DA117/2017
Proposed Residential Aged Care Facility

266 Longueville Road, Lane Cove

REVISED TRAFFIC AND PARKING ASSESSMENT REPORT

28 March 2019

Ref 17311

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants

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Executive Summary

This revised report has been prepared to accompany an amended Development Application to Council (DA117/2017) for a new seniors living development to be located at 266 Longueville Road, Lane Cove.

On Wednesday 11th July 2018, the *Sydney North Planning Panel* meeting was held at Lane Cove Council to discuss a new seniors living development proposal on the subject site, comprising 82 independent living units (ILUs), a 70-bed residential aged care facility (RACF), a two-level basement car parking area for 122 cars, plus a loading bay and ambulance bay.

Due to a number of concerns raised by local residents the Panel chose to defer the matter, subject to additional information being provided by the Applicant, including obtaining an independent peer review of the traffic and parking assessment report prepared by *Varga Traffic Planning (VTP).*

Council therefore engaged *Bitzios Consulting (Bitzios)* to undertake the peer review of the traffic study who recommended that a number of modifications were required of the SIDRA traffic model, including taking into account the RMS's concept signal plan for realignment works at the River Road West & Longueville Road intersection, allowing right turn movements from Longueville Road onto River Road West for *all* traffic.

It is pertinent to note that *VTP* only received a copy of the RMS's concept signal plan the afternoon of the Panel meeting, such that the *VTP* traffic model was based on the abovementioned right turn movements from Longueville Road onto River Road West restricted to *buses only.*

Accordingly, the *VTP* SIDRA traffic model has been revised to take into account the *Bitzios* peer review comments, including allowing right turn movements from Longueville Road onto River Road West for *all* traffic. It is also worth noting that whilst the *Bitzios* peer review traffic study provided a number of recommendations, no SIDRA files or results were provided to *VTP* for cross-scrutiny.

In essence, the revised capacity analysis reconfirms that the traffic generation potential of the development proposal on the subject site will not result in the reduction in the *Level of Service* of the nearby intersections.

Other modifications to the design, from a traffic and parking perspective, include a new 2m wide landscaping strip along the southern boundary of the site to improve privacy to the adjacent "Timber Tops" residential development, as recommended by the Panel. In doing so, the site access driveway has shifted 2m to the north.

In addition to the *Bitzios* peer review which was commissioned by Council, "Timbertops" residents engaged *ML Traffic (ML)* to also undertake a peer review of the *VTP* report. Notwithstanding, the *ML* peer review was based on an earlier version of the *VTP* report and therefore outdated information, as well as questionable and incorrect assumptions on certain matters.

In summary, the amended Development Application will not result in any unacceptable traffic implications and complies with the applicable numerical off-street parking requirements.

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

1. INTRODUCTION

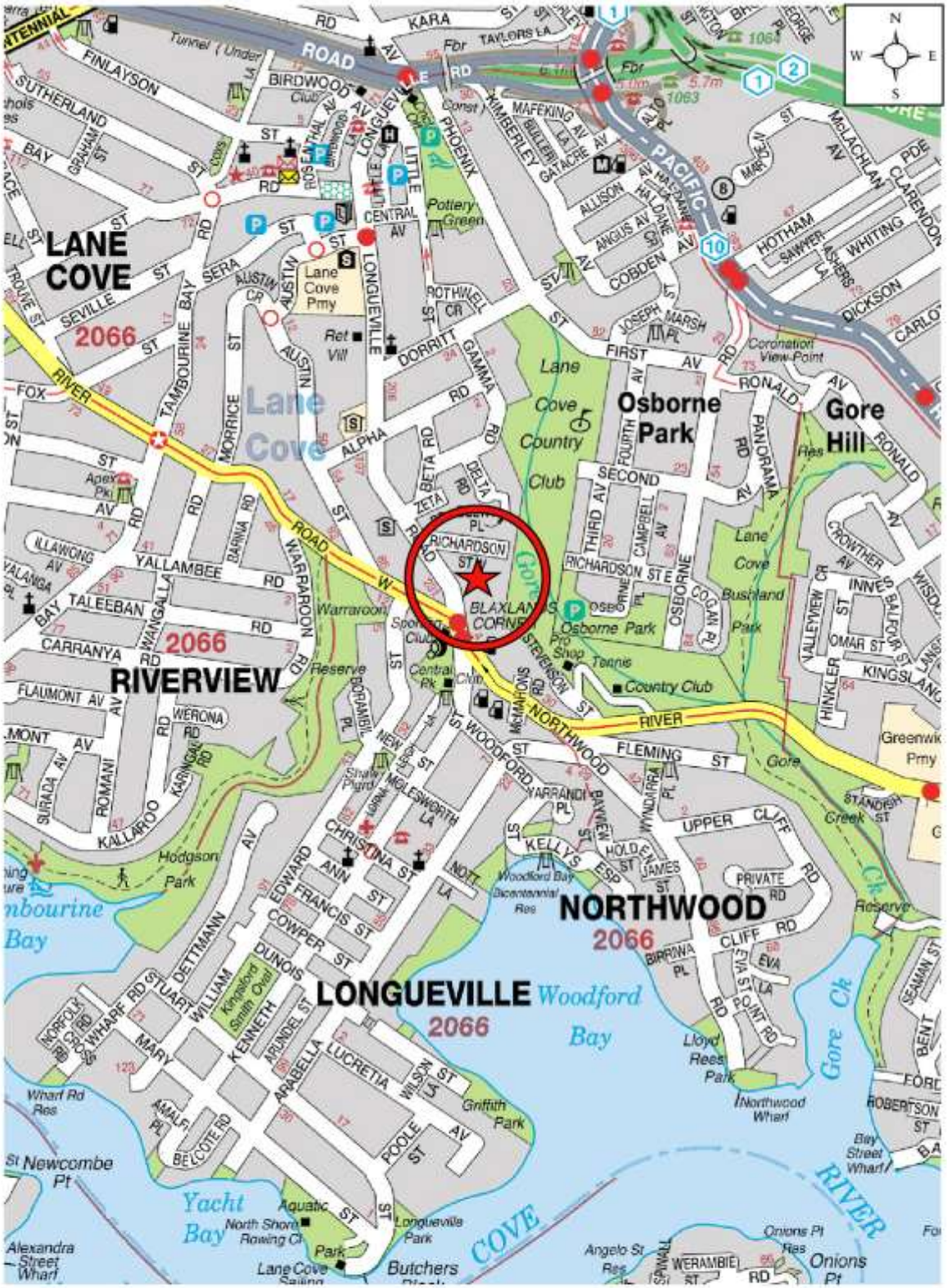
This revised report has been prepared on behalf of *Australian Unity* to accompany an amended Development Application to Council for a seniors living development to be located at 266 Longueville Road, Lane Cove (Figures 1 and 2).

The proposed development involves the demolition of the former lawn bowls facilities and associated car parking area on the site to facilitate the construction of a new seniors living development, comprising a 70-bed residential aged care facility as well as 82 independent living units.

Off-street car parking is to be provided for a total of 122 spaces, plus an ambulance bay, in a new two-level basement parking area in accordance with *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* and Council's requirements.

