

SSD-35370706  
Proposed Residential & Seniors Living Precinct

**27 Tiral Street,  
Charlestown**

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**REVISED TRANSPORT AND ACCESSIBILITY IMPACT ASSESSMENT**

23 October 2023

Ref 20242

**VARGA TRAFFIC PLANNING** Pty Ltd  
**Transport, Traffic and Parking Consultants** 

Suite 6, 20 Young Street, Neutral Bay NSW 2089 - PO Box 1868, Neutral Bay NSW 2089 Ph: 9904 3224

## TABLE OF CONTENTS

<b>1.</b>	<b>INTRODUCTION</b> .....	1
<b>2.</b>	<b>PROPOSED DEVELOPMENT</b> .....	6
<b>3.</b>	<b>TRAFFIC ASSESSMENT</b> .....	13
<b>4.</b>	<b>CONSTRUCTION TRAFFIC MANAGEMENT</b> .....	29
<b>5.</b>	<b>PARKING ASSESSMENT</b> .....	31

<b>APPENDIX A</b>	<b>ARCHITECTURAL PLANS</b>
<b>APPENDIX B</b>	<b>TRAFFIC SURVEY DATA</b>
<b>APPENDIX C</b>	<b>SIDRA MOVEMENT SUMMARIES</b>

## LIST OF ILLUSTRATIONS

<b>Figure 1</b>	Location
<b>Figure 2</b>	Site
<b>Figure 3</b>	Road Hierarchy
<b>Figure 4</b>	Existing Traffic Controls
<b>Figure 5</b>	Public Transport
<b>Figure 6</b>	Existing Parking Restrictions

## 1. INTRODUCTION

This revised report has been prepared on behalf of *Uniting (NSW.ACT)* to accompany an Environmental Impact Statement (EIS) to *NSW Department of Planning and Environment* for a residential and seniors living development proposal to be located at 27 Tiral Street, Charlestown (Figures 1 and 2).

The updated report addresses the items raised under *Item 10: Traffic, Transport and Accessibility* of the Secretary's Environmental Assessment Requirements (SEARs) for the State Significant Development (SSD), SSD-35370706.

An updated Green Travel Plan and Construction Traffic Management Plan have also been provided under a separate cover.

In particular, this revised report provides details of the amended scheme as well as addresses the traffic & parking matters raised, including the updated SIDRA modelling.

A comprehensive pedestrian movement and transport plan will be developed by *Uniting* which will outline the preferred walking routes for residents accessing the community and shopping facilities located in the *Charlestown Town Centre* and in particular, in the *Charlestown Square Shopping Mall*.

The plan takes into consideration the existing conditions and infrastructure to provide a safer and more comfortable walking route to the *Charlestown Town Centre* using existing footpaths in Smith Street and Frederick Street to access the signalised pedestrian crossings across the Pacific Highway. This route will allow residents to access the bus interchange facilities, medical and health facilities as well as essential shopping facilities located in the *Charlestown Town Centre* and the *Charlestown Square Shopping Mall*.

The pedestrian movement and transport plan will also include a community bus to be provided by *Uniting*, exclusively dedicated to transporting residents to key community facilities, as well as the *Charlestown Town Centre* and the *Charlestown Square Shopping Mall*.

The proposed development again involves the staged construction of a number of new buildings on the vacant site, including low, medium and high care seniors living accommodation options, as well as ancillary communal facilities such as offices, dining hall, function room, community space, hairdresser and wellness centre.

In addition to the seniors living accommodation, the development proposal also involves the construction of a new residential apartment building.

Council have requested that a higher traffic generation rate be used for the assessment of the residential flat building component, utilising the rates outlined in the *TDT 2013/04a* document, which nominates a site-specific rate for developments within the ‘Charlestown’ study area.

Off-street parking is to be provided in a number of basement and at-grade parking areas in accordance with Council’s *DCP* and the *SEPP (Housing) 2021* requirements, as well as several at-grade pick-up and drop-off facilities.

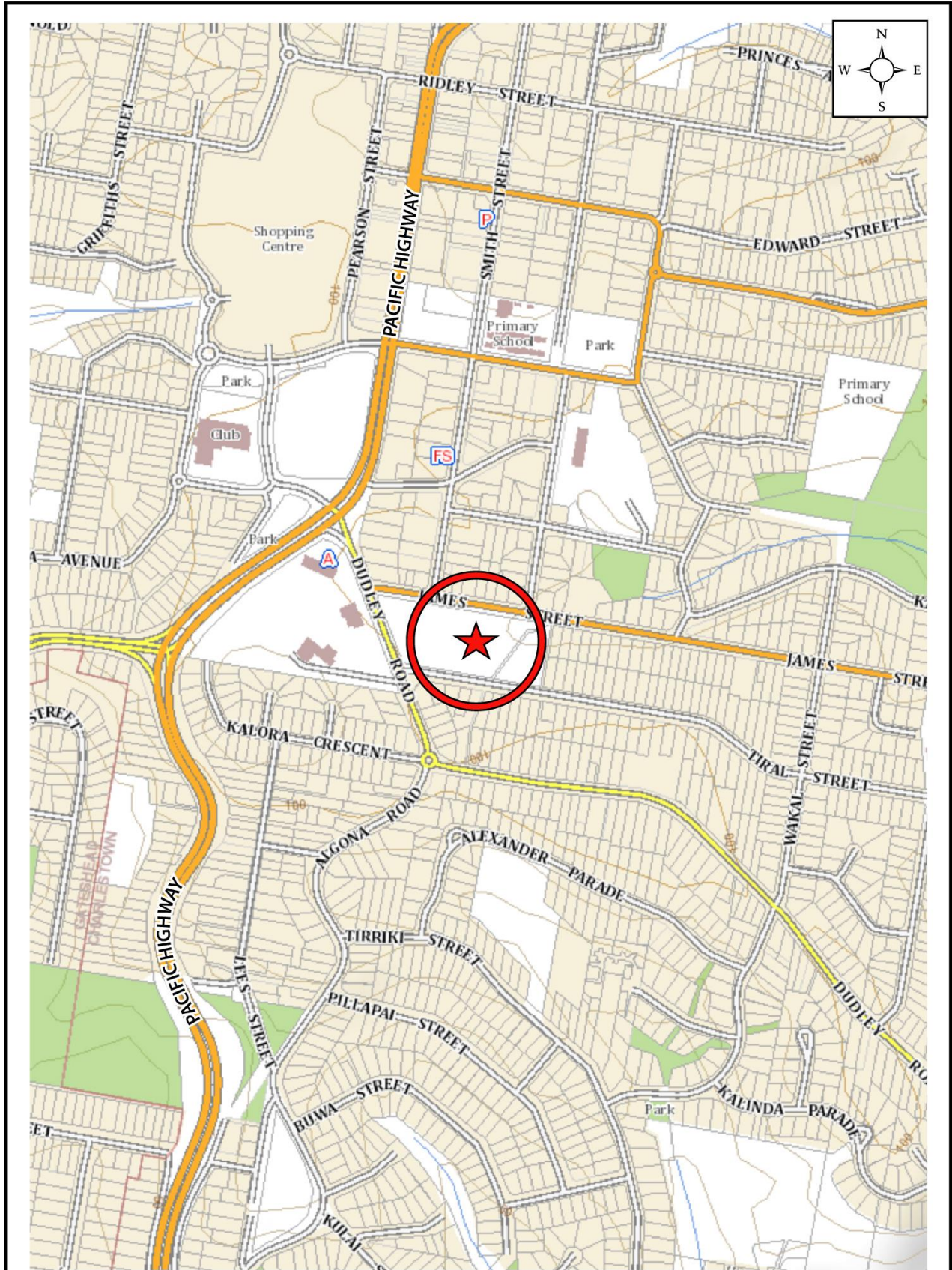
Vehicular access to the site is to be provided via a new site through link driveway between Tiral Street and James Street, as well as two separate new driveways off James Street and a new driveway off Tiral Street.

The proposed development makes provision for new pedestrian footpaths around the perimeter of the site in James Street and in Tiral Street, with connections to through-site links and internal pedestrian pathways provided throughout the site.

The purpose of this revised report is to assess the traffic and parking implications of the development proposal, and to that end this report:

- describes the site and provides details of the development proposal
- reviews the road network in the vicinity of the site
- reviews the public transport services available in the vicinity of the site

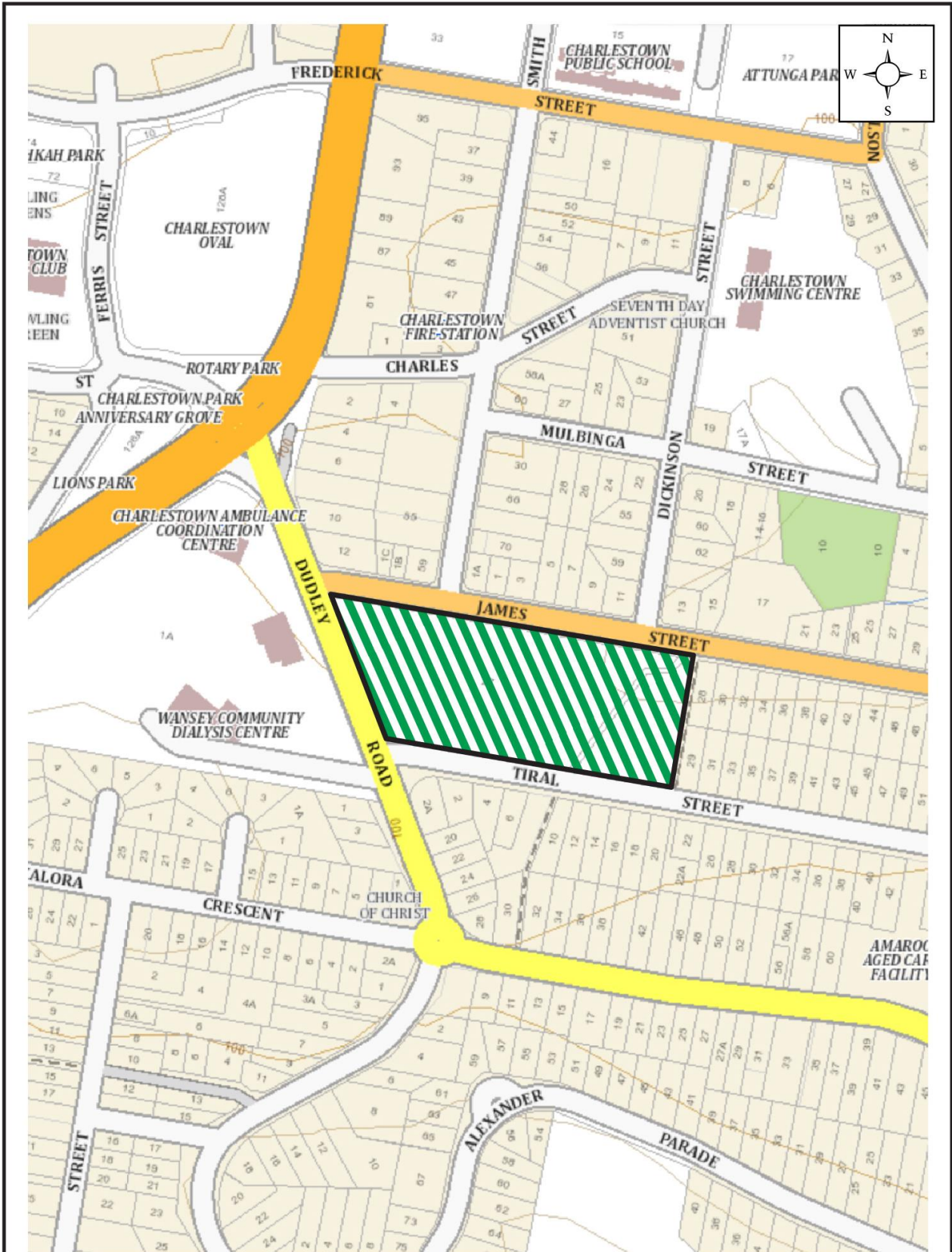
- estimates the traffic generation potential of the development proposal and assigns that traffic generation to the road network serving the site
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed parking and loading facilities for compliance with the relevant codes and standards
- assesses the adequacy and suitability of the quantum of off-street car parking and loading provided on the site.



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**LOCATION  
FIGURE 1**



## 2. PROPOSED DEVELOPMENT

### Site

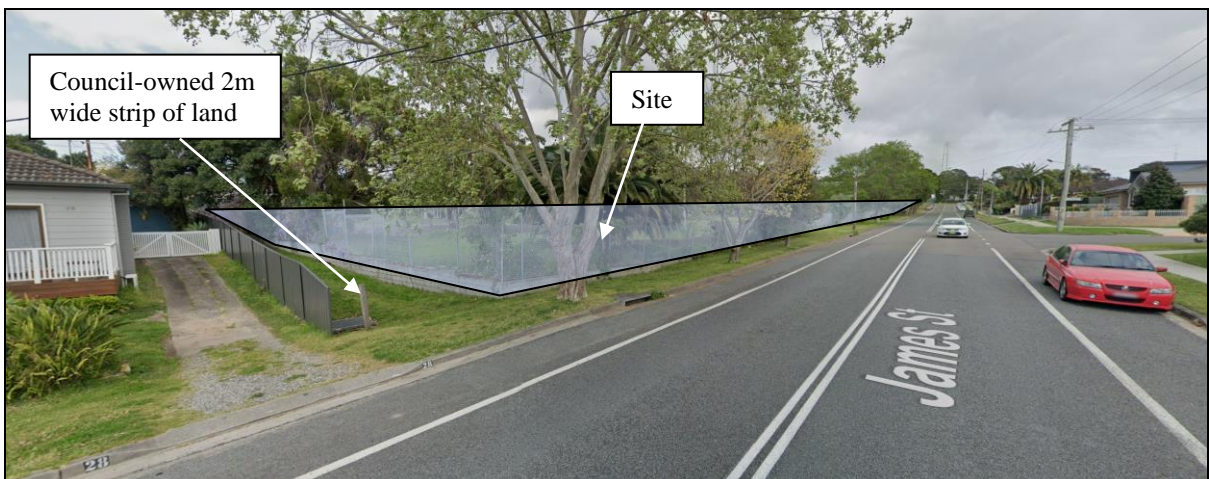
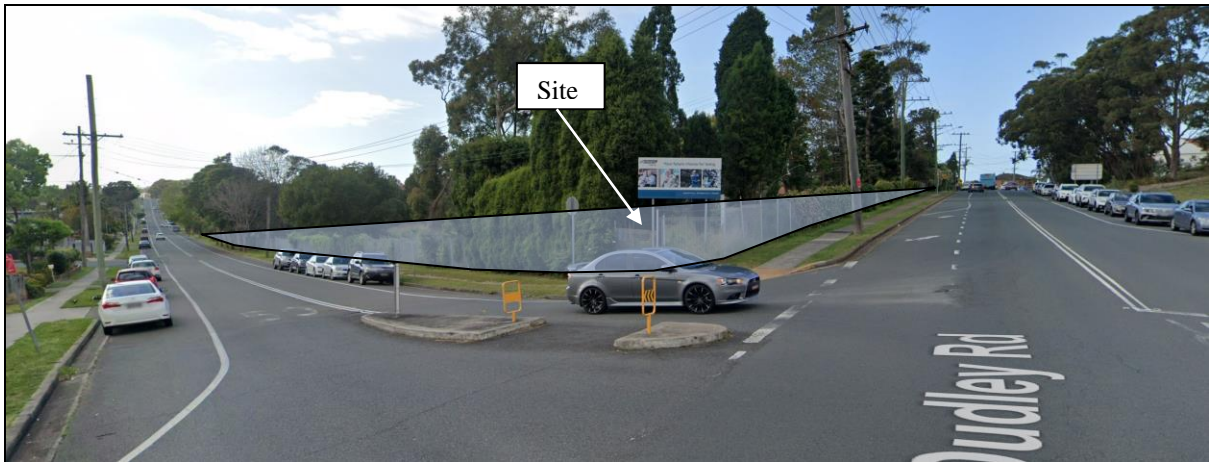
The subject site is located on the north-eastern corner of the Dudley Road and Tiral Street intersection, extending through to James Street. The site has street frontages of approximately 106m in length to Dudley Road, approximately 204m in length to Tiral Street and approximately 258m in length to James Street. The site occupies an area of approximately 2.08ha.

The subject site is vacant of structures however there are a number of remnant internal asphalt and gravel driveways as well as parking areas from the previous land owners and occupiers, the Hunter Institute of Technology TAFE. The site has been unused for more than a decade and currently comprises a mix of established trees and open space.

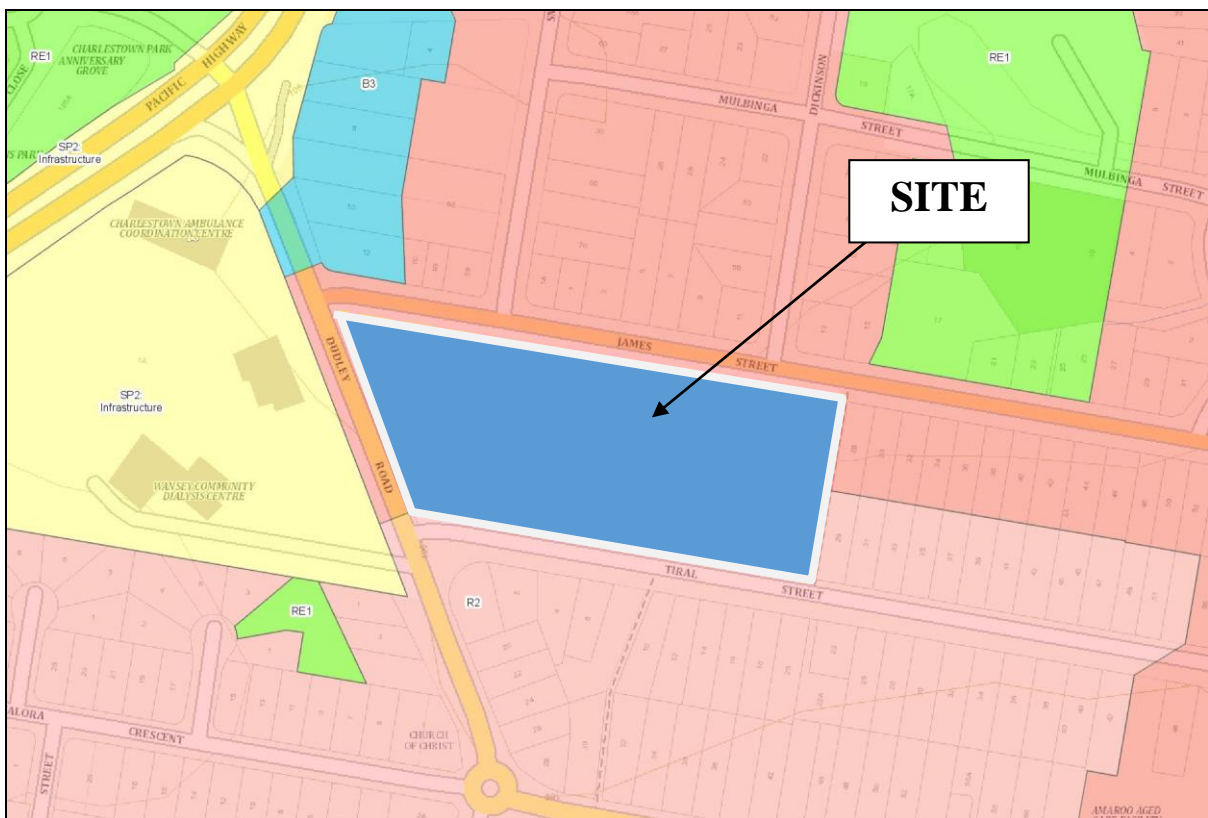
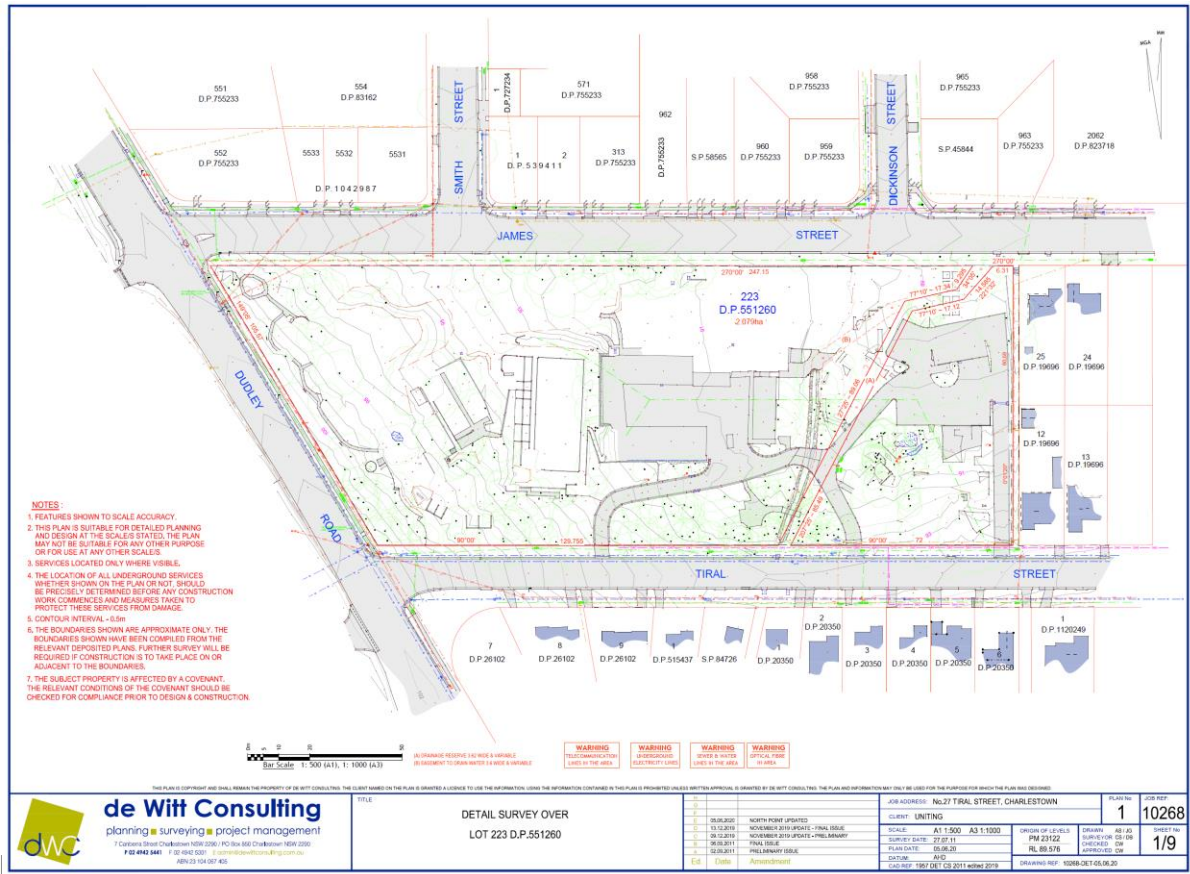


Vehicular access to the site is currently provided via three separate driveways located off the Tiral Street site frontage. A series of *Streetview* images of the three frontages are reproduced on the following page.

Running north-south along the eastern property boundary is a 2m wide Council-owned strip of land which is being considered as a cycleway through link between Tiral Street and James Street, as part of Council's future cycle network vision.



A site survey prepared by *de Witt Consulting* is reproduced below, along with the zoning map taken from Council's *LEP*. In this regard, it is noted that a portion of Crown land will form part of the future site.



## Charlestown Town Centre

The site lies within the *Charlestown Town Centre*, as outlined in Council’s *DCP 2014, Revision 22, Part 10 – Town Centre Area Plans*, and indicated in the plan extract below.



### Part 10 – Town Centre Area Plans –Charlestown

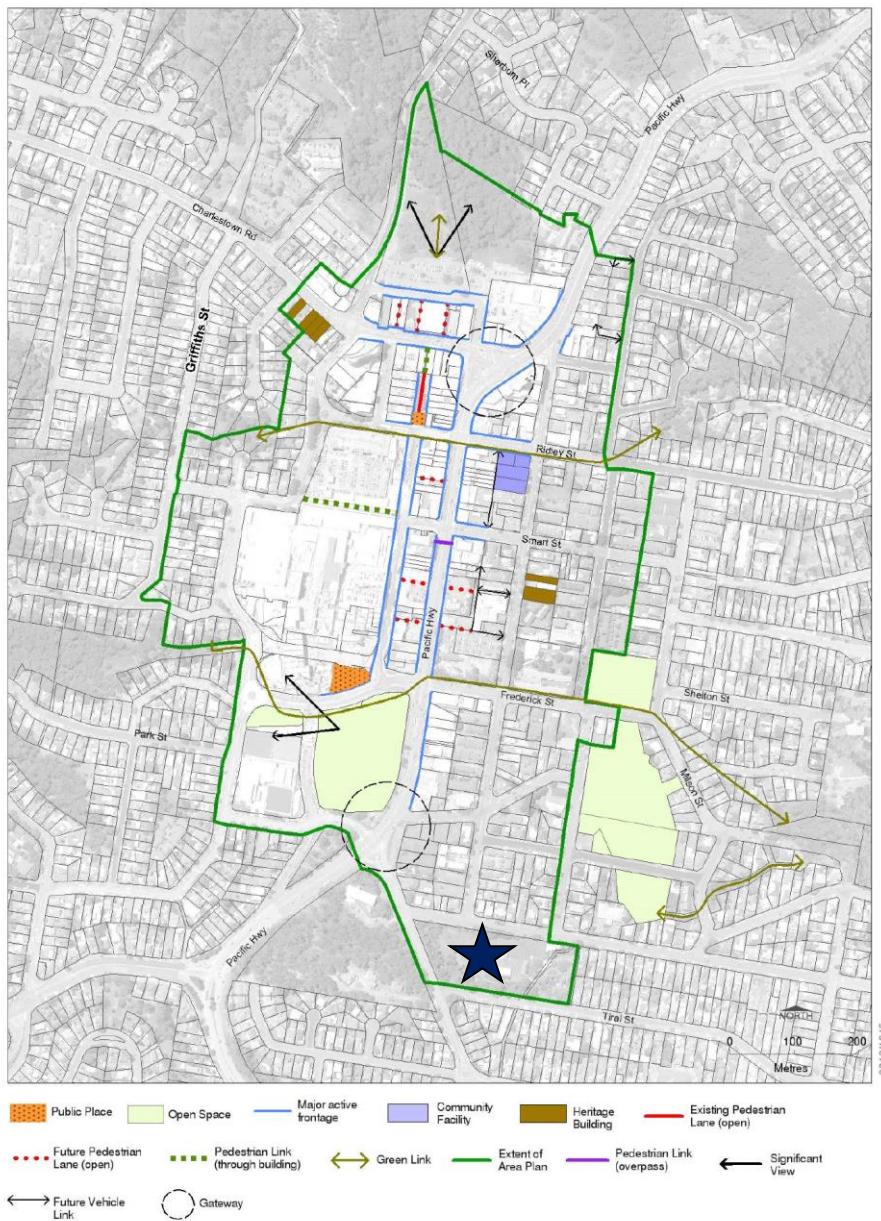


Figure 1 - Charlestown Town Centre Structure Plan

Council's *DCP 2014, Revision 22, Part 10 – Town Centre Area Plans* document indicates that *Charlestown Town Centre* is the major commercial centre in Lake Macquarie and provides high order retail, commercial and community facilities for the city and region.

The focal point of the *Charlestown Town Centre* is the commercial precinct which straddles the Pacific Highway between Frederick Street in the south, and Charlestown Road to the north.

The majority of the retail facilities in the *Charlestown Town Centre* are located in the *Charlestown Square Shopping Mall* which comprises an extensive range of shops, a supermarket and department stores.

Signalised pedestrian crossings across the Pacific Highway are provided at multiple locations, comprising the signalised intersections with Frederick Street, with Smart Street, with Ridley Street and with Charlestown Road.

The shortest and most direct pedestrian walking route from the subject site to the *Charlestown Town Centre* and in particular the *Charlestown Square Shopping Mall* is proposed via the pedestrian footpath located on the eastern side of Smith Street, and the pedestrian footpaths on either side of Frederick Street to cross the Pacific Highway at signalised pedestrian crossing located on the northern side of the Pacific Highway/Frederick Street intersection.

The strategically located *Charlestown Town Centre* is also the focus of the regional bus transport network, and is serviced by a number of bus routes connecting Charlestown to the Newcastle CBD, Wallsend, Belmont, Dudley, Warners Bay and Swansea.

In addition, there are also private bus services and long-distance coach routes that stop in the *Charlestown Town Centre*.

The subject site is known as the *Former TAFE Site* within Council's *DCP 2014, Revision 22, Part 10 – Town Centre Area Plans* document, which includes a number of objectives, as follows:

- a) to ensure that development on the former TAFE site capitalises on the opportunities presented by a single consolidated site, in close proximity to a major regional centre
- b) to ensure that development on the former TAFE site occurs in an orderly manner
- c) to ensure that development on the former TAFE site contributes to the range of community facilities and/or services available in Charlestown.

### **Proposed Development Application**

The proposed development involves the staged construction of four new buildings on the vacant site, including low, medium and high care seniors living accommodation options, as well as ancillary communal facilities such as offices, dining hall, function room, community space, hairdresser and wellness centre.

In addition to the seniors living accommodation, the development proposal also involves the construction of a new residential apartment building; Building D. A summary of the various buildings and their key development data is as follows:

#### **Building A**

RACF beds:	135 beds (120 RAC beds, 14 ILU beds & 1 x Office space for Uniting's care and support services and operational staff)
RACF staff:	up to 40 staff on site during the afternoon shift change
Office space:	563m <sup>2</sup> (RACF's ancillary office space)
Car parking:	67 spaces (45 RAC spaces, 15 Office spaces and 7 ILU spaces)
Service vehicles:	1 x 9.5m long truck bay 1 x ambulance bay & 1 x mini-bus bay
Vehicular access:	through site link between Tiral Street & James Street plus combined entry/exit driveway located off Tiral Street

#### **Building B**

ILU:	82 ILUs (3 x 1b, 66 x 2b & 13 x 3b)
Car parking:	89 spaces (85 ILU spaces (incl. visitor spaces), 2 staff spaces and 2 ILU amenity spaces)
Service vehicles:	1 x 8.8m long truck bay shared with Building C
Vehicular access:	combined entry/exit via James Street shared with Building C

**Building C**

ILU:	107 ILUs (15 x 1b, 62 x 2b & 30 x 3b)
Car parking:	112 spaces (all ILU spaces)
Service vehicles:	1 x 8.8m long truck bay located on the Building B site
Vehicular access:	combined entry/exit via James Street via the Building B site

**Building D**

RFB:	133 standard private apartments (51 x 1b, 71 x 2b & 11 x 3b)
Car parking:	150 spaces (123 residential spaces & 27 visitor spaces)
Service vehicles:	1 x 8.8m long truck bay exclusively for Building D
Vehicular access:	combined entry/exit via James Street exclusively for Building D

In order to support the seniors living precinct, the proposal also includes ancillary communal facilities such as offices, library, lounge and dining area, multi-purpose room, small gymnasium, community space and hairdresser.

Loading/servicing for the proposed development is expected to be undertaken by a variety of commercial vehicles from vans, wagons and utilities, ambulances, small rigid trucks, 22-seater mini-buses, up to and including 9.5m long rigid trucks, as outlined in *Uniting's* RACF design guide. Dedicated loading/parking bays are provided for the abovementioned service vehicles at several locations throughout the site.

The proposed layout of the vehicular access, parking and loading arrangements has been carefully designed to ensure all vehicles are able to enter and exit the site in a forward direction at all times.

The proposed development makes provision for new pedestrian footpaths around the perimeter of the site in James Street and in Tiral Street, with connections to through-site links and internal pedestrian pathways provided throughout the site.

End of trip facilities and bicycle parking facilities are proposed in Building A.

Plans of the proposed development have been prepared by *Plus Architecture* and are reproduced in Appendix A.

### **3. TRAFFIC ASSESSMENT**

#### **Road Hierarchy**

The road hierarchy allocated to the road network in the vicinity of the site by Transport for NSW (TfNSW) is illustrated on Figure 3.

The Pacific Highway is classified by TfNSW as a *State Road* and provides the key north-south road link in the area. It typically carries two to three traffic lanes in each direction in the vicinity of the site, with additional lanes/turning bays provided at key locations.

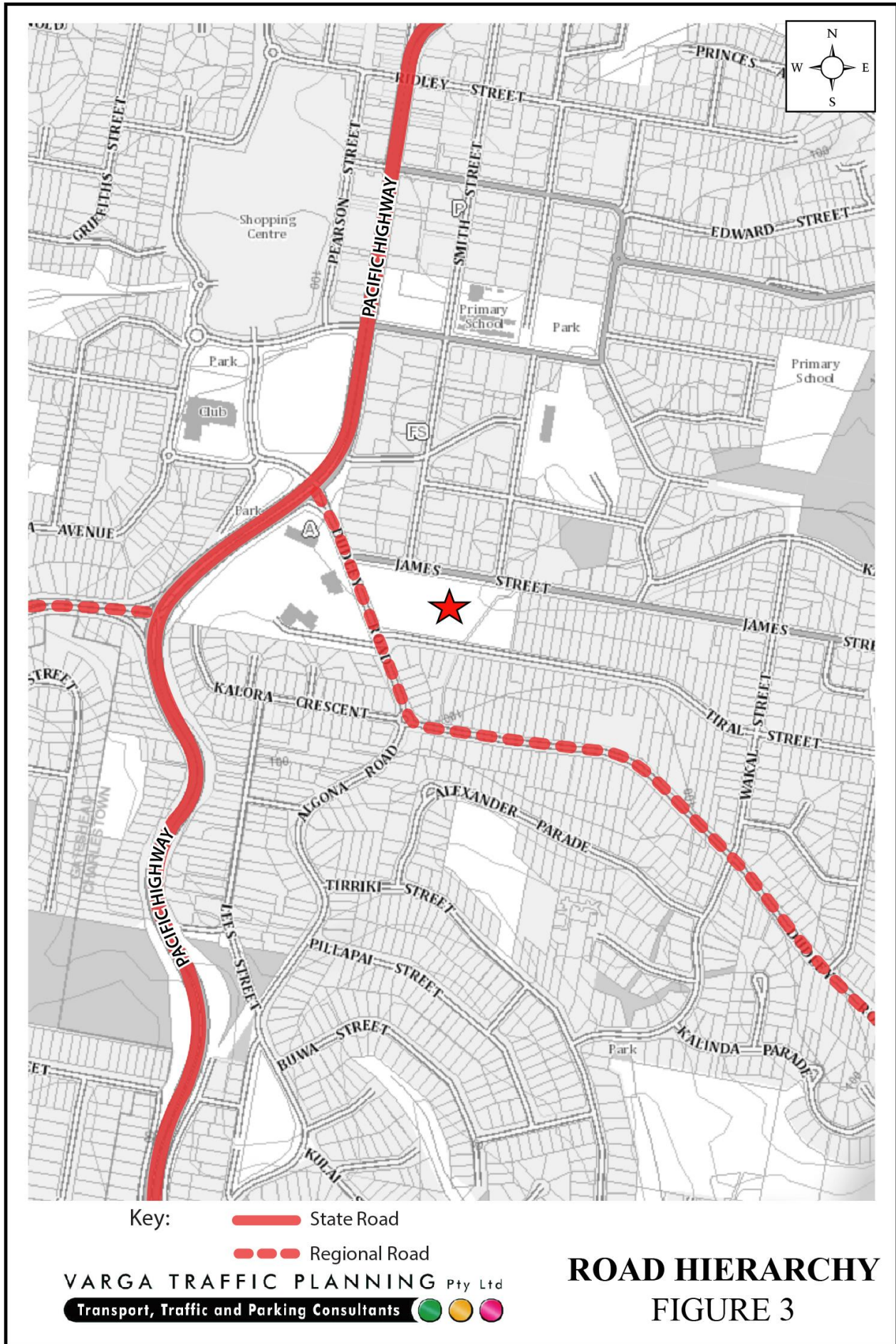
Dudley Road is classified by TfNSW as a *Regional Road* which provides a key east-west road link in the area. It typically carries one traffic lane in each direction in the vicinity of the site, with additional lanes provided in the vicinity of the Pacific Highway traffic signals.

