No	A99 - Dickson	<div>Menu</div> 
Client	Northrop Engineering	
Site	ATC 6 - Hope St (West of Guthrie St)	
Location	Dickson	
Site No	6	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	EB	

Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	4-Mar	26-Feb	27-Feb	28-Feb	1-Mar	2-Mar	3-Mar		
AM Peak	22	19	19	20	22	14	12		
PM Peak	22	16	14	28	25	13	16	160	147
0:00	0	1	2	2	0	0	3	1	1
1:00	2	0	3	0	1	1	2	1	1
2:00	0	1	0	0	1	1	1	0	1
3:00	0	0	0	0	1	0	0	0	0
4:00	0	0	1	1	1	0	0	1	0
5:00	0	0	1	0	0	1	0	0	0
6:00	1	5	1	2	0	0	1	2	1
7:00	7	6	5	9	4	4	4	6	6
8:00	22	19	19	20	17	6	4	19	15
9:00	10	7	13	10	22	3	4	12	10
10:00	4	6	9	7	7	10	6	7	7
11:00	6	9	9	11	10	14	12	9	10
12:00	9	2	9	6	9	8	9	7	7
13:00	14	8	8	8	6	8	6	9	8
14:00	12	6	7	8	4	13	11	7	9
15:00	22	14	14	28	25	7	5	21	16
16:00	10	9	13	10	12	8	5	11	10
17:00	10	16	13	13	5	7	16	11	11
18:00	8	14	12	10	8	6	6	10	9
19:00	8	7	13	6	6	6	7	8	8
20:00	3	4	6	7	11	3	6	6	6
21:00	2	4	3	10	1	4	5	4	4
22:00	1	5	3	5	6	2	0	4	3
23:00	2	0	2	2	4	3	1	2	2
Total	153	143	166	175	161	115	114	160	147

7-19	134	116	131	140	129	94	88	130	119
6-22	148	136	154	165	147	107	107	150	138
6-24	151	141	159	172	157	112	108	156	143
0-24	153	143	166	175	161	115	114	160	147

Job No	A99 - Dickson	 Traffic and Transport Data
Client	Northrop Engineering	
Site	ATC 6 - Hope St (West of Guthrie St)	
Location	Dickson	
Site No	6	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	WB	

Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	4-Mar	26-Feb	27-Feb	28-Feb	1-Mar	2-Mar	3-Mar		
AM Peak	12	25	13	11	17	12	11		
PM Peak	13	15	16	17	21	12	9	132	124
0:00	0	0	1	1	1	0	2	1	1
1:00	1	0	1	0	1	1	1	1	1
2:00	0	0	1	0	0	1	2	0	1
3:00	0	0	0	0	0	0	2	0	0
4:00	0	0	1	0	0	1	0	0	0
5:00	2	1	3	2	3	1	1	2	2
6:00	1	1	1	4	2	0	3	2	2
7:00	7	8	13	11	8	3	3	9	8
8:00	12	25	8	8	17	6	2	14	11
9:00	6	7	8	7	11	12	11	8	9
10:00	7	9	4	4	6	4	6	6	6
11:00	8	1	4	5	9	4	6	5	5
12:00	9	4	5	5	5	11	9	6	7
13:00	9	11	3	8	1	12	4	6	7
14:00	11	5	5	4	9	6	5	7	6
15:00	13	10	12	17	10	9	6	12	11
16:00	7	8	9	13	14	10	6	10	10
17:00	9	9	13	9	21	7	5	12	10
18:00	9	15	16	11	6	5	9	11	10
19:00	6	7	8	2	7	4	6	6	6
20:00	0	9	3	11	8	4	8	6	6
21:00	3	5	4	7	1	3	3	4	4
22:00	1	1	1	4	3	0	0	2	1
23:00	0	0	0	0	3	0	2	1	1
Total	121	136	124	133	146	104	102	132	124

7-19	107	112	100	102	117	89	72	108	100
6-22	117	134	116	126	135	100	92	126	117
6-24	118	135	117	130	141	100	94	128	119
0-24	121	136	124	133	146	104	102	132	124