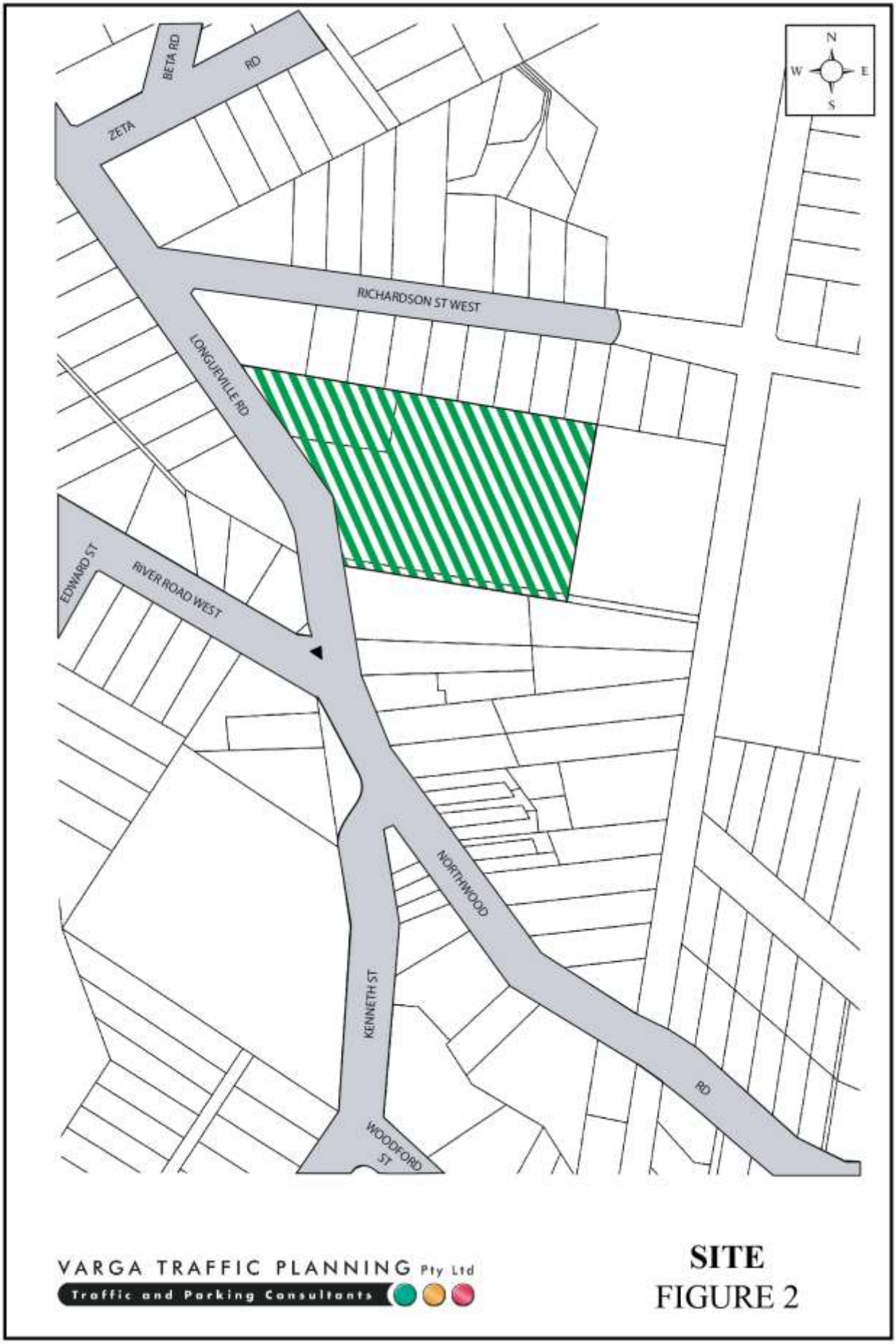
The purpose of this revised report is to assess the traffic and parking implications of the amended development proposal and to that end this report:

- 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
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed car 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.



VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants

LOCATION
FIGURE 1


N
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BETA RD
RD
ZETA
RICHARDSON ST WEST
LONGUEVILLE RD
EDWARD ST
RIVER ROAD WEST
NORTHWOOD
KENNETH ST
RD
WOODFORD ST
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
SITE
FIGURE 2

2. PROPOSED DEVELOPMENT

Site

The subject site is located on the eastern side of Longueville Road, approximately 100m south of Richardson St West. The site has a street frontage approximately 101m in length to Longueville Road and occupies an area of approximately 9,200m².

The subject site was previously occupied by two lawn bowls greens, a club house building and an associated car parking area. The bowling greens are no longer used, and the existing building on the site is currently used to accommodate the Lane Cove Music and Cultural Centre. A recent aerial image of the site and its surroundings is reproduced below.

Car parking is currently provided in two separate areas on the site, comprising a small informal car parking area located to the rear of the existing building on the site, and a larger car parking area at the north-western corner of the site which is used primarily for boat trailer storage.

Vehicular access to the site is provided via two separate driveways which are located adjacent to the southern boundary of the site and also midway along the site frontage, further to the north in Longueville Road.

The southern vehicular access driveway in Longueville Road is shared with the adjacent residential apartment building known as "Timber Tops" which is located immediately to the south of the subject site.

Proposed Development

The proposed development involves the demolition of the former lawn bowls facility and associated car parking area on the site to facilitate the construction of a new seniors living development.

A total of 82 independent living units (ILU's) are proposed as follows:

1 bedroom apartments:	11
2 bedroom apartments:	71
TOTAL APARTMENTS:	**82**

A total of 70 residential aged care (RACF) beds are also proposed within the new building.

There will be a maximum of 25 staff during the main day shift, with 34 staff on-site during the afternoon shift change. In this regard, the afternoon shift change occurs between 2:45pm-3:00pm however staff often arrive up to 30 minutes *earlier* whilst staff often leave up to 30 minutes *later* (typical of many workplaces) – i.e. not all staff will arrive and depart the site during the abovementioned 15 minute "window", in reality those movements would likely be distributed across a full *hour* period.

A number of ancillary facilities are proposed for the use of residents, including several common areas such as dining rooms, TV lounges and a courtyard. A number of back-of-house areas are also proposed, such as an administration/community facilities office, laundry, kitchen, staff lockers and a maintenance room.

Off-street parking is proposed for a total of 122 cars, plus an ambulance bay, in a new two-level basement car parking area in accordance with *SEPP 2004* and Council's requirements. The amended scheme now also makes provision for ILU visitor parking within the basement.

A porte-cochere is also proposed to facilitate the drop-off and pick-up of (mostly elderly) passengers, with entry via a one-way driveway located midway along the site frontage and exit via the main site access driveway.

Vehicular access to the site is to be provided a new entry/exit driveway which is to be located towards the southern end of the Longueville Road site frontage, near the *existing* driveway which currently provides vehicular access to the adjacent "Timber Tops" residential development. In this regard, the proposed new driveway has been shifted 2m to the north, thereby creating a 2m wide landscaping strip along the southern boundary of the site for improved privacy between the two developments – i.e. the subject development and "Timber Tops".

The proposed new driveway will also provide vehicular access to the "Timber Tops" development by way of a registered easement. The driveway levels have been designed to comply with *AS2890.2* as well as tie into the existing levels in the vicinity of the "Timber Tops" car parking area, approximately 30m from the front boundary, ensuring that vehicular access to the "Timber Tops" residential development is not disrupted.

Furthermore, the main access driveway has been modified to include two splayed driveways separated by a raised kerb and concrete median *within* the property boundary in order to restrict turning movements to left-in/left-out only, generally in accordance with RMS's standard design.

It is pertinent to note that the location of the proposed site access driveway in Longueville Road complies with Council's site specific *DCP 2010, Part C, Residential Localities – Locality 7 – 266 Longueville Road (Amendment 25 March 2015)* document which requires access to be provided via the existing easement – i.e. via the "Timber Tops" driveway. During the preparation of the site-specific *Draft DCP*, consultation was made with the RMS who provided their support of the driveway location which was then adopted into the amended *DCP*. In addition, the Panel note that any driveway located at the northern end of the Longueville Road site frontage "*would result in an increase in the impact on the neighbours to the north, increase the amount of paving on the site and create two access points instead of one"*.

The servicing and delivery needs of the proposed development are expected to be undertaken by light commercial vehicles such as "white vans" and the like and small trucks up to and including 6.4m long small rigid trucks. All garbage collection services are to be undertaken by private contractors using a small rigid truck. A servicing/delivery area is proposed at the eastern end of the internal driveway/ramp to accommodate these vehicles, such that they will be able to enter and exit the site whilst travelling in a forward direction at all times.