Tiral Street and James Street are local, unclassified roads which are primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of both roads.

#### **Existing Traffic Controls**

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

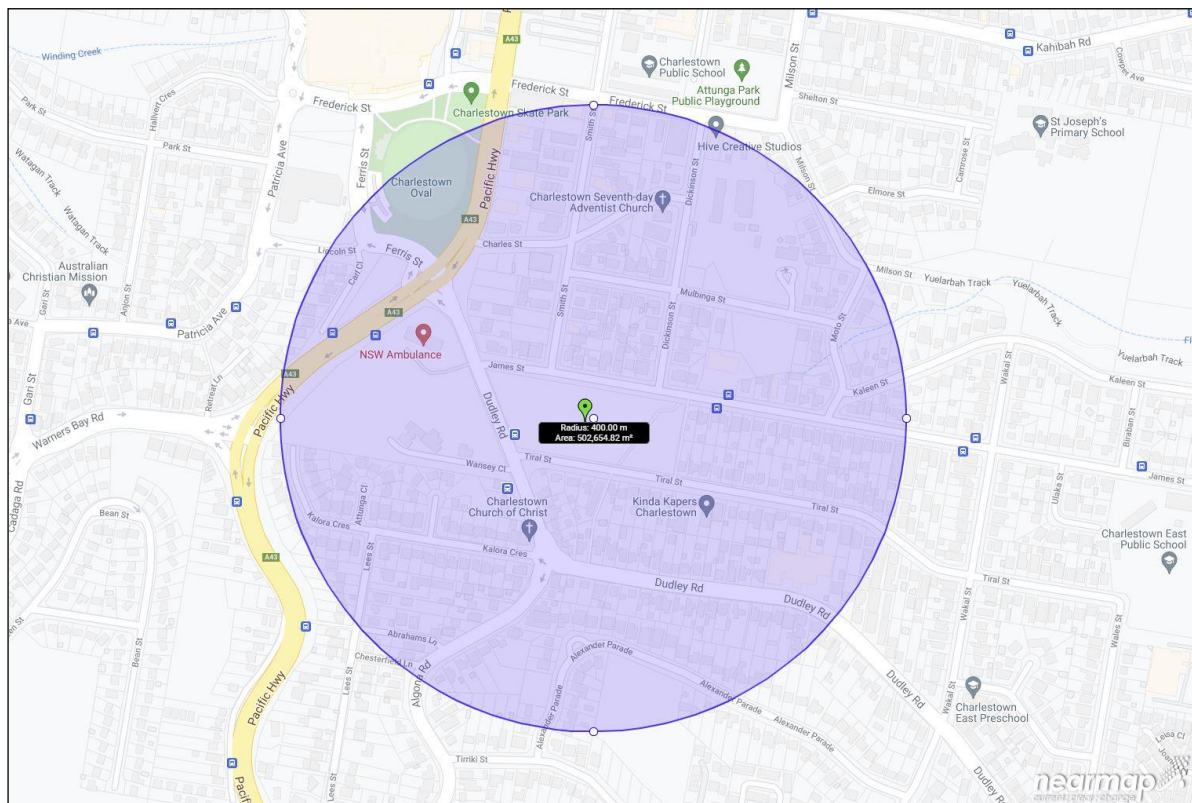
- a 60 km/h SPEED LIMIT which applies to the Pacific Highway and Dudley Road
- a 50 km/h SPEED LIMIT which applies to Tiral Street, James Street and all other local roads in the area
- TRAFFIC SIGNALS in the Pacific Highway where it intersects with Dudley Road/Ferris Street, with all turning movements permitted
- KEEP CLEAR linemarking in Dudley Road where it intersects with James Street



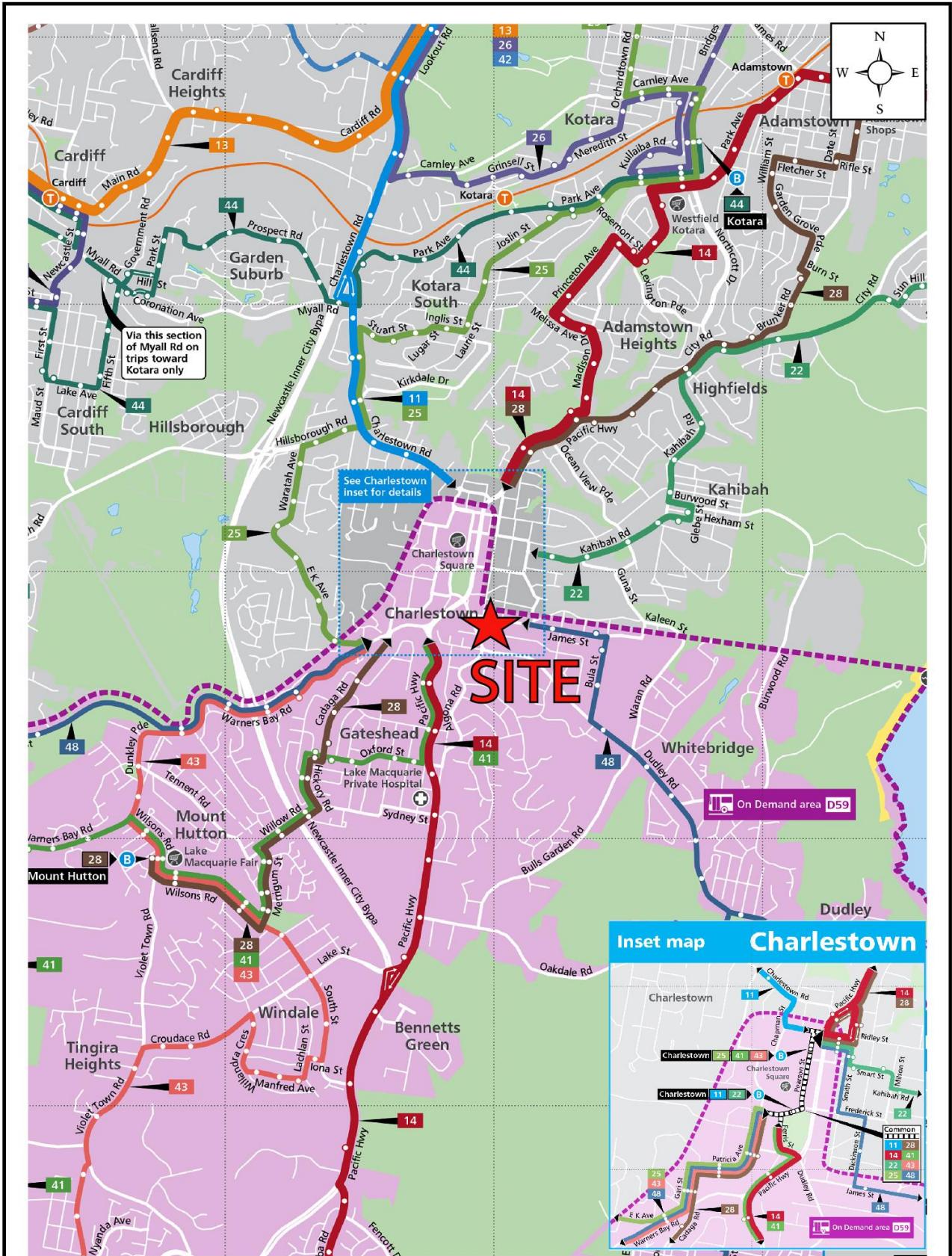
- a STOP SIGN located in Tiral Street where it intersects with Dudley Road
- a ROUNDABOUT at the Dudley Road, Algona Road and Kalora Crescent intersection
- a PEDESTRIAN REFUGE ISLAND at the far western end of James Street, where it intersects with Dudley Road.

**Existing Public Transport Services**

The existing public transport bus services available in the area are illustrated on Figure 5. The closest bi-directional bus stops to the site are located on James Street, 80m-90m east of Dickinson Street. The next closest bi-directional bus stops to the site are located on the Pacific Highway, 90m-130m south-west of the Dudley Road traffic signals. These existing bus stops are indicated on the map below which also illustrates a 400m radius from the centre of the site.



There are 4 existing bus services in close proximity to the site. These bus services connect with numerous points of interest including Lake Haven Shopping Centre, Charlestown Square, Westfields Kotara, Lake Macquarie Fair and Belmont Hospital.



**EXISTING  
 PUBLIC TRANSPORT**  
 FIGURE 5

As noted in the foregoing, the site lies within the *Charlestown Town Centre*, which includes a wide range of essential shops and services, including Club Charlestown, *Charlestown Square Shopping Mall* and Charlestown Library.

The *Charlestown Town Centre* is strategically located as a focus of the regional bus transport network (as defined by Lake Macquarie City's DCP) and is serviced by a number of bus routes. Fifteen Newcastle Bus services connect Charlestown to the Newcastle centre, Wallsend, Belmont, Dudley, Warners Bay and Swansea. Additionally, there are 3 private bus routes and 4 long-distance coach routes that stop in the town centre.

The bus terminus located in Pearson/Smart Streets, adjacent to Charlestown Square, accommodates the majority of bus routes as well as a lay-over area. These bus routes can also be accessed at bus stops located at the corner of the Frederick Street/Pearson Street intersection. The location of the terminus favours the western half of the town centre, located just north-west of the site.

The site is therefore considered to be well serviced by essential services and public transport options.

### **Existing & Proposed Bicycle & Footpath Network**

The existing footpath network in the vicinity of the site comprises footpaths located on the eastern side of Dudley Road along the site frontage, up to the Pacific Highway. Footpaths then extend along both sides of the highway, north of Dudley Road/Ferris Street, into the *Charlestown Town Centre*.

The existing footpath also connects to the southbound bus stop on the highway, south of Dudley Road/Ferris Street, however stops short of the northbound bus stop by approximately 100m. An existing central pedestrian refuge island is also located at the far western end of James Street, at the north-western corner of the site, providing a safe means of crossing for pedestrians.

There are no existing footpaths however, along the James Street or Tiral Street site frontage. The existing cycle network in the vicinity of the site is also limited.

The proposed development makes provision for new pedestrian footpaths around the perimeter of the site in James Street and in Tiral Street, with connections to through-site links and internal pedestrian pathways provided throughout the site.

In May 2015, Council published the *Charlestown Contribution Catchment Plan Traffic & Transport Study*, which investigated a number of potential local road intersection, pedestrian, cyclists and public transport facility upgrades and their associated costs, in order to better inform their s.94 Contribution plan.

As noted in the foregoing, a 2m wide Council-owned strip of land runs along the site's eastern boundary between James Street and Tiral Street.

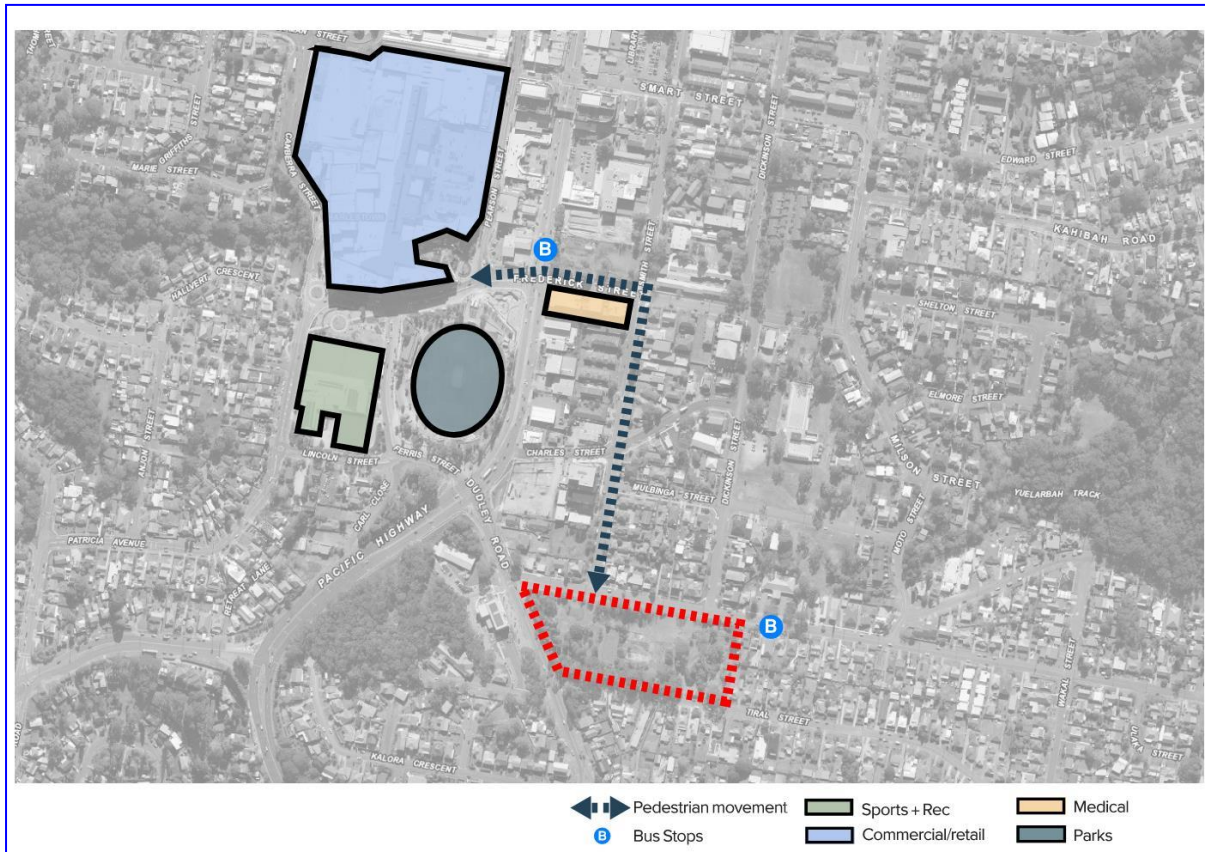
It is understood Council envisage this 2m wide strip to be transformed into a cycle link between the two streets, connecting to the wider on-road network and the Charlestown town centre to the north, thereby encouraging alternate and active forms of transport.

### **Access to Local Community Facilities**

A comprehensive pedestrian movement and transport plan will be developed by Uniting which will outline the preferred walking routes for residents accessing the community and shopping facilities located in the *Charlestown Town Centre* and in particular, in the *Charlestown Square Shopping Mall*.

The plan takes into consideration the existing conditions and infrastructure to provide a safer and more comfortable walking route to the *Charlestown Town Centre* using existing footpaths in Smith Street and Frederick Street to access the signalised pedestrian crossings across the Pacific Highway. This route, illustrated on the diagram below, will allow residents to access the bus interchange facilities, medical and health facilities as well as essential shopping facilities located in the *Charlestown Town Centre* and the *Charlestown Square Shopping Mall*.

The pedestrian movement and transport plan will also include a community bus to be provided by Uniting, exclusively dedicated to transporting residents to key community facilities, as well as the *Charlestown Town Centre* and the *Charlestown Square Shopping Mall*.



It is anticipated that the focal point of pedestrian activity generated by the site will be the *Charlestown Square Shopping Mall* and nearby medical facilities as indicated on the diagram above.

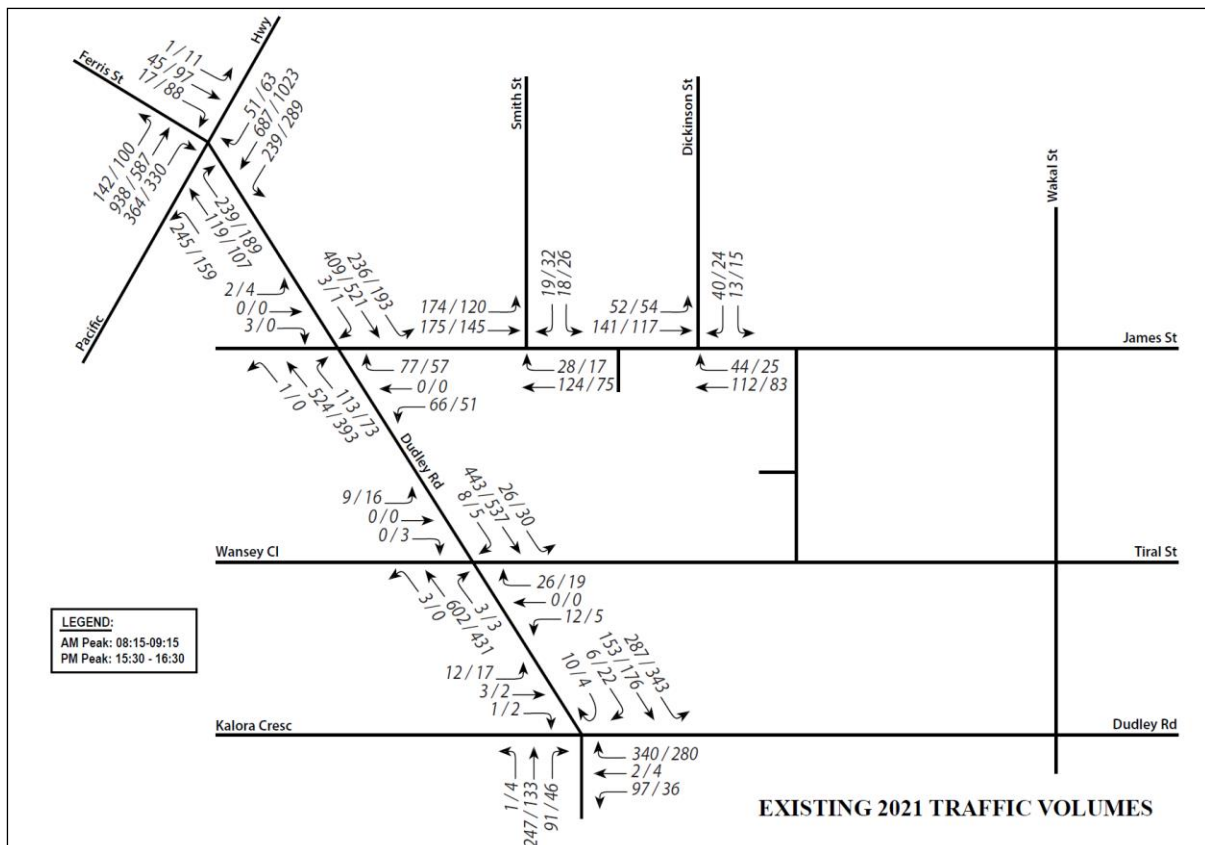
There will be little, if any, incentive for pedestrian movements to/from Dudley Road or further to the south in the Pacific Highway, given that the primary drawcard for residents will be the *Charlestown Town Centre* and the associated shopping and medical facilities. As such, there is no basis for providing any upgraded pedestrian crossing facilities or bus stops in the Pacific Highway.

### Existing Traffic Conditions

In order to determine the existing traffic volumes on the surrounding road network, peak period surveys were undertaken on Tuesday 9<sup>th</sup> November 2021 at six nearby intersections in the vicinity of the site, as follows:

- Pacific Hwy/Dudley Rd/Ferris St (traffic signals)
- Dudley Rd/James St/NSW Ambulance driveway (priority-controlled with KEEP CLEAR linemarking)
- Dudley Rd/Tiral St/Health Facility driveway (priority-controlled)
- Dudley Rd/Algona Rd/Kalora Cres (roundabout)
- James St/Smith St (priority-controlled)
- James St/Dickinson St (priority-controlled)

The results of the traffic surveys are reproduced in full in Appendix B. Based on the results of the traffic surveys, the network peak periods were determined to be 8:15am-9:15am and 3:30pm-4:30pm, with the respective traffic volumes at each intersection summarised on the diagram reproduced on the following page.



## Projected Traffic Generation

The traffic implications of development proposals primarily concern the effects of the *additional* traffic flows generated as a result of a development and its impact on the operational performance of the adjacent road network, particularly during the weekday morning and afternoon road network peak periods.

An indication of the traffic generation potential of the development proposal is provided by reference to the Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)* and the updated traffic generation rates in the RMS's *Technical Direction (TDT 2013/04a)* document, which are both based on extensive surveys of a wide range of land uses.

The RMS *Guidelines* and TDT 2013/04a nominates the following traffic generation rates which are applicable to the proposed development on the site.

### **Housing for Seniors – Independent Living Units**

AM: 0.2 peak hour vehicle trips per dwelling (assumed 50% of PM)

PM: 0.4 peak hour vehicle trips per dwelling

### **Housing for Aged & Disabled Persons – RACF**

0.1-0.2 evening peak hour vehicle trips per dwelling (assumed to be per bed)

### **Commercial Premises**

2.0 peak hour vehicle trips per 100m<sup>2</sup> GFA

### **High Density Residential Flat Buildings in Sub-Regional Centres**

0.29 peak hour vehicle trips per dwelling

However, as noted in the foregoing, Council has since requested that a higher traffic generation rate to be used for the assessment of the residential flat building component, utilising the site-specific rates outlined in the *TDT 2013/04a* document.

For the purposes of this assessment therefore, reference is made to Appendix B3, 'High Density Residential' of the updated *TDT 2013/04a* document which nominates the following site-specific traffic generation rates applicable to the residential component of the development proposal:

**High Density Residential Flat Buildings – Site 8 (Charlestown)**

AM: 0.39 peak hour vehicle trips per dwelling

PM: 0.42 peak hour vehicle trips per dwelling

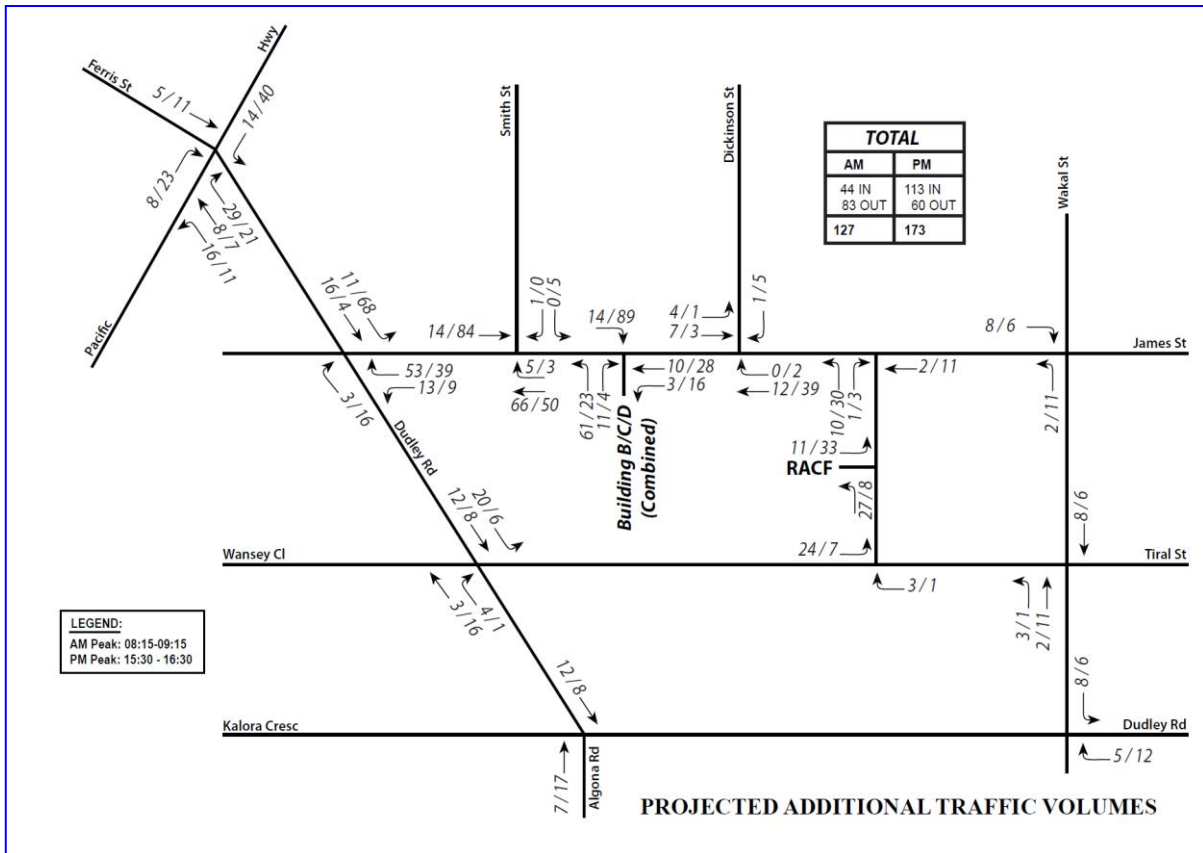
Application of the above traffic generation rates and the updated ‘site specific’ traffic generation rates to the various components (which includes the proposed commercial component on the site) outlined in the proposed development yields a traffic generation potential of approximately 127 vph during the AM network peak period and approximately 173 vph during the PM network peak period, as set out in the table on the following page.

It is also pertinent to note that the assessment is based on the fully developed site scenario (excluding the *B4* western portion).

In reality, the development will be constructed in stages, therefore any associated traffic impacts will be incremental and minimal.

<b>Proposed Development Traffic Generation Assessment</b>			
<b>Use</b>	<b>Floor area/yield</b>	<b>AM peak trips (veh/hr)</b>	<b>PM peak trips (veh/hr)</b>
Building A RACF	120 RAC beds, 14 ILUs, 1 Office space & 40 peak staff	27 (18 in & 9 out)	30 (6 in & 24 out)
Building A office	563m <sup>2</sup>	11 (9 in & 2 out)	11 (2 in & 9 out)
Building B ILU	82 ILUs	16 (3 in & 13 out)	33 (26 in & 7 out)
Building C ILU	107 ILUs	21 (4 in & 17 out)	43 (34 in & 9 out)
Building D RFB	133 apartments	52 (10 in & 42 out)	56 (45 in & 11 out)
<b>Total</b>		<b>127 (44 in &amp; 83 out)</b>	<b>173 (113 in &amp; 60 out)</b>

The distribution of the projected future traffic volumes is summarised on the diagram reproduced below.



Those projected traffic flows as a consequence of the development proposal will not have any unacceptable traffic implications in terms of road network capacity, nor will any road upgrades/improvements/widening be required, as is demonstrated by the following section of this report.

**Traffic Implications - Road Network Capacity**

The traffic implications of development proposals primarily concern the effects that any *additional* traffic flows may have on the operational performance of the nearby road network.

Those effects can be assessed using the SIDRA 9 NETWORK program which is widely used by TfNSW and many LGA’s for this purpose.

Criteria for evaluating the results of SIDRA analysis are reproduced in the following pages. The individual movement summaries are reproduced in Appendix C.

The results of the SIDRA capacity analysis of the surrounding intersections are summarised in the table on the following page, revealing that:

- all surrounding intersections currently operate at an overall average *Level of Service* “A”, “B” or “C”
- under the projected increase in projected future traffic demands expected to be generated by the development proposal, all surrounding intersections will continue to operate at existing overall *Levels of Service* (with the exception of a select number of turning movements), with minimal increases in average vehicle delays.

The capacity analysis confirms that the traffic generation potential of the proposed development on the subject site will not have any appreciable effect on the performance of nearby intersections (with minimal delays on all approaches), and that no further upgrades will be required.

In particular, it is noted that the SIDRA capacity analysis does not indicate any need for the signalisation of the James Street/Dudley Road intersection. In addition, it is noted that the Pacific Highway/Dudley Road traffic signals are located *less than 100m* from the James Street intersection, and therefore does not satisfy the minimum separation required by TfNSW of 130m between traffic signals.

Key Indicators	Existing 2021 Base Case		Existing 2021 Base Case + Development Traffic Demand		Existing 2031 Base Case		Existing 2031 Base Case + Development Traffic Demand	
	AM	PM	AM	PM	AM	PM	AM	PM
<b>Pacific Hwy/Dudley Rd/Ferris St</b>								
LOS	C	C	C	C	C	C	C	C
DOS	0.424	0.493	0.444	0.523	0.515	0.615	0.536	0.653
AVD (Sec/Veh)	31.3	35.8	32.1	33.9	31.9	33.1	35.1	33.7
<b>Dudley Rd/James St/NSW Ambulance</b>								
LOS	A(B)	A(B)	A(B)	A(B)	A(C)	A(B)	A(D)	A(C)
DOS	0.364	0.272	0.611	0.428	0.477	0.331	0.808	0.568
AVD (Sec/Veh)	3.2 (21.8)	2.4 (17.6)	4.9 (23.5)	3.6 (22.6)	3.8 (32.4)	2.8 (25.5)	7.3 (55.0)	4.3 (34.9)
<b>Dudley Rd/Tiral St/Health Facility</b>								
LOS	A(B)	A(A)	A(B)	A(A)	A(B)	A(B)	A(B)	A(B)
DOS	0.316	0.302	0.322	0.309	0.384	0.363	0.391	0.370
AVD (Sec/Veh)	0.8 (15.8)	0.7 (13.3)	0.9 (16.6)	0.7 (13.9)	0.9 (23.7)	0.7 (18.8)	1.1 (25.0)	0.8 (19.7)
<b>Dudley Rd/Algona Rd/Kalora Cres</b>								
LOS	A	A	A	A	A	A	A	A
DOS	0.375	0.391	0.381	0.397	0.453	0.466	0.461	0.471
AVD (Sec/Veh)	6.1	5.7	6.2	5.7	6.4	5.9	6.5	5.9
<b>James St/Smith St</b>								
LOS	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)
DOS	0.183	0.139	0.191	0.186	0.223	0.169	0.231	0.216
AVD (Sec/Veh)	2.3 (6.2)	2.3 (5.7)	2.1 (6.7)	1.9 (6.4)	2.2 (6.7)	2.3 (6.0)	2.1 (7.2)	1.9 (6.8)
<b>James St/Dickinson St</b>								
LOS	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)
DOS	0.100	0.089	0.107	0.091	0.116	0.102	0.122	0.104
AVD (Sec/Veh)	2.0 (5.8)	1.9 (5.5)	1.9 (5.9)	1.8 (5.6)	1.8 (6.0)	1.7 (5.6)	1.8 (6.2)	1.6 (5.8)

LOS – Level of Service; DOS – Degree of Saturation; AVD – Average Vehicle Delays

By way of further assessment of the additional traffic impact on the adjacent road network, reference is made to the industry-standard Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 4 – Interpretations of Traffic Impacts (October 2002)*.

Table 4.4 (reproduced below) sets out two-way hourly road capacity for one-lane per direction roads for different *Levels of Service*. As a guide, a *Level of Service “A”* for a one-lane per direction road is in the order of *200 vehicles per hour*.

**Table 4.4**  
Urban road peak hour flows per direction

Level of Service	One Lane (veh/hr)	Two Lanes (veh/hr)
A	200	900
B	380	1400
C	600	1800
D	900	2200
E	1400	2800

**Source: RMS Guidelines**

Reference to the weekday peak period traffic surveys undertaken as part of this traffic study has indicated that the surrounding local roads currently operate at *Level of Service "A"* or *"B"*, based on Table 4.4 above.

Even with the proposed development's traffic movements added to the existing peak traffic movements, the surrounding local roads will continue to operate at *Level of Service "A"* or *"B"*.

### **Environmental Capacity of Residential Streets**

Research undertaken by the Roads and Maritime Services has identified a number of environmental capacity performance standards for different types of residential streets, as set out in the table below:

<b>Table 4.6</b>			
<b>Environmental Capacity Performance Standards on Residential Streets</b>			
Road Class	Road Type	Maximum Speed (km/hr)	Maximum Peak Hour Volume (veh/hr)
Local	Access Way	25	100
	Street	40	200 Environmental Goal 300 Maximum
Collector	Street	50	300 Environmental Goal 500 Maximum

**Note:** Maximum speed relates to the appropriate design maximum speeds in new residential developments.

In existing areas maximum speed relates to 85<sup>th</sup> percentile speed.

Based on the thresholds specified in Table 4.6 on the previous page, and the existing and proposed traffic volumes, the surrounding local roads will continue to remain *below* the threshold of 300 vph which is the *maximum* for a local residential street, and in most instances, *below* the threshold of 200 vph which is the *environmental goal* for a local residential street.

As such, the projected increase in traffic activity as a consequence of the development proposal will clearly not have any unacceptable traffic implications in terms of road network or environmental capacity, nor will any infrastructure upgrades be required.

## Criteria for Interpreting Results of Sidra Analysis

### 1. *Level of Service (LOS)*

LOS	Traffic Signals and Roundabouts	Give Way and Stop Signs
'A'	Good operation.	Good operation.
'B'	Good with acceptable delays and spare capacity.	Acceptable delays and spare capacity.
'C'	Satisfactory.	Satisfactory but accident study required.
'D'	Operating near capacity.	Near capacity and accident study required.
'E'	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode.	At capacity and requires other control mode.
'F'	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires other control mode.

### 2. *Average Vehicle Delay (AVD)*

The AVD provides a measure of the operational performance of an intersection as indicated on the table below which relates AVD to LOS. The AVD's listed in the table should be taken as a guide only as longer delays could be tolerated in some locations (ie inner city conditions) and on some roads (ie minor side street intersecting with a major arterial route).

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way and Stop Signs
A	less than 14	Good operation.	Good operation.
B	15 to 28	Good with acceptable delays and spare capacity.	Acceptable delays and spare capacity.
C	29 to 42	Satisfactory.	Satisfactory but accident study required.
D	43 to 56	Operating near capacity.	Near capacity and accident study required.
E	57 to 70	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode.	At capacity and requires other control mode.

### 3. *Degree of Saturation (DS)*

The DS is another measure of the operational performance of individual intersections.

For intersections controlled by traffic signals<sup>1</sup> both queue length and delay increase rapidly as DS approaches 1, and it is usual to attempt to keep DS to less than 0.9. Values of DS in the order of 0.7 generally represent satisfactory intersection operation. When DS exceeds 0.9 queues can be anticipated.

For intersections controlled by a roundabout or GIVE WAY or STOP signs, satisfactory intersection operation is indicated by a DS of 0.8 or less.

<sup>1</sup> *The values of DS for intersections under traffic signal control are only valid for cycle length of 120 secs.*

## 4. CONSTRUCTION TRAFFIC MANAGEMENT PLAN

### Construction Programme

It is estimated that the construction activities are expected to be undertaken over a duration of approximately 5 years, as set out below. Working hours will be as per Council's standard conditions. No work is to be carried out on Sundays or Public Holidays.