Job No	A99 - Dickson	Menu
Client	Northrop Engineering	
Site	ATC 6 - Hope St (West of Guthrie St)	
Location	Dickson	
Site No	6	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	Combined	



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 4-Mar	Tue 26-Feb	Wed 27-Feb	Thu 28-Feb	Fri 1-Mar	Sat 2-Mar	Sun 3-Mar		
AM Peak	34	44	27	28	34	18	18		
PM Peak	35	29	28	45	35	20	21	292	270
0:00	0	1	3	3	1	0	5	2	2
1:00	3	0	4	0	2	2	3	2	2
2:00	0	1	1	0	1	2	3	1	1
3:00	0	0	0	0	1	0	2	0	0
4:00	0	0	2	1	1	1	0	1	1
5:00	2	1	4	2	3	2	1	2	2
6:00	2	6	2	6	2	0	4	4	3
7:00	14	14	18	20	12	7	7	16	13
8:00	34	44	27	28	34	12	6	33	26
9:00	16	14	21	17	33	15	15	20	19
10:00	11	15	13	11	13	14	12	13	13
11:00	14	10	13	16	19	18	18	14	15
12:00	18	6	14	11	14	19	18	13	14
13:00	23	19	11	16	7	20	10	15	15
14:00	23	11	12	12	13	19	16	14	15
15:00	35	24	26	45	35	16	11	33	27
16:00	17	17	22	23	26	18	11	21	19
17:00	19	25	26	22	26	14	21	24	22
18:00	17	29	28	21	14	11	15	22	19
19:00	14	14	21	8	13	10	13	14	13
20:00	3	13	9	18	19	7	14	12	12
21:00	5	9	7	17	2	7	8	8	8
22:00	2	6	4	9	9	2	0	6	5
23:00	2	0	2	2	7	3	3	3	3
Total	274	279	290	308	307	219	216	292	270

7-19	241	228	231	242	246	183	160	238	219
6-22	265	270	270	291	282	207	199	276	255
6-24	269	276	276	302	298	212	202	284	262
0-24	274	279	290	308	307	219	216	292	270

Job No A99 - Dickson
Client Northrop Engineering
Site ATC 7 - Hope St (East of Guthrie St)
Location Dickson
Site No 7
Start Date 26-Feb-19
Description Volume Summary
Direction EB

[Menu](#)


Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	4-Mar	26-Feb	27-Feb	28-Feb	1-Mar	2-Mar	3-Mar		
AM Peak	20	21	18	25	22	19	12		
PM Peak	45	24	33	35	51	16	20	225	200
0:00	0	1	2	2	0	0	3	1	1
1:00	1	0	0	0	1	0	2	0	1
2:00	0	0	0	0	1	0	0	0	0
3:00	0	0	0	0	1	1	0	0	0
4:00	0	2	2	1	0	0	0	1	1
5:00	0	1	0	0	0	1	0	0	0
6:00	3	6	3	3	2	1	3	3	3
7:00	9	10	7	7	8	3	4	8	7
8:00	18	21	18	25	15	6	7	19	16
9:00	20	13	18	11	22	5	5	17	13
10:00	8	8	10	8	4	8	11	8	8
11:00	15	9	8	11	16	19	12	12	13
12:00	11	6	10	11	16	10	9	11	10
13:00	13	8	8	8	6	12	7	9	9
14:00	15	7	12	15	8	13	8	11	11
15:00	45	24	18	35	51	8	7	35	27
16:00	16	12	16	16	17	16	7	15	14
17:00	39	23	33	21	22	4	20	28	23
18:00	15	19	30	14	15	13	10	19	17
19:00	12	8	17	10	7	5	9	11	10
20:00	3	4	8	9	9	6	3	7	6
21:00	0	4	5	7	5	3	5	4	4
22:00	1	5	4	4	7	2	0	4	3
23:00	3	1	2	2	2	2	2	2	2
Total	247	192	231	220	235	138	134	225	200

7-19	224	160	188	182	200	117	107	191	168
6-22	242	182	221	211	223	132	127	216	191
6-24	246	188	227	217	232	136	129	222	196
0-24	247	192	231	220	235	138	134	225	200