Proposed Intersection Upgrade

Since the lodgement of the original Development Application, Council and the RMS have explored options to upgrade the intersection of River Road West & Longueville Road. The concept signal plans are reproduced in Appendix A and summarised on the following page.

The short-term option includes:

- provision of a designated right turn lane from Longueville Road into River Road West; and

- redesign of the northbound approach to better align the through movement and exaggerate the right turn into Longueville Road

The long-term option includes:

- provision of a designated right turn lane from Longueville Road into River Road West; and

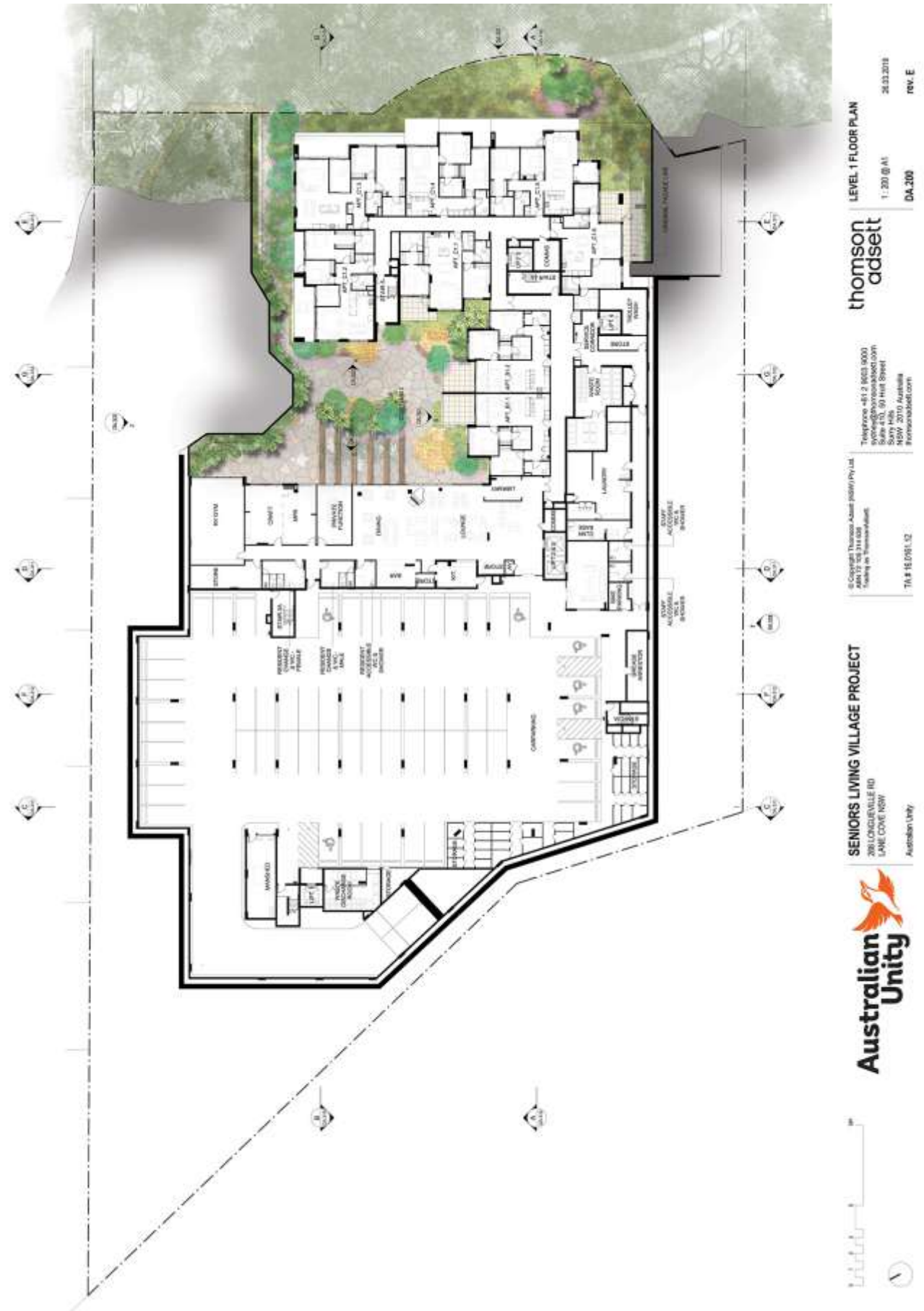
- provision of a dedicated right turn lane into Longueville Road and Kenneth Street; and

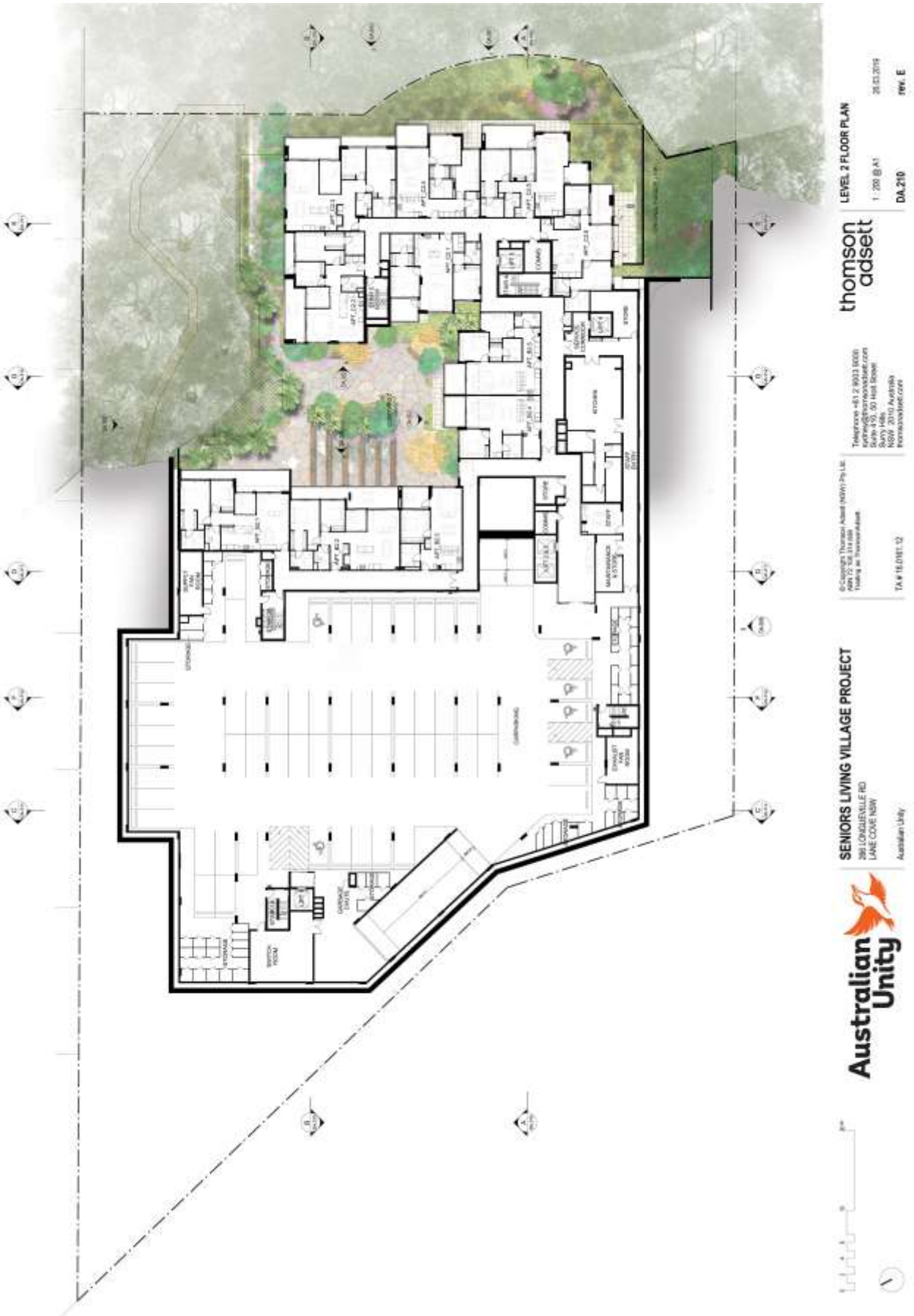
- redesign of the northbound approach to better align the through movement and exaggerate the right turn into Longueville Road.