<b>CONSTRUCTON PROGRAM – APPROXIMATE DURATIONS</b>		
<b>Stage</b>	<b>Work</b>	<b>Duration</b>
1	Building A – RACF & Building B – ILU	2 years
2	Building C – ILU	1.5 years
3	Building D – RFB	1.5 years

### Demolition & Excavation Stages

All demolition material and excavated spoil material will be loaded wholly within the site using a variety of truck sizes and types, ranging from bogeys up to truck and dog trailers. Depending on the stage, trucks will enter and exit the site via dedicated construction access driveways off Tiral Street and/or James Street. Construction access will not be provided off the Dudley Road site frontage.

Wherever is determined the most suitable location for trucks to access the site, all trucks will enter and exit the site in a forward direction under the supervision of an authorised traffic controller.

### Construction Stages

It is expected that all construction material deliveries will also be unloaded wholly within the site, with the movement of trucks across the footpath area to be supervised by an authorised traffic controller. The site manager will ensure that multiple deliveries do not occur at the same time unless they can all be accommodated on site.

**Works Zone**

As mentioned above, all loading and unloading will occur wholly within the site therefore a Works Zone is not considered necessary. If the situation changes in the future once construction methodology is further considered by the appointed head contractor, a Works Zone application will be made to Council.

**Sediment Control**

All practicable measures will be taken, including the use of “truck scrubbers”, to ensure that vehicles leaving the site do not deposit mud or debris on the road. Any mud or debris deposited on the road will be cleaned up immediately in a manner that does not pollute waters (i.e. by sweeping or vacuuming).

**Construction Truck Routes**

All heavy vehicles involved in the demolition, excavation and construction of the proposed development would approach and depart the site via the Pacific Highway, Dudley Road, James Street and/or Tiral Street.

Light traffic roads and those subject to load or height limits will be avoided as well as minimising heavy vehicle movements during school peak periods.

**Truck Movements**

The proposed development is expected to generate the following truck movements during the various activities:

1. Demolition - approximately 4 to 5 trucks carrying out approximately 2 to 3 loads per day. This would not be every day as they would not be loading out every day of the demolition period.
2. Excavation - approximately 5 to 8 trucks carrying out approximately 5 to 6 trips per day – i.e. 40 truck movements per day. This would not occur every day as they would not be loading out every day of the excavation period.

3. Large Concrete Pours - major pours would take approximately 6 hours to pour with 8 trucks per hour or 40 to 50 truck movements per day. Smaller pours would have a similar amount of truck movements per hour however the duration would be a lot shorter say 3 to 4 hours maximum.
4. General Deliveries - these would occur intermittently throughout the project with the major deliveries being reinforcing steel, plasterboard and bricks. The remainder would generally comprise smaller truck deliveries.

### **Authorised Traffic Controllers**

Authorised traffic controllers will be required to supervise the movement of all vehicles across the footpath during the demolition and excavation stages. Authorised traffic controllers will also be required during the construction stage of the project to facilitate major deliveries to the site, such as concrete pours.

### **Traffic Control Plans**

Traffic Control Plans will be prepared for the various activities at construction certificate stage, in accordance with RMS's publication *Traffic Control at Works Sites (2018), version 5.0* and the Standards Australia publication *AS1742.3: Traffic Control Devices for Work Sites on Road*.

### **Tradesmen and Contractor Parking**

The site manager will ensure that there is adequate on-site parking available for employee, tradesperson and construction vehicles, where practical. In addition, staff will be encouraged to utilise public transport which will minimise traffic and parking impacts as a consequence of the construction process.

## 5. PARKING IMPLICATIONS

### Existing Kerbside Parking Restrictions

The existing kerbside parking restrictions which apply to the road network in the vicinity of the site are illustrated on Figure 6 and comprise:

- NO STOPPING restrictions along both sides of Dudley Road, between the Pacific Highway and James Street
- NO STOPPING/BUS ZONE restrictions along the entire Dudley Road site frontage
- generally UNRESTRICTED kerbside parking along both sides of James Street and Tiral Street, including along both site frontages
- BUS ZONES located on both sides of James Street, just east of the site.

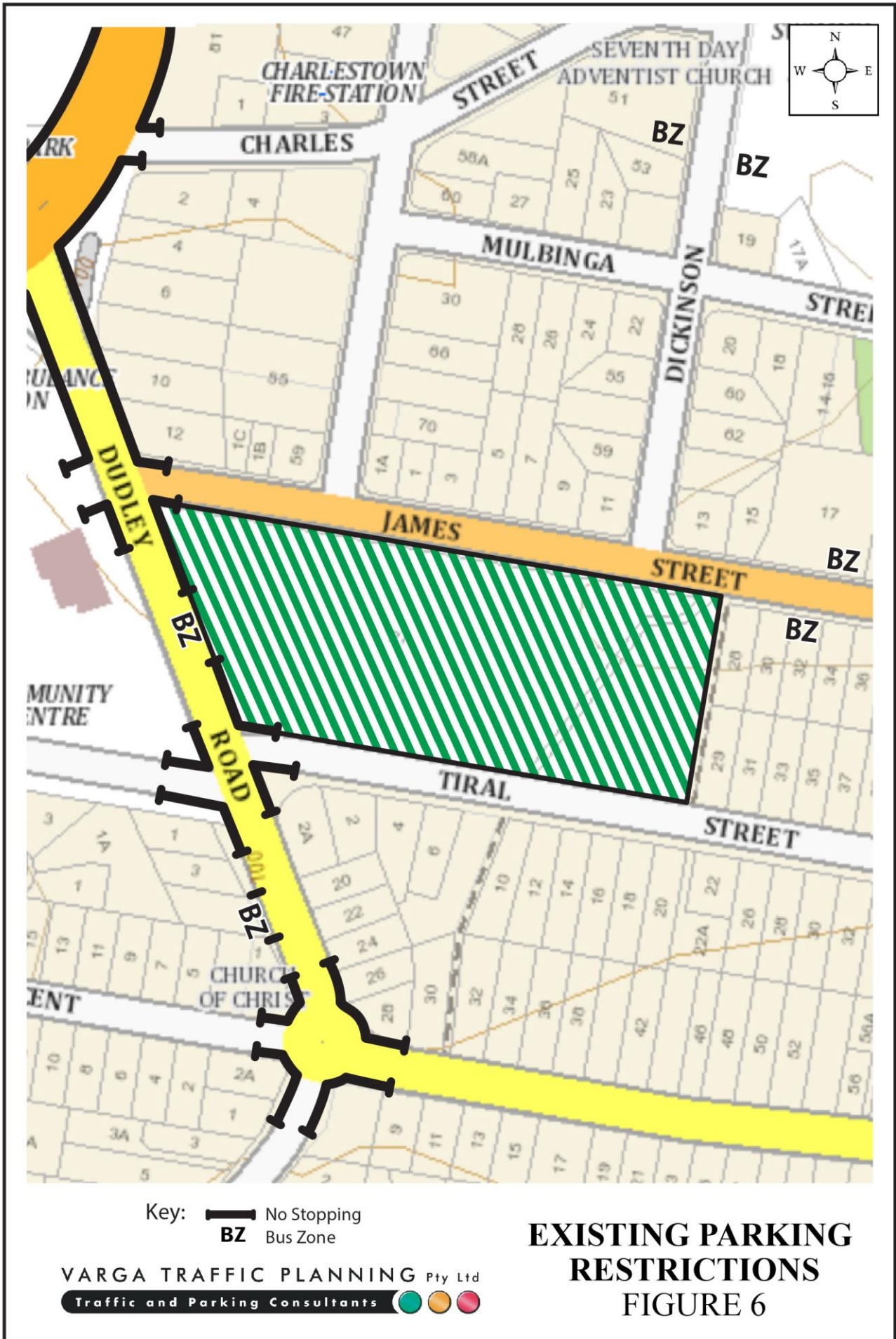
### Off-Street Parking Requirements

The off-street parking requirements applicable to the RACF and ILU components of the development proposal are specified in the new *SEPP (Housing) 2021* document in the following terms:

#### Division 7 Non-discretionary development standards

##### 107 Non-discretionary development standards for hostels and residential care facilities—the Act, s 4.15

- (1) The object of this section is to identify development standards for particular matters relating to development for the purposes of hostels and residential care facilities that, if complied with, prevent the consent authority from requiring more onerous standards for the matters.
- (2) The following are non-discretionary development standards in relation to development for the purposes of hostels or residential care facilities—
  - (h) for a residential care facility—at least 1 parking space for every 15 beds in the facility,
  - (i) at least 1 parking space for every 2 employees who are on duty at the same time,
  - (j) at least 1 parking space for the purpose of ambulance parking.



**108 Non-discretionary development standards for independent living units—the Act, s 4.15**

- (1) The object of this section is to identify development standards for particular matters relating to development for the purposes of independent living units that, if complied with, prevent the consent authority from requiring more onerous standards for the matters.
- (2) The following are non-discretionary development standards in relation to development for the purposes of independent living units—
  - (j) for a development application made by, or made by a person jointly with, a social housing provider—at least 1 parking space for every 5 dwellings,
  - (k) if paragraph (j) does not apply—at least 0.5 parking spaces for each bedroom.

It should be noted that *Uniting* are classified as a “social housing provider. Furthermore, the *SEPP* does *not* nominate an off-street parking rate for ILU visitors.

The off-street parking rate applicable to the office component of the development proposal is specified in Council’s *Development Control Plan 2014, Part 3 – Development within Residential Zones* document in the following terms:

Development Type	Car Parking Rate
<b>Business premises</b>	One space per 40m <sup>2</sup> GFA. And where more than 20 car spaces are required and the development is within 400m of a designated bus route, the development provides a ‘Bus shelter’ (or approved equivalent) in lieu of 1 car space in every 40, or part thereof, of the onsite spaces required. One shelter to be provided for each car space deleted

With respect to the applicable off-street parking rate for the standard residential apartments within Building D, the site is located “*within 400m of land zoned B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre*, as specified in the *Apartment Design Guide 2015, Section 3J – Bicycle and Car Parking* document.

As Charlestown is a “nominated regional centre”, the applicable off-street parking rates are specified in the *RMS Guidelines* in the following terms.

### 5.4.3 High density residential flat buildings.

#### Definition.

A *high density residential flat building* refers to a building containing 20 or more dwellings. This does not include aged or disabled persons' housing. *High density residential flat buildings* are usually more than five levels, have basement level car parking and are located in close proximity to public transport services. The building may contain a component of commercial use.

#### Parking.

The recommended minimum number of off-street resident parking spaces is as follows:

##### Metropolitan Sub-Regional Centres:

- 0.6 spaces per 1 bedroom unit.
- 0.9 spaces per 2 bedroom unit.
- 1.40 spaces per 3 bedroom unit.
- 1 space per 5 units (visitor parking).

Application therefore of the above parking rates to the various components outlined in the development proposal yields a minimum off-street parking requirement of 219 parking spaces across the four buildings, as set out below:

Proposed Development Parking Requirement			
Use	Floor area/yield	Min. Parking Required	Parking Proposed
Building A RACF	120 beds, 14 ILUs, 1 Uniting Office space & 40 peak staff	31 spaces (SEPP)	52 spaces
Building A office	563m <sup>2</sup>	14 spaces (DCP)	15 spaces
Building B ILU	82 ILUs	16 spaces (SEPP)	89 spaces
Building C ILU	107 ILUs	21 spaces (SEPP)	112 spaces
Building D RFB	133 apartments	137 inc. 27 vis (RMS/ADG)	150 spaces inc. 27 vis
<b>Total</b>		<b>219 spaces</b>	<b>418 spaces</b>

As noted above, the proposed development makes provision for 418 off-street parking spaces, thereby *comfortably* satisfying the minimum parking requirements.

The geometric design layout of the proposed car parking facilities have generally been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1* in respect of parking bay dimensions, ramp gradients and aisle widths.

Furthermore, it is likely that should the Application be approved, a condition(s) would be included within the consent which would require a design certificate to be provided to the certifying authority prior to the issue of a construction certificate, confirming *full* compliance with Australian Standards.

### **Loading/Servicing Provisions**

The proposed development is expected to be serviced by a variety of commercial vehicles from vans, wagons and utilities, ambulances, small rigid trucks, 22-seater mini-buses, up to and including 9.5m long rigid trucks, as outlined in *Uniting's* RACF design guide. Dedicated loading/parking bays are provided for the abovementioned service vehicles at several locations throughout the site.

The proposed layout of the vehicular access, parking and loading arrangements has been carefully designed to ensure all vehicles are able to enter and exit the site in a forward direction at all times.

### **Conclusion**

The foregoing assessment has found that under the projected increase in projected future traffic demands expected to be generated by the development proposal, all surrounding intersections will continue to operate at existing overall *Levels of Service* (with the exception of a select number of turning movements), with minimal increases in average vehicle delays, and that no further upgrades will be required.

In particular, it is noted that the SIDRA capacity analysis does not indicate any need for the signalisation of the James Street/Dudley Road intersection.

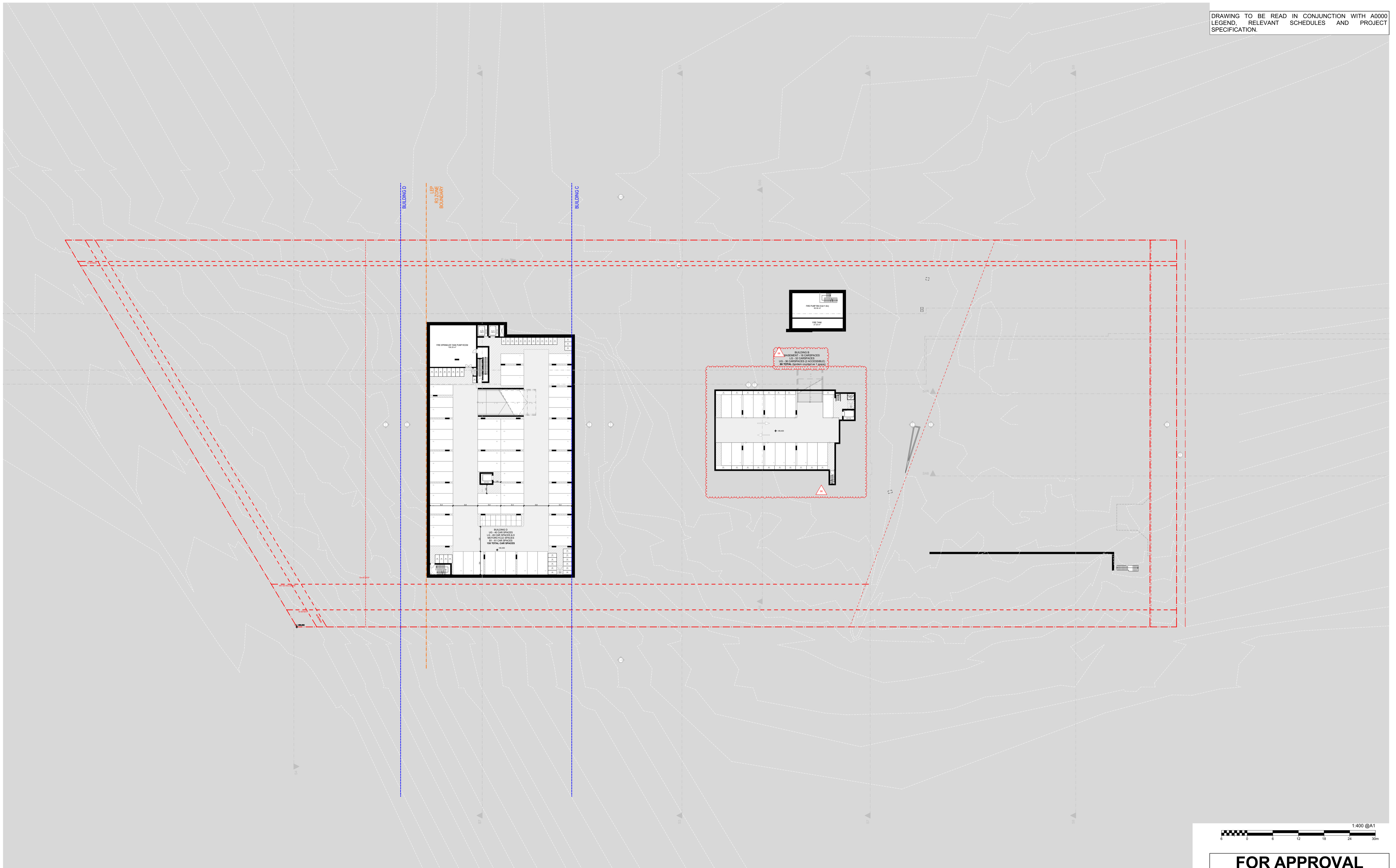
There will be little, if any, incentive for pedestrian movements to/from Dudley Road or further to the south in the Pacific Highway, given that the primary drawcard for residents will be the *Charlestown Town Centre* and the associated shopping and medical facilities. As such, there is no basis for providing any upgraded pedestrian crossing facilities or bus stops in Dudley Street or the Pacific Highway.

In addition, the proposed development satisfies Council's *DCP*, the new *SEPP (Housing) 2021* and the *ADG* in terms of minimum off-street parking and drop-off/pick-up requirements, as well as the design requirements within the Australian Standards.

It is therefore reasonable to conclude that the proposed development will not have any unacceptable implications in terms of road network/environmental capacity or off-street parking/access/servicing requirements.

**APPENDIX A**

**ARCHITECTURAL PLANS**

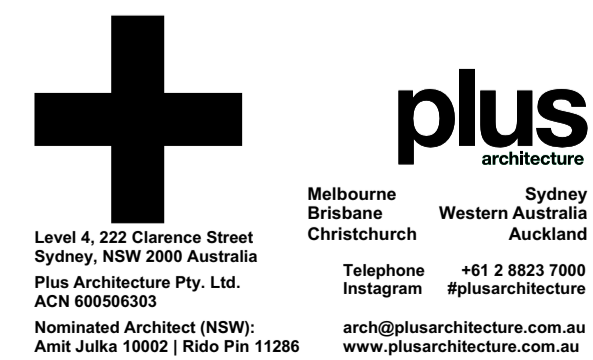


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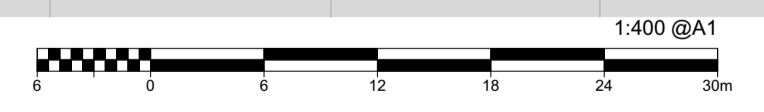
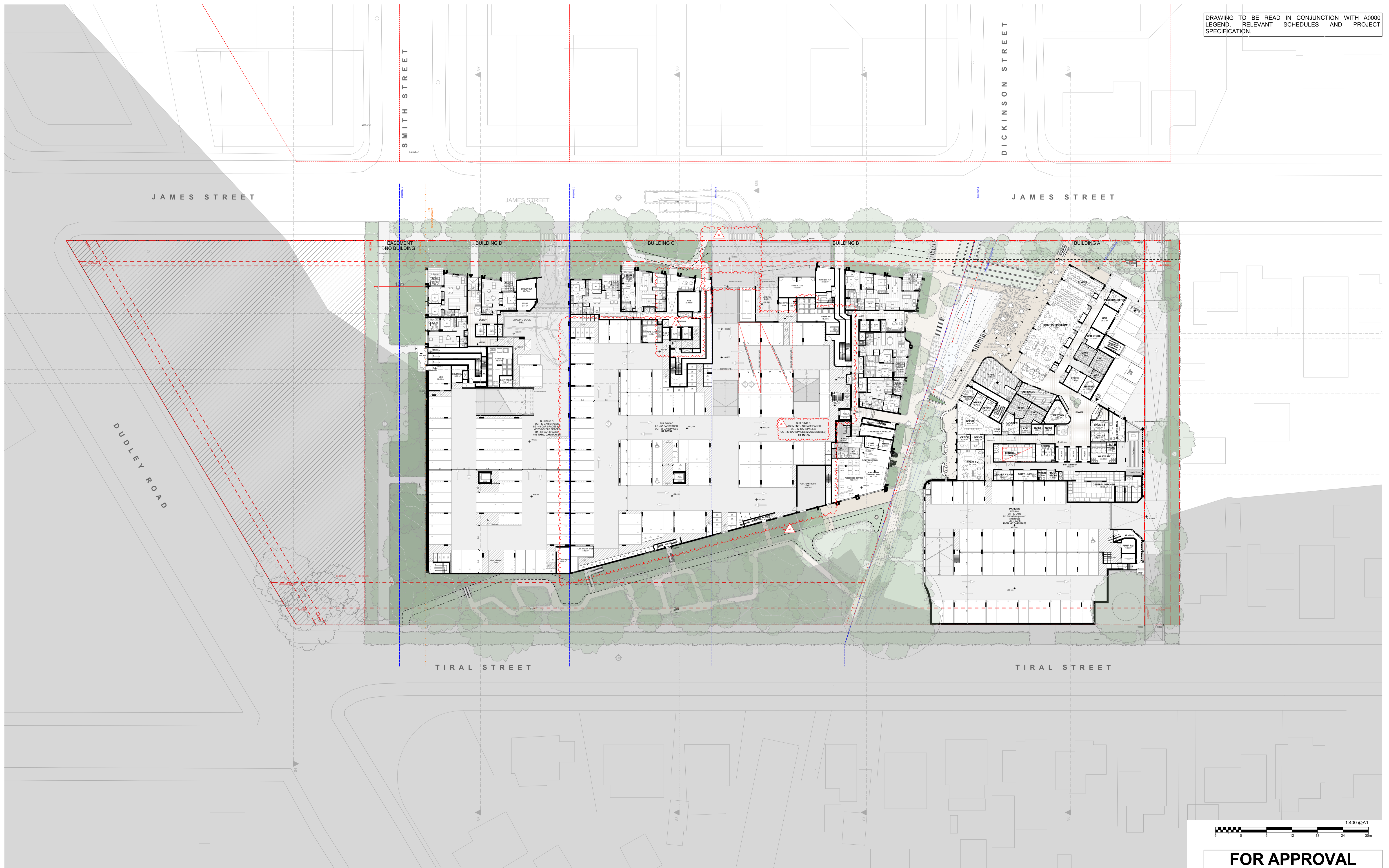
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LANDSCAPE ARCHITECT	<input type="checkbox"/>	ARCADIA	T (02) 8571 2900
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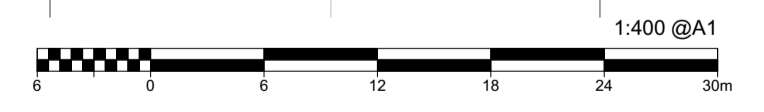
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**Uniting**



Level 4, 222 Clarence Street  
Sydney, NSW 2000 Australia  
Plus Architecture Pty. Ltd.  
ACN 600596303  
Nominated Architect (NSW):  
Amit Julka 10002 | Rido Pin 11286

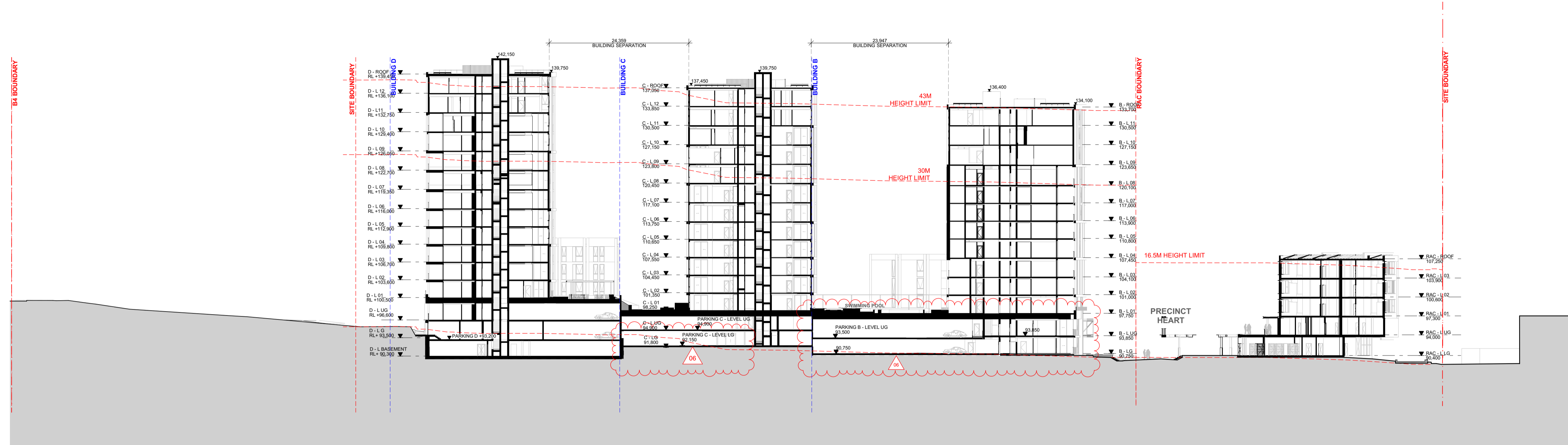
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PROJECT  
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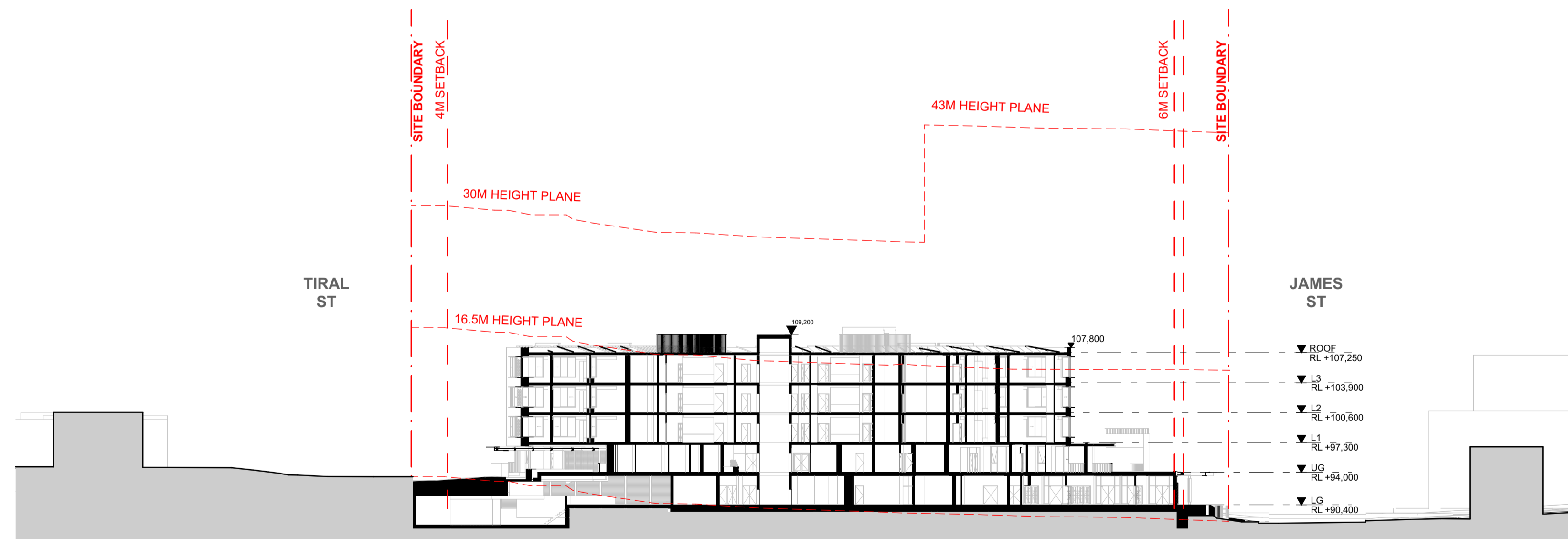
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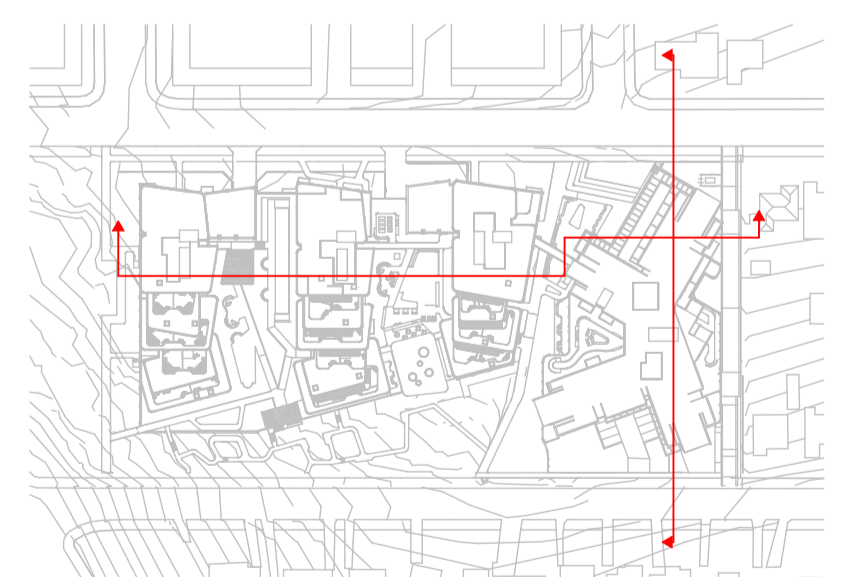
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**S1 E-W SECTION**  
Scale 1:400



**S2 N-S RAC SECTION**  
Scale 1:400



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Level 4, 222 Clarence Street  
Sydney, NSW 2000 Australia  
Plus Architecture Pty. Ltd.  
ACN 600594303  
Nominated Architect (NSW):  
Amit Julka 10002 | Rtdo Pin 11286

Telephone  
+61 2 8823 7000  
Instagram  
#plusarchitecture  
arch@plusarchitecture.com.au  
www.plusarchitecture.com.au

PROJECT  
**27 TIRAL STREET,  
CHARLESTOWN**

DRAWING TITLE  
**SITE SECTIONS**

SCALE  
1:400, 1:2200 @A1

DATE  
27/09/2023

DRAWN  
RM

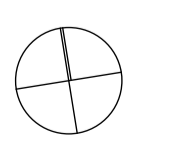
JOB NO.  
**20456**

REVISION  
06

PLOT DATE  
27/09/2023

CHECKED  
GD

DRAWING NO.  
**PLA-CT-MP-DWG-AR-P4- 00210**



**APPENDIX B**

**TRAFFIC SURVEY DATA**

# TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

## Intersection of Pacific Hwy and Ferris St, Charlestown

GPS -32.96793, 151.69457

Date:	Tue 09/11/21
Weather:	Overcast
Suburban:	Charlestown
Customer:	Varga

North:	Ferris St
East:	Pacific Hwy
South:	Dudley Rd
West:	Pacific Hwy

Survey Period:	AM: 6:30 AM-9:30 AM
	PM: 3:30 PM-6:30 PM
Traffic Peak:	AM: 8:00 AM-9:00 AM
	PM: 3:30 PM-4:30 PM

### All Vehicles

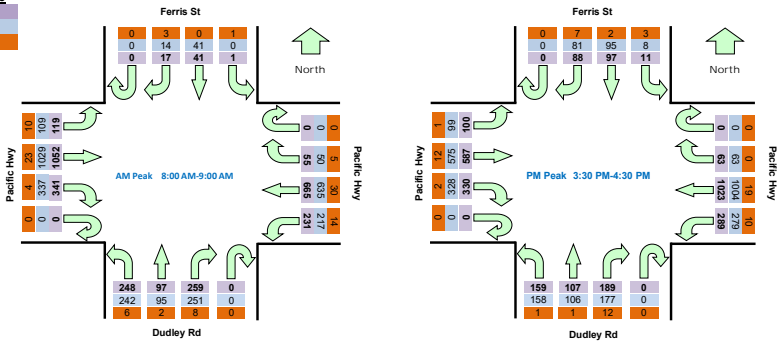
Time		North Approach Ferris St				East Approach Pacific Hwy				South Approach Dudley Rd				West Approach Pacific Hwy				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
6:30	6:45	0	0	4	1	0	5	94	22	0	37	6	50	0	23	179	8	1796	
6:45	7:00	0	0	4	0	0	6	87	43	0	37	6	38	0	40	166	4	1983	
7:00	7:15	0	0	5	0	1	8	104	28	0	32	8	39	0	27	170	2	2201	
7:15	7:30	0	2	4	0	0	4	108	35	0	50	11	37	0	27	222	12	2625	
7:30	7:45	0	2	5	0	0	6	137	41	0	65	16	43	0	32	255	14	2776	
7:45	8:00	0	2	3	0	0	10	164	46	0	40	11	51	0	52	251	19	2965	
8:00	8:15	0	7	7	1	0	13	146	62	0	63	18	50	0	67	293	21	3126	Peak
8:15	8:30	0	4	9	0	0	13	151	49	0	70	23	64	0	90	263	27	3087	
8:30	8:45	0	3	14	0	0	14	171	54	0	77	27	62	0	79	268	36	2940	
8:45	9:00	0	3	11	0	0	15	197	66	0	49	29	72	0	105	228	35		
9:00	9:15	0	7	11	1	0	9	168	70	0	43	40	47	0	90	179	44		
9:15	9:30	0	11	12	4	0	14	148	54	0	34	45	27	0	65	165	37		
15:30	15:45	0	15	26	1	0	13	260	86	0	49	33	42	0	90	143	30	3043	Peak
15:45	16:00	0	18	20	4	0	18	253	63	0	50	23	45	0	87	145	26	2949	
16:00	16:15	0	29	22	4	0	8	233	61	0	34	31	35	0	77	168	24	2940	
16:15	16:30	0	26	29	2	0	24	277	79	0	56	20	37	0	76	131	20	2938	
16:30	16:45	0	23	30	5	0	17	225	61	0	38	27	63	0	62	123	20	2970	
16:45	17:00	0	19	19	2	0	19	293	66	0	40	25	28	0	78	137	17	2971	
17:00	17:15	0	20	26	0	0	14	244	68	0	31	15	59	0	80	147	20	2831	
17:15	17:30	0	21	33	2	0	16	325	75	0	37	21	42	0	73	154	10	2650	
17:30	17:45	0	13	25	0	0	12	283	71	0	35	18	36	0	45	140	17	2306	
17:45	18:00	0	22	21	1	0	12	215	69	0	35	19	31	0	54	112	12		
18:00	18:15	0	11	24	0	0	12	177	57	0	30	22	38	0	52	102	18		
18:15	18:30	0	11	11	1	0	15	158	53	0	23	14	34	0	48	89	8		

Peak Time	North Approach Ferris St				East Approach Pacific Hwy				South Approach Dudley Rd				West Approach Pacific Hwy				Peak total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	17	41	1	0	55	665	231	0	259	97	248	0	341	1052	119	3126
15:30	16:30	0	88	97	11	0	63	1023	289	0	189	107	159	0	330	587	100	3043