Job No	A99 - Dickson	Menu
Client	Northrop Engineering	
Site	ATC 7 - Hope St (East of Guthrie St)	
Location	Dickson	
Site No	7	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	WB	



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 4-Mar	Tue 26-Feb	Wed 27-Feb	Thu 28-Feb	Fri 1-Mar	Sat 2-Mar	Sun 3-Mar		
AM Peak	20	29	28	29	32	11	10		
PM Peak	22	20	17	26	27	17	12	196	175
0:00	1	0	0	1	3	0	3	1	1
1:00	1	0	1	1	1	1	2	1	1
2:00	0	0	1	0	0	1	2	0	1
3:00	0	0	0	0	0	0	1	0	0
4:00	0	1	2	0	0	0	0	1	0
5:00	2	0	2	1	1	0	0	1	1
6:00	1	0	2	3	2	1	0	2	1
7:00	12	15	16	13	10	1	4	13	10
8:00	20	29	28	29	32	6	6	28	21
9:00	15	5	8	10	15	11	10	11	11
10:00	13	8	7	6	15	8	8	10	9
11:00	20	7	9	13	14	6	9	13	11
12:00	14	12	7	11	7	17	6	10	11
13:00	11	15	5	8	6	10	10	9	9
14:00	20	9	9	6	21	8	4	13	11
15:00	22	17	15	26	27	9	8	21	18
16:00	11	20	17	14	15	10	9	15	14
17:00	22	12	17	15	23	5	5	18	14
18:00	6	10	10	12	4	7	10	8	8
19:00	5	9	10	6	5	8	5	7	7
20:00	1	7	7	9	9	6	12	7	7
21:00	6	4	5	7	3	7	3	5	5
22:00	2	0	3	2	5	1	0	2	2
23:00	0	0	0	0	4	1	2	1	1
Total	205	180	181	193	222	124	119	196	175

7-19	186	159	148	163	189	98	89	169	147
6-22	199	179	172	188	208	120	109	189	168
6-24	201	179	175	190	217	122	111	192	171
0-24	205	180	181	193	222	124	119	196	175

Job No	A99 - Dickson	Menu
Client	Northrop Engineering	
Site	ATC 7 - Hope St (East of Guthrie St)	
Location	Dickson	
Site No	7	
Start Date	26-Feb-19	
Description	Volume Summary	
Direction	Combined	



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 4-Mar	Tue 26-Feb	Wed 27-Feb	Thu 28-Feb	Fri 1-Mar	Sat 2-Mar	Sun 3-Mar		
AM Peak	38	50	46	54	47	25	21		
PM Peak	67	41	50	61	78	27	25	421	374
0:00	1	1	2	3	3	0	6	2	2
1:00	2	0	1	1	2	1	4	1	2
2:00	0	0	1	0	1	1	2	0	1
3:00	0	0	0	0	1	1	1	0	0
4:00	0	3	4	1	0	0	0	2	1
5:00	2	1	2	1	1	1	0	1	1
6:00	4	6	5	6	4	2	3	5	4
7:00	21	25	23	20	18	4	8	21	17
8:00	38	50	46	54	47	12	13	47	37
9:00	35	18	26	21	37	16	15	27	24
10:00	21	16	17	14	19	16	19	17	17
11:00	35	16	17	24	30	25	21	24	24
12:00	25	18	17	22	23	27	15	21	21
13:00	24	23	13	16	12	22	17	18	18
14:00	35	16	21	21	29	21	12	24	22
15:00	67	41	33	61	78	17	15	56	45
16:00	27	32	33	30	32	26	16	31	28
17:00	61	35	50	36	45	9	25	45	37
18:00	21	29	40	26	19	20	20	27	25
19:00	17	17	27	16	12	13	14	18	17
20:00	4	11	15	18	18	12	15	13	13
21:00	6	8	10	14	8	10	8	9	9
22:00	3	5	7	6	12	3	0	7	5
23:00	3	1	2	2	6	3	4	3	3
Total	452	372	412	413	457	262	253	421	374

7-19	410	319	336	345	389	215	196	360	316
6-22	441	361	393	399	431	252	236	405	359
6-24	447	367	402	407	449	258	240	414	367
0-24	452	372	412	413	457	262	253	421	374