RMS also note that subject to funding, approval has been granted for the short-term option. Funding for the long-term option is unknown at this stage.

As recommended in the *Bitzios* peer review traffic study, the future scenario – i.e. existing development *plus* development traffic – is based on the proposed new short-term intersection layout.

Plans of the proposed amended development have been prepared by *Thomson Adsett Architects* and are reproduced in the following pages.


LEVEL 1 FLOOR PLAN
SENIORS LIVING VILLAGE PROJECT
thomson adsett
Australian Unity

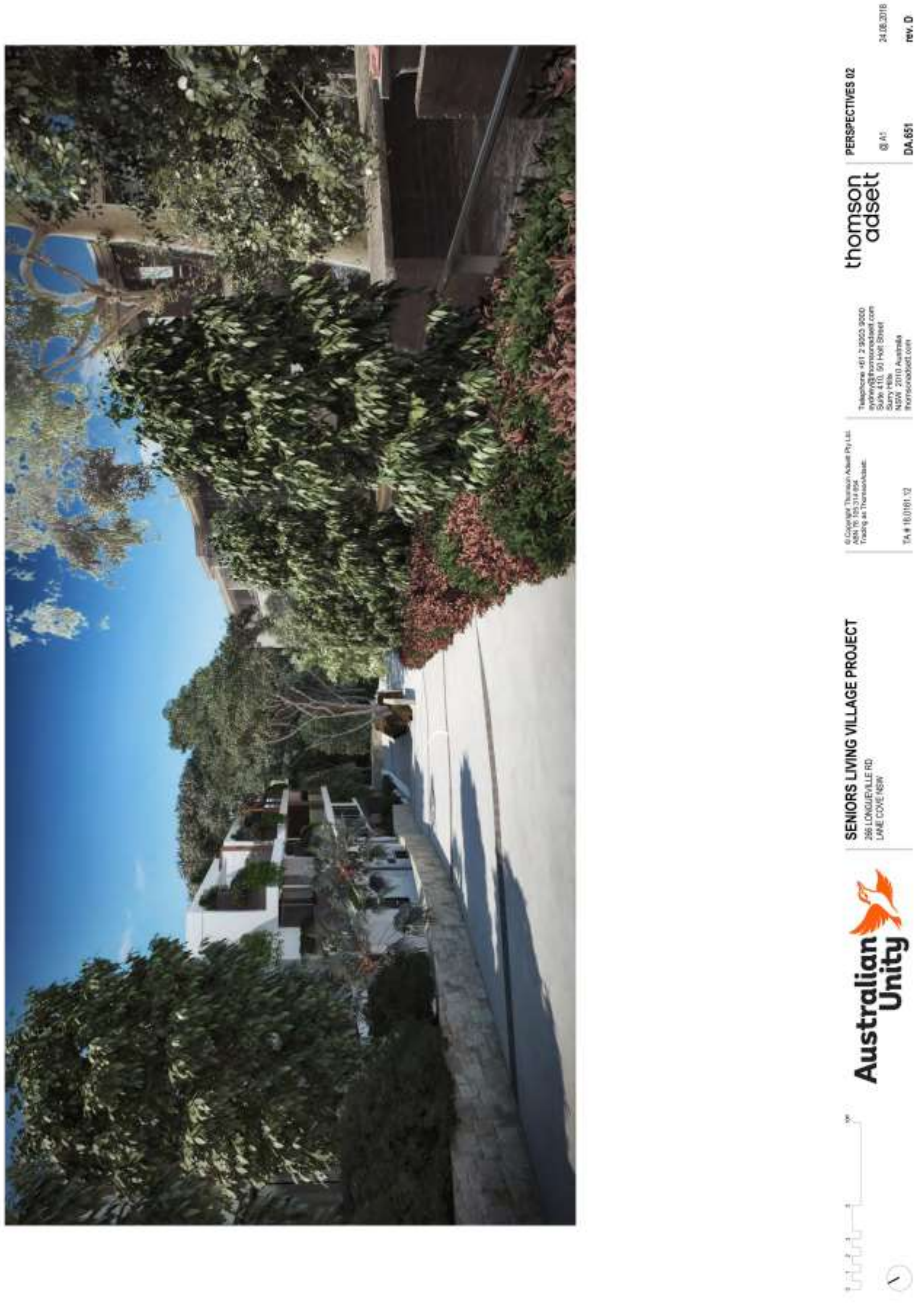

LEVEL 2 FLOOR PLAN
DA.210
rev. E
thomson adsett
SENIORS LIVING VILLAGE PROJECT
Australian Unity


LEVEL 3 FLOOR PLAN
DA 220
rev. E
thomson adsett
SENIORS LIVING VILLAGE PROJECT
288 LONGUEVILLE RD
LANE COVE NSW
Australian Unity


LEVEL 4 FLOOR PLAN
DA.230
rev. E
thomson adsett
SENIORS LIVING VILLAGE PROJECT
Australian Unity


LONGUEVILLE ROAD
SENIORS LIVING VILLAGE PROJECT
LEVEL 5 FLOOR PLAN (STREET LEVEL)
thomson adsett
Australian Unity
DA.240
rev. E


SECTION A-A
1 : 200
SECTION B-B
1 : 200
Australian Unity
SENIORS LIVING VILLAGE PROJECT
thomson adsett
SECTIONS
DA.310
rev. D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Surry Hills
NSW 2010 Australia
thomsonadsett.com
thomson adsett
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3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

Epping Road is classified by the RMS as a *State Road* and provides the key east-west road link in the area, linking Epping to Lane Cove. It typically carries two traffic lanes in each direction in the vicinity of the site (including a 24-Hour Bus Lane in both directions), with additional lanes provided at key locations.