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

### Graphic

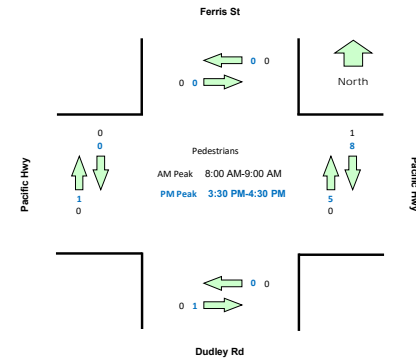
Total  
Light  
Heavy



### Pedestrians Crossing

Time		North Approach Ferris St		East Approach Pacific Hwy		South Approach Dudley Rd		West Approach Pacific Hwy		Hourly Total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	Hourly Total
6:30	6:45	0	0	0	0	0	0	0	0	2
6:45	7:00	0	0	1	1	0	0	0	0	4
7:00	7:15	0	0	0	0	0	0	0	0	3
7:15	7:30	0	0	0	0	0	0	0	0	3
7:30	7:45	0	0	0	2	0	0	0	0	4
7:45	8:00	0	0	1	0	0	0	0	0	2
8:00	8:15	0	0	0	0	0	0	0	0	1
8:15	8:30	0	0	1	0	0	0	0	0	9
8:30	8:45	0	0	0	0	0	0	0	0	13
8:45	9:00	0	0	0	0	0	0	0	0	0
9:00	9:15	0	2	2	4	0	0	0	0	0
9:15	9:30	2	0	0	3	0	0	0	0	0
15:30	15:45	0	0	4	2	0	0	0	0	15
15:45	16:00	0	8	2	0	0	0	0	0	9
16:00	16:15	0	0	2	2	0	1	0	0	9
16:15	16:30	0	0	0	1	0	0	0	1	4
16:30	16:45	0	0	0	0	0	0	0	0	5
16:45	17:00	1	0	1	0	0	0	0	0	5
17:00	17:15	0	0	0	0	0	0	0	0	7
17:15	17:30	0	1	0	0	0	0	0	2	11
17:30	17:45	0	0	0	0	0	0	0	0	10
17:45	18:00	0	0	1	3	0	0	0	0	0
18:00	18:15	0	0	3	1	0	0	0	0	0
18:15	18:30	0	0	1	1	0	0	0	0	0

Peak Time	North Approach Ferris St		East Approach Pacific Hwy		South Approach Dudley Rd		West Approach Pacific Hwy		Peak hour total	
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	total
8:00	9:00	0	0	1	0	0	0	0	0	1
15:30	16:30	0	0	8	5	0	1	0	1	15



**Light Vehicles**

Time		North Approach Ferris St				East Approach Pacific Hwy				South Approach Dudley Rd				West Approach Pacific Hwy			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:30	6:45	0	0	4	1	0	4	90	20	0	35	6	49	0	21	171	6
6:45	7:00	0	0	4	0	0	6	86	42	0	36	6	38	0	39	154	4
7:00	7:15	0	0	5	0	1	7	102	27	0	26	7	38	0	27	166	2
7:15	7:30	0	2	3	0	0	3	106	34	0	48	11	35	0	23	218	9
7:30	7:45	0	2	5	0	0	5	129	40	0	64	15	43	0	32	252	9
7:45	8:00	0	1	3	0	0	10	159	43	0	39	11	50	0	52	246	18
8:00	8:15	0	7	7	0	0	11	140	59	0	60	18	48	0	67	285	18
8:15	8:30	0	3	9	0	0	13	150	46	0	68	23	64	0	90	259	24
8:30	8:45	0	2	14	0	0	13	166	48	0	76	27	62	0	77	264	33
8:45	9:00	0	2	11	0	0	13	179	64	0	47	27	68	0	103	221	34
9:00	9:15	0	6	11	1	0	9	165	68	0	43	39	47	0	89	172	43
9:15	9:30	0	9	12	2	0	14	146	51	0	32	45	26	0	65	160	36
15:30	15:45	0	15	26	0	0	13	253	81	0	44	32	42	0	89	137	30
15:45	16:00	0	15	18	3	0	18	249	62	0	47	23	44	0	86	144	26
16:00	16:15	0	25	22	4	0	8	227	59	0	32	31	35	0	77	167	23
16:15	16:30	0	26	29	1	0	24	275	77	0	54	20	37	0	76	127	20
16:30	16:45	0	22	30	4	0	16	225	60	0	35	27	62	0	62	122	19
16:45	17:00	0	18	19	2	0	19	292	65	0	41	24	28	0	78	136	15
17:00	17:15	0	20	26	0	0	14	239	68	0	31	15	59	0	80	146	20
17:15	17:30	0	20	33	2	0	16	321	75	0	36	21	42	0	72	153	10
17:30	17:45	0	12	25	0	0	11	281	71	0	35	18	35	0	45	137	15
17:45	18:00	0	20	21	1	0	12	213	68	0	35	19	31	0	54	112	12
18:00	18:15	0	10	24	0	0	12	176	57	0	30	22	37	0	52	101	16
18:15	18:30	0	10	11	1	0	15	155	52	0	22	14	34	0	48	88	7

Peak Time		North Approach Ferris St				East Approach Pacific Hwy				South Approach Dudley Rd				West Approach Pacific Hwy				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
8:00	9:00	0	14	41	0	0	50	635	217	0	251	95	242	0	337	1029	109	3020
15:30	16:30	0	81	95	8	0	63	1004	279	0	177	106	158	0	328	575	99	2973

**Heavy Vehicles**

Time		North Approach Ferris St				East Approach Pacific Hwy				South Approach Dudley Rd				West Approach Pacific Hwy			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:30	6:45	0	0	0	0	0	1	4	2	0	2	0	1	0	2	8	2
6:45	7:00	0	0	0	0	0	0	1	1	0	1	0	0	0	1	12	0
7:00	7:15	0	0	0	0	0	1	2	1	0	6	1	1	0	0	4	0
7:15	7:30	0	0	1	0	0	1	2	1	0	2	0	2	0	4	4	3
7:30	7:45	0	0	0	0	0	1	8	1	0	1	1	0	0	0	3	5
7:45	8:00	0	1	0	0	0	0	5	3	0	1	0	1	0	0	5	1
8:00	8:15	0	0	0	1	0	2	6	3	0	3	0	2	0	0	8	3
8:15	8:30	0	1	0	0	0	0	1	3	0	2	0	0	0	0	4	3
8:30	8:45	0	1	0	0	0	1	5	6	0	1	0	0	0	2	4	3
8:45	9:00	0	1	0	0	0	2	18	2	0	2	2	4	0	2	7	1
9:00	9:15	0	1	0	0	0	0	3	2	0	0	1	0	0	1	7	1
9:15	9:30	0	2	0	2	0	0	2	3	0	2	0	1	0	0	5	1
15:30	15:45	0	0	0	1	0	0	7	5	0	5	1	0	0	1	6	0
15:45	16:00	0	3	2	1	0	0	4	1	0	3	0	1	0	1	1	0
16:00	16:15	0	4	0	0	0	0	6	2	0	2	0	0	0	0	1	1
16:15	16:30	0	0	0	1	0	0	2	2	0	2	0	0	0	0	4	0
16:30	16:45	0	1	0	1	0	1	0	1	0	3	0	1	0	0	1	1
16:45	17:00	0	1	0	0	0	0	1	1	0	-1	1	0	0	0	1	2
17:00	17:15	0	0	0	0	0	0	5	0	0	0	0	0	0	0	1	0
17:15	17:30	0	1	0	0	0	0	4	0	0	1	0	0	0	1	1	0
17:30	17:45	0	1	0	0	0	1	2	0	0	0	0	1	0	0	3	2
17:45	18:00	0	2	0	0	0	0	2	1	0	0	0	0	0	0	0	0
18:00	18:15	0	1	0	0	0	0	1	0	0	0	0	1	0	0	1	2
18:15	18:30	0	1	0	0	0	0	3	1	0	1	0	0	0	0	1	1

Peak Time		North Approach Ferris St				East Approach Pacific Hwy				South Approach Dudley Rd				West Approach Pacific Hwy				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
8:00	9:00	0	3	0	1	0	5	30	14	0	8	2	6	0	4	23	10	106
15:30	16:30	0	7	2	3	0	0	19	10	0	12	1	1	0	2	12	1	70

## Intersection of James St and Dudley St, Charlestown

GPS -32.96893, 151.69507

Date:	Tue 09/11/21
Weather:	Overcast
Suburban:	Charlestown
Customer:	Varga

North:	Dudley St
East:	James St
South:	Dudley St
West:	NSW Ambulance Driveway

Survey Period:	AM: 6:30 AM-9:30 AM PM: 3:30 PM-6:30 PM
Traffic Peak:	AM: 8:15 AM-9:15 AM PM: 3:30 PM-4:30 PM

Queue there is no queue and there is no queue extended from traffic light

### All Vehicles

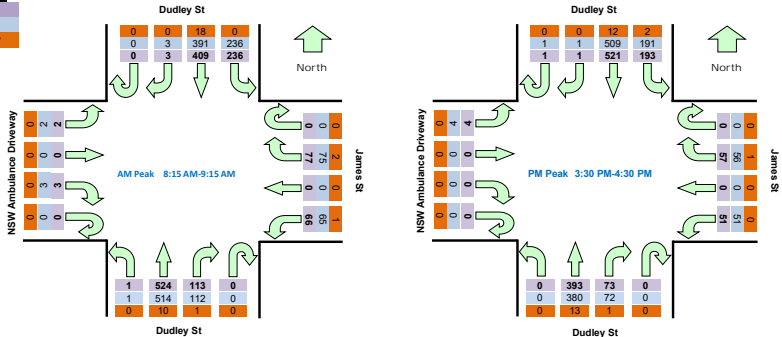
Time		North Approach Dudley St				East Approach James St				South Approach Dudley St				West Approach NSW Ambulance Driveway				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
6:30	6:45	0	1	26	22	0	7	0	1	0	6	76	0	0	0	0	10	660	
6:45	7:00	0	0	54	33	0	11	0	5	0	8	67	1	0	0	0	3	730	
7:00	7:15	0	0	36	24	0	8	0	3	0	9	71	1	0	0	0	0	772	
7:15	7:30	0	1	51	14	0	10	0	4	0	9	88	0	0	0	0	0	919	
7:30	7:45	1	0	54	23	0	9	0	5	0	13	114	0	0	0	0	0	1082	
7:45	8:00	0	3	66	32	0	10	0	3	0	18	92	0	0	0	0	0	1241	
8:00	8:15	0	2	89	45	0	15	0	11	0	20	116	1	0	0	0	0	1391	
8:15	8:30	0	0	97	51	0	13	0	16	0	18	143	0	0	1	0	1	1434	Peak
8:30	8:45	0	0	96	51	0	20	0	23	0	42	146	0	0	0	0	0	1351	
8:45	9:00	0	1	107	74	0	22	0	15	0	24	128	1	0	2	0	0		
9:00	9:15	0	2	109	60	0	22	0	12	0	29	107	0	0	0	0	1		
9:15	9:30	0	2	80	49	0	14	0	7	0	13	91	0	0	0	0	1		
15:30	15:45	0	1	142	59	0	21	0	16	0	22	101	0	0	0	0	2	1294	Peak
15:45	16:00	0	0	120	50	0	11	0	11	0	17	106	0	0	0	0	1	1240	
16:00	16:15	0	0	117	43	0	14	0	9	0	22	85	0	0	0	0	1	1204	
16:15	16:30	1	0	142	41	0	11	0	15	0	12	101	0	0	0	0	0	1217	
16:30	16:45	0	0	119	34	0	19	0	12	0	17	109	0	0	0	0	0	1204	
16:45	17:00	1	1	112	49	0	15	0	9	0	15	77	0	0	0	1	0	1150	
17:00	17:15	0	0	134	40	0	30	0	16	0	9	71	0	0	0	0	4	1113	
17:15	17:30	0	1	139	41	0	13	0	15	0	13	87	0	0	1	0	0	1059	
17:30	17:45	0	1	104	36	0	17	0	17	0	9	72	0	0	0	0	0	950	
17:45	18:00	0	2	111	31	0	9	0	6	0	7	74	0	0	0	1	2		
18:00	18:15	0	7	92	34	0	23	0	11	0	14	66	1	0	0	1	1		
18:15	18:30	0	6	81	25	0	21	1	9	0	8	50	0	0	0	0	0		

Peak Time	North Approach Dudley St				East Approach James St				South Approach Dudley St				West Approach NSW Ambulance Driveway				Peak total		
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L		
8:15	9:15	0	3	409	236	0	77	0	66	0	113	524	1	0	3	0	2	1434	
15:30	16:30	1	1	521	193	0	57	0	51	0	73	393	0	0	0	0	4	1294	

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

### Graphic

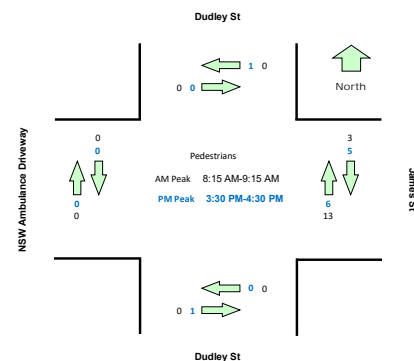
Total  
Light  
Heavy



### Pedestrians Crossing

Time		North Approach Dudley St		East Approach James St		South Approach Dudley St		Approach NSW Ambulance Driveway		Hourly Total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	Hourly Total
6:30	6:45	0	0	0	1	0	0	0	0	4
6:45	7:00	0	1	1	0	0	0	0	0	5
7:00	7:15	0	0	1	0	0	0	0	0	5
7:15	7:30	0	0	0	0	0	0	0	0	7
7:30	7:45	0	0	1	1	0	0	0	0	9
7:45	8:00	0	0	2	0	0	0	0	0	8
8:00	8:15	0	0	0	1	2	0	0	0	11
8:15	8:30	0	0	0	2	0	0	0	0	16
8:30	8:45	0	0	0	1	0	0	0	0	20
8:45	9:00	0	0	1	4	0	0	0	0	
9:00	9:15	0	0	2	6	0	0	0	0	
9:15	9:30	0	0	1	5	0	0	0	0	
15:30	15:45	0	0	1	1	0	0	0	0	13
15:45	16:00	0	0	2	2	0	0	0	0	12
16:00	16:15	0	0	0	1	0	1	0	0	12
16:15	16:30	1	0	2	2	0	0	0	0	18
16:30	16:45	0	0	0	0	0	1	0	0	15
16:45	17:00	0	0	2	2	0	0	0	0	17
17:00	17:15	0	0	3	5	0	0	0	0	16
17:15	17:30	0	0	1	0	0	0	0	1	12
17:30	17:45	0	0	1	2	0	0	0	0	13
17:45	18:00	0	0	2	1	0	0	0	0	
18:00	18:15	0	0	2	2	0	0	0	0	
18:15	18:30	0	0	3	0	0	0	0	0	

Peak Time	North Approach Dudley St		East Approach James St		South Approach Dudley St		Approach NSW Ambulance Driveway		Peak hour total	
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	
8:15	9:15	0	0	3	13	0	0	0	0	16
15:30	16:30	1	0	5	6	0	1	0	0	13



**Light Vehicles**

Time		North Approach Dudley St				East Approach James St				South Approach Dudley St				West Approach NSW Ambulance Drivew			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:30	6:45	0	1	23	21	0	7	0	1	0	5	73	0	0	0	0	10
6:45	7:00	0	0	53	32	0	11	0	5	0	8	66	1	0	0	0	3
7:00	7:15	0	0	35	24	0	7	0	3	0	9	64	1	0	0	0	0
7:15	7:30	0	1	46	13	0	9	0	4	0	9	85	0	0	0	0	0
7:30	7:45	1	0	53	23	0	9	0	5	0	13	112	0	0	0	0	0
7:45	8:00	0	3	63	32	0	10	0	3	0	18	90	0	0	0	0	0
8:00	8:15	0	2	86	45	0	15	0	9	0	20	111	1	0	0	0	0
8:15	8:30	0	0	94	51	0	13	0	15	0	18	141	0	0	1	0	1
8:30	8:45	0	0	88	51	0	20	0	23	0	42	145	0	0	0	0	0
8:45	9:00	0	1	103	74	0	20	0	15	0	24	122	1	0	2	0	0
9:00	9:15	0	2	106	60	0	22	0	12	0	28	106	0	0	0	0	1
9:15	9:30	0	2	77	49	0	14	0	7	0	13	88	0	0	0	0	1
15:30	15:45	0	1	136	59	0	21	0	16	0	22	95	0	0	0	0	2
15:45	16:00	0	0	118	48	0	11	0	11	0	16	102	0	0	0	0	1
16:00	16:15	0	0	115	43	0	13	0	9	0	22	84	0	0	0	0	1
16:15	16:30	1	0	140	41	0	11	0	15	0	12	99	0	0	0	0	0
16:30	16:45	0	0	118	34	0	19	0	12	0	17	105	0	0	0	0	0
16:45	17:00	1	1	111	49	0	15	0	9	0	15	77	0	0	0	1	0
17:00	17:15	0	0	134	40	0	30	0	16	0	9	71	0	0	0	0	4
17:15	17:30	0	1	138	41	0	12	0	15	0	13	87	0	0	1	0	0
17:30	17:45	0	1	104	36	0	16	0	17	0	9	72	0	0	0	0	0
17:45	18:00	0	2	111	30	0	9	0	6	0	7	74	0	0	0	1	2
18:00	18:15	0	7	92	34	0	22	0	11	0	14	66	1	0	0	1	1
18:15	18:30	0	6	80	25	0	21	1	9	0	8	49	0	0	0	0	0

Peak Time		North Approach Dudley St				East Approach James St				South Approach Dudley St				West Approach NSW Ambulance Drivew				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
8:15	9:15	0	3	391	236	0	75	0	65	0	112	514	1	0	3	0	2	1402
15:30	16:30	1	1	509	191	0	56	0	51	0	72	380	0	0	0	0	4	1265

**Heavy Vehicles**

Time		North Approach Dudley St				East Approach James St				South Approach Dudley St				West Approach NSW Ambulance Drive			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:30	6:45	0	0	3	1	0	0	0	0	0	1	3	0	0	0	0	0
6:45	7:00	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0
7:00	7:15	0	0	1	0	0	1	0	0	0	0	7	0	0	0	0	0
7:15	7:30	0	0	5	1	0	1	0	0	0	0	3	0	0	0	0	0
7:30	7:45	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
7:45	8:00	0	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0
8:00	8:15	0	0	3	0	0	0	0	2	0	0	5	0	0	0	0	0
8:15	8:30	0	0	3	0	0	0	0	1	0	0	2	0	0	0	0	0
8:30	8:45	0	0	8	0	0	0	0	0	0	0	1	0	0	0	0	0
8:45	9:00	0	0	4	0	0	2	0	0	0	0	6	0	0	0	0	0
9:00	9:15	0	0	3	0	0	0	0	0	0	1	1	0	0	0	0	0
9:15	9:30	0	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0
15:30	15:45	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0
15:45	16:00	0	0	2	2	0	0	0	0	0	1	4	0	0	0	0	0
16:00	16:15	0	0	2	0	0	1	0	0	0	0	1	0	0	0	0	0
16:15	16:30	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0
16:30	16:45	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0
16:45	17:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	17:30	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
17:45	18:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
18:00	18:15	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
18:15	18:30	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0

Peak Time		North Approach Dudley St				East Approach James St				South Approach Dudley St				West Approach NSW Ambulance Drive				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
8:15	9:15	0	0	18	0	0	2	0	1	0	1	10	0	0	0	0	0	32
15:30	16:30	0	0	12	2	0	1	0	0	0	1	13	0	0	0	0	0	29

## Intersection of Tiral St and Dudley St, Charlestown

GPS -32.97001, 151.69563

Date:	Tue 09/11/21
Weather:	Overcast
Suburban:	Charlestown
Customer:	Varga

North:	Dudley St
East:	Tiral St
South:	Dudley St
West:	Health Facility Driveway

Survey Period:	AM: 6:30 AM-9:30 AM
	PM: 3:30 PM-6:30 PM
Traffic Peak:	AM: 8:15 AM-9:15 AM
	PM: 3:30 PM-4:30 PM

### All Vehicles

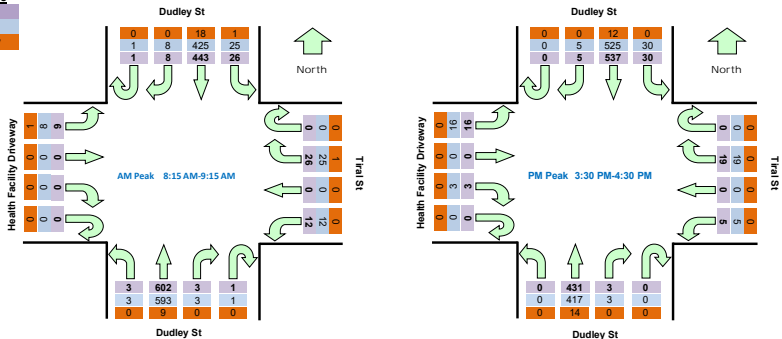
Time		North Approach Dudley St				East Approach Tiral St				South Approach Dudley St				West Approach Health Facility Driveway				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
6:30	6:45	0	2	23	2	0	10	0	0	0	0	72	0	0	0	0	0	520	
6:45	7:00	0	7	48	4	0	5	0	1	0	1	70	1	0	0	0	1	601	
7:00	7:15	0	4	32	3	0	1	0	0	0	0	79	0	0	0	0	1	647	
7:15	7:30	0	9	42	4	0	5	0	0	0	1	91	0	0	0	0	1	766	
7:30	7:45	0	2	56	1	0	4	0	1	0	1	122	2	0	0	0	1	888	
7:45	8:00	0	8	58	3	0	5	0	2	0	1	105	1	0	1	0	0	1013	
8:00	8:15	1	10	84	5	0	5	0	0	0	0	129	3	0	0	0	2	1114	
8:15	8:30	1	3	102	8	0	6	0	1	0	0	152	0	0	0	0	2	1134	Peak
8:30	8:45	0	1	110	8	0	8	0	6	1	0	177	1	0	0	0	3	1053	
8:45	9:00	0	4	116	4	0	5	0	4	0	2	145	2	0	0	0	3		
9:00	9:15	0	0	115	6	0	7	0	1	0	1	128	0	0	0	0	1		
9:15	9:30	0	2	81	4	0	1	0	2	0	1	102	0	0	0	0	1		
15:30	15:45	0	1	150	7	0	5	0	0	0	1	115	0	0	0	0	3	1049	Peak
15:45	16:00	0	2	123	6	0	8	0	3	0	1	108	0	0	2	0	7	1029	
16:00	16:15	0	0	115	11	0	3	0	1	0	1	102	0	0	1	0	2	986	
16:15	16:30	0	2	149	6	0	3	0	1	0	0	106	0	0	0	0	4	981	
16:30	16:45	0	0	125	6	0	2	0	2	0	2	117	0	0	1	0	7	966	
16:45	17:00	0	0	113	8	0	7	0	1	0	3	80	0	0	0	0	5	909	
17:00	17:15	0	1	140	9	0	3	0	0	0	0	77	0	0	1	0	0	890	
17:15	17:30	0	1	150	4	0	3	0	0	0	1	97	0	0	0	0	0	843	
17:30	17:45	0	0	110	11	0	8	0	1	0	2	71	0	0	0	0	2	735	
17:45	18:00	0	0	111	6	0	3	0	0	0	0	76	0	0	0	0	2		
18:00	18:15	0	0	101	2	0	4	0	0	0	0	76	0	0	0	0	1		
18:15	18:30	0	0	88	2	0	1	0	0	0	0	57	0	0	0	0	0		

Peak Time	North Approach Dudley St				East Approach Tiral St				South Approach Dudley St				West Approach Health Facility Driveway				Peak total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:15	9:15	1	8	443	26	0	26	0	12	1	3	602	3	0	0	0	9	1134
15:30	16:30	0	5	537	30	0	19	0	5	0	3	431	0	0	3	0	16	1049

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

### Graphic

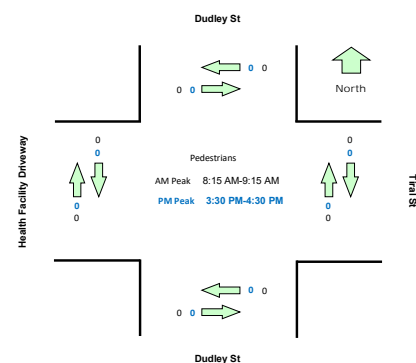
Total  
Light  
Heavy



### Pedestrians Crossing

Time		North Approach Dudley St		East Approach Tiral St		South Approach Dudley St		Approach Health Facility Driveway		Hourly Total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	Hourly Total
6:30	6:45	0	0	0	0	0	0	0	0	0
6:45	7:00	0	0	0	0	0	0	0	0	0
7:00	7:15	0	0	0	0	0	0	0	0	0
7:15	7:30	0	0	0	0	0	0	0	0	0
7:30	7:45	0	0	0	0	0	0	0	0	0
7:45	8:00	0	0	0	0	0	0	0	0	0
8:00	8:15	0	0	0	0	0	0	0	0	0
8:15	8:30	0	0	0	0	0	0	0	0	0
8:30	8:45	0	0	0	0	0	0	0	0	0
8:45	9:00	0	0	0	0	0	0	0	0	0
9:00	9:15	0	0	0	0	0	0	0	0	0
9:15	9:30	0	0	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0	0	0
18:00	18:15	0	0	0	0	0	0	0	0	0
18:15	18:30	0	0	0	0	0	0	0	0	0

Peak Time	North Approach Dudley St		East Approach Tiral St		South Approach Dudley St		Approach Health Facility Driveway		Peak hour total	
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	total
8:15	9:15	0	0	0	0	0	0	0	0	0
15:30	16:30	0	0	0	0	0	0	0	0	0



**Light Vehicles**

Time		North Approach Dudley St				East Approach Tiral St				South Approach Dudley St				West Approach Health Facility Drivewa			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:30	6:45	0	2	20	2	0	10	0	0	0	0	68	0	0	0	0	0
6:45	7:00	0	7	47	4	0	5	0	1	0	1	69	1	0	0	0	1
7:00	7:15	0	4	31	3	0	1	0	0	0	0	72	0	0	0	0	1
7:15	7:30	0	9	37	4	0	5	0	0	0	0	88	0	0	0	0	1
7:30	7:45	0	2	55	1	0	4	0	1	0	1	120	2	0	0	0	1
7:45	8:00	0	8	55	3	0	4	0	2	0	1	104	1	0	1	0	0
8:00	8:15	1	7	82	5	0	5	0	0	0	0	126	3	0	0	0	0
8:15	8:30	1	3	98	8	0	6	0	1	0	0	150	0	0	0	0	2
8:30	8:45	0	1	103	7	0	8	0	6	1	0	176	1	0	0	0	3
8:45	9:00	0	4	112	4	0	5	0	4	0	2	140	2	0	0	0	2
9:00	9:15	0	0	112	6	0	6	0	1	0	1	127	0	0	0	0	1
9:15	9:30	0	2	78	4	0	1	0	2	0	1	99	0	0	0	0	1
15:30	15:45	0	1	144	7	0	5	0	0	0	1	109	0	0	0	0	3
15:45	16:00	0	2	121	6	0	8	0	3	0	1	103	0	0	2	0	7
16:00	16:15	0	0	113	11	0	3	0	1	0	1	101	0	0	1	0	2
16:15	16:30	0	2	147	6	0	3	0	1	0	0	104	0	0	0	0	4
16:30	16:45	0	0	124	6	0	2	0	2	0	2	113	0	0	1	0	7
16:45	17:00	0	0	112	8	0	7	0	1	0	3	80	0	0	0	0	5
17:00	17:15	0	1	140	9	0	3	0	0	0	0	77	0	0	1	0	0
17:15	17:30	0	1	149	4	0	3	0	0	0	1	97	0	0	0	0	0
17:30	17:45	0	0	110	11	0	8	0	1	0	2	71	0	0	0	0	2
17:45	18:00	0	0	111	6	0	3	0	0	0	0	76	0	0	0	0	2
18:00	18:15	0	0	101	2	0	4	0	0	0	0	76	0	0	0	0	1
18:15	18:30	0	0	87	2	0	1	0	0	0	0	56	0	0	0	0	0

Peak Time		North Approach Dudley St				East Approach Tiral St				South Approach Dudley St				West Approach Health Facility Drivewa				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
8:15	9:15	1	8	425	25	0	25	0	12	1	3	593	3	0	0	0	8	1104
15:30	16:30	0	5	525	30	0	19	0	5	0	3	417	0	0	3	0	16	1023

**Heavy Vehicles**

Time		North Approach Dudley St				East Approach Tiral St				South Approach Dudley St				West Approach Health Facility Drivewa			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:30	6:45	0	0	3	0	0	0	0	0	0	0	4	0	0	0	0	0
6:45	7:00	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
7:00	7:15	0	0	1	0	0	0	0	0	0	0	7	0	0	0	0	0
7:15	7:30	0	0	5	0	0	0	0	0	0	1	3	0	0	0	0	0
7:30	7:45	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
7:45	8:00	0	0	3	0	0	1	0	0	0	0	1	0	0	0	0	0
8:00	8:15	0	3	2	0	0	0	0	0	0	0	3	0	0	0	0	2
8:15	8:30	0	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0
8:30	8:45	0	0	7	1	0	0	0	0	0	0	1	0	0	0	0	0
8:45	9:00	0	0	4	0	0	0	0	0	0	0	5	0	0	0	0	1
9:00	9:15	0	0	3	0	0	1	0	0	0	0	1	0	0	0	0	0
9:15	9:30	0	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0
15:30	15:45	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0
15:45	16:00	0	0	2	0	0	0	0	0	0	0	5	0	0	0	0	0
16:00	16:15	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0
16:15	16:30	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0
16:30	16:45	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0
16:45	17:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	17:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	18:30	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0

Peak Time		North Approach Dudley St				East Approach Tiral St				South Approach Dudley St				West Approach Health Facility Drivewa				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
8:15	9:15	0	0	18	1	0	1	0	0	0	0	9	0	0	0	0	1	30
15:30	16:30	0	0	12	0	0	0	0	0	0	0	14	0	0	0	0	0	26

## Intersection of Dudley St and Dudley St, Charlestown

GPS -32.97114, 151.69605

Date: Tue 09/11/21  
 Weather: Overcast  
 Suburban: Charlestown  
 Customer: Varga

North: Dudley St  
 East: Dudley St  
 South: Algona Rd  
 West: Kalora Cres

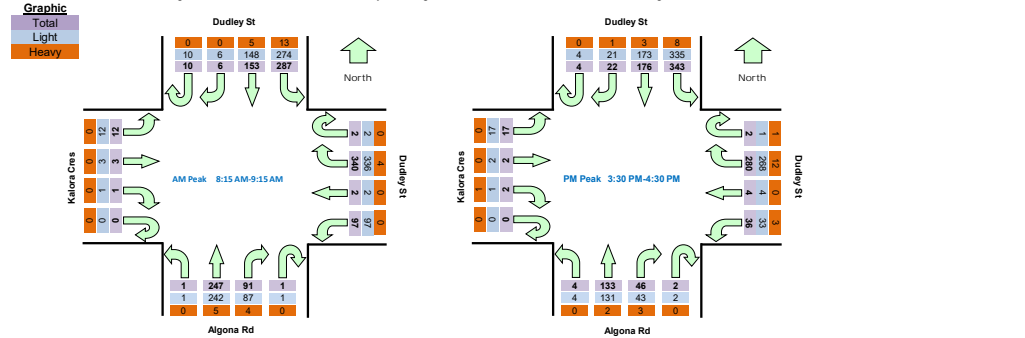
Survey AM: 6:30 AM-9:30 AM  
 Period PM: 3:30 PM-6:30 PM  
 Traffic AM: 8:15 AM-9:15 AM  
 Peak PM: 3:30 PM-4:30 PM

### All Vehicles

Time		North Approach Dudley St				East Approach Dudley St				South Approach Algona Rd				West Approach Kalora Cres				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
6:30	6:45	0	0	4	19	0	39	0	4	0	3	28	0	0	1	0	5	495	
6:45	7:00	1	1	10	37	0	34	0	3	0	6	36	0	0	0	0	1	585	
7:00	7:15	0	2	9	21	0	45	1	4	0	1	29	0	0	0	1	5	637	
7:15	7:30	1	2	14	25	0	52	0	4	0	8	34	0	0	0	0	5	759	
7:30	7:45	1	0	17	39	0	67	0	8	0	4	53	0	0	0	0	4	908	
7:45	8:00	2	0	19	40	1	65	1	7	1	5	37	0	0	0	0	3	1087	
8:00	8:15	5	1	27	51	0	67	0	12	0	14	56	1	0	1	1	4	1218	
8:15	8:30	3	2	44	54	1	93	0	28	0	13	52	0	0	0	0	4	1253	Peak
8:30	8:45	3	1	43	70	0	83	0	38	0	41	90	0	0	0	0	3	1173	
8:45	9:00	4	2	32	82	0	85	0	20	1	23	59	0	0	1	2	1		
9:00	9:15	0	1	34	81	1	79	2	11	0	14	46	1	0	0	1	4		
9:15	9:30	0	0	28	55	0	68	1	12	0	14	32	1	0	0	0	3		
15:30	15:45	1	9	42	98	0	67	0	13	0	21	46	1	0	1	0	2	1073	Peak
15:45	16:00	1	2	45	80	1	80	0	4	1	9	23	1	0	0	1	5	1044	
16:00	16:15	0	3	34	80	0	71	3	6	0	7	24	1	0	1	1	8	1021	
16:15	16:30	2	8	55	85	1	62	1	13	1	9	40	1	0	0	0	2	1015	
16:30	16:45	1	5	45	77	0	69	0	10	0	12	48	0	0	1	3	1	1011	
16:45	17:00	2	11	38	63	0	51	1	20	0	11	29	0	0	0	3	1	950	
17:00	17:15	0	3	55	83	0	59	2	7	1	4	16	1	0	0	0	2	923	
17:15	17:30	1	6	45	98	0	68	0	13	0	14	25	0	0	0	2	4	891	
17:30	17:45	0	3	48	60	1	49	1	15	0	9	22	0	0	1	0	2	782	
17:45	18:00	0	3	48	60	0	55	0	7	0	8	20	0	0	0	1	1		
18:00	18:15	3	5	28	65	1	52	2	10	1	11	19	1	0	1	0	2		
18:15	18:30	0	0	32	56	0	34	3	8	0	10	21	0	0	0	1	2		

Peak Time	North Approach Dudley St				East Approach Dudley St				South Approach Algona Rd				West Approach Kalora Cres				Peak total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Peak total
8:15	9:15	10	6	153	287	2	340	2	97	1	91	247	1	0	1	3	12	1253
15:30	16:30	4	22	176	343	2	280	4	36	2	46	133	4	0	2	2	17	1073

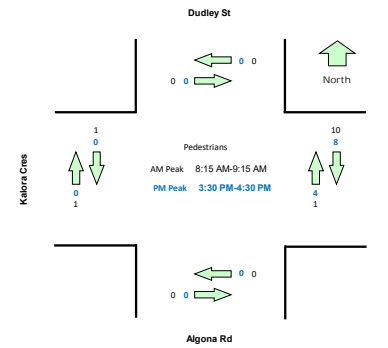
Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.