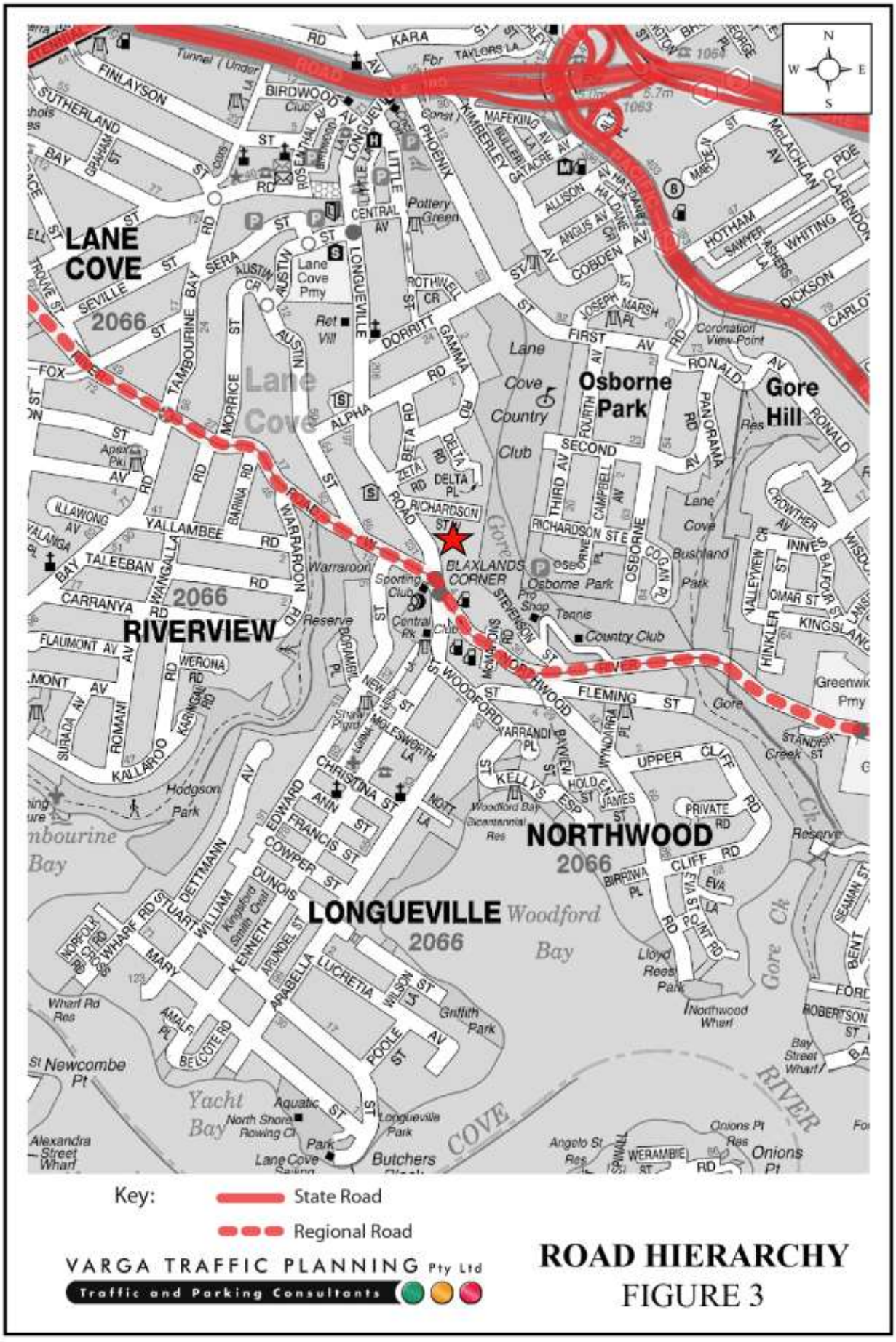
River Road is classified by the RMS as a *Regional Road* and provides the key east-west road link in the area. It typically carries 4 traffic lanes (ie; two lanes in each direction), with some kerbside parking permitted in selected locations only, outside peak periods.

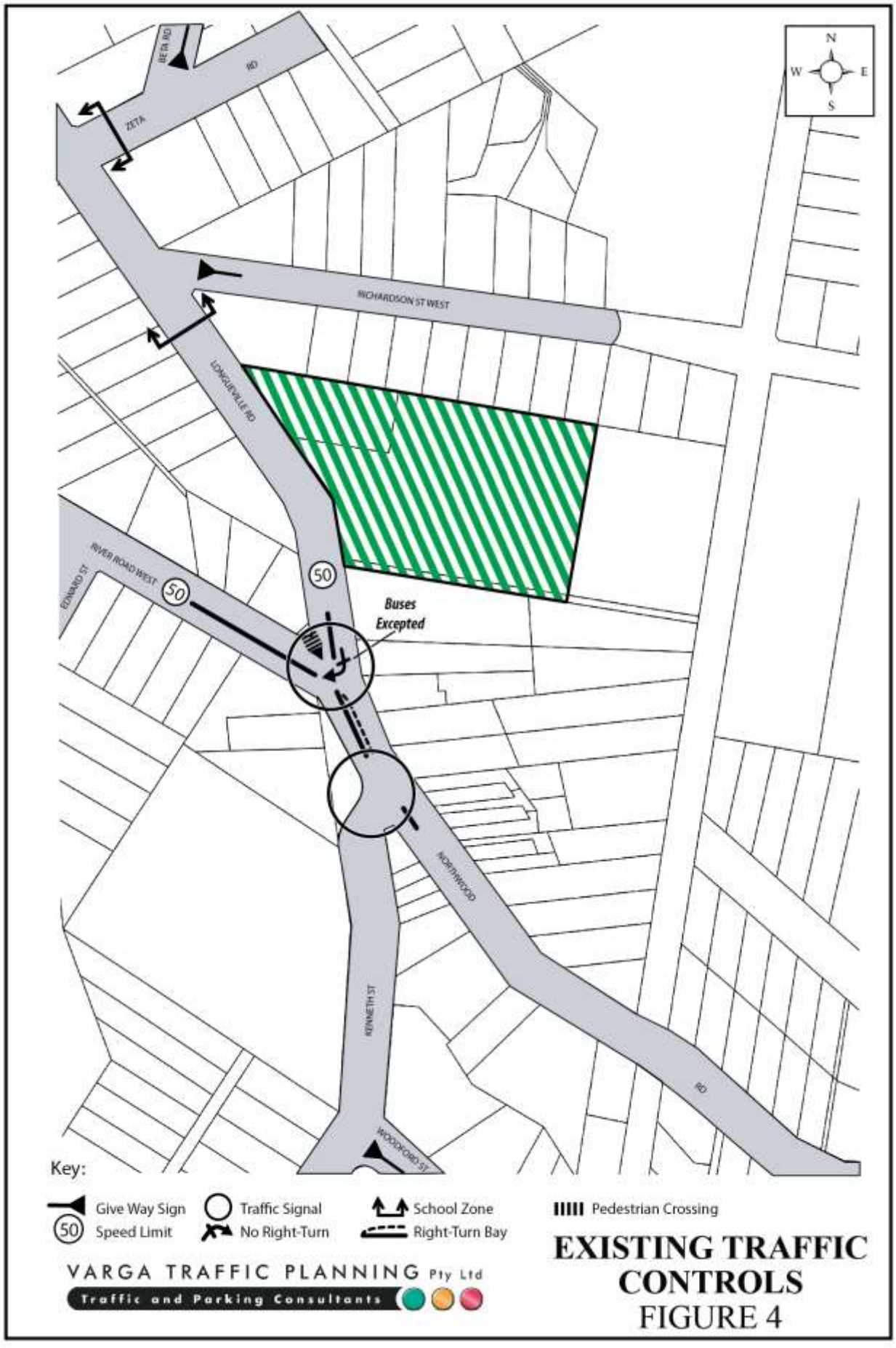
Longueville Road is a local, unclassified road which performs the function of a *Collector Route*. It typically carries one traffic lane in each direction, with kerbside parking generally permitted on both sides of the road.

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 50 km/h SPEED LIMIT which applies to all roads in the surrounding area
- a 40 km/h SCHOOL ZONE SPEED LIMIT which applies to Longueville Road, within the vicinity of Currambena Primary School and St Michael's Catholic Primary School
- TRAFFIC SIGNALS in River Road where it intersects with Longueville Road
- TRAFFIC SIGNALS in Northwood Road where it intersects with Kenneth Street


LANE COVE
2066
Lane Cove
Osborne Park
Gore Hill
RIVERVIEW
2066
NORTHWOOD
2066
LONGUEVILLE
2066
Woodford Bay
Lane Cove Country Club
Lane Cove Bushland Park
Hodgson Park
Griffith Park
Lloyd Rees Park
Northwood Wharf
Onions Pt
Blaxlands Corner
Warraroon Reserve
Lane Cove Pmy
Longueville Park
North Shore Rowing Cl
Aquatic Park
Butchers
Yacht Bay
St Newcombe Pt
Alexandra Street Wharf
Wharf Rd Res
Bay Street Wharf
Angelo St Res
Werambie
Key:
State Road
Regional Road
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
ROAD HIERARCHY
FIGURE 3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ZETA
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RICHARDSON ST WEST
LONGUEVILLE RD
RIVER ROAD WEST
EDWARD ST
50
50
Buses
Excepted
NORTHWOOD
KENNETH ST
RD
WOODFORD ST
Key:
Give Way Sign
Speed Limit
Traffic Signal
No Right-Turn
School Zone
Right-Turn Bay
Pedestrian Crossing
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
EXISTING TRAFFIC CONTROLS
FIGURE 4

- NO RIGHT-TURN (Buses Excepted) restriction for southbound traffic in Longueville Road at its intersection with River Road West.