### Pedestrians Crossing

Time		North Approach Dudley St		East Approach Dudley St		South Approach Algona Rd		West Approach Kalora Cres		Hourly Total	
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	Hourly Total	
6:30	6:45	0	0	1	0	0	0	0	0	1	
6:45	7:00	0	0	0	0	0	0	0	0	1	
7:00	7:15	0	0	0	0	0	0	0	0	2	
7:15	7:30	0	0	0	0	0	0	0	0	5	
7:30	7:45	0	0	0	1	0	0	0	0	8	
7:45	8:00	0	0	0	1	0	0	0	0	8	
8:00	8:15	0	0	2	0	0	0	1	0	10	
8:15	8:30	0	0	2	0	0	0	1	0	13	
8:30	8:45	0	0	1	0	0	0	0	0	16	
8:45	9:00	0	0	3	0	0	0	0	0		
9:00	9:15	0	0	4	1	0	0	0	1		
9:15	9:30	0	0	4	2	0	0	0	0		
15:30	15:45	0	0	2	2	0	0	0	0	12	
15:45	16:00	0	0	3	2	0	0	0	0	9	
16:00	16:15	0	0	1	0	0	0	0	0	6	
16:15	16:30	0	0	2	0	0	0	0	0	9	
16:30	16:45	0	0	0	1	0	0	0	0	12	
16:45	17:00	0	0	0	1	0	0	0	1	15	
17:00	17:15	0	0	0	1	0	0	3	0	17	
17:15	17:30	0	0	1	3	1	0	0	0	13	
17:30	17:45	0	0	4	0	0	0	0	0	10	
17:45	18:00	0	0	0	4	0	0	0	0		
18:00	18:15	0	0	0	0	0	0	0	0		
18:15	18:30	0	0	0	2	0	0	0	0		

Peak Time	North Approach Dudley St		East Approach Dudley St		South Approach Algona Rd		West Approach Kalora Cres		Peak hour total	
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	Peak total
8:15	9:15	0	0	10	1	0	0	1	1	13
15:30	16:30	0	0	8	4	0	0	0	0	12



**Light Vehicles**

Time		North Approach Dudley St				East Approach Dudley St				South Approach Algona Rd				West Approach Kalora Cres			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:30	6:45	0	0	4	16	0	37	0	4	0	2	26	0	0	1	0	5
6:45	7:00	1	1	10	36	0	33	0	3	0	6	36	0	0	0	0	1
7:00	7:15	0	2	9	20	0	39	1	4	0	0	28	0	0	0	1	5
7:15	7:30	1	2	14	20	0	48	0	4	0	8	34	0	0	0	0	5
7:30	7:45	1	0	17	38	0	65	0	8	0	4	53	0	0	0	0	4
7:45	8:00	2	0	18	38	1	64	1	7	1	5	37	0	0	0	0	3
8:00	8:15	4	1	26	51	0	65	0	11	0	14	56	1	0	1	1	4
8:15	8:30	3	2	43	51	1	92	0	28	0	12	51	0	0	0	0	4
8:30	8:45	3	1	41	65	0	83	0	38	0	38	89	0	0	0	0	3
8:45	9:00	4	2	31	79	0	82	0	20	1	23	57	0	0	1	2	1
9:00	9:15	0	1	33	79	1	79	2	11	0	14	45	1	0	0	1	4
9:15	9:30	0	0	27	53	0	66	1	12	0	12	31	1	0	0	0	3
15:30	15:45	1	9	41	93	0	61	0	12	0	18	46	1	0	1	0	2
15:45	16:00	1	2	44	79	1	76	0	3	1	9	22	1	0	0	1	5
16:00	16:15	0	2	34	79	0	70	3	5	0	7	24	1	0	0	1	8
16:15	16:30	2	8	54	84	0	61	1	13	1	9	39	1	0	0	0	2
16:30	16:45	1	5	45	76	0	66	0	10	0	12	47	0	0	1	3	1
16:45	17:00	2	11	37	63	0	51	1	20	0	11	29	0	0	0	3	1
17:00	17:15	0	3	55	83	0	59	2	7	1	4	16	1	0	0	0	2
17:15	17:30	1	5	45	98	0	68	0	13	0	13	25	0	0	0	2	4
17:30	17:45	0	3	48	60	1	49	1	15	0	9	22	0	0	1	0	2
17:45	18:00	0	3	48	60	0	55	0	7	0	8	20	0	0	0	1	1
18:00	18:15	3	5	28	65	1	52	2	10	1	11	19	1	0	1	0	2
18:15	18:30	0	0	32	55	0	33	3	7	0	10	21	0	0	0	1	2

Peak Time		North Approach Dudley St				East Approach Dudley St				South Approach Algona Rd				West Approach Kalora Cres				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
8:15	9:15	10	6	148	274	2	336	2	97	1	87	242	1	0	1	3	12	1222
15:30	16:30	4	21	173	335	1	268	4	33	2	43	131	4	0	1	2	17	1039

**Heavy Vehicles**

Time		North Approach Dudley St				East Approach Dudley St				South Approach Algona Rd				West Approach Kalora Cres			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
6:30	6:45	0	0	0	3	0	2	0	0	0	1	2	0	0	0	0	0
6:45	7:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
7:00	7:15	0	0	0	1	0	6	0	0	0	1	1	0	0	0	0	0
7:15	7:30	0	0	0	5	0	4	0	0	0	0	0	0	0	0	0	0
7:30	7:45	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0
7:45	8:00	0	0	1	2	0	1	0	0	0	0	0	0	0	0	0	0
8:00	8:15	1	0	1	0	0	2	0	1	0	0	0	0	0	0	0	0
8:15	8:30	0	0	1	3	0	1	0	0	0	1	1	0	0	0	0	0
8:30	8:45	0	0	2	5	0	0	0	0	0	3	1	0	0	0	0	0
8:45	9:00	0	0	1	3	0	3	0	0	0	0	2	0	0	0	0	0
9:00	9:15	0	0	1	2	0	0	0	0	0	0	1	0	0	0	0	0
9:15	9:30	0	0	1	2	0	2	0	0	0	2	1	0	0	0	0	0
15:30	15:45	0	0	1	5	0	6	0	1	0	3	0	0	0	0	0	0
15:45	16:00	0	0	1	1	0	4	0	1	0	0	1	0	0	0	0	0
16:00	16:15	0	1	0	1	0	1	0	1	0	0	0	0	0	1	0	0
16:15	16:30	0	0	1	1	1	1	0	0	0	0	1	0	0	0	0	0
16:30	16:45	0	0	0	1	0	3	0	0	0	0	1	0	0	0	0	0
16:45	17:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	17:30	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	18:30	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0

Peak Time		North Approach Dudley St				East Approach Dudley St				South Approach Algona Rd				West Approach Kalora Cres				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
8:15	9:15	0	0	5	13	0	4	0	0	0	4	5	0	0	0	0	0	31
15:30	16:30	0	1	3	8	1	12	0	3	0	3	2	0	0	1	0	0	34

## Intersection of James St and Smith St, Charlestown

GPS -32.96899, 151.6961

Date:	Tue 09/11/21
Weather:	Overcast
Suburban:	Charlestown
Customer:	Varga

North:	Smith St
East:	James St
South:	N/A
West:	James St

Survey Period	AM: 6:30 AM-9:30 AM
	PM: 3:30 PM-6:30 PM
Traffic Peak	AM: 8:15 AM-9:15 AM
	PM: 3:30 PM-4:30 PM

### All Vehicles

Time		North Approach Smith St			East Approach James St			West Approach James St			Hourly Total	
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	Hour	Peak
6:30	6:45	0	0	1	0	2	8	0	11	17	184	
6:45	7:00	0	4	0	0	0	12	0	25	16	200	
7:00	7:15	0	0	1	0	2	11	0	21	12	207	
7:15	7:30	0	4	2	0	2	10	0	9	14	254	
7:30	7:45	0	5	2	0	3	9	0	16	20	326	
7:45	8:00	0	2	0	0	1	11	0	23	27	420	
8:00	8:15	0	6	2	0	1	20	0	28	37	504	
8:15	8:30	0	5	4	0	11	24	0	30	39	541	Peak
8:30	8:45	2	6	2	0	9	37	0	56	37	526	
8:45	9:00	1	3	6	0	6	34	0	48	50		
9:00	9:15	0	5	6	0	2	29	0	41	48		
9:15	9:30	0	6	6	0	9	15	0	28	34		
15:30	15:45	0	12	4	0	3	25	0	43	38	416	Peak
15:45	16:00	0	6	7	0	4	16	0	32	35	381	
16:00	16:15	0	8	8	0	6	14	1	40	24	380	
16:15	16:30	0	6	7	0	4	20	0	30	23	384	
16:30	16:45	0	5	8	0	0	26	0	28	23	387	
16:45	17:00	0	6	8	0	2	18	0	46	19	387	
17:00	17:15	0	13	7	0	3	33	0	29	20	348	
17:15	17:30	0	6	8	0	3	22	0	37	17	337	
17:30	17:45	0	11	4	0	7	23	0	22	23	314	
17:45	18:00	0	4	5	0	1	11	0	26	13		
18:00	18:15	0	5	7	0	4	29	0	30	19		
18:15	18:30	0	10	3	0	3	21	0	18	15		

Peak Time		North Approach Smith St			East Approach James St			West Approach James St			Peak
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	total
8:15	9:15	3	19	18	0	28	124	0	175	174	541
15:30	16:30	0	32	26	0	17	75	1	145	120	416

### Pedestrians Crossing

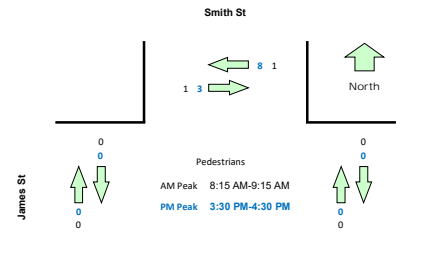
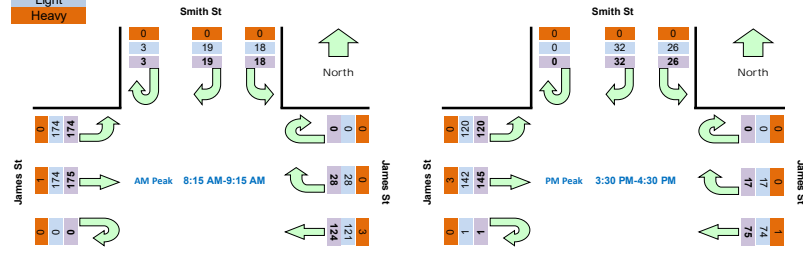
Time		North Approach Smith St		East Approach James St		West Approach James St		Hourly Total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Southbound	Northbound	Hourly Total
6:30	6:45	0	0	0	0	0	0	0
6:45	7:00	0	0	0	0	0	0	0
7:00	7:15	0	0	0	0	0	0	1
7:15	7:30	0	0	0	0	0	0	5
7:30	7:45	0	0	0	0	0	0	5
7:45	8:00	1	0	0	0	0	0	5
8:00	8:15	2	2	0	0	0	0	4
8:15	8:30	0	0	0	0	0	0	2
8:30	8:45	0	0	0	0	0	0	2
8:45	9:00	0	0	0	0	0	0	0
9:00	9:15	1	1	0	0	0	0	0
9:15	9:30	0	0	0	0	0	0	0
15:30	15:45	3	2	0	0	0	0	11
15:45	16:00	0	1	0	0	0	0	8
16:00	16:15	0	0	0	0	0	0	13
16:15	16:30	5	0	0	0	0	0	17
16:30	16:45	1	1	0	0	0	0	16
16:45	17:00	1	3	2	0	0	0	17
17:00	17:15	1	3	0	0	0	0	16
17:15	17:30	1	2	0	0	1	0	12
17:30	17:45	2	1	0	0	0	0	9
17:45	18:00	0	0	5	0	0	0	0
18:00	18:15	0	0	0	0	0	0	0
18:15	18:30	1	0	0	0	0	0	0

Peak Time		North Approach Smith St		East Approach James St		West Approach James St		Peak total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Southbound	Northbound	Peak total
8:15	9:15	1	1	0	0	0	0	2
15:30	16:30	8	3	0	0	0	0	11

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

### Graphic

- Total
- Light
- Heavy



**Light Vehicles**

Time		North Approach Smith St			East Approach James St			West Approach James St		
Period Start	Period End	U	R	L	U	R	WB	U	EB	L
6:30	6:45	0	0	1	0	2	8	0	10	16
6:45	7:00	0	4	0	0	0	12	0	24	16
7:00	7:15	0	0	1	0	2	10	0	21	12
7:15	7:30	0	4	2	0	2	9	0	8	14
7:30	7:45	0	5	2	0	3	9	0	16	20
7:45	8:00	0	2	0	0	1	11	0	23	27
8:00	8:15	0	4	2	0	1	20	0	28	37
8:15	8:30	0	5	4	0	11	23	0	30	39
8:30	8:45	2	6	2	0	9	37	0	56	37
8:45	9:00	1	3	6	0	6	32	0	48	50
9:00	9:15	0	5	6	0	2	29	0	40	48
9:15	9:30	0	6	6	0	9	15	0	28	34
15:30	15:45	0	12	4	0	3	25	0	43	38
15:45	16:00	0	6	7	0	4	16	0	29	35
16:00	16:15	0	8	8	0	6	13	1	40	24
16:15	16:30	0	6	7	0	4	20	0	30	23
16:30	16:45	0	5	7	0	0	26	0	28	23
16:45	17:00	0	6	8	0	2	18	0	46	19
17:00	17:15	0	13	7	0	3	33	0	29	20
17:15	17:30	0	6	8	0	3	21	0	37	17
17:30	17:45	0	11	4	0	7	22	0	22	23
17:45	18:00	0	4	5	0	1	11	0	25	13
18:00	18:15	0	5	7	0	4	28	0	30	19
18:15	18:30	0	10	3	0	3	21	0	18	15

Peak Time		North Approach Smith St			East Approach James St			West Approach James St			Peak total
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	
8:15	9:15	3	19	18	0	28	121	0	174	174	537
15:30	16:30	0	32	26	0	17	74	1	142	120	412

**Heavy Vehicles**

Time		North Approach Smith St			East Approach James St			West Approach James St		
Period Start	Period End	U	R	L	U	R	WB	U	EB	L
6:30	6:45	0	0	0	0	0	0	0	1	1
6:45	7:00	0	0	0	0	0	0	0	1	0
7:00	7:15	0	0	0	0	0	1	0	0	0
7:15	7:30	0	0	0	0	0	1	0	1	0
7:30	7:45	0	0	0	0	0	0	0	0	0
7:45	8:00	0	0	0	0	0	0	0	0	0
8:00	8:15	0	2	0	0	0	0	0	0	0
8:15	8:30	0	0	0	0	0	1	0	0	0
8:30	8:45	0	0	0	0	0	0	0	0	0
8:45	9:00	0	0	0	0	0	2	0	0	0
9:00	9:15	0	0	0	0	0	0	0	1	0
9:15	9:30	0	0	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0	3	0
16:00	16:15	0	0	0	0	0	1	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	1	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	1	0	0	0
17:30	17:45	0	0	0	0	0	1	0	0	0
17:45	18:00	0	0	0	0	0	0	0	1	0
18:00	18:15	0	0	0	0	0	1	0	0	0
18:15	18:30	0	0	0	0	0	0	0	0	0

Peak Time		North Approach Smith St			East Approach James St			West Approach James St			Peak total
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	
8:15	9:15	0	0	0	0	0	3	0	1	0	4
15:30	16:30	0	0	0	0	0	1	0	3	0	4

## Intersection of James St and Dickinson St, Charlestown

GPS -32.96921, 151.69759

Date:	Tue 09/11/21
Weather:	Overcast
Suburban:	Charlestown
Customer:	Varga

North:	Dickinson St
East:	James St
South:	N/A
West:	James St

Survey Period	AM: 6:30 AM-9:30 AM
	PM: 3:30 PM-6:30 PM
Traffic Peak	AM: 8:15 AM-9:15 AM
	PM: 4:30 PM-5:30 PM

### All Vehicles

Time		North Approach Dickinson St			East Approach James St			West Approach James St			Hourly Total	
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	Hour	Peak
6:30	6:45	0	5	3	0	3	5	0	11	1	145	
6:45	7:00	0	2	2	0	9	10	0	17	8	155	
7:00	7:15	0	2	4	0	6	11	0	13	9	152	
7:15	7:30	0	4	1	0	0	8	0	7	4	173	
7:30	7:45	0	4	0	0	8	8	0	13	5	225	
7:45	8:00	0	5	2	0	8	7	0	15	8	303	
8:00	8:15	0	10	12	0	3	11	0	20	10	371	
8:15	8:30	0	11	1	0	6	24	0	23	11	402	Peak
8:30	8:45	0	8	0	0	12	38	0	41	17	391	
8:45	9:00	0	11	7	0	12	29	0	39	15		
9:00	9:15	0	10	5	0	14	21	0	38	9		
9:15	9:30	0	7	5	0	2	17	0	24	10		
15:30	15:45	0	8	3	0	4	20	0	35	12	307	
15:45	16:00	0	6	10	0	9	14	0	28	11	295	
16:00	16:15	0	5	4	0	7	15	0	38	10	304	
16:15	16:30	0	3	6	0	1	21	0	26	11	307	
16:30	16:45	0	8	2	0	6	18	0	24	12	318	Peak
16:45	17:00	0	5	5	0	8	15	0	36	18	308	
17:00	17:15	0	5	5	0	5	31	0	25	11	271	
17:15	17:30	0	6	3	0	6	19	0	32	13	265	
17:30	17:45	0	2	3	0	1	28	0	18	8	243	
17:45	18:00	0	3	5	0	2	9	0	24	7		
18:00	18:15	0	1	2	0	4	32	0	31	6		
18:15	18:30	0	0	8	0	4	24	0	11	10		

Peak Time		North Approach Dickinson St			East Approach James St			West Approach James St			Peak total
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	total
8:15	9:15	0	40	13	0	44	112	0	141	52	402
16:30	17:30	0	24	15	0	25	83	0	117	54	318

### Pedestrians Crossing

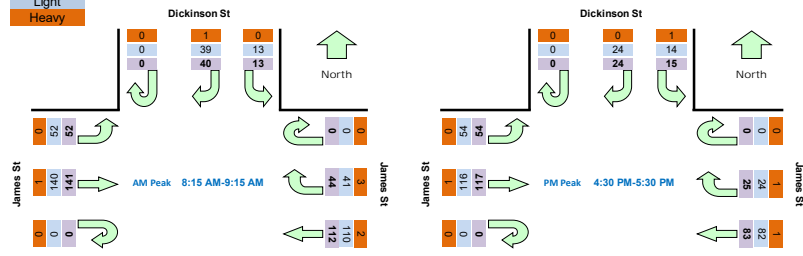
Time		North Approach Dickinson St		East Approach James St		West Approach James St		Hourly Total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Southbound	Northbound	Hourly Total
6:30	6:45	0	0	0	0	0	0	0
6:45	7:00	0	0	0	0	0	0	1
7:00	7:15	0	0	0	0	0	0	1
7:15	7:30	0	0	0	0	0	0	1
7:30	7:45	0	1	0	0	0	0	1
7:45	8:00	0	0	0	0	0	0	4
8:00	8:15	0	0	0	0	0	0	4
8:15	8:30	0	0	0	0	0	0	6
8:30	8:45	2	2	0	0	0	0	6
8:45	9:00	0	0	0	0	0	0	
9:00	9:15	1	1	0	0	0	0	
9:15	9:30	0	0	0	0	0	0	
15:30	15:45	2	3	0	0	0	0	11
15:45	16:00	1	0	0	0	0	0	8
16:00	16:15	0	0	0	0	0	0	13
16:15	16:30	0	5	0	0	0	0	17
16:30	16:45	1	1	0	0	0	0	16
16:45	17:00	3	1	0	2	0	0	14
17:00	17:15	3	1	0	0	0	0	11
17:15	17:30	2	1	0	0	1	0	12
17:30	17:45	0	0	0	0	0	0	9
17:45	18:00	2	1	0	0	0	0	
18:00	18:15	0	0	0	5	0	0	
18:15	18:30	1	0	0	0	0	0	

Peak Time		North Approach Dickinson St		East Approach James St		West Approach James St		Peak total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Southbound	Northbound	Peak total
8:15	9:15	3	3	0	0	0	0	6
16:30	17:30	9	4	0	2	1	0	16

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

### Graphic

- Total
- Light
- Heavy



**Light Vehicles**

Time		North Approach Dickinson S			East Approach James St			West Approach James St		
Period Start	Period End	U	R	L	U	R	WB	U	EB	L
6:30	6:45	0	5	3	0	2	5	0	10	1
6:45	7:00	0	2	1	0	9	10	0	16	8
7:00	7:15	0	2	4	0	6	10	0	13	9
7:15	7:30	0	4	1	0	0	7	0	6	4
7:30	7:45	0	4	0	0	7	8	0	13	5
7:45	8:00	0	5	1	0	8	7	0	15	8
8:00	8:15	0	10	12	0	3	11	0	20	10
8:15	8:30	0	10	1	0	6	24	0	23	11
8:30	8:45	0	8	0	0	10	38	0	41	17
8:45	9:00	0	11	7	0	11	27	0	39	15
9:00	9:15	0	10	5	0	14	21	0	37	9
9:15	9:30	0	7	5	0	2	17	0	24	10
15:30	15:45	0	8	3	0	3	20	0	35	12
15:45	16:00	0	6	9	0	9	14	0	26	10
16:00	16:15	0	5	4	0	7	14	0	38	10
16:15	16:30	0	3	6	0	1	21	0	26	11
16:30	16:45	0	8	2	0	6	18	0	23	12
16:45	17:00	0	5	4	0	8	15	0	36	18
17:00	17:15	0	5	5	0	5	31	0	25	11
17:15	17:30	0	6	3	0	5	18	0	32	13
17:30	17:45	0	2	3	0	1	27	0	18	8
17:45	18:00	0	3	5	0	2	9	0	23	7
18:00	18:15	0	1	2	0	4	31	0	31	6
18:15	18:30	0	0	7	0	4	24	0	11	10

Peak Time		North Approach Dickinson S			East Approach James St			West Approach James St			Peak total
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	
8:15	9:15	0	39	13	0	41	110	0	140	52	395
16:30	17:30	0	24	14	0	24	82	0	116	54	314

**Heavy Vehicles**

Time		North Approach Dickinson S			East Approach James St			West Approach James St		
Period Start	Period End	U	R	L	U	R	WB	U	EB	L
6:30	6:45	0	0	0	0	1	0	0	1	0
6:45	7:00	0	0	1	0	0	0	0	1	0
7:00	7:15	0	0	0	0	0	1	0	0	0
7:15	7:30	0	0	0	0	0	1	0	1	0
7:30	7:45	0	0	0	0	1	0	0	0	0
7:45	8:00	0	0	1	0	0	0	0	0	0
8:00	8:15	0	0	0	0	0	0	0	0	0
8:15	8:30	0	1	0	0	0	0	0	0	0
8:30	8:45	0	0	0	0	2	0	0	0	0
8:45	9:00	0	0	0	0	1	2	0	0	0
9:00	9:15	0	0	0	0	0	0	0	1	0
9:15	9:30	0	0	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	1	0	0	0	0
15:45	16:00	0	0	1	0	0	0	0	2	1
16:00	16:15	0	0	0	0	0	1	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0	1	0
16:45	17:00	0	0	1	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	1	1	0	0	0
17:30	17:45	0	0	0	0	0	1	0	0	0
17:45	18:00	0	0	0	0	0	0	0	1	0
18:00	18:15	0	0	0	0	0	1	0	0	0
18:15	18:30	0	0	1	0	0	0	0	0	0

Peak Time		North Approach Dickinson S			East Approach James St			West Approach James St			Peak total
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	
8:15	9:15	0	1	0	0	3	2	0	1	0	7
16:30	17:30	0	0	1	0	1	1	0	1	0	4

**APPENDIX C**

**SIDRA MOVEMENT SUMMARIES**

# NETWORK LAYOUT

■ Network: N101 [Existing Network AM 2021 (Network Folder: General)]

Existing Network AM 2021  
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	CCG ID	Site Name
🚦101	NA	PAC_DUD_FERX AM 2021
▽101	NA	DUD_JAM_AMBX AM 2021
▽101	NA	DUD_TIR_WANX AM 2021
▽101	NA	DUD_ALG_KALX AM 2021
▽101	NA	JAM_SMIX AM 2021
▽101	NA	JAM_DICX AM 2021

# MOVEMENT SUMMARY

Site: 101 [PAC\_DUD\_FERX AM 2021 (Site Folder: General)]

Network: N101 [Existing Network AM 2021 (Network Folder: General)]

Pacific Hwy, Dudley Rd & Ferris St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	245	1.6	245	1.6	0.395	20.7	LOS B	8.1	57.8	0.75	0.77	0.75	31.0
22	T1	119	2.5	119	2.5	*0.395	34.9	LOS C	8.1	57.8	0.85	0.77	0.85	20.1
23	R2	239	2.1	239	2.1	0.395	49.2	LOS D	8.1	57.9	0.90	0.79	0.90	17.5
Approach		603	2.0	603	2.0	0.395	34.8	LOS C	8.1	57.9	0.83	0.78	0.83	22.4
NorthEast: Pacific Hwy (NE)														
24	L2	239	5.4	239	5.4	0.259	15.6	LOS B	5.4	39.5	0.59	0.73	0.59	29.2
25	T1	687	3.9	687	3.9	*0.417	37.3	LOS C	11.1	80.6	0.85	0.74	0.85	26.6
26	R2	51	5.9	51	5.9	0.286	68.9	LOS E	1.5	11.3	1.00	0.71	1.00	16.9
Approach		977	4.4	977	4.4	0.417	33.6	LOS C	11.1	80.6	0.79	0.74	0.79	26.1
NorthWest: Ferris St (NW)														
27	L2	1	0.0	1	0.0	0.236	67.2	LOS E	1.4	9.6	0.99	0.70	0.99	17.7
28	T1	45	0.0	45	0.0	*0.236	62.6	LOS E	1.4	9.6	0.99	0.70	0.99	11.2
29	R2	17	23.5	17	23.5	0.214	67.9	LOS E	1.0	8.6	0.99	0.70	0.99	18.2
Approach		63	6.3	63	6.3	0.236	64.1	LOS E	1.4	9.6	0.99	0.70	0.99	13.6
SouthWest: Pacific Hwy (SW)														
30	L2	142	5.6	142	5.6	0.102	7.3	LOS A	1.3	9.6	0.22	0.61	0.22	45.9
31	T1	938	2.3	938	2.3	0.337	21.5	LOS B	11.1	79.4	0.66	0.64	0.66	34.3
32	R2	364	1.4	364	1.4	*0.424	48.0	LOS D	9.1	64.7	0.90	0.80	0.90	16.8
Approach		1444	2.4	1444	2.4	0.424	26.8	LOS B	11.1	79.4	0.68	0.68	0.68	30.0
All Vehicles		3087	3.0	3087	3.0	0.424	31.3	LOS C	11.1	80.6	0.75	0.72	0.75	26.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed	
					[ Ped ped	Dist ] m						
SouthEast: Dudley Rd (SE)												
P5	Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	223.0	219.5	0.98	
NorthEast: Pacific Hwy (NE)												
P6	Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	233.5	233.2	1.00	
NorthWest: Ferris St (NW)												
P7	Full	2	54.2	LOS E	0.0	0.0	0.95	0.95	223.4	220.0	0.98	

SouthWest: Pacific Hwy (SW)											
P8 Full	7	54.2	LOS E	0.0	0.0	0.95	0.95	230.6	229.4	0.99	
All Pedestrians	11	54.2	LOS E	0.0	0.0	0.95	0.95	228.9	227.1	0.99	

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.

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Organisation: VARGA TRAFFIC PLANNING | Licence: NETWORK / 1PC | Processed: Tuesday, 21 December 2021 9:59:33 AM

Project: Z:\DATA\Data\Jobs01\Jobs\20work\20242C\_27TiralStCharlestown\SIDRA\211221\Existing Network 2021.sip9

# MOVEMENT SUMMARY

Site: 101 [DUD\_JAM\_AMBX AM 2021 (Site Folder: General)]

Network: N101 [Existing Network AM 2021 (Network Folder: General)]

Dudley Rd, James St & NSW Ambulance

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	1	0.0	1	0.0	0.200	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	29.7
22	T1	524	1.9	524	1.9	0.200	0.6	LOS A	1.1	8.0	0.13	0.09	0.13	43.3
23b	R3	113	0.9	113	0.9	0.200	8.2	LOS A	1.1	8.0	0.50	0.34	0.50	32.1
Approach		638	1.7	638	1.7	0.200	2.0	NA	1.1	8.0	0.20	0.14	0.20	40.7
East: James St (E)														
4b	L3	66	1.5	66	1.5	0.364	8.1	LOS A	1.5	10.7	0.00	0.53	0.00	15.7
4a	L1	1	0.0	1	0.0	0.364	11.3	LOS A	1.5	10.7	0.00	0.53	0.00	18.5
6a	R1	77	2.6	77	2.6	0.364	21.8	LOS B	1.5	10.7	0.00	0.53	0.00	15.7
Approach		144	2.1	144	2.1	0.364	15.5	LOS B	1.5	10.7	0.00	0.53	0.00	15.8
NorthWest: Dudley Rd (NW)														
27a	L1	236	0.0	236	0.0	0.123	4.4	LOS A	0.0	0.0	0.00	0.55	0.00	30.9
28	T1	409	4.4	409	4.4	0.219	0.0	LOS A	0.0	0.3	0.01	0.00	0.01	49.4
29	R2	3	0.0	3	0.0	0.219	7.5	LOS A	0.0	0.3	0.01	0.00	0.01	26.0
Approach		648	2.8	648	2.8	0.219	1.7	NA	0.0	0.3	0.01	0.20	0.01	40.4
SouthWest: NSW Ambulance (SW)														
30	L2	2	0.0	2	0.0	0.018	5.3	LOS A	0.1	0.4	0.67	0.75	0.67	13.2
32a	R1	1	0.0	1	0.0	0.018	19.2	LOS B	0.1	0.4	0.67	0.75	0.67	13.2
32	R2	3	0.0	3	0.0	0.018	16.2	LOS B	0.1	0.4	0.67	0.75	0.67	13.2
Approach		6	0.0	6	0.0	0.018	13.1	LOS A	0.1	0.4	0.67	0.75	0.67	13.2
All Vehicles		1436	2.2	1436	2.2	0.364	3.2	NA	1.5	10.7	0.09	0.21	0.09	35.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_TIR\_WANX AM 2021 (Site Folder: General)]

Network: N101 [Existing Network AM 2021 (Network Folder: General)]

Dudley Rd, Tiral St & Wansey Cl

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21a	L1	3	0.0	3	0.0	0.316	6.1	LOS A	0.1	0.4	0.01	0.01	0.01	46.2
22	T1	602	1.5	602	1.5	0.316	0.0	LOS A	0.1	0.4	0.01	0.01	0.01	49.4
23b	R3	3	0.0	3	0.0	0.316	7.9	LOS A	0.1	0.4	0.01	0.01	0.01	48.2
Approach		608	1.5	608	1.5	0.316	0.1	NA	0.1	0.4	0.01	0.01	0.01	49.3
East: Tiral St (E)														
4b	L3	12	0.0	12	0.0	0.114	7.1	LOS A	0.4	2.5	0.69	0.81	0.69	37.0
5	T1	1	0.0	1	0.0	0.114	12.1	LOS A	0.4	2.5	0.69	0.81	0.69	38.9
6a	R1	26	3.8	26	3.8	0.114	15.8	LOS B	0.4	2.5	0.69	0.81	0.69	37.0
Approach		39	2.6	39	2.6	0.114	13.0	LOS A	0.4	2.5	0.69	0.81	0.69	37.0
NorthWest: Dudley Rd (NW)														
27a	L1	26	3.8	26	3.8	0.256	5.6	LOS A	0.2	1.2	0.04	0.04	0.04	47.7
28	T1	443	4.1	443	4.1	0.256	0.1	LOS A	0.2	1.2	0.04	0.04	0.04	46.9
29b	R3	8	0.0	8	0.0	0.256	8.8	LOS A	0.2	1.2	0.04	0.04	0.04	45.1
Approach		477	4.0	477	4.0	0.256	0.6	NA	0.2	1.2	0.04	0.04	0.04	47.0
West: Wansey Cl (W)														
10b	L3	9	0.0	9	0.0	0.017	7.9	LOS A	0.1	0.4	0.56	0.69	0.56	29.2
11	T1	1	0.0	1	0.0	0.017	11.8	LOS A	0.1	0.4	0.56	0.69	0.56	41.8
12a	R1	1	0.0	1	0.0	0.017	14.3	LOS A	0.1	0.4	0.56	0.69	0.56	29.2
Approach		11	0.0	11	0.0	0.017	8.8	LOS A	0.1	0.4	0.56	0.69	0.56	31.9
All Vehicles		1135	2.6	1135	2.6	0.316	0.8	NA	0.4	2.5	0.05	0.05	0.05	46.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_ALG\_KALX AM 2021 (Site Folder: General)]

Network: N101 [Existing Network AM 2021 (Network Folder: General)]

Dudley St, Algona Rd & Kalora Cres  
 Site Category: (None)  
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
South: Algona Rd (S)														
1	L2	1	0.0	1	0.0	0.364	5.9	LOS A	2.4	16.9	0.62	0.68	0.62	45.3
1a	L1	247	2.0	247	2.0	0.364	5.6	LOS A	2.4	16.9	0.62	0.68	0.62	42.2
3	R2	91	4.4	91	4.4	0.364	9.6	LOS A	2.4	16.9	0.62	0.68	0.62	45.9
3u	U	1	0.0	1	0.0	0.364	11.0	LOS A	2.4	16.9	0.62	0.68	0.62	46.6
Approach		340	2.6	340	2.6	0.364	6.7	LOS A	2.4	16.9	0.62	0.68	0.62	43.7
East: Dudley Rd (E)														
4	L2	97	0.0	97	0.0	0.375	4.5	LOS A	2.5	17.8	0.45	0.61	0.45	45.1
5	T1	2	0.0	2	0.0	0.375	4.6	LOS A	2.5	17.8	0.45	0.61	0.45	45.9
6a	R1	340	0.0	340	0.0	0.375	7.3	LOS A	2.5	17.8	0.45	0.61	0.45	41.9
6u	U	2	0.0	2	0.0	0.375	9.7	LOS A	2.5	17.8	0.45	0.61	0.45	46.4
Approach		441	0.0	441	0.0	0.375	6.7	LOS A	2.5	17.8	0.45	0.61	0.45	43.1
NorthWest: Dudley Rd (NW)														
27a	L1	287	4.5	287	4.5	0.360	3.8	LOS A	2.6	18.9	0.36	0.51	0.36	44.5
29a	R1	153	3.3	153	3.3	0.360	6.8	LOS A	2.6	18.9	0.36	0.51	0.36	44.2
29b	R3	6	0.0	6	0.0	0.360	8.4	LOS A	2.6	18.9	0.36	0.51	0.36	45.2
29u	U	10	0.0	10	0.0	0.360	9.2	LOS A	2.6	18.9	0.36	0.51	0.36	30.2
Approach		456	3.9	456	3.9	0.360	5.0	LOS A	2.6	18.9	0.36	0.51	0.36	44.3
West: Kalora Cres (W)														
10b	L3	12	0.0	12	0.0	0.024	7.8	LOS A	0.1	0.9	0.67	0.64	0.67	41.0
11	T1	3	0.0	3	0.0	0.024	7.4	LOS A	0.1	0.9	0.67	0.64	0.67	45.4
12	R2	1	0.0	1	0.0	0.024	11.0	LOS A	0.1	0.9	0.67	0.64	0.67	45.3
12u	U	1	0.0	1	0.0	0.024	12.6	LOS A	0.1	0.9	0.67	0.64	0.67	45.8
Approach		17	0.0	17	0.0	0.024	8.2	LOS A	0.1	0.9	0.67	0.64	0.67	42.9
All Vehicles		1254	2.2	1254	2.2	0.375	6.1	LOS A	2.6	18.9	0.47	0.59	0.47	43.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).  
 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 [JAM\_SMIX AM 2021 (Site Folder: General)]