Existing Public Transport Services

The existing public transport services available to the site are illustrated on Figure 5. There are currently three bus routes travelling along Longueville Rd past the site, comprising regular services to North Sydney and the City, as well as a number of peak hour express services along the Gore Hill Freeway to/from the City.

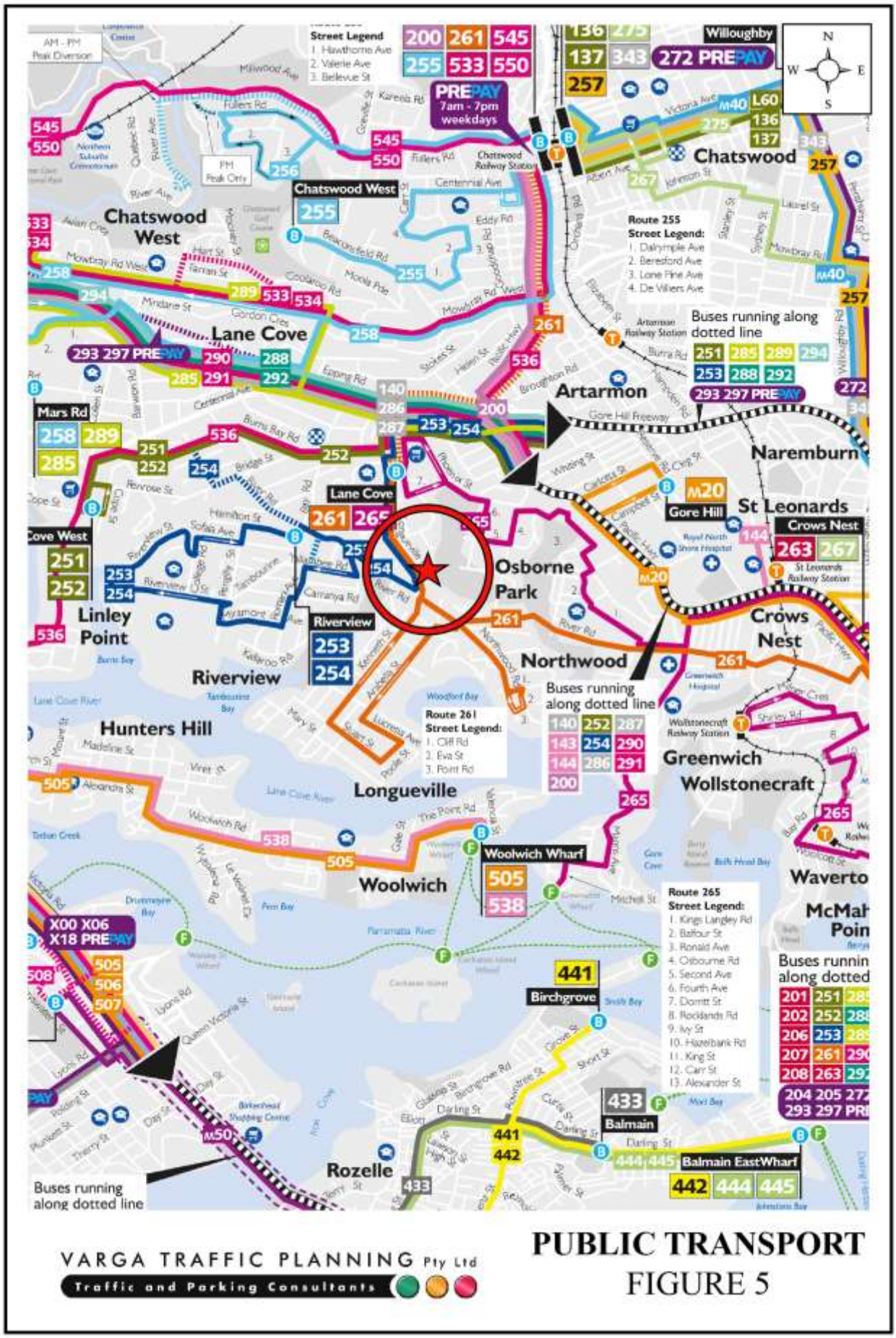
There are more than 110 bus services travelling past the site on weekdays (with a peak hour frequency of 8 services per hour), decreasing to 60 bus services per day on Saturdays and 30 services per day on Sunday and public holidays, as set out in the table below:

Bus Routes and Frequencies							
Route No.	**Route**	**Weekdays**		**Saturday**		**Sunday**	
		IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**
253	Riverview to City (via Fwy)	7	5	-	-	-	-
254	Riverview to City (via Fwy)	29	25	20	19	15	15
261	City King St Wharf to Chatswood via Longueville	23	25	11	12	-	-
TOTAL		**59**	**55**	**31**	**31**	**15**	**15**

All of the abovementioned bus services traverse the Lane Cove shops where an extensive range of shops (including supermarkets), restaurants, cafes and services such as banks and the post office are located.

All of the bus services also traverse the Bus Interchange located on Longueville Road (near the intersection of Epping Rd), allowing interchange with other connecting bus services to Epping, Chatswood, St Leonards railway stations and the medical facilities located in the vicinity of RNS Hospital.

In addition, an interchange is also possible on the Pacific Hwy near Gore Hill TAFE college with the intra-regional Metrobus M20 service which operates between Artarmon and Botany via Central Railway seven days per week, with weekday services every 15 minutes (every 10 minutes during the morning and afternoon peak) and weekend services every 20 minutes.


Street Legend
1. Hawthorne Ave
2. Valerie Ave
3. Belevue St
200 261 545
255 533 550
PREPAY 7am - 7pm weekdays
Willoughby
137 343 272 PREPAY
257
Chatswood
Chatswood West
Lane Cove
Artarmon
Naremburn
St Leonards
Crows Nest
Osborne Park
Northwood
Linley Point
Riverview
Hunters Hill
Longueville
Greenwich
Wollstonecraft
Woolwich
Woolwich Wharf
Waverton
McMahon Point
Birchgrove
Balmain
Balmain East Wharf
Rozelle
Route 255 Street Legend:
1. Dalrymple Ave
2. Beresford Ave
3. Lane Pine Ave
4. De Villiers Ave
Buses running along dotted line
Route 261 Street Legend:
1. Cliff Rd
2. Eva St
3. Point Rd
Route 265 Street Legend:
1. Kings Langley Rd
2. Balfour St
3. Ronald Ave
4. Osborne Rd
5. Second Ave
6. Fourth Ave
7. Dorrit St
8. Rocklands Rd
9. Ivy St
10. Hazelbank Rd
11. King St
12. Carr St
13. Alexander St
X00 X06 X18 PREPAY
Buses running along dotted line
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
PUBLIC TRANSPORT
FIGURE 5

The site is therefore considered to be ready accessible by public transport services. Experience at other *Australian Unity* RACFs indicate that a substantial portion of staff travel to/from work via public transport.

Existing Traffic Conditions

An indication of the existing traffic conditions on the road network in the vicinity of the site is provided by peak period traffic surveys undertaken as part of this revised traffic study. The traffic surveys were undertaken at the Longueville Road & River Road intersection, the Northwood Road & Kenneth Street intersection and also the existing "Timber Tops" site access driveway. The results of the traffic surveys are reproduced in full in Appendix B and reveal that:

- the morning network peak period occurred between 8:00am and 9:00am whilst the afternoon network peak period occurred between 4:45pm and 5:45pm

- two-way traffic flows past the site frontage in Longueville Road on the day of the surveys were in the order of 700 vehicles per hour (vph) during the morning and afternoon peak period, and

- two-way traffic flows using the existing "Timber Tops" site access driveway were 6 vph during the morning peak period and 8 vph during the afternoon peak period.