Network: N101 [Existing Network AM 2021 (Network Folder: General)]

James St & Smith St  
 Site Category: (None)  
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	124	0.0	124	0.0	0.086	0.4	LOS A	0.2	1.6	0.18	0.11	0.18	43.2
6	R2	28	0.0	28	0.0	0.086	5.8	LOS A	0.2	1.6	0.18	0.11	0.18	43.8
Approach		152	0.0	152	0.0	0.086	1.4	NA	0.2	1.6	0.18	0.11	0.18	43.4
North: Smith St (N)														
7	L2	18	0.0	18	0.0	0.034	5.1	LOS A	0.1	0.8	0.30	0.56	0.30	34.3
9	R2	19	0.0	19	0.0	0.034	6.2	LOS A	0.1	0.8	0.30	0.56	0.30	34.3
Approach		37	0.0	37	0.0	0.034	5.7	LOS A	0.1	0.8	0.30	0.56	0.30	34.3
West: James St (W)														
10	L2	174	0.0	174	0.0	0.183	4.6	LOS A	0.0	0.0	0.00	0.27	0.00	42.9
11	T1	175	0.0	175	0.0	0.183	0.0	LOS A	0.0	0.0	0.00	0.27	0.00	37.3
Approach		349	0.0	349	0.0	0.183	2.3	NA	0.0	0.0	0.00	0.27	0.00	41.2
All Vehicles		538	0.0	538	0.0	0.183	2.3	NA	0.2	1.6	0.07	0.24	0.07	41.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [JAM\_DICX AM 2021 (Site Folder: General)]

Network: N101 [Existing Network AM 2021 (Network Folder: General)]

James St & Dickinson St  
 Site Category: (None)  
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	112	0.0	112	0.0	0.087	0.3	LOS A	0.3	2.0	0.18	0.16	0.18	46.9
6	R2	44	0.0	44	0.0	0.087	5.2	LOS A	0.3	2.0	0.18	0.16	0.18	47.1
Approach		156	0.0	156	0.0	0.087	1.7	NA	0.3	2.0	0.18	0.16	0.18	47.0
North: Dickinson St (N)														
7	L2	13	0.0	13	0.0	0.050	5.0	LOS A	0.2	1.2	0.29	0.57	0.29	44.9
9	R2	40	0.0	40	0.0	0.050	5.8	LOS A	0.2	1.2	0.29	0.57	0.29	40.9
Approach		53	0.0	53	0.0	0.050	5.6	LOS A	0.2	1.2	0.29	0.57	0.29	42.4
West: James St (W)														
10	L2	52	0.0	52	0.0	0.100	4.6	LOS A	0.0	0.0	0.00	0.15	0.00	47.3
11	T1	141	0.0	141	0.0	0.100	0.0	LOS A	0.0	0.0	0.00	0.15	0.00	48.5
Approach		193	0.0	193	0.0	0.100	1.2	NA	0.0	0.0	0.00	0.15	0.00	48.2
All Vehicles		402	0.0	402	0.0	0.100	2.0	NA	0.3	2.0	0.11	0.21	0.11	47.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [PAC\_DUD\_FERX PM 2021 (Site Folder: General)]

Network: N101 [Existing Network PM 2021 (Network Folder: General)]

Pacific Hwy, Dudley Rd & Ferris St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	159	0.6	159	0.6	0.451	30.2	LOS C	6.6	46.3	0.89	0.81	0.89	26.2
22	T1	107	0.9	107	0.9	*0.451	39.3	LOS C	6.8	49.3	0.93	0.79	0.93	18.7
23	R2	189	6.3	189	6.3	0.451	56.8	LOS E	6.8	49.3	0.96	0.79	0.96	15.9
Approach		455	3.1	455	3.1	0.451	43.4	LOS D	6.8	49.3	0.93	0.80	0.93	19.5
NorthEast: Pacific Hwy (NE)														
24	L2	289	3.5	289	3.5	0.294	14.1	LOS A	5.7	40.8	0.58	0.74	0.58	30.7
25	T1	1023	1.9	1023	1.9	*0.493	30.4	LOS C	16.3	116.0	0.79	0.73	0.79	29.5
26	R2	63	0.0	63	0.0	0.073	25.6	LOS B	0.8	5.5	0.81	0.70	0.81	29.9
Approach		1375	2.1	1375	2.1	0.493	26.7	LOS B	16.3	116.0	0.75	0.73	0.75	29.6
NorthWest: Ferris St (NW)														
27	L2	11	27.3	11	27.3	0.478	65.1	LOS E	3.9	29.0	1.00	0.76	1.00	17.9
28	T1	97	2.1	97	2.1	*0.478	60.3	LOS E	3.9	28.6	1.00	0.76	1.00	11.4
29	R2	88	8.0	88	8.0	0.478	65.0	LOS E	3.9	28.6	1.00	0.76	1.00	18.9
Approach		196	6.1	196	6.1	0.478	62.7	LOS E	3.9	29.0	1.00	0.76	1.00	15.6
SouthWest: Pacific Hwy (SW)														
30	L2	100	1.0	100	1.0	0.072	6.8	LOS A	0.8	5.4	0.20	0.60	0.20	46.4
31	T1	587	2.0	587	2.0	0.349	37.2	LOS C	9.0	64.2	0.84	0.73	0.84	26.9
32	R2	330	0.6	330	0.6	*0.487	53.6	LOS D	8.8	61.9	0.95	0.80	0.95	15.5
Approach		1017	1.5	1017	1.5	0.487	39.5	LOS C	9.0	64.2	0.81	0.74	0.81	24.2
All Vehicles		3043	2.3	3043	2.3	0.493	35.8	LOS C	16.3	116.0	0.81	0.74	0.81	24.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
					[ Ped ped	Dist ] m					
SouthEast: Dudley Rd (SE)											
P5	Full	2	54.2	LOS E	0.0	0.0	0.95	0.95	223.0	219.5	0.98
NorthEast: Pacific Hwy (NE)											
P6	Full	13	54.2	LOS E	0.0	0.0	0.95	0.95	233.6	233.2	1.00
NorthWest: Ferris St (NW)											
P7	Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	223.4	220.0	0.98

SouthWest: Pacific Hwy (SW)										
P8 Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	230.6	229.4	0.99
All Pedestrians	17	54.2	LOS E	0.0	0.0	0.95	0.95	231.5	230.6	1.00

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.

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Project: Z:\DATA\Data\Jobs01\Jobs\20work\20242C\_27TiralStCharlestown\SIDRA\211221\Existing Network 2021.sip9

# MOVEMENT SUMMARY

Site: 101 [DUD\_JAM\_AMBX PM 2021 (Site Folder: General)]

Network: N101 [Existing Network PM 2021 (Network Folder: General)]

Dudley Rd, James St & NSW Ambulance

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] %	[ Total HV ] veh/h	%				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	1	0.0	1	0.0	0.147	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	29.7
22	T1	393	3.3	393	3.3	0.147	0.7	LOS A	0.8	5.8	0.14	0.09	0.14	43.1
23b	R3	73	1.4	73	1.4	0.147	8.5	LOS A	0.8	5.8	0.48	0.30	0.48	32.4
Approach		467	3.0	467	3.0	0.147	1.9	NA	0.8	5.8	0.19	0.12	0.19	40.9
East: James St (E)														
4b	L3	51	0.0	51	0.0	0.249	6.5	LOS A	0.8	5.5	0.00	0.53	0.00	18.5
4a	L1	1	0.0	1	0.0	0.249	8.8	LOS A	0.8	5.5	0.00	0.53	0.00	20.9
6a	R1	57	1.8	57	1.8	0.249	17.6	LOS B	0.8	5.5	0.00	0.53	0.00	18.5
Approach		109	0.9	109	0.9	0.249	12.3	LOS A	0.8	5.5	0.00	0.53	0.00	18.5
NorthWest: Dudley Rd (NW)														
27a	L1	193	1.0	193	1.0	0.102	4.4	LOS A	0.0	0.0	0.00	0.55	0.00	30.9
28	T1	521	2.3	521	2.3	0.272	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	49.9
29	R2	1	0.0	1	0.0	0.272	6.8	LOS A	0.0	0.1	0.00	0.00	0.00	26.1
Approach		715	2.0	715	2.0	0.272	1.2	NA	0.0	0.1	0.00	0.15	0.00	42.7
SouthWest: NSW Ambulance (SW)														
30	L2	4	0.0	4	0.0	0.012	4.9	LOS A	0.0	0.3	0.49	0.59	0.49	17.8
32a	R1	1	0.0	1	0.0	0.012	17.1	LOS B	0.0	0.3	0.49	0.59	0.49	17.8
32	R2	1	0.0	1	0.0	0.012	14.9	LOS B	0.0	0.3	0.49	0.59	0.49	17.8
Approach		6	0.0	6	0.0	0.012	8.6	LOS A	0.0	0.3	0.49	0.59	0.49	17.8
All Vehicles		1297	2.2	1297	2.2	0.272	2.4	NA	0.8	5.8	0.07	0.17	0.07	38.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_TIR\_WANX PM 2021 (Site Folder: General)]

Network: N101 [Existing Network PM 2021 (Network Folder: General)]

Dudley Rd, Tiral St & Wansey Cl

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21a	L1	1	0.0	1	0.0	0.230	7.2	LOS A	0.0	0.3	0.01	0.01	0.01	46.2
22	T1	431	3.2	431	3.2	0.230	0.0	LOS A	0.0	0.3	0.01	0.01	0.01	49.3
23b	R3	3	0.0	3	0.0	0.230	8.4	LOS A	0.0	0.3	0.01	0.01	0.01	48.2
Approach		435	3.2	435	3.2	0.230	0.1	NA	0.0	0.3	0.01	0.01	0.01	49.2
East: Tiral St (E)														
4b	L3	5	0.0	5	0.0	0.069	7.6	LOS A	0.2	1.5	0.69	0.83	0.69	37.7
5	T1	1	0.0	1	0.0	0.069	10.6	LOS A	0.2	1.5	0.69	0.83	0.69	39.5
6a	R1	19	0.0	19	0.0	0.069	13.3	LOS A	0.2	1.5	0.69	0.83	0.69	37.7
Approach		25	0.0	25	0.0	0.069	12.1	LOS A	0.2	1.5	0.69	0.83	0.69	37.8
NorthWest: Dudley Rd (NW)														
27a	L1	30	3.3	30	3.3	0.302	4.9	LOS A	0.1	0.6	0.02	0.03	0.02	48.0
28	T1	537	3.4	537	3.4	0.302	0.0	LOS A	0.1	0.6	0.02	0.03	0.02	48.0
29b	R3	5	0.0	5	0.0	0.302	7.6	LOS A	0.1	0.6	0.02	0.03	0.02	45.5
Approach		572	3.3	572	3.3	0.302	0.4	NA	0.1	0.6	0.02	0.03	0.02	48.0
West: Wansey Cl (W)														
10b	L3	16	0.0	16	0.0	0.027	6.9	LOS A	0.1	0.6	0.49	0.65	0.49	30.3
11	T1	1	0.0	1	0.0	0.027	10.7	LOS A	0.1	0.6	0.49	0.65	0.49	42.4
12a	R1	3	0.0	3	0.0	0.027	12.7	LOS A	0.1	0.6	0.49	0.65	0.49	30.3
Approach		20	0.0	20	0.0	0.027	8.0	LOS A	0.1	0.6	0.49	0.65	0.49	31.9
All Vehicles		1052	3.1	1052	3.1	0.302	0.7	NA	0.2	1.5	0.04	0.05	0.04	46.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_ALG\_KALX PM 2021 (Site Folder: General)]

Network: N101 [Existing Network PM 2021 (Network Folder: General)]

Dudley St, Algona Rd & Kalora Cres  
 Site Category: (None)  
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
South: Algona Rd (S)														
1	L2	4	0.0	4	0.0	0.193	5.2	LOS A	1.1	7.9	0.52	0.61	0.52	45.6
1a	L1	133	3.8	133	3.8	0.193	5.0	LOS A	1.1	7.9	0.52	0.61	0.52	42.8
3	R2	46	8.7	46	8.7	0.193	9.0	LOS A	1.1	7.9	0.52	0.61	0.52	46.2
3u	U	2	0.0	2	0.0	0.193	10.4	LOS A	1.1	7.9	0.52	0.61	0.52	46.9
Approach		185	4.9	185	4.9	0.193	6.0	LOS A	1.1	7.9	0.52	0.61	0.52	44.2
East: Dudley Rd (E)														
4	L2	36	0.0	36	0.0	0.290	4.7	LOS A	1.7	12.2	0.45	0.63	0.45	45.0
5	T1	4	0.0	4	0.0	0.290	4.7	LOS A	1.7	12.2	0.45	0.63	0.45	45.8
6a	R1	280	0.0	280	0.0	0.290	7.5	LOS A	1.7	12.2	0.45	0.63	0.45	41.7
6u	U	2	0.0	2	0.0	0.290	9.9	LOS A	1.7	12.2	0.45	0.63	0.45	46.2
Approach		322	0.0	322	0.0	0.290	7.1	LOS A	1.7	12.2	0.45	0.63	0.45	42.4
NorthWest: Dudley Rd (NW)														
27a	L1	343	3.8	343	3.8	0.391	3.5	LOS A	3.0	21.2	0.27	0.48	0.27	44.8
29a	R1	176	2.8	176	2.8	0.391	6.5	LOS A	3.0	21.2	0.27	0.48	0.27	44.6
29b	R3	22	0.0	22	0.0	0.391	8.1	LOS A	3.0	21.2	0.27	0.48	0.27	45.5
29u	U	4	0.0	4	0.0	0.391	8.9	LOS A	3.0	21.2	0.27	0.48	0.27	31.0
Approach		545	3.3	545	3.3	0.391	4.7	LOS A	3.0	21.2	0.27	0.48	0.27	44.7
West: Kalora Cres (W)														
10b	L3	17	0.0	17	0.0	0.025	6.2	LOS A	0.1	0.9	0.54	0.59	0.54	42.3
11	T1	2	0.0	2	0.0	0.025	5.8	LOS A	0.1	0.9	0.54	0.59	0.54	46.2
12	R2	2	0.0	2	0.0	0.025	9.3	LOS A	0.1	0.9	0.54	0.59	0.54	46.1
12u	U	1	0.0	1	0.0	0.025	10.9	LOS A	0.1	0.9	0.54	0.59	0.54	46.7
Approach		22	0.0	22	0.0	0.025	6.7	LOS A	0.1	0.9	0.54	0.59	0.54	43.7
All Vehicles		1074	2.5	1074	2.5	0.391	5.7	LOS A	3.0	21.2	0.37	0.55	0.37	43.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).  
 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 [JAM\_SMIX PM 2021 (Site Folder: General)]

Network: N101 [Existing Network PM 2021 (Network Folder: General)]

James St & Smith St  
 Site Category: (None)  
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	75	0.0	75	0.0	0.051	0.2	LOS A	0.1	0.8	0.15	0.11	0.15	43.7
6	R2	17	0.0	17	0.0	0.051	5.4	LOS A	0.1	0.8	0.15	0.11	0.15	44.1
Approach		92	0.0	92	0.0	0.051	1.2	NA	0.1	0.8	0.15	0.11	0.15	43.8
North: Smith St (N)														
7	L2	26	0.0	26	0.0	0.050	5.0	LOS A	0.2	1.2	0.26	0.55	0.26	34.5
9	R2	32	0.0	32	0.0	0.050	5.7	LOS A	0.2	1.2	0.26	0.55	0.26	34.5
Approach		58	0.0	58	0.0	0.050	5.4	LOS A	0.2	1.2	0.26	0.55	0.26	34.5
West: James St (W)														
10	L2	120	0.0	120	0.0	0.139	4.6	LOS A	0.0	0.0	0.00	0.24	0.00	43.3
11	T1	145	0.0	145	0.0	0.139	0.0	LOS A	0.0	0.0	0.00	0.24	0.00	38.1
Approach		265	0.0	265	0.0	0.139	2.1	NA	0.0	0.0	0.00	0.24	0.00	41.6
All Vehicles		415	0.0	415	0.0	0.139	2.3	NA	0.2	1.2	0.07	0.26	0.07	40.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [JAM\_DICX PM 2021 (Site Folder: General)]

Network: N101 [Existing Network PM 2021 (Network Folder: General)]

James St & Dickinson St

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	83	0.0	83	0.0	0.059	0.2	LOS A	0.2	1.1	0.14	0.13	0.14	47.5
6	R2	25	0.0	25	0.0	0.059	5.1	LOS A	0.2	1.1	0.14	0.13	0.14	47.4
Approach		108	0.0	108	0.0	0.059	1.3	NA	0.2	1.1	0.14	0.13	0.14	47.5
North: Dickinson St (N)														
7	L2	15	0.0	15	0.0	0.033	4.9	LOS A	0.1	0.8	0.24	0.54	0.24	45.0
9	R2	24	0.0	24	0.0	0.033	5.5	LOS A	0.1	0.8	0.24	0.54	0.24	41.1
Approach		39	0.0	39	0.0	0.033	5.2	LOS A	0.1	0.8	0.24	0.54	0.24	43.3
West: James St (W)														
10	L2	54	0.0	54	0.0	0.089	4.6	LOS A	0.0	0.0	0.00	0.17	0.00	47.0
11	T1	117	0.0	117	0.0	0.089	0.0	LOS A	0.0	0.0	0.00	0.17	0.00	48.3
Approach		171	0.0	171	0.0	0.089	1.4	NA	0.0	0.0	0.00	0.17	0.00	47.9
All Vehicles		318	0.0	318	0.0	0.089	1.9	NA	0.2	1.1	0.08	0.20	0.08	47.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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: Z:\DATA\Data\Jobs01\Jobs\20work\20242C\_27TiralStCharlestown\SIDRA\211221\Existing Network 2021.sip9

# MOVEMENT SUMMARY

Site: 101 [PAC\_DUD\_FERX AM 2031 (Site Folder: General)]

Network: N101 [Existing Network AM 2031 (Network Folder: General)]

Pacific Hwy, Dudley Rd & Ferris St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	298	1.3	298	1.3	0.473	23.1	LOS B	10.8	76.3	0.79	0.80	0.79	29.5
22	T1	119	2.5	119	2.5	*0.473	35.7	LOS C	10.8	76.3	0.88	0.80	0.88	19.7
23	R2	291	1.7	291	1.7	0.473	50.9	LOS D	9.6	68.1	0.93	0.80	0.93	17.1
Approach		708	1.7	708	1.7	0.473	36.7	LOS C	10.8	76.3	0.86	0.80	0.86	21.8
NorthEast: Pacific Hwy (NE)														
24	L2	291	4.5	291	4.5	0.313	15.9	LOS B	6.8	49.3	0.61	0.75	0.61	28.9
25	T1	837	3.2	837	3.2	*0.512	37.6	LOS C	14.5	104.3	0.86	0.76	0.86	26.5
26	R2	51	5.9	51	5.9	0.286	68.9	LOS E	1.5	11.3	1.00	0.71	1.00	16.9
Approach		1179	3.6	1179	3.6	0.512	33.6	LOS C	14.5	104.3	0.81	0.76	0.81	26.2
NorthWest: Ferris St (NW)														
27	L2	1	0.0	1	0.0	0.236	67.2	LOS E	1.4	9.6	0.99	0.70	0.99	17.7
28	T1	45	0.0	45	0.0	*0.236	62.6	LOS E	1.4	9.6	0.99	0.70	0.99	11.2
29	R2	17	23.5	17	23.5	0.214	67.9	LOS E	1.0	8.6	0.99	0.70	0.99	18.2
Approach		63	6.3	63	6.3	0.236	64.1	LOS E	1.4	9.6	0.99	0.70	0.99	13.6
SouthWest: Pacific Hwy (SW)														
30	L2	142	5.6	142	5.6	0.102	7.3	LOS A	1.3	9.7	0.22	0.61	0.22	45.9
31	T1	1143	1.9	1143	1.9	0.402	21.7	LOS B	13.9	99.1	0.68	0.66	0.68	34.2
32	R2	443	1.1	443	1.1	*0.515	49.1	LOS D	11.4	80.6	0.92	0.81	0.92	16.5
Approach		1728	2.0	1728	2.0	0.515	27.5	LOS B	13.9	99.1	0.70	0.69	0.70	29.6
All Vehicles		3678	2.6	3678	2.6	0.515	31.9	LOS C	14.5	104.3	0.77	0.73	0.77	26.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
					[ Ped ped	Dist ] m					
SouthEast: Dudley Rd (SE)											
P5	Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	223.0	219.5	0.98
NorthEast: Pacific Hwy (NE)											
P6	Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	233.5	233.2	1.00
NorthWest: Ferris St (NW)											
P7	Full	2	54.2	LOS E	0.0	0.0	0.95	0.95	223.4	220.0	0.98

SouthWest: Pacific Hwy (SW)											
P8 Full	7	54.2	LOS E	0.0	0.0	0.95	0.95	230.6	229.4	0.99	
All Pedestrians	11	54.2	LOS E	0.0	0.0	0.95	0.95	228.9	227.1	0.99	

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.

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Project: Z:\DATA\Data\Jobs01\Jobs\20work\20242C\_27TiralStCharlestown\SIDRA\211221\Existing Network 2031.sip9

# MOVEMENT SUMMARY

Site: 101 [DUD\_JAM\_AMBX AM 2031 (Site Folder: General)]

Network: N101 [Existing Network AM 2031 (Network Folder: General)]

Dudley Rd, James St & NSW Ambulance

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	1	0.0	1	0.0	0.250	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	29.7
22	T1	638	1.6	638	1.6	0.250	0.8	LOS A	1.5	10.8	0.14	0.10	0.14	42.7
23b	R3	137	0.7	137	0.7	0.250	9.2	LOS A	1.5	10.8	0.57	0.39	0.58	29.8
Approach		776	1.4	776	1.4	0.250	2.3	NA	1.5	10.8	0.22	0.15	0.22	39.6
East: James St (E)														
4b	L3	66	1.5	66	1.5	0.477	12.1	LOS A	2.2	15.9	0.00	0.53	0.00	11.8
4a	L1	1	0.0	1	0.0	0.477	16.9	LOS B	2.2	15.9	0.00	0.53	0.00	14.7
6a	R1	77	2.6	77	2.6	0.477	32.4	LOS C	2.2	15.9	0.00	0.53	0.00	11.8
Approach		144	2.1	144	2.1	0.477	23.0	LOS B	2.2	15.9	0.00	0.53	0.00	11.8
NorthWest: Dudley Rd (NW)														
27a	L1	288	0.0	288	0.0	0.151	4.4	LOS A	0.0	0.0	0.00	0.55	0.00	30.9
28	T1	498	3.6	498	3.6	0.265	0.0	LOS A	0.0	0.3	0.01	0.00	0.01	49.3
29	R2	3	0.0	3	0.0	0.265	8.7	LOS A	0.0	0.3	0.01	0.00	0.01	26.0
Approach		789	2.3	789	2.3	0.265	1.7	NA	0.0	0.3	0.01	0.20	0.01	40.4
SouthWest: NSW Ambulance (SW)														
30	L2	2	0.0	2	0.0	0.024	5.8	LOS A	0.1	0.5	0.76	0.81	0.76	10.9
32a	R1	1	0.0	1	0.0	0.024	26.5	LOS B	0.1	0.5	0.76	0.81	0.76	10.9
32	R2	3	0.0	3	0.0	0.024	20.9	LOS B	0.1	0.5	0.76	0.81	0.76	10.9
Approach		6	0.0	6	0.0	0.024	16.8	LOS B	0.1	0.5	0.76	0.81	0.76	10.9
All Vehicles		1715	1.9	1715	1.9	0.477	3.8	NA	2.2	15.9	0.10	0.21	0.11	33.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_TIR\_WANX AM 2031 (Site Folder: General)]

Network: N101 [Existing Network AM 2031 (Network Folder: General)]

Dudley Rd, Tiral St & Wansey Cl

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21a	L1	3	0.0	3	0.0	0.384	7.1	LOS A	0.1	0.5	0.01	0.00	0.01	46.2
22	T1	734	1.2	734	1.2	0.384	0.0	LOS A	0.1	0.5	0.01	0.00	0.01	49.4
23b	R3	3	0.0	3	0.0	0.384	9.3	LOS A	0.1	0.5	0.01	0.00	0.01	48.2
Approach		740	1.2	740	1.2	0.384	0.1	NA	0.1	0.5	0.01	0.00	0.01	49.3
East: Tiral St (E)														
4b	L3	12	0.0	12	0.0	0.170	7.7	LOS A	0.5	3.6	0.80	0.88	0.80	33.3
5	T1	1	0.0	1	0.0	0.170	17.7	LOS B	0.5	3.6	0.80	0.88	0.80	35.7
6a	R1	26	3.8	26	3.8	0.170	23.7	LOS B	0.5	3.6	0.80	0.88	0.80	33.3
Approach		39	2.6	39	2.6	0.170	18.6	LOS B	0.5	3.6	0.80	0.88	0.80	33.4
NorthWest: Dudley Rd (NW)														
27a	L1	26	3.8	26	3.8	0.308	6.5	LOS A	0.3	1.8	0.05	0.03	0.06	47.7
28	T1	540	3.3	540	3.3	0.308	0.2	LOS A	0.3	1.8	0.05	0.03	0.06	46.7
29b	R3	8	0.0	8	0.0	0.308	10.7	LOS A	0.3	1.8	0.05	0.03	0.06	45.0
Approach		574	3.3	574	3.3	0.308	0.6	NA	0.3	1.8	0.05	0.03	0.06	46.8
West: Wansey Cl (W)														
10b	L3	9	0.0	9	0.0	0.022	8.9	LOS A	0.1	0.5	0.65	0.76	0.65	26.7
11	T1	1	0.0	1	0.0	0.022	17.1	LOS B	0.1	0.5	0.65	0.76	0.65	40.5
12a	R1	1	0.0	1	0.0	0.022	21.0	LOS B	0.1	0.5	0.65	0.76	0.65	26.7
Approach		11	0.0	11	0.0	0.022	10.7	LOS A	0.1	0.5	0.65	0.76	0.65	29.6
All Vehicles		1364	2.1	1364	2.1	0.384	0.9	NA	0.5	3.6	0.05	0.05	0.06	45.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_ALG\_KALX AM 2031 (Site Folder: General)]

Network: N101 [Existing Network AM 2031 (Network Folder: General)]

Dudley St, Algona Rd & Kalora Cres  
 Site Category: (None)  
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
South: Algona Rd (S)														
1	L2	1	0.0	1	0.0	0.453	6.6	LOS A	3.2	22.6	0.72	0.75	0.72	45.1
1a	L1	301	1.7	301	1.7	0.453	6.4	LOS A	3.2	22.6	0.72	0.75	0.72	41.8
3	R2	91	4.4	91	4.4	0.453	10.4	LOS A	3.2	22.6	0.72	0.75	0.72	45.7
3u	U	1	0.0	1	0.0	0.453	11.8	LOS A	3.2	22.6	0.72	0.75	0.72	46.3
Approach		394	2.3	394	2.3	0.453	7.3	LOS A	3.2	22.6	0.72	0.75	0.72	43.2
East: Dudley Rd (E)														
4	L2	97	0.0	97	0.0	0.452	4.9	LOS A	3.3	23.2	0.53	0.64	0.53	44.9
5	T1	2	0.0	2	0.0	0.452	4.9	LOS A	3.3	23.2	0.53	0.64	0.53	45.7
6a	R1	414	0.0	414	0.0	0.452	7.7	LOS A	3.3	23.2	0.53	0.64	0.53	41.6
6u	U	2	0.0	2	0.0	0.452	10.1	LOS A	3.3	23.2	0.53	0.64	0.53	46.2
Approach		515	0.0	515	0.0	0.452	7.2	LOS A	3.3	23.2	0.53	0.64	0.53	42.6
NorthWest: Dudley Rd (NW)														
27a	L1	350	3.7	350	3.7	0.431	3.8	LOS A	3.5	25.0	0.40	0.51	0.40	44.4
29a	R1	186	2.7	186	2.7	0.431	6.9	LOS A	3.5	25.0	0.40	0.51	0.40	44.1
29b	R3	6	0.0	6	0.0	0.431	8.4	LOS A	3.5	25.0	0.40	0.51	0.40	45.1
29u	U	10	0.0	10	0.0	0.431	9.2	LOS A	3.5	25.0	0.40	0.51	0.40	29.9
Approach		552	3.3	552	3.3	0.431	5.0	LOS A	3.5	25.0	0.40	0.51	0.40	44.2
West: Kalora Cres (W)														
10b	L3	12	0.0	12	0.0	0.027	9.1	LOS A	0.2	1.1	0.74	0.68	0.74	39.8
11	T1	3	0.0	3	0.0	0.027	8.7	LOS A	0.2	1.1	0.74	0.68	0.74	44.6
12	R2	1	0.0	1	0.0	0.027	12.2	LOS A	0.2	1.1	0.74	0.68	0.74	44.6
12u	U	1	0.0	1	0.0	0.027	13.8	LOS A	0.2	1.1	0.74	0.68	0.74	45.1
Approach		17	0.0	17	0.0	0.027	9.5	LOS A	0.2	1.1	0.74	0.68	0.74	41.9
All Vehicles		1478	1.8	1478	1.8	0.453	6.4	LOS A	3.5	25.0	0.53	0.62	0.53	43.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).  
 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 [JAM\_SMIX AM 2031 (Site Folder: General)]

Network: N101 [Existing Network AM 2031 (Network Folder: General)]

James St & Smith St  
Site Category: (None)  
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	151	0.0	151	0.0	0.102	0.4	LOS A	0.3	1.8	0.18	0.09	0.18	43.6
6	R2	28	0.0	28	0.0	0.102	6.3	LOS A	0.3	1.8	0.18	0.09	0.18	44.1
Approach		179	0.0	179	0.0	0.102	1.4	NA	0.3	1.8	0.18	0.09	0.18	43.8
North: Smith St (N)														
7	L2	18	0.0	18	0.0	0.037	5.2	LOS A	0.1	0.9	0.34	0.58	0.34	33.8
9	R2	19	0.0	19	0.0	0.037	6.7	LOS A	0.1	0.9	0.34	0.58	0.34	33.8
Approach		37	0.0	37	0.0	0.037	6.0	LOS A	0.1	0.9	0.34	0.58	0.34	33.8
West: James St (W)														
10	L2	212	0.0	212	0.0	0.223	4.6	LOS A	0.0	0.0	0.00	0.27	0.00	42.9
11	T1	213	0.0	213	0.0	0.223	0.0	LOS A	0.0	0.0	0.00	0.27	0.00	37.3
Approach		425	0.0	425	0.0	0.223	2.3	NA	0.0	0.0	0.00	0.27	0.00	41.2
All Vehicles		641	0.0	641	0.0	0.223	2.2	NA	0.3	1.8	0.07	0.24	0.07	41.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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: Z:\DATA\Data\Jobs01\Jobs\20work\20242C\_27TiralStCharlestown\SIDRA\211221\Existing Network 2031.sip9

# MOVEMENT SUMMARY

Site: 101 [JAM\_DICX AM 2031 (Site Folder: General)]

Network: N101 [Existing Network AM 2031 (Network Folder: General)]

James St & Dickinson St  
 Site Category: (None)  
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	136	0.0	136	0.0	0.101	0.3	LOS A	0.3	2.1	0.18	0.14	0.18	47.2
6	R2	44	0.0	44	0.0	0.101	5.3	LOS A	0.3	2.1	0.18	0.14	0.18	47.2
Approach		180	0.0	180	0.0	0.101	1.5	NA	0.3	2.1	0.18	0.14	0.18	47.2
North: Dickinson St (N)														
7	L2	13	0.0	13	0.0	0.053	5.1	LOS A	0.2	1.2	0.33	0.59	0.33	44.7
9	R2	40	0.0	40	0.0	0.053	6.0	LOS A	0.2	1.2	0.33	0.59	0.33	40.6
Approach		53	0.0	53	0.0	0.053	5.8	LOS A	0.2	1.2	0.33	0.59	0.33	42.2
West: James St (W)														
10	L2	52	0.0	52	0.0	0.116	4.6	LOS A	0.0	0.0	0.00	0.13	0.00	47.5
11	T1	172	0.0	172	0.0	0.116	0.0	LOS A	0.0	0.0	0.00	0.13	0.00	48.7
Approach		224	0.0	224	0.0	0.116	1.1	NA	0.0	0.0	0.00	0.13	0.00	48.4
All Vehicles		457	0.0	457	0.0	0.116	1.8	NA	0.3	2.1	0.11	0.19	0.11	47.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [PAC\_DUD\_FERX PM 2031 (Site Folder: General)]

Network: N101 [Existing Network PM 2031 (Network Folder: General)]

Pacific Hwy, Dudley Rd & Ferris St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	194	0.5	194	0.5	0.543	36.7	LOS C	8.5	60.1	0.92	0.86	0.92	23.7
22	T1	107	0.9	107	0.9	*0.543	41.6	LOS C	8.5	60.1	0.95	0.83	0.95	18.0
23	R2	230	5.2	230	5.2	0.543	58.5	LOS E	7.9	57.2	0.98	0.80	0.98	15.5
Approach		531	2.6	531	2.6	0.543	47.1	LOS D	8.5	60.1	0.95	0.83	0.95	18.6
NorthEast: Pacific Hwy (NE)														
24	L2	352	2.8	352	2.8	0.346	14.0	LOS A	7.2	51.5	0.58	0.74	0.58	30.8
25	T1	1247	1.5	1247	1.5	*0.591	29.6	LOS C	21.4	151.6	0.80	0.74	0.80	29.9
26	R2	63	0.0	63	0.0	0.226	64.3	LOS E	1.8	12.7	0.97	0.72	0.97	17.8
Approach		1662	1.7	1662	1.7	0.591	27.6	LOS B	21.4	151.6	0.76	0.74	0.76	29.2
NorthWest: Ferris St (NW)														
27	L2	11	27.3	11	27.3	0.615	68.8	LOS E	4.1	30.1	1.00	0.79	1.08	17.2
28	T1	97	2.1	97	2.1	*0.615	64.0	LOS E	4.1	29.7	1.00	0.79	1.07	10.9
29	R2	88	8.0	88	8.0	0.615	68.6	LOS E	4.1	29.7	1.00	0.79	1.08	18.3
Approach		196	6.1	196	6.1	0.615	66.3	LOS E	4.1	30.1	1.00	0.79	1.08	15.0
SouthWest: Pacific Hwy (SW)														
30	L2	100	1.0	100	1.0	0.068	7.0	LOS A	0.8	6.0	0.21	0.60	0.21	46.2
31	T1	715	1.7	715	1.7	0.235	17.5	LOS B	7.4	52.7	0.58	0.58	0.58	36.9
32	R2	402	0.5	402	0.5	*0.592	54.8	LOS D	11.0	77.1	0.97	0.82	0.97	15.2
Approach		1217	1.2	1217	1.2	0.592	29.0	LOS C	11.0	77.1	0.68	0.66	0.68	28.5
All Vehicles		3606	1.9	3606	1.9	0.615	33.1	LOS C	21.4	151.6	0.77	0.73	0.78	26.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
					[ Ped ped	Dist ] m					
SouthEast: Dudley Rd (SE)											
P5	Full	2	54.2	LOS E	0.0	0.0	0.95	0.95	223.0	219.5	0.98
NorthEast: Pacific Hwy (NE)											
P6	Full	13	54.2	LOS E	0.0	0.0	0.95	0.95	233.6	233.2	1.00
NorthWest: Ferris St (NW)											
P7	Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	223.4	220.0	0.98

SouthWest: Pacific Hwy (SW)											
P8 Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	230.6	229.4	0.99	
All Pedestrians	17	54.2	LOS E	0.0	0.0	0.95	0.95	231.5	230.6	1.00	

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.