Projected Traffic Generation

An indication of the traffic generation potential of the proposed development is provided by reference to the Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 3 – Land Use Traffic Generation (October 2002)* and the updated *Technical Direction TDT 2013/04a.*

The RMS *Guidelines* and the *TDT 2013/04a* are based on extensive surveys of a wide range of landuses and nominate the following traffic generation rates which are applicable to the development proposal:

Housing Seniors
0.4 peak hour vehicle trips per dwelling

The RMS *Guidelines* also make the following observation in respect of housing for aged and disabled persons:

Definition
Residential accommodation which may take any building form which is to be intended to be used permanently as housing for the accommodation of aged or disabled persons. The hostel may consist of residencies or a grouping of 2 or more self-contained dwellings and include facilities such as staff accommodation, chapels, medical rooms, recreation facilities, shops and/or therapy rooms.

Factors
These figures at the lower end of the above rates concentrate on *subsidised* developments (often run by religious organisations). Generation rates of *resident fun*ded developments are often greater, as indicated at the higher end of the range.

Application of the above traffic generation rate to the 82 ILUs and 70 standard aged care beds outlined in the development proposal yields a traffic generation potential of approximately 61 vehicle trips per hour during commuter peak periods as follows:

PROJECTED TRAFFIC GENERATION	
82 Independent Living Units:	33 vph
70 Aged Care Beds:	28 vph
TOTAL TRAFFIC GENERATION POTENTIAL:	**61 vph**

In practice, the actual traffic generation potential of the proposed development is likely to be *less* than is set out in the table above, as RACF beds tend to generate *less traffic* activity than ILUs. The RMS *TDT 2013/04a* also makes the following observations:

"Note that morning site peak hour does not generally coincide with the network peak hour".

Furthermore, the RACF site peak will also *not* coincide with the network peak period as the morning shift change will occur *prior to* the morning network peak which is 8:00am and 9:00am whilst the afternoon shift change will occur *prior to* the afternoon network peak which is 4:45pm and 5:45pm.

Peak visitor periods for both the ILUs and RACF will likely be during the middle of the day and on weekends when on-road traffic is much lower than the morning and afternoon peak periods.

In reality, the only component of the proposed development that *might* occur during the network peak periods is the ILUs in the *afternoon* which is 4:45pm and 5:45pm.

Whilst the *Bitzios* peer review traffic study recommended that a *nett traffic generation* using 53 AM trips and 53 PM trips be adopted (i.e. proposed less existing), this recommendation has *not* been implemented in order to provide a more *rigorous* assessment, therefore the above traffic generation potential of 61 vph has continued to be adopted to assess the traffic impacts on the adjacent public road network, as set out below. Furthermore, the SIDRA model also takes into account the RMS request for all turning movements into/out of the site to be restricted to left-in/left-out only.

In any event, that projected increase in traffic activity as a consequence of the development proposal is minimal and will clearly not have any unacceptable traffic implications in terms of road network capacity, as is demonstrated by the following section of this report.

Traffic Splits & Trip Distribution

The table below indicates the traffic splits that have been adopted in the traffic model.

Development	**AM Peak Volumes**		**PM Peak Volumes**	
	In	**Out**	**In**	**Out**
Subject Site	30 vph	31 vph	31 vph	30 vph
Timber Tops	0 vph	6 vph	5 vph	3 vph
TOTAL	**30 vph**	**37 vph**	**36 vph**	**33 vph**

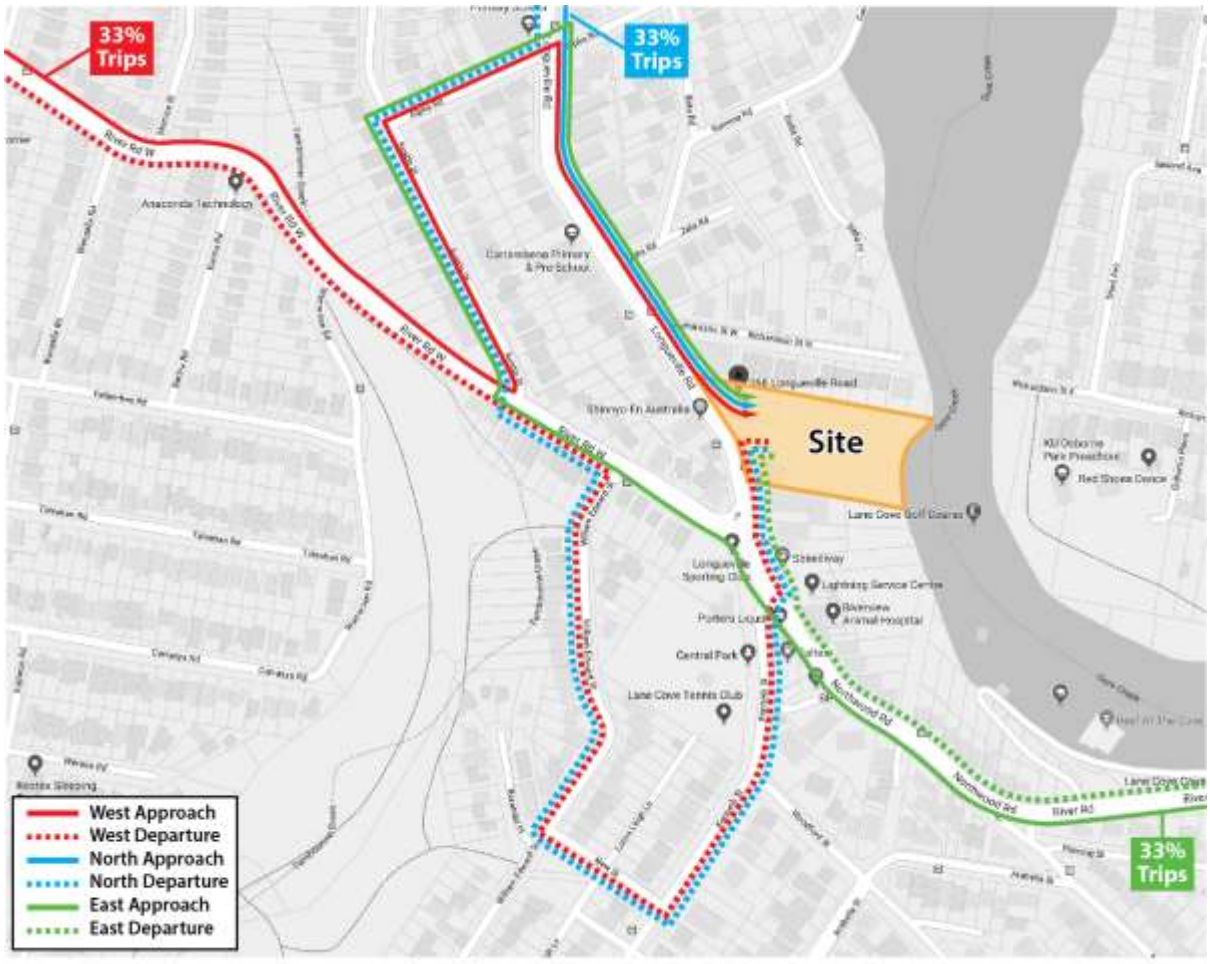
In terms of distribution, it has been assumed that development will approach and depart the site *evenly distributed* between the west via River Road West, the north via Longueville Road and the east via Northwood Road.

It is worth noting that the *Bitzios* peer review traffic study adopted a distribution of 20% to the west via River Road West, 30% to the north via Longueville Road, 40% to the east along Northwood Road and 10% to the south via William Edward Street.

Whilst the distributions adopted in the traffic model differ slightly to the *Bitzios* distributions, in traffic volume terms there are minimal differences between the two.