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Project: Z:\DATA\Data\Jobs01\Jobs\20work\20242C\_27TiralStCharlestown\SIDRA\211221\Existing Network 2031.sip9

# MOVEMENT SUMMARY

Site: 101 [DUD\_JAM\_AMBX PM 2031 (Site Folder: General)]

Network: N101 [Existing Network PM 2031 (Network Folder: General)]

Dudley Rd, James St & NSW Ambulance

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	1	0.0	1	0.0	0.185	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	29.7
22	T1	479	2.7	479	2.7	0.185	0.9	LOS A	1.1	7.8	0.15	0.09	0.15	42.3
23b	R3	89	1.1	89	1.1	0.185	9.6	LOS A	1.1	7.8	0.55	0.34	0.55	29.8
Approach		569	2.5	569	2.5	0.185	2.3	NA	1.1	7.8	0.21	0.13	0.21	39.6
East: James St (E)														
4b	L3	51	0.0	51	0.0	0.326	8.6	LOS A	1.2	8.6	0.00	0.53	0.00	14.6
4a	L1	1	0.0	1	0.0	0.326	12.3	LOS A	1.2	8.6	0.00	0.53	0.00	17.4
6a	R1	57	1.8	57	1.8	0.326	25.5	LOS B	1.2	8.6	0.00	0.53	0.00	14.6
Approach		109	0.9	109	0.9	0.326	17.5	LOS B	1.2	8.6	0.00	0.53	0.00	14.7
NorthWest: Dudley Rd (NW)														
27a	L1	235	0.9	235	0.9	0.124	4.4	LOS A	0.0	0.0	0.00	0.55	0.00	30.9
28	T1	635	1.9	635	1.9	0.331	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	49.9
29	R2	1	0.0	1	0.0	0.331	7.7	LOS A	0.0	0.1	0.00	0.00	0.00	26.1
Approach		871	1.6	871	1.6	0.331	1.2	NA	0.0	0.1	0.00	0.15	0.00	42.7
SouthWest: NSW Ambulance (SW)														
30	L2	4	0.0	4	0.0	0.015	5.2	LOS A	0.0	0.3	0.57	0.64	0.57	15.5
32a	R1	1	0.0	1	0.0	0.015	23.6	LOS B	0.0	0.3	0.57	0.64	0.57	15.5
32	R2	1	0.0	1	0.0	0.015	19.3	LOS B	0.0	0.3	0.57	0.64	0.57	15.5
Approach		6	0.0	6	0.0	0.015	10.6	LOS A	0.0	0.3	0.57	0.64	0.57	15.5
All Vehicles		1555	1.9	1555	1.9	0.331	2.8	NA	1.2	8.6	0.08	0.17	0.08	36.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_TIR\_WANX PM 2031 (Site Folder: General)]

Network: N101 [Existing Network PM 2031 (Network Folder: General)]

Dudley Rd, Tiral St & Wansey CI

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21a	L1	1	0.0	1	0.0	0.278	8.6	LOS A	0.1	0.5	0.01	0.00	0.02	46.2
22	T1	525	2.7	525	2.7	0.278	0.1	LOS A	0.1	0.5	0.01	0.00	0.02	49.2
23b	R3	3	0.0	3	0.0	0.278	9.9	LOS A	0.1	0.5	0.01	0.00	0.02	48.2
Approach		529	2.6	529	2.6	0.278	0.1	NA	0.1	0.5	0.01	0.00	0.02	49.2
East: Tiral St (E)														
4b	L3	5	0.0	5	0.0	0.099	8.4	LOS A	0.3	2.1	0.79	0.89	0.79	34.5
5	T1	1	0.0	1	0.0	0.099	14.7	LOS B	0.3	2.1	0.79	0.89	0.79	36.8
6a	R1	19	0.0	19	0.0	0.099	18.8	LOS B	0.3	2.1	0.79	0.89	0.79	34.5
Approach		25	0.0	25	0.0	0.099	16.5	LOS B	0.3	2.1	0.79	0.89	0.79	34.7
NorthWest: Dudley Rd (NW)														
27a	L1	30	3.3	30	3.3	0.363	5.1	LOS A	0.1	0.9	0.02	0.03	0.02	48.0
28	T1	654	2.8	654	2.8	0.363	0.1	LOS A	0.1	0.9	0.02	0.03	0.02	48.1
29b	R3	5	0.0	5	0.0	0.363	8.7	LOS A	0.1	0.9	0.02	0.03	0.02	45.6
Approach		689	2.8	689	2.8	0.363	0.3	NA	0.1	0.9	0.02	0.03	0.02	48.1
West: Wansey CI (W)														
10b	L3	16	0.0	16	0.0	0.034	7.4	LOS A	0.1	0.8	0.56	0.70	0.56	28.4
11	T1	1	0.0	1	0.0	0.034	14.9	LOS B	0.1	0.8	0.56	0.70	0.56	41.4
12a	R1	3	0.0	3	0.0	0.034	17.8	LOS B	0.1	0.8	0.56	0.70	0.56	28.4
Approach		20	0.0	20	0.0	0.034	9.4	LOS A	0.1	0.8	0.56	0.70	0.56	30.0
All Vehicles		1263	2.6	1263	2.6	0.363	0.7	NA	0.3	2.1	0.04	0.05	0.04	46.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_ALG\_KALX PM 2031 (Site Folder: General)]

Network: N101 [Existing Network PM 2031 (Network Folder: General)]

Dudley St, Algona Rd & Kalora Cres  
 Site Category: (None)  
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
South: Algona Rd (S)														
1	L2	4	0.0	4	0.0	0.235	5.6	LOS A	1.4	10.1	0.58	0.65	0.58	45.5
1a	L1	162	3.1	162	3.1	0.235	5.4	LOS A	1.4	10.1	0.58	0.65	0.58	42.6
3	R2	46	8.7	46	8.7	0.235	9.5	LOS A	1.4	10.1	0.58	0.65	0.58	46.1
3u	U	2	0.0	2	0.0	0.235	10.8	LOS A	1.4	10.1	0.58	0.65	0.58	46.8
Approach		214	4.2	214	4.2	0.235	6.4	LOS A	1.4	10.1	0.58	0.65	0.58	43.9
East: Dudley Rd (E)														
4	L2	36	0.0	36	0.0	0.357	5.1	LOS A	2.3	16.0	0.51	0.66	0.51	44.8
5	T1	4	0.0	4	0.0	0.357	5.1	LOS A	2.3	16.0	0.51	0.66	0.51	45.6
6a	R1	341	0.0	341	0.0	0.357	7.8	LOS A	2.3	16.0	0.51	0.66	0.51	41.4
6u	U	2	0.0	2	0.0	0.357	10.2	LOS A	2.3	16.0	0.51	0.66	0.51	46.0
Approach		383	0.0	383	0.0	0.357	7.6	LOS A	2.3	16.0	0.51	0.66	0.51	42.0
NorthWest: Dudley Rd (NW)														
27a	L1	418	3.1	418	3.1	0.466	3.5	LOS A	4.0	28.4	0.30	0.48	0.30	44.7
29a	R1	214	2.3	214	2.3	0.466	6.6	LOS A	4.0	28.4	0.30	0.48	0.30	44.5
29b	R3	22	0.0	22	0.0	0.466	8.1	LOS A	4.0	28.4	0.30	0.48	0.30	45.5
29u	U	4	0.0	4	0.0	0.466	8.9	LOS A	4.0	28.4	0.30	0.48	0.30	30.8
Approach		658	2.7	658	2.7	0.466	4.7	LOS A	4.0	28.4	0.30	0.48	0.30	44.7
West: Kalora Cres (W)														
10b	L3	17	0.0	17	0.0	0.027	6.8	LOS A	0.1	1.0	0.60	0.62	0.60	41.8
11	T1	2	0.0	2	0.0	0.027	6.4	LOS A	0.1	1.0	0.60	0.62	0.60	45.9
12	R2	2	0.0	2	0.0	0.027	9.9	LOS A	0.1	1.0	0.60	0.62	0.60	45.8
12u	U	1	0.0	1	0.0	0.027	11.5	LOS A	0.1	1.0	0.60	0.62	0.60	46.4
Approach		22	0.0	22	0.0	0.027	7.3	LOS A	0.1	1.0	0.60	0.62	0.60	43.2
All Vehicles		1277	2.1	1277	2.1	0.466	5.9	LOS A	4.0	28.4	0.41	0.56	0.41	43.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).  
 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 [JAM\_SMIX PM 2031 (Site Folder: General)]

Network: N101 [Existing Network PM 2031 (Network Folder: General)]

James St & Smith St  
 Site Category: (None)  
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	91	0.0	91	0.0	0.060	0.3	LOS A	0.1	0.9	0.15	0.09	0.15	44.2
6	R2	17	0.0	17	0.0	0.060	5.7	LOS A	0.1	0.9	0.15	0.09	0.15	44.3
Approach		108	0.0	108	0.0	0.060	1.1	NA	0.1	0.9	0.15	0.09	0.15	44.2
North: Smith St (N)														
7	L2	26	0.0	26	0.0	0.053	5.1	LOS A	0.2	1.3	0.30	0.57	0.30	34.3
9	R2	32	0.0	32	0.0	0.053	6.0	LOS A	0.2	1.3	0.30	0.57	0.30	34.3
Approach		58	0.0	58	0.0	0.053	5.6	LOS A	0.2	1.3	0.30	0.57	0.30	34.3
West: James St (W)														
10	L2	146	0.0	146	0.0	0.169	4.6	LOS A	0.0	0.0	0.00	0.25	0.00	43.3
11	T1	176	0.0	176	0.0	0.169	0.0	LOS A	0.0	0.0	0.00	0.25	0.00	38.1
Approach		322	0.0	322	0.0	0.169	2.1	NA	0.0	0.0	0.00	0.25	0.00	41.6
All Vehicles		488	0.0	488	0.0	0.169	2.3	NA	0.2	1.3	0.07	0.25	0.07	41.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [JAM\_DICX PM 2031 (Site Folder: General)]

Network: N101 [Existing Network PM 2031 (Network Folder: General)]

James St & Dickinson St  
 Site Category: (None)  
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	101	0.0	101	0.0	0.069	0.2	LOS A	0.2	1.2	0.14	0.11	0.14	47.8
6	R2	25	0.0	25	0.0	0.069	5.2	LOS A	0.2	1.2	0.14	0.11	0.14	47.5
Approach		126	0.0	126	0.0	0.069	1.2	NA	0.2	1.2	0.14	0.11	0.14	47.7
North: Dickinson St (N)														
7	L2	15	0.0	15	0.0	0.035	5.0	LOS A	0.1	0.8	0.27	0.55	0.27	44.9
9	R2	24	0.0	24	0.0	0.035	5.6	LOS A	0.1	0.8	0.27	0.55	0.27	41.0
Approach		39	0.0	39	0.0	0.035	5.4	LOS A	0.1	0.8	0.27	0.55	0.27	43.2
West: James St (W)														
10	L2	54	0.0	54	0.0	0.102	4.6	LOS A	0.0	0.0	0.00	0.15	0.00	47.3
11	T1	142	0.0	142	0.0	0.102	0.0	LOS A	0.0	0.0	0.00	0.15	0.00	48.5
Approach		196	0.0	196	0.0	0.102	1.3	NA	0.0	0.0	0.00	0.15	0.00	48.2
All Vehicles		361	0.0	361	0.0	0.102	1.7	NA	0.2	1.2	0.08	0.18	0.08	47.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [PAC\_DUD\_FERP AM 2021 (Site Folder: General)]

Network: N101 [Proposed Network AM 2021 (Network Folder: General)]

Pacific Hwy, Dudley Rd & Ferris St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	262	1.5	262	1.5	0.408	20.5	LOS B	8.8	62.3	0.75	0.77	0.75	31.1
22	T1	127	2.4	127	2.4	*0.408	33.8	LOS C	8.9	63.4	0.85	0.77	0.85	20.5
23	R2	270	1.9	270	1.9	0.408	47.8	LOS D	8.9	63.4	0.90	0.79	0.90	17.9
Approach		659	1.8	659	1.8	0.408	34.2	LOS C	8.9	63.4	0.83	0.78	0.83	22.6
NorthEast: Pacific Hwy (NE)														
24	L2	255	5.1	255	5.1	0.275	15.7	LOS B	5.8	42.5	0.60	0.74	0.60	29.1
25	T1	687	3.9	687	3.9	*0.444	39.1	LOS C	11.5	83.1	0.87	0.75	0.87	26.0
26	R2	51	5.9	51	5.9	0.286	68.9	LOS E	1.5	11.3	1.00	0.71	1.00	16.9
Approach		993	4.3	993	4.3	0.444	34.6	LOS C	11.5	83.1	0.80	0.75	0.80	25.6
NorthWest: Ferris St (NW)														
27	L2	1	0.0	1	0.0	0.262	67.3	LOS E	1.5	10.7	0.99	0.71	0.99	17.6
28	T1	50	0.0	50	0.0	*0.262	62.8	LOS E	1.5	10.7	0.99	0.71	0.99	11.2
29	R2	17	23.5	17	23.5	0.214	67.9	LOS E	1.0	8.6	0.99	0.70	0.99	18.2
Approach		68	5.9	68	5.9	0.262	64.1	LOS E	1.5	10.7	0.99	0.70	0.99	13.5
SouthWest: Pacific Hwy (SW)														
30	L2	142	5.6	142	5.6	0.103	7.5	LOS A	1.4	10.2	0.23	0.61	0.23	45.7
31	T1	938	2.3	938	2.3	0.349	22.8	LOS B	11.5	82.1	0.68	0.65	0.68	33.5
32	R2	372	1.3	372	1.3	*0.433	48.1	LOS D	9.4	66.2	0.90	0.80	0.90	16.8
Approach		1452	2.4	1452	2.4	0.433	27.8	LOS B	11.5	82.1	0.69	0.69	0.69	29.5
All Vehicles		3172	3.0	3172	3.0	0.444	32.1	LOS C	11.5	83.1	0.76	0.72	0.76	26.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
					[ Ped ped	Dist ] m					
SouthEast: Dudley Rd (SE)											
P5	Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	223.0	219.5	0.98
NorthEast: Pacific Hwy (NE)											
P6	Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	233.5	233.2	1.00
NorthWest: Ferris St (NW)											
P7	Full	2	54.2	LOS E	0.0	0.0	0.95	0.95	223.4	220.0	0.98

SouthWest: Pacific Hwy (SW)											
P8 Full	7	54.2	LOS E	0.0	0.0	0.95	0.95	230.6	229.4	0.99	
All Pedestrians	11	54.2	LOS E	0.0	0.0	0.95	0.95	228.9	227.1	0.99	

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 [DUD\_JAM\_AMBP AM 2021 (Site Folder: General)]

Network: N101 [Proposed Network AM 2021 (Network Folder: General)]

Dudley Rd, James St & NSW Ambulance

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	1	0.0	1	0.0	0.202	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	29.7
22	T1	524	1.9	524	1.9	0.202	0.6	LOS A	1.2	8.2	0.13	0.09	0.13	43.3
23b	R3	116	0.9	116	0.9	0.202	8.3	LOS A	1.2	8.2	0.52	0.36	0.52	31.5
Approach		641	1.7	641	1.7	0.202	2.0	NA	1.2	8.2	0.20	0.14	0.20	40.5
East: James St (E)														
4b	L3	81	1.2	81	1.2	0.611	13.9	LOS A	3.8	26.6	0.00	0.52	0.00	11.4
4a	L1	1	0.0	1	0.0	0.611	17.8	LOS B	3.8	26.6	0.00	0.52	0.00	14.3
6a	R1	133	1.5	133	1.5	0.611	29.4	LOS C	3.8	26.6	0.00	0.52	0.00	11.4
Approach		215	1.4	215	1.4	0.611	23.5	LOS B	3.8	26.6	0.00	0.52	0.00	11.4
NorthWest: Dudley Rd (NW)														
27a	L1	248	0.0	248	0.0	0.130	4.4	LOS A	0.0	0.0	0.00	0.55	0.00	30.9
28	T1	425	4.2	425	4.2	0.227	0.0	LOS A	0.0	0.3	0.01	0.00	0.01	49.4
29	R2	3	0.0	3	0.0	0.227	7.6	LOS A	0.0	0.3	0.01	0.00	0.01	26.0
Approach		676	2.7	676	2.7	0.227	1.7	NA	0.0	0.3	0.01	0.20	0.01	40.3
SouthWest: NSW Ambulance (SW)														
30	L2	2	0.0	2	0.0	0.020	5.3	LOS A	0.1	0.4	0.69	0.76	0.69	12.7
32a	R1	1	0.0	1	0.0	0.020	21.5	LOS B	0.1	0.4	0.69	0.76	0.69	12.7
32	R2	3	0.0	3	0.0	0.020	16.9	LOS B	0.1	0.4	0.69	0.76	0.69	12.7
Approach		6	0.0	6	0.0	0.020	13.8	LOS A	0.1	0.4	0.69	0.76	0.69	12.7
All Vehicles		1538	2.1	1538	2.1	0.611	4.9	NA	3.8	26.6	0.09	0.22	0.09	30.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_TIR\_WANP AM 2021 (Site Folder: General)]

Network: N101 [Proposed Network AM 2021 (Network Folder: General)]

Dudley Rd, Tiral St & Wansey Cl

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21a	L1	3	0.0	3	0.0	0.322	7.0	LOS A	0.1	0.9	0.02	0.01	0.03	46.0
22	T1	605	1.5	605	1.5	0.322	0.1	LOS A	0.1	0.9	0.02	0.01	0.03	48.8
23b	R3	7	0.0	7	0.0	0.322	8.2	LOS A	0.1	0.9	0.02	0.01	0.03	48.1
Approach		615	1.5	615	1.5	0.322	0.2	NA	0.1	0.9	0.02	0.01	0.03	48.7
East: Tiral St (E)														
4b	L3	12	0.0	12	0.0	0.119	7.1	LOS A	0.4	2.6	0.71	0.82	0.71	36.6
5	T1	1	0.0	1	0.0	0.119	12.6	LOS A	0.4	2.6	0.71	0.82	0.71	38.6
6a	R1	26	3.8	26	3.8	0.119	16.6	LOS B	0.4	2.6	0.71	0.82	0.71	36.6
Approach		39	2.6	39	2.6	0.119	13.6	LOS A	0.4	2.6	0.71	0.82	0.71	36.7
NorthWest: Dudley Rd (NW)														
27a	L1	44	2.3	44	2.3	0.273	5.3	LOS A	0.2	1.3	0.04	0.06	0.05	47.6
28	T1	456	3.9	456	3.9	0.273	0.1	LOS A	0.2	1.3	0.04	0.06	0.05	46.2
29b	R3	8	0.0	8	0.0	0.273	8.9	LOS A	0.2	1.3	0.04	0.06	0.05	44.8
Approach		508	3.7	508	3.7	0.273	0.7	NA	0.2	1.3	0.04	0.06	0.05	46.6
West: Wansey Cl (W)														
10b	L3	9	0.0	9	0.0	0.017	7.9	LOS A	0.1	0.4	0.56	0.69	0.56	29.0
11	T1	1	0.0	1	0.0	0.017	12.4	LOS A	0.1	0.4	0.56	0.69	0.56	41.8
12a	R1	1	0.0	1	0.0	0.017	14.8	LOS B	0.1	0.4	0.56	0.69	0.56	29.0
Approach		11	0.0	11	0.0	0.017	8.9	LOS A	0.1	0.4	0.56	0.69	0.56	31.7
All Vehicles		1173	2.5	1173	2.5	0.322	0.9	NA	0.4	2.6	0.06	0.06	0.06	45.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_ALG\_KALP AM 2021 (Site Folder: General)]

Network: N101 [Proposed Network AM 2021 (Network Folder: General)]

Dudley St, Algona Rd & Kalora Cres  
 Site Category: (None)  
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
South: Algona Rd (S)														
1	L2	1	0.0	1	0.0	0.372	5.9	LOS A	2.4	17.4	0.63	0.68	0.63	45.3
1a	L1	254	2.0	254	2.0	0.372	5.6	LOS A	2.4	17.4	0.63	0.68	0.63	42.2
3	R2	91	4.4	91	4.4	0.372	9.6	LOS A	2.4	17.4	0.63	0.68	0.63	45.9
3u	U	1	0.0	1	0.0	0.372	11.0	LOS A	2.4	17.4	0.63	0.68	0.63	46.6
Approach		347	2.6	347	2.6	0.372	6.7	LOS A	2.4	17.4	0.63	0.68	0.63	43.7
East: Dudley Rd (E)														
4	L2	97	0.0	97	0.0	0.381	4.6	LOS A	2.6	18.1	0.47	0.62	0.47	45.1
5	T1	2	0.0	2	0.0	0.381	4.7	LOS A	2.6	18.1	0.47	0.62	0.47	45.9
6a	R1	340	0.0	340	0.0	0.381	7.4	LOS A	2.6	18.1	0.47	0.62	0.47	41.9
6u	U	2	0.0	2	0.0	0.381	9.8	LOS A	2.6	18.1	0.47	0.62	0.47	46.4
Approach		441	0.0	441	0.0	0.381	6.8	LOS A	2.6	18.1	0.47	0.62	0.47	43.0
NorthWest: Dudley Rd (NW)														
27a	L1	287	4.5	287	4.5	0.370	3.8	LOS A	2.7	19.6	0.37	0.51	0.37	44.4
29a	R1	166	3.0	166	3.0	0.370	6.8	LOS A	2.7	19.6	0.37	0.51	0.37	44.2
29b	R3	6	0.0	6	0.0	0.370	8.4	LOS A	2.7	19.6	0.37	0.51	0.37	45.1
29u	U	10	0.0	10	0.0	0.370	9.2	LOS A	2.7	19.6	0.37	0.51	0.37	30.0
Approach		469	3.8	469	3.8	0.370	5.0	LOS A	2.7	19.6	0.37	0.51	0.37	44.2
West: Kalora Cres (W)														
10b	L3	12	0.0	12	0.0	0.024	7.9	LOS A	0.1	0.9	0.67	0.65	0.67	40.9
11	T1	3	0.0	3	0.0	0.024	7.5	LOS A	0.1	0.9	0.67	0.65	0.67	45.3
12	R2	1	0.0	1	0.0	0.024	11.0	LOS A	0.1	0.9	0.67	0.65	0.67	45.2
12u	U	1	0.0	1	0.0	0.024	12.6	LOS A	0.1	0.9	0.67	0.65	0.67	45.8
Approach		17	0.0	17	0.0	0.024	8.3	LOS A	0.1	0.9	0.67	0.65	0.67	42.8
All Vehicles		1274	2.1	1274	2.1	0.381	6.2	LOS A	2.7	19.6	0.48	0.60	0.48	43.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).  
 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 [JAM\_SMIP AM 2021 (Site Folder: General)]

Network: N101 [Proposed Network AM 2021 (Network Folder: General)]

James St & Smith St  
 Site Category: (None)  
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	194	0.0	194	0.0	0.126	0.3	LOS A	0.3	2.0	0.16	0.09	0.16	44.2
6	R2	33	0.0	33	0.0	0.126	6.0	LOS A	0.3	2.0	0.16	0.09	0.16	44.3
Approach		227	0.0	227	0.0	0.126	1.2	NA	0.3	2.0	0.16	0.09	0.16	44.3
North: Smith St (N)														
7	L2	20	0.0	20	0.0	0.039	5.1	LOS A	0.1	1.0	0.32	0.58	0.32	33.9
9	R2	20	0.0	20	0.0	0.039	6.7	LOS A	0.1	1.0	0.32	0.58	0.32	33.9
Approach		40	0.0	40	0.0	0.039	5.9	LOS A	0.1	1.0	0.32	0.58	0.32	33.9
West: James St (W)														
10	L2	174	0.0	174	0.0	0.191	4.6	LOS A	0.0	0.0	0.00	0.26	0.00	43.1
11	T1	190	0.0	190	0.0	0.191	0.0	LOS A	0.0	0.0	0.00	0.26	0.00	37.7
Approach		364	0.0	364	0.0	0.191	2.2	NA	0.0	0.0	0.00	0.26	0.00	41.4
All Vehicles		631	0.0	631	0.0	0.191	2.1	NA	0.3	2.0	0.08	0.22	0.08	41.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [JAM\_DICP AM 2021 (Site Folder: General)]

Network: N101 [Proposed Network AM 2021 (Network Folder: General)]

James St & Dickinson St

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	124	0.0	124	0.0	0.094	0.3	LOS A	0.3	2.0	0.18	0.15	0.18	47.1
6	R2	44	0.0	44	0.0	0.094	5.2	LOS A	0.3	2.0	0.18	0.15	0.18	47.1
Approach		168	0.0	168	0.0	0.094	1.6	NA	0.3	2.0	0.18	0.15	0.18	47.1
North: Dickinson St (N)														
7	L2	13	0.0	13	0.0	0.053	5.0	LOS A	0.2	1.3	0.31	0.58	0.31	44.8
9	R2	42	0.0	42	0.0	0.053	5.9	LOS A	0.2	1.3	0.31	0.58	0.31	40.8
Approach		55	0.0	55	0.0	0.053	5.7	LOS A	0.2	1.3	0.31	0.58	0.31	42.3
West: James St (W)														
10	L2	56	0.0	56	0.0	0.107	4.6	LOS A	0.0	0.0	0.00	0.15	0.00	47.3
11	T1	149	0.0	149	0.0	0.107	0.0	LOS A	0.0	0.0	0.00	0.15	0.00	48.5
Approach		205	0.0	205	0.0	0.107	1.3	NA	0.0	0.0	0.00	0.15	0.00	48.2
All Vehicles		428	0.0	428	0.0	0.107	1.9	NA	0.3	2.0	0.11	0.20	0.11	47.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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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# MOVEMENT SUMMARY

Site: 101 [PAC\_DUD\_FERP PM 2021 (Site Folder: General)]

Network: N101 [Proposed Network PM 2021 (Network Folder: General)]

Pacific Hwy, Dudley Rd & Ferris St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	171	0.6	171	0.6	0.470	32.1	LOS C	7.2	50.7	0.89	0.82	0.89	25.3
22	T1	114	0.9	114	0.9	*0.470	39.7	LOS C	7.5	53.9	0.93	0.81	0.93	18.6
23	R2	211	5.7	211	5.7	0.470	56.0	LOS D	7.5	53.9	0.96	0.79	0.96	16.0
Approach		496	2.8	496	2.8	0.470	44.1	LOS D	7.5	53.9	0.93	0.81	0.93	19.3
NorthEast: Pacific Hwy (NE)														
24	L2	332	3.0	332	3.0	0.337	14.4	LOS A	6.7	48.1	0.60	0.75	0.60	30.4
25	T1	1023	1.9	1023	1.9	*0.516	31.2	LOS C	17.0	121.0	0.80	0.73	0.80	29.1
26	R2	63	0.0	63	0.0	0.204	62.9	LOS E	1.8	12.5	0.97	0.72	0.97	18.1
Approach		1418	2.0	1418	2.0	0.516	28.7	LOS C	17.0	121.0	0.76	0.74	0.76	28.5
NorthWest: Ferris St (NW)														
27	L2	11	27.3	11	27.3	0.508	65.3	LOS E	4.2	30.8	1.00	0.76	1.00	17.8
28	T1	110	1.8	110	1.8	*0.508	60.5	LOS E	4.2	30.5	1.00	0.76	1.00	11.4
29	R2	88	8.0	88	8.0	0.508	65.2	LOS E	4.2	30.5	1.00	0.76	1.00	18.9
Approach		209	5.7	209	5.7	0.508	62.7	LOS E	4.2	30.8	1.00	0.76	1.00	15.4
SouthWest: Pacific Hwy (SW)														
30	L2	100	1.0	100	1.0	0.066	6.4	LOS A	0.6	4.1	0.16	0.59	0.16	47.0
31	T1	587	2.0	587	2.0	0.210	20.0	LOS B	6.5	46.1	0.61	0.59	0.61	35.2
32	R2	355	0.6	355	0.6	*0.523	54.0	LOS D	9.5	67.1	0.95	0.81	0.95	15.4
Approach		1042	1.4	1042	1.4	0.523	30.3	LOS C	9.5	67.1	0.68	0.67	0.68	27.8
All Vehicles		3165	2.2	3165	2.2	0.523	33.9	LOS C	17.0	121.0	0.78	0.73	0.78	25.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
					[ Ped ped	Dist ] m					
SouthEast: Dudley Rd (SE)											
P5	Full	2	54.2	LOS E	0.0	0.0	0.95	0.95	223.0	219.5	0.98
NorthEast: Pacific Hwy (NE)											
P6	Full	13	54.2	LOS E	0.0	0.0	0.95	0.95	233.6	233.2	1.00
NorthWest: Ferris St (NW)											
P7	Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	223.4	220.0	0.98

SouthWest: Pacific Hwy (SW)											
P8 Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	230.6	229.4	0.99	
All Pedestrians	17	54.2	LOS E	0.0	0.0	0.95	0.95	231.5	230.6	1.00	

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 [DUD\_JAM\_AMBP PM 2021 (Site Folder: General)]

Network: N101 [Proposed Network PM 2021 (Network Folder: General)]

Dudley Rd, James St & NSW Ambulance

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	1	0.0	1	0.0	0.159	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	29.7
22	T1	393	3.3	393	3.3	0.159	0.7	LOS A	0.9	6.4	0.13	0.09	0.13	43.0
23b	R3	90	1.1	90	1.1	0.159	8.9	LOS A	0.9	6.4	0.55	0.40	0.55	29.8
Approach		484	2.9	484	2.9	0.159	2.2	NA	0.9	6.4	0.21	0.15	0.21	39.7
East: James St (E)														
4b	L3	60	0.0	60	0.0	0.428	9.6	LOS A	2.0	14.0	0.00	0.52	0.00	14.2
4a	L1	1	0.0	1	0.0	0.428	12.6	LOS A	2.0	14.0	0.00	0.52	0.00	17.1
6a	R1	98	1.0	98	1.0	0.428	22.6	LOS B	2.0	14.0	0.00	0.52	0.00	14.2
Approach		159	0.6	159	0.6	0.428	17.7	LOS B	2.0	14.0	0.00	0.52	0.00	14.3
NorthWest: Dudley Rd (NW)														
27a	L1	268	0.7	268	0.7	0.141	4.4	LOS A	0.0	0.0	0.00	0.55	0.00	30.9
28	T1	525	2.3	525	2.3	0.274	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	49.9
29	R2	1	0.0	1	0.0	0.274	6.8	LOS A	0.0	0.1	0.00	0.00	0.00	26.1
Approach		794	1.8	794	1.8	0.274	1.5	NA	0.0	0.1	0.00	0.19	0.00	41.3
SouthWest: NSW Ambulance (SW)														
30	L2	4	0.0	4	0.0	0.012	5.0	LOS A	0.0	0.3	0.52	0.60	0.52	17.1
32a	R1	1	0.0	1	0.0	0.012	19.4	LOS B	0.0	0.3	0.52	0.60	0.52	17.1
32	R2	1	0.0	1	0.0	0.012	15.4	LOS B	0.0	0.3	0.52	0.60	0.52	17.1
Approach		6	0.0	6	0.0	0.012	9.1	LOS A	0.0	0.3	0.52	0.60	0.52	17.1
All Vehicles		1443	2.0	1443	2.0	0.428	3.6	NA	2.0	14.0	0.07	0.21	0.07	34.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_TIR\_WANP PM 2021 (Site Folder: General)]

Network: N101 [Proposed Network PM 2021 (Network Folder: General)]

Dudley Rd, Tiral St & Wansey Cl

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21a	L1	1	0.0	1	0.0	0.239	7.5	LOS A	0.1	0.4	0.02	0.01	0.02	46.1
22	T1	448	3.1	448	3.1	0.239	0.1	LOS A	0.1	0.4	0.02	0.01	0.02	49.1
23b	R3	4	0.0	4	0.0	0.239	8.5	LOS A	0.1	0.4	0.02	0.01	0.02	48.1
Approach		453	3.1	453	3.1	0.239	0.1	NA	0.1	0.4	0.02	0.01	0.02	49.0
East: Tiral St (E)														
4b	L3	5	0.0	5	0.0	0.072	7.6	LOS A	0.2	1.6	0.71	0.83	0.71	37.3
5	T1	1	0.0	1	0.0	0.072	11.0	LOS A	0.2	1.6	0.71	0.83	0.71	39.2
6a	R1	19	0.0	19	0.0	0.072	13.9	LOS A	0.2	1.6	0.71	0.83	0.71	37.3
Approach		25	0.0	25	0.0	0.072	12.5	LOS A	0.2	1.6	0.71	0.83	0.71	37.4
NorthWest: Dudley Rd (NW)														
27a	L1	35	2.9	35	2.9	0.309	4.8	LOS A	0.1	0.7	0.02	0.04	0.02	48.0
28	T1	545	3.3	545	3.3	0.309	0.0	LOS A	0.1	0.7	0.02	0.04	0.02	47.8
29b	R3	5	0.0	5	0.0	0.309	7.7	LOS A	0.1	0.7	0.02	0.04	0.02	45.5
Approach		585	3.2	585	3.2	0.309	0.4	NA	0.1	0.7	0.02	0.04	0.02	47.8
West: Wansey Cl (W)														
10b	L3	16	0.0	16	0.0	0.028	7.0	LOS A	0.1	0.7	0.50	0.66	0.50	30.1
11	T1	1	0.0	1	0.0	0.028	11.2	LOS A	0.1	0.7	0.50	0.66	0.50	42.3
12a	R1	3	0.0	3	0.0	0.028	13.2	LOS A	0.1	0.7	0.50	0.66	0.50	30.1
Approach		20	0.0	20	0.0	0.028	8.2	LOS A	0.1	0.7	0.50	0.66	0.50	31.6
All Vehicles		1083	3.0	1083	3.0	0.309	0.7	NA	0.2	1.6	0.04	0.05	0.04	46.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_ALG\_KALP PM 2021 (Site Folder: General)]