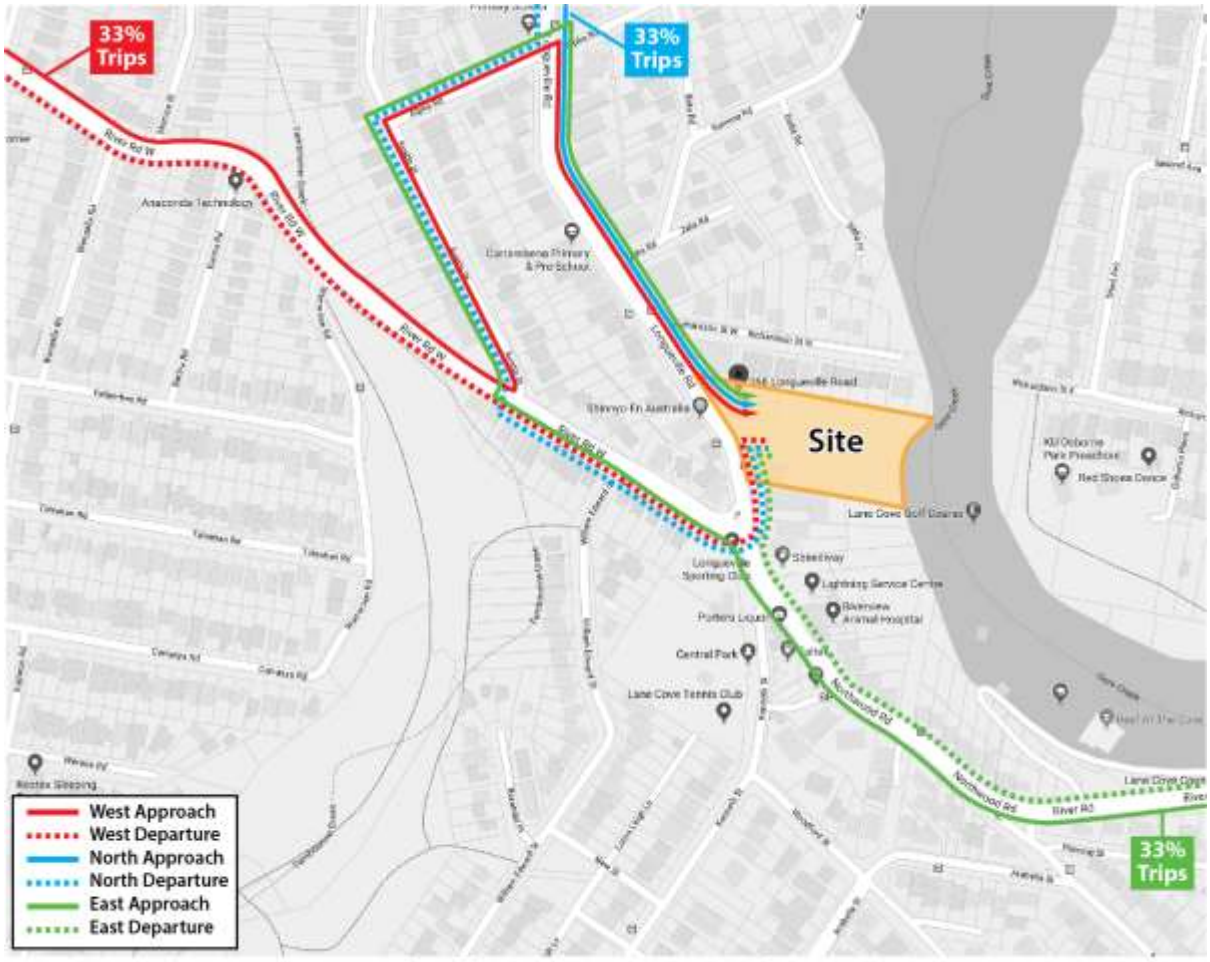
Direction	AM Peak Volumes		PM Peak Volumes	
	In	Out	In	Out
North	10 vph	12 vph	12 vph	11 vph
South	0 vph	0 vph	0 vph	0 vph
East	10 vph	13 vph	12 vph	11 vph
West	10 vph	12 vph	12 vph	11 vph

At present, one option for any vehicle, other than buses, wishing to head west along River Road West after travelling south along Longueville Road would be to cross over Northwood Road onto Kenneth Street, then west onto New Street, north onto William Edward Street and then west along River Road West, as indicated in the figure below. This would also be the case for the proposed development's traffic when exiting the site.



Proposed Traffic Distribution - Existing Arrangements

In accordance with the recommendations in the *Bitzios* peer review traffic study, the traffic model takes into consideration the proposed new short-term upgrade of the River Road West & Longueville Road traffic signals which will permit right turn movements for traffic turning from Longueville Road onto River Road West for *all* traffic, as indicated in the figure below.



Proposed Traffic Distribution - Proposed Arrangements

For the purposes of this assessment it has been assumed that 10% of the existing traffic turning right into Kenneth Street from Northwood Road is performing the abovementioned circuit back to River Road West (i.e. 16 vph AM and 19 vph PM). These volumes have therefore been removed from the relevant turning volumes and added to the proposed new right turn directly onto River Road West.

The proposed new upgrade of the River Road West and Longueville Road traffic signals which will allow right turn movements for *all* vehicles, not just buses, will therefore remove in the order of 40 vph from the Kenneth Street/New Street/William Edward Street circuit.

SIDRA Traffic Model

The traffic impacts of development proposals primarily concern the effects that the additional traffic flows the development generates may have on the operational performance of the nearby road network. Those effects can be assessed using the SIDRA NETWORK capacity analysis program as is widely used by the RMS and many LGAs for this purpose. Criteria for evaluating the results of SIDRA NETWORK capacity analysis are reproduced in the following pages.

The *Bitzios* peer review traffic study recommended that a number of modifications were required to the traffic model including intersection geometry, lane widths, network geometry, priorities, phasing and timing and also based on the RMS's IDM (Independent Diagnostic Monitor) data. A full copy of the IDM data is reproduced in Appendix C. Screenshots of the intersection layouts of the IDM data are reproduced below.

Source: RMS

Traffic Implications - Road Network Capacity

The results of the revised SIDRA capacity analysis, which take into consideration the *Bitzios* recommendations, are reproduced in full in Appendix D and summarised in the following pages. The SIDRA results of the nearby Longueville Road/River Road intersection are summarised in the following tables.

TABLE 1 – RESULT OF SIDRA ANALYSIS
LONGUEVILLE ROAD & RIVER ROAD

	EXISTING		PROPOSED	
	AM	**PM**	**AM**	**PM**
Level of Service	E	B	C	B
Average Vehicle Delays	67.3	16.5	28.8	21.3
Degree of Saturation	1.030	0.630	0.861	0.711

TABLE 2 – RESULT OF SIDRA ANALYSIS NORTHWOOD ROAD & KENNETH STREET				
	EXISTING		**PROPOSED**	
	AM	**PM**	**AM**	**PM**
Level of Service	B	B	B	B
Average Vehicle Delays	16.1	23.9	17.3	21.4
Degree of Saturation	0.922	0.895	0.938	0.866

TABLE 3– RESULT OF SIDRA ANALYSIS LONGUEVILLE ROAD & SITE ACCESS DRIVEWAY				
	EXISTING		**PROPOSED**	
	AM	**PM**	**AM**	**PM**
Level of Service	A	A	A	A
Average Vehicle Delays	0.0	0.1	0.2	0.2
Degree of Saturation	0.245	0.197	0.244	0.195

In summary therefore, the revised capacity analysis reconfirms that the traffic impacts of the development proposal will be *statistically insignificant* and will clearly not have any unacceptable traffic implications in terms of road network capacity.

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 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.

4. 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 in the vicinity of the Longueville Road/River Road West intersection

- BUS ZONES located on both sides of Longueville Road at regular intervals, including directly in front of the site

- NO PARKING restrictions on the eastern side of Longueville Road between the southern boundary of the site and the traffic signals at the River Road West intersection

- UNRESTRICTED KERBSIDE PARKING elsewhere along this section of Longueville Road.

Off-Street Parking Provisions