Network: N101 [Proposed Network PM 2021 (Network Folder: General)]

Dudley St, Algona Rd & Kalora Cres  
 Site Category: (None)  
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h ]	[ HV % ]	[ Total veh/h ]	[ HV % ]				[ Veh. ]	[ Dist ]				
South: Algona Rd (S)														
1	L2	4	0.0	4	0.0	0.211	5.2	LOS A	1.2	8.8	0.52	0.61	0.52	45.6
1a	L1	151	3.3	151	3.3	0.211	5.0	LOS A	1.2	8.8	0.52	0.61	0.52	42.8
3	R2	46	8.7	46	8.7	0.211	9.0	LOS A	1.2	8.8	0.52	0.61	0.52	46.2
3u	U	2	0.0	2	0.0	0.211	10.4	LOS A	1.2	8.8	0.52	0.61	0.52	47.0
Approach		203	4.4	203	4.4	0.211	6.0	LOS A	1.2	8.8	0.52	0.61	0.52	44.1
East: Dudley Rd (E)														
4	L2	36	0.0	36	0.0	0.293	4.8	LOS A	1.8	12.4	0.46	0.63	0.46	44.9
5	T1	4	0.0	4	0.0	0.293	4.8	LOS A	1.8	12.4	0.46	0.63	0.46	45.7
6a	R1	280	0.0	280	0.0	0.293	7.5	LOS A	1.8	12.4	0.46	0.63	0.46	41.7
6u	U	2	0.0	2	0.0	0.293	9.9	LOS A	1.8	12.4	0.46	0.63	0.46	46.2
Approach		322	0.0	322	0.0	0.293	7.2	LOS A	1.8	12.4	0.46	0.63	0.46	42.4
NorthWest: Dudley Rd (NW)														
27a	L1	343	3.8	343	3.8	0.397	3.5	LOS A	3.0	21.7	0.27	0.48	0.27	44.8
29a	R1	184	2.7	184	2.7	0.397	6.5	LOS A	3.0	21.7	0.27	0.48	0.27	44.5
29b	R3	22	0.0	22	0.0	0.397	8.1	LOS A	3.0	21.7	0.27	0.48	0.27	45.5
29u	U	4	0.0	4	0.0	0.397	8.9	LOS A	3.0	21.7	0.27	0.48	0.27	30.9
Approach		553	3.3	553	3.3	0.397	4.7	LOS A	3.0	21.7	0.27	0.48	0.27	44.7
West: Kalora Cres (W)														
10b	L3	17	0.0	17	0.0	0.025	6.3	LOS A	0.1	0.9	0.55	0.60	0.55	42.2
11	T1	2	0.0	2	0.0	0.025	5.9	LOS A	0.1	0.9	0.55	0.60	0.55	46.1
12	R2	2	0.0	2	0.0	0.025	9.5	LOS A	0.1	0.9	0.55	0.60	0.55	46.0
12u	U	1	0.0	1	0.0	0.025	11.1	LOS A	0.1	0.9	0.55	0.60	0.55	46.6
Approach		22	0.0	22	0.0	0.025	6.8	LOS A	0.1	0.9	0.55	0.60	0.55	43.6
All Vehicles		1100	2.5	1100	2.5	0.397	5.7	LOS A	3.0	21.7	0.38	0.55	0.38	43.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).  
 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 [JAM\_SMIP PM 2021 (Site Folder: General)]

Network: N101 [Proposed Network PM 2021 (Network Folder: General)]

James St & Smith St  
 Site Category: (None)  
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	125	0.0	125	0.0	0.080	0.3	LOS A	0.2	1.2	0.14	0.08	0.14	44.6
6	R2	20	0.0	20	0.0	0.080	5.9	LOS A	0.2	1.2	0.14	0.08	0.14	44.5
Approach		145	0.0	145	0.0	0.080	1.1	NA	0.2	1.2	0.14	0.08	0.14	44.6
North: Smith St (N)														
7	L2	32	0.0	32	0.0	0.062	5.3	LOS A	0.2	1.5	0.35	0.59	0.35	33.9
9	R2	32	0.0	32	0.0	0.062	6.4	LOS A	0.2	1.5	0.35	0.59	0.35	33.9
Approach		64	0.0	64	0.0	0.062	5.9	LOS A	0.2	1.5	0.35	0.59	0.35	33.9
West: James St (W)														
10	L2	120	0.0	120	0.0	0.186	4.6	LOS A	0.0	0.0	0.00	0.18	0.00	44.4
11	T1	237	0.0	237	0.0	0.186	0.0	LOS A	0.0	0.0	0.00	0.18	0.00	40.6
Approach		357	0.0	357	0.0	0.186	1.5	NA	0.0	0.0	0.00	0.18	0.00	42.7
All Vehicles		566	0.0	566	0.0	0.186	1.9	NA	0.2	1.5	0.08	0.20	0.08	41.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [JAM\_DICP PM 2021 (Site Folder: General)]

Network: N101 [Proposed Network PM 2021 (Network Folder: General)]

James St & Dickinson St

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	122	0.0	122	0.0	0.081	0.2	LOS A	0.2	1.3	0.12	0.10	0.12	48.0
6	R2	27	0.0	27	0.0	0.081	5.1	LOS A	0.2	1.3	0.12	0.10	0.12	47.6
Approach		149	0.0	149	0.0	0.081	1.1	NA	0.2	1.3	0.12	0.10	0.12	47.9
North: Dickinson St (N)														
7	L2	15	0.0	15	0.0	0.040	4.9	LOS A	0.1	1.0	0.25	0.55	0.25	45.0
9	R2	30	0.0	30	0.0	0.040	5.6	LOS A	0.1	1.0	0.25	0.55	0.25	41.1
Approach		45	0.0	45	0.0	0.040	5.4	LOS A	0.1	1.0	0.25	0.55	0.25	43.0
West: James St (W)														
10	L2	55	0.0	55	0.0	0.091	4.6	LOS A	0.0	0.0	0.00	0.17	0.00	47.1
11	T1	120	0.0	120	0.0	0.091	0.0	LOS A	0.0	0.0	0.00	0.17	0.00	48.3
Approach		175	0.0	175	0.0	0.091	1.4	NA	0.0	0.0	0.00	0.17	0.00	47.9
All Vehicles		369	0.0	369	0.0	0.091	1.8	NA	0.2	1.3	0.08	0.19	0.08	47.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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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# MOVEMENT SUMMARY

Site: 101 [PAC\_DUD\_FERP AM 2031 (Site Folder: General)]

Network: N101 [Proposed Network AM 2031 (Network Folder: General)]

Pacific Hwy, Dudley Rd & Ferris St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	315	1.3	315	1.3	0.498	24.9	LOS B	11.5	81.1	0.80	0.83	0.80	28.5
22	T1	127	2.4	127	2.4	*0.498	35.8	LOS C	11.5	81.1	0.88	0.81	0.88	19.7
23	R2	322	1.6	322	1.6	0.498	50.4	LOS D	10.5	74.4	0.93	0.81	0.93	17.2
Approach		764	1.6	764	1.6	0.498	37.5	LOS C	11.5	81.1	0.87	0.81	0.87	21.5
NorthEast: Pacific Hwy (NE)														
24	L2	307	4.2	307	4.2	0.330	16.0	LOS B	7.2	52.5	0.62	0.75	0.62	28.8
25	T1	837	3.2	837	3.2	0.529	38.6	LOS C	14.7	106.1	0.87	0.77	0.87	26.2
26	R2	51	5.9	51	5.9	*0.132	33.5	LOS C	0.8	5.7	0.94	0.70	0.94	26.2
Approach		1195	3.6	1195	3.6	0.529	32.6	LOS C	14.7	106.1	0.81	0.76	0.81	26.5
NorthWest: Ferris St (NW)														
27	L2	1	0.0	1	0.0	0.262	67.3	LOS E	1.5	10.7	0.99	0.71	0.99	17.6
28	T1	50	0.0	50	0.0	*0.262	62.8	LOS E	1.5	10.7	0.99	0.71	0.99	11.2
29	R2	17	23.5	17	23.5	0.214	67.9	LOS E	1.0	8.6	0.99	0.70	0.99	18.2
Approach		68	5.9	68	5.9	0.262	64.1	LOS E	1.5	10.7	0.99	0.70	0.99	13.5
SouthWest: Pacific Hwy (SW)														
30	L2	142	5.6	142	5.6	0.103	7.1	LOS A	1.2	8.8	0.21	0.61	0.21	46.1
31	T1	1143	1.9	1143	1.9	*0.536	32.4	LOS C	17.6	125.4	0.83	0.76	0.83	28.8
32	R2	451	1.1	451	1.1	0.524	49.2	LOS D	11.6	82.2	0.93	0.82	0.93	16.5
Approach		1736	2.0	1736	2.0	0.536	34.7	LOS C	17.6	125.4	0.81	0.76	0.81	26.4
All Vehicles		3763	2.5	3763	2.5	0.536	35.1	LOS C	17.6	125.4	0.82	0.77	0.82	25.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
					[ Ped ped	Dist ] m					
SouthEast: Dudley Rd (SE)											
P5	Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	223.0	219.5	0.98
NorthEast: Pacific Hwy (NE)											
P6	Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	233.5	233.2	1.00
NorthWest: Ferris St (NW)											
P7	Full	2	54.2	LOS E	0.0	0.0	0.95	0.95	223.4	220.0	0.98

SouthWest: Pacific Hwy (SW)											
P8 Full	7	54.2	LOS E	0.0	0.0	0.95	0.95	230.6	229.4	0.99	
All Pedestrians	11	54.2	LOS E	0.0	0.0	0.95	0.95	228.9	227.1	0.99	

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 [DUD\_JAM\_AMBP AM 2031 (Site Folder: General)]

Network: N101 [Proposed Network AM 2031 (Network Folder: General)]

Dudley Rd, James St & NSW Ambulance

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	1	0.0	1	0.0	0.253	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	29.7
22	T1	638	1.6	638	1.6	0.253	0.8	LOS A	1.6	11.2	0.14	0.10	0.14	42.6
23b	R3	140	0.7	140	0.7	0.253	9.4	LOS A	1.6	11.2	0.59	0.41	0.61	29.2
Approach		779	1.4	779	1.4	0.253	2.4	NA	1.6	11.2	0.22	0.15	0.23	39.3
East: James St (E)														
4b	L3	81	1.2	81	1.2	0.808	32.3	LOS C	6.7	47.6	0.00	0.52	0.00	6.5
4a	L1	1	0.0	1	0.0	0.808	37.9	LOS C	6.7	47.6	0.00	0.52	0.00	8.8
6a	R1	133	1.5	133	1.5	0.808	55.0	LOS D	6.7	47.6	0.00	0.52	0.00	6.5
Approach		215	1.4	215	1.4	0.808	46.3	LOS D	6.7	47.6	0.00	0.52	0.00	6.5
NorthWest: Dudley Rd (NW)														
27a	L1	300	0.0	300	0.0	0.157	4.4	LOS A	0.0	0.0	0.00	0.55	0.00	30.9
28	T1	514	3.5	514	3.5	0.273	0.0	LOS A	0.0	0.3	0.01	0.00	0.01	49.3
29	R2	3	0.0	3	0.0	0.273	8.7	LOS A	0.0	0.3	0.01	0.00	0.01	26.0
Approach		817	2.2	817	2.2	0.273	1.7	NA	0.0	0.3	0.01	0.20	0.01	40.3
SouthWest: NSW Ambulance (SW)														
30	L2	2	0.0	2	0.0	0.026	5.8	LOS A	0.1	0.6	0.77	0.82	0.77	10.4
32a	R1	1	0.0	1	0.0	0.026	29.6	LOS C	0.1	0.6	0.77	0.82	0.77	10.4
32	R2	3	0.0	3	0.0	0.026	21.8	LOS B	0.1	0.6	0.77	0.82	0.77	10.4
Approach		6	0.0	6	0.0	0.026	17.8	LOS B	0.1	0.6	0.77	0.82	0.77	10.4
All Vehicles		1817	1.8	1817	1.8	0.808	7.3	NA	6.7	47.6	0.10	0.22	0.10	25.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_TIR\_WANP AM 2031 (Site Folder: General)]

Network: N101 [Proposed Network AM 2031 (Network Folder: General)]

Dudley Rd, Tiral St & Wansey Cl

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21a	L1	3	0.0	3	0.0	0.391	8.2	LOS A	0.2	1.2	0.02	0.01	0.03	46.0
22	T1	737	1.2	737	1.2	0.391	0.1	LOS A	0.2	1.2	0.02	0.01	0.03	48.7
23b	R3	7	0.0	7	0.0	0.391	9.7	LOS A	0.2	1.2	0.02	0.01	0.03	48.1
Approach		747	1.2	747	1.2	0.391	0.2	NA	0.2	1.2	0.02	0.01	0.03	48.6
East: Tiral St (E)														
4b	L3	12	0.0	12	0.0	0.179	7.9	LOS A	0.5	3.8	0.81	0.89	0.83	32.7
5	T1	1	0.0	1	0.0	0.179	18.7	LOS B	0.5	3.8	0.81	0.89	0.83	35.2
6a	R1	26	3.8	26	3.8	0.179	25.0	LOS B	0.5	3.8	0.81	0.89	0.83	32.7
Approach		39	2.6	39	2.6	0.179	19.6	LOS B	0.5	3.8	0.81	0.89	0.83	32.8
NorthWest: Dudley Rd (NW)														
27a	L1	44	2.3	44	2.3	0.324	5.9	LOS A	0.3	2.0	0.05	0.05	0.06	47.6
28	T1	553	3.3	553	3.3	0.324	0.2	LOS A	0.3	2.0	0.05	0.05	0.06	46.0
29b	R3	8	0.0	8	0.0	0.324	10.9	LOS A	0.3	2.0	0.05	0.05	0.06	44.7
Approach		605	3.1	605	3.1	0.324	0.7	NA	0.3	2.0	0.05	0.05	0.06	46.4
West: Wansey Cl (W)														
10b	L3	9	0.0	9	0.0	0.023	8.9	LOS A	0.1	0.5	0.66	0.77	0.66	26.5
11	T1	1	0.0	1	0.0	0.023	18.1	LOS B	0.1	0.5	0.66	0.77	0.66	40.4
12a	R1	1	0.0	1	0.0	0.023	21.8	LOS B	0.1	0.5	0.66	0.77	0.66	26.5
Approach		11	0.0	11	0.0	0.023	10.9	LOS A	0.1	0.5	0.66	0.77	0.66	29.4
All Vehicles		1402	2.1	1402	2.1	0.391	1.1	NA	0.5	3.8	0.06	0.06	0.07	45.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_ALG\_KALP AM 2031 (Site Folder: General)]

Network: N101 [Proposed Network AM 2031 (Network Folder: General)]

Dudley St, Algona Rd & Kalora Cres  
 Site Category: (None)  
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
South: Algona Rd (S)														
1	L2	1	0.0	1	0.0	0.461	6.7	LOS A	3.3	23.6	0.73	0.76	0.74	45.0
1a	L1	308	1.6	308	1.6	0.461	6.5	LOS A	3.3	23.6	0.73	0.76	0.74	41.8
3	R2	91	4.4	91	4.4	0.461	10.5	LOS A	3.3	23.6	0.73	0.76	0.74	45.7
3u	U	1	0.0	1	0.0	0.461	11.9	LOS A	3.3	23.6	0.73	0.76	0.74	46.3
Approach		401	2.2	401	2.2	0.461	7.4	LOS A	3.3	23.6	0.73	0.76	0.74	43.2
East: Dudley Rd (E)														
4	L2	97	0.0	97	0.0	0.459	5.0	LOS A	3.4	23.6	0.55	0.65	0.55	44.9
5	T1	2	0.0	2	0.0	0.459	5.1	LOS A	3.4	23.6	0.55	0.65	0.55	45.7
6a	R1	414	0.0	414	0.0	0.459	7.8	LOS A	3.4	23.6	0.55	0.65	0.55	41.5
6u	U	2	0.0	2	0.0	0.459	10.2	LOS A	3.4	23.6	0.55	0.65	0.55	46.1
Approach		515	0.0	515	0.0	0.459	7.3	LOS A	3.4	23.6	0.55	0.65	0.55	42.5
NorthWest: Dudley Rd (NW)														
27a	L1	350	3.7	350	3.7	0.440	3.8	LOS A	3.6	25.9	0.40	0.51	0.40	44.3
29a	R1	199	2.5	199	2.5	0.440	6.9	LOS A	3.6	25.9	0.40	0.51	0.40	44.1
29b	R3	6	0.0	6	0.0	0.440	8.5	LOS A	3.6	25.9	0.40	0.51	0.40	45.0
29u	U	10	0.0	10	0.0	0.440	9.2	LOS A	3.6	25.9	0.40	0.51	0.40	29.8
Approach		565	3.2	565	3.2	0.440	5.1	LOS A	3.6	25.9	0.40	0.51	0.40	44.2
West: Kalora Cres (W)														
10b	L3	12	0.0	12	0.0	0.027	9.2	LOS A	0.2	1.1	0.74	0.68	0.74	39.8
11	T1	3	0.0	3	0.0	0.027	8.8	LOS A	0.2	1.1	0.74	0.68	0.74	44.6
12	R2	1	0.0	1	0.0	0.027	12.3	LOS A	0.2	1.1	0.74	0.68	0.74	44.5
12u	U	1	0.0	1	0.0	0.027	13.9	LOS A	0.2	1.1	0.74	0.68	0.74	45.1
Approach		17	0.0	17	0.0	0.027	9.6	LOS A	0.2	1.1	0.74	0.68	0.74	41.8
All Vehicles		1498	1.8	1498	1.8	0.461	6.5	LOS A	3.6	25.9	0.54	0.63	0.55	43.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).  
 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 [JAM\_SMIP AM 2031 (Site Folder: General)]

Network: N101 [Proposed Network AM 2031 (Network Folder: General)]

James St & Smith St  
 Site Category: (None)  
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	221	0.0	221	0.0	0.142	0.4	LOS A	0.3	2.3	0.16	0.08	0.16	44.4
6	R2	33	0.0	33	0.0	0.142	6.4	LOS A	0.3	2.3	0.16	0.08	0.16	44.4
Approach		254	0.0	254	0.0	0.142	1.2	NA	0.3	2.3	0.16	0.08	0.16	44.4
North: Smith St (N)														
7	L2	20	0.0	20	0.0	0.042	5.3	LOS A	0.1	1.0	0.36	0.60	0.36	33.3
9	R2	20	0.0	20	0.0	0.042	7.2	LOS A	0.1	1.0	0.36	0.60	0.36	33.3
Approach		40	0.0	40	0.0	0.042	6.2	LOS A	0.1	1.0	0.36	0.60	0.36	33.3
West: James St (W)														
10	L2	212	0.0	212	0.0	0.231	4.6	LOS A	0.0	0.0	0.00	0.26	0.00	43.0
11	T1	228	0.0	228	0.0	0.231	0.0	LOS A	0.0	0.0	0.00	0.26	0.00	37.6
Approach		440	0.0	440	0.0	0.231	2.2	NA	0.0	0.0	0.00	0.26	0.00	41.3
All Vehicles		734	0.0	734	0.0	0.231	2.1	NA	0.3	2.3	0.08	0.22	0.08	41.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [JAM\_DICP AM 2031 (Site Folder: General)]

Network: N101 [Proposed Network AM 2031 (Network Folder: General)]

James St & Dickinson St  
 Site Category: (None)  
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	148	0.0	148	0.0	0.107	0.3	LOS A	0.3	2.2	0.18	0.13	0.18	47.3
6	R2	44	0.0	44	0.0	0.107	5.4	LOS A	0.3	2.2	0.18	0.13	0.18	47.3
Approach		192	0.0	192	0.0	0.107	1.5	NA	0.3	2.2	0.18	0.13	0.18	47.3
North: Dickinson St (N)														
7	L2	13	0.0	13	0.0	0.056	5.1	LOS A	0.2	1.3	0.34	0.60	0.34	44.7
9	R2	42	0.0	42	0.0	0.056	6.2	LOS A	0.2	1.3	0.34	0.60	0.34	40.5
Approach		55	0.0	55	0.0	0.056	5.9	LOS A	0.2	1.3	0.34	0.60	0.34	42.1
West: James St (W)														
10	L2	56	0.0	56	0.0	0.122	4.6	LOS A	0.0	0.0	0.00	0.13	0.00	47.5
11	T1	180	0.0	180	0.0	0.122	0.0	LOS A	0.0	0.0	0.00	0.13	0.00	48.7
Approach		236	0.0	236	0.0	0.122	1.1	NA	0.0	0.0	0.00	0.13	0.00	48.4
All Vehicles		483	0.0	483	0.0	0.122	1.8	NA	0.3	2.2	0.11	0.18	0.11	47.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [PAC\_DUD\_FERP PM 2031 (Site Folder: General)]

Network: N101 [Proposed Network PM 2031 (Network Folder: General)]

Pacific Hwy, Dudley Rd & Ferris St

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	206	0.5	206	0.5	0.558	37.0	LOS C	9.1	63.8	0.92	0.87	0.92	23.6
22	T1	114	0.9	114	0.9	*0.558	41.4	LOS C	9.1	63.8	0.94	0.84	0.94	18.0
23	R2	252	4.8	252	4.8	0.558	57.7	LOS E	8.6	61.9	0.98	0.80	0.98	15.6
Approach		572	2.4	572	2.4	0.558	47.0	LOS D	9.1	63.8	0.95	0.83	0.95	18.6
NorthEast: Pacific Hwy (NE)														
24	L2	395	2.5	395	2.5	0.388	14.3	LOS A	8.3	59.4	0.60	0.75	0.60	30.5
25	T1	1247	1.5	1247	1.5	*0.607	30.5	LOS C	21.9	155.3	0.82	0.75	0.82	29.5
26	R2	63	0.0	63	0.0	0.226	64.3	LOS E	1.8	12.7	0.97	0.72	0.97	17.8
Approach		1705	1.7	1705	1.7	0.607	28.0	LOS B	21.9	155.3	0.77	0.75	0.77	28.9
NorthWest: Ferris St (NW)														
27	L2	11	27.3	11	27.3	0.653	69.2	LOS E	4.4	32.2	1.00	0.81	1.11	17.1
28	T1	110	1.8	110	1.8	*0.653	64.4	LOS E	4.4	31.9	1.00	0.81	1.11	10.8
29	R2	88	8.0	88	8.0	0.653	69.1	LOS E	4.4	31.9	1.00	0.81	1.11	18.2
Approach		209	5.7	209	5.7	0.653	66.6	LOS E	4.4	32.2	1.00	0.81	1.11	14.7
SouthWest: Pacific Hwy (SW)														
30	L2	100	1.0	100	1.0	0.068	7.0	LOS A	0.8	6.0	0.21	0.60	0.21	46.2
31	T1	715	1.7	715	1.7	0.239	18.1	LOS B	7.6	53.6	0.59	0.58	0.59	36.5
32	R2	427	0.5	427	0.5	*0.629	55.2	LOS D	11.7	82.6	0.98	0.82	0.98	15.2
Approach		1242	1.2	1242	1.2	0.629	29.9	LOS C	11.7	82.6	0.69	0.67	0.69	27.9
All Vehicles		3728	1.9	3728	1.9	0.653	33.7	LOS C	21.9	155.3	0.79	0.74	0.79	25.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
					[ Ped ped	Dist ] m					
SouthEast: Dudley Rd (SE)											
P5	Full	2	54.2	LOS E	0.0	0.0	0.95	0.95	223.0	219.5	0.98
NorthEast: Pacific Hwy (NE)											
P6	Full	13	54.2	LOS E	0.0	0.0	0.95	0.95	233.6	233.2	1.00
NorthWest: Ferris St (NW)											
P7	Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	223.4	220.0	0.98

SouthWest: Pacific Hwy (SW)											
P8 Full	1	54.2	LOS E	0.0	0.0	0.95	0.95	230.6	229.4	0.99	
All Pedestrians	17	54.2	LOS E	0.0	0.0	0.95	0.95	231.5	230.6	1.00	

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.

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# MOVEMENT SUMMARY

Site: 101 [DUD\_JAM\_AMBP PM 2031 (Site Folder: General)]

Network: N101 [Proposed Network PM 2031 (Network Folder: General)]

Dudley Rd, James St & NSW Ambulance

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21	L2	1	0.0	1	0.0	0.200	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	29.7
22	T1	479	2.7	479	2.7	0.200	0.9	LOS A	1.2	8.3	0.13	0.09	0.13	42.7
23b	R3	106	0.9	106	0.9	0.200	10.0	LOS A	1.2	8.3	0.62	0.45	0.62	27.5
Approach		586	2.4	586	2.4	0.200	2.5	NA	1.2	8.3	0.21	0.16	0.21	38.7
East: James St (E)														
4b	L3	60	0.0	60	0.0	0.568	15.4	LOS B	3.0	20.8	0.00	0.52	0.00	10.2
4a	L1	1	0.0	1	0.0	0.568	20.0	LOS B	3.0	20.8	0.00	0.52	0.00	13.0
6a	R1	98	1.0	98	1.0	0.568	34.9	LOS C	3.0	20.8	0.00	0.52	0.00	10.2
Approach		159	0.6	159	0.6	0.568	27.4	LOS B	3.0	20.8	0.00	0.52	0.00	10.2
NorthWest: Dudley Rd (NW)														
27a	L1	310	0.6	310	0.6	0.163	4.4	LOS A	0.0	0.0	0.00	0.55	0.00	30.9
28	T1	639	1.9	639	1.9	0.333	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	49.9
29	R2	1	0.0	1	0.0	0.333	7.7	LOS A	0.0	0.1	0.00	0.00	0.00	26.1
Approach		950	1.5	950	1.5	0.333	1.5	NA	0.0	0.1	0.00	0.18	0.00	41.5
SouthWest: NSW Ambulance (SW)														
30	L2	4	0.0	4	0.0	0.016	5.3	LOS A	0.1	0.4	0.59	0.66	0.59	14.8
32a	R1	1	0.0	1	0.0	0.016	26.5	LOS B	0.1	0.4	0.59	0.66	0.59	14.8
32	R2	1	0.0	1	0.0	0.016	20.1	LOS B	0.1	0.4	0.59	0.66	0.59	14.8
Approach		6	0.0	6	0.0	0.016	11.3	LOS A	0.1	0.4	0.59	0.66	0.59	14.8
All Vehicles		1701	1.7	1701	1.7	0.568	4.3	NA	3.0	20.8	0.08	0.21	0.08	32.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_TIR\_WANP PM 2031 (Site Folder: General)]

Network: N101 [Proposed Network PM 2031 (Network Folder: General)]

Dudley Rd, Tiral St & Wansey Cl

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
SouthEast: Dudley Rd (SE)														
21a	L1	1	0.0	1	0.0	0.288	9.0	LOS A	0.1	0.6	0.02	0.01	0.02	46.1
22	T1	542	2.6	542	2.6	0.288	0.1	LOS A	0.1	0.6	0.02	0.01	0.02	49.0
23b	R3	4	0.0	4	0.0	0.288	10.1	LOS A	0.1	0.6	0.02	0.01	0.02	48.1
Approach		547	2.6	547	2.6	0.288	0.2	NA	0.1	0.6	0.02	0.01	0.02	48.9
East: Tiral St (E)														
4b	L3	5	0.0	5	0.0	0.103	8.4	LOS A	0.3	2.2	0.80	0.89	0.80	34.1
5	T1	1	0.0	1	0.0	0.103	15.3	LOS B	0.3	2.2	0.80	0.89	0.80	36.4
6a	R1	19	0.0	19	0.0	0.103	19.7	LOS B	0.3	2.2	0.80	0.89	0.80	34.1
Approach		25	0.0	25	0.0	0.103	17.2	LOS B	0.3	2.2	0.80	0.89	0.80	34.2
NorthWest: Dudley Rd (NW)														
27a	L1	35	2.9	35	2.9	0.370	5.1	LOS A	0.1	0.9	0.02	0.03	0.02	48.0
28	T1	662	2.7	662	2.7	0.370	0.1	LOS A	0.1	0.9	0.02	0.03	0.02	47.9
29b	R3	5	0.0	5	0.0	0.370	8.9	LOS A	0.1	0.9	0.02	0.03	0.02	45.5
Approach		702	2.7	702	2.7	0.370	0.4	NA	0.1	0.9	0.02	0.03	0.02	47.9
West: Wansey Cl (W)														
10b	L3	16	0.0	16	0.0	0.035	7.5	LOS A	0.1	0.8	0.57	0.71	0.57	28.1
11	T1	1	0.0	1	0.0	0.035	15.6	LOS B	0.1	0.8	0.57	0.71	0.57	41.3
12a	R1	3	0.0	3	0.0	0.035	18.5	LOS B	0.1	0.8	0.57	0.71	0.57	28.1
Approach		20	0.0	20	0.0	0.035	9.6	LOS A	0.1	0.8	0.57	0.71	0.57	29.7
All Vehicles		1294	2.6	1294	2.6	0.370	0.8	NA	0.3	2.2	0.04	0.05	0.05	46.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [DUD\_ALG\_KALP PM 2031 (Site Folder: General)]

Network: N101 [Proposed Network PM 2031 (Network Folder: General)]

Dudley St, Algona Rd & Kalora Cres  
 Site Category: (None)  
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
South: Algona Rd (S)														
1	L2	4	0.0	4	0.0	0.255	5.7	LOS A	1.5	11.1	0.59	0.65	0.59	45.5
1a	L1	180	2.8	180	2.8	0.255	5.5	LOS A	1.5	11.1	0.59	0.65	0.59	42.6
3	R2	46	8.7	46	8.7	0.255	9.5	LOS A	1.5	11.1	0.59	0.65	0.59	46.1
3u	U	2	0.0	2	0.0	0.255	10.9	LOS A	1.5	11.1	0.59	0.65	0.59	46.8
Approach		232	3.9	232	3.9	0.255	6.3	LOS A	1.5	11.1	0.59	0.65	0.59	43.8
East: Dudley Rd (E)														
4	L2	36	0.0	36	0.0	0.360	5.1	LOS A	2.3	16.2	0.52	0.66	0.52	44.8
5	T1	4	0.0	4	0.0	0.360	5.2	LOS A	2.3	16.2	0.52	0.66	0.52	45.6
6a	R1	341	0.0	341	0.0	0.360	7.9	LOS A	2.3	16.2	0.52	0.66	0.52	41.4
6u	U	2	0.0	2	0.0	0.360	10.3	LOS A	2.3	16.2	0.52	0.66	0.52	46.0
Approach		383	0.0	383	0.0	0.360	7.6	LOS A	2.3	16.2	0.52	0.66	0.52	42.0
NorthWest: Dudley Rd (NW)														
27a	L1	418	3.1	418	3.1	0.471	3.5	LOS A	4.0	29.0	0.30	0.48	0.30	44.7
29a	R1	222	2.3	222	2.3	0.471	6.6	LOS A	4.0	29.0	0.30	0.48	0.30	44.5
29b	R3	22	0.0	22	0.0	0.471	8.1	LOS A	4.0	29.0	0.30	0.48	0.30	45.4
29u	U	4	0.0	4	0.0	0.471	8.9	LOS A	4.0	29.0	0.30	0.48	0.30	30.7
Approach		666	2.7	666	2.7	0.471	4.7	LOS A	4.0	29.0	0.30	0.48	0.30	44.6
West: Kalora Cres (W)														
10b	L3	17	0.0	17	0.0	0.027	6.9	LOS A	0.1	1.0	0.61	0.63	0.61	41.7
11	T1	2	0.0	2	0.0	0.027	6.5	LOS A	0.1	1.0	0.61	0.63	0.61	45.8
12	R2	2	0.0	2	0.0	0.027	10.1	LOS A	0.1	1.0	0.61	0.63	0.61	45.7
12u	U	1	0.0	1	0.0	0.027	11.7	LOS A	0.1	1.0	0.61	0.63	0.61	46.3
Approach		22	0.0	22	0.0	0.027	7.4	LOS A	0.1	1.0	0.61	0.63	0.61	43.1
All Vehicles		1303	2.1	1303	2.1	0.471	5.9	LOS A	4.0	29.0	0.42	0.57	0.42	43.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).  
 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 [JAM\_SMIP PM 2031 (Site Folder: General)]

Network: N101 [Proposed Network PM 2031 (Network Folder: General)]

James St & Smith St  
 Site Category: (None)  
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	141	0.0	141	0.0	0.089	0.3	LOS A	0.2	1.3	0.14	0.07	0.14	44.8
6	R2	20	0.0	20	0.0	0.089	6.2	LOS A	0.2	1.3	0.14	0.07	0.14	44.6
Approach		161	0.0	161	0.0	0.089	1.1	NA	0.2	1.3	0.14	0.07	0.14	44.8
North: Smith St (N)														
7	L2	32	0.0	32	0.0	0.065	5.4	LOS A	0.2	1.6	0.38	0.61	0.38	33.6
9	R2	32	0.0	32	0.0	0.065	6.8	LOS A	0.2	1.6	0.38	0.61	0.38	33.6
Approach		64	0.0	64	0.0	0.065	6.1	LOS A	0.2	1.6	0.38	0.61	0.38	33.6
West: James St (W)														
10	L2	146	0.0	146	0.0	0.216	4.6	LOS A	0.0	0.0	0.00	0.19	0.00	44.3
11	T1	268	0.0	268	0.0	0.216	0.0	LOS A	0.0	0.0	0.00	0.19	0.00	40.2
Approach		414	0.0	414	0.0	0.216	1.6	NA	0.0	0.0	0.00	0.19	0.00	42.5
All Vehicles		639	0.0	639	0.0	0.216	1.9	NA	0.2	1.6	0.07	0.20	0.07	41.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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 [JAM\_DICP PM 2031 (Site Folder: General)]

Network: N101 [Proposed Network PM 2031 (Network Folder: General)]

James St & Dickinson St  
 Site Category: (None)  
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: James St (E)														
5	T1	140	0.0	140	0.0	0.090	0.2	LOS A	0.2	1.3	0.12	0.09	0.12	48.1
6	R2	27	0.0	27	0.0	0.090	5.2	LOS A	0.2	1.3	0.12	0.09	0.12	47.7
Approach		167	0.0	167	0.0	0.090	1.0	NA	0.2	1.3	0.12	0.09	0.12	48.0
North: Dickinson St (N)														
7	L2	15	0.0	15	0.0	0.042	5.0	LOS A	0.1	1.0	0.28	0.57	0.28	44.9
9	R2	30	0.0	30	0.0	0.042	5.8	LOS A	0.1	1.0	0.28	0.57	0.28	40.9
Approach		45	0.0	45	0.0	0.042	5.6	LOS A	0.1	1.0	0.28	0.57	0.28	42.9
West: James St (W)														
10	L2	55	0.0	55	0.0	0.104	4.6	LOS A	0.0	0.0	0.00	0.15	0.00	47.3
11	T1	145	0.0	145	0.0	0.104	0.0	LOS A	0.0	0.0	0.00	0.15	0.00	48.5
Approach		200	0.0	200	0.0	0.104	1.3	NA	0.0	0.0	0.00	0.15	0.00	48.2
All Vehicles		412	0.0	412	0.0	0.104	1.6	NA	0.2	1.3	0.08	0.17	0.08	47.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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).

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

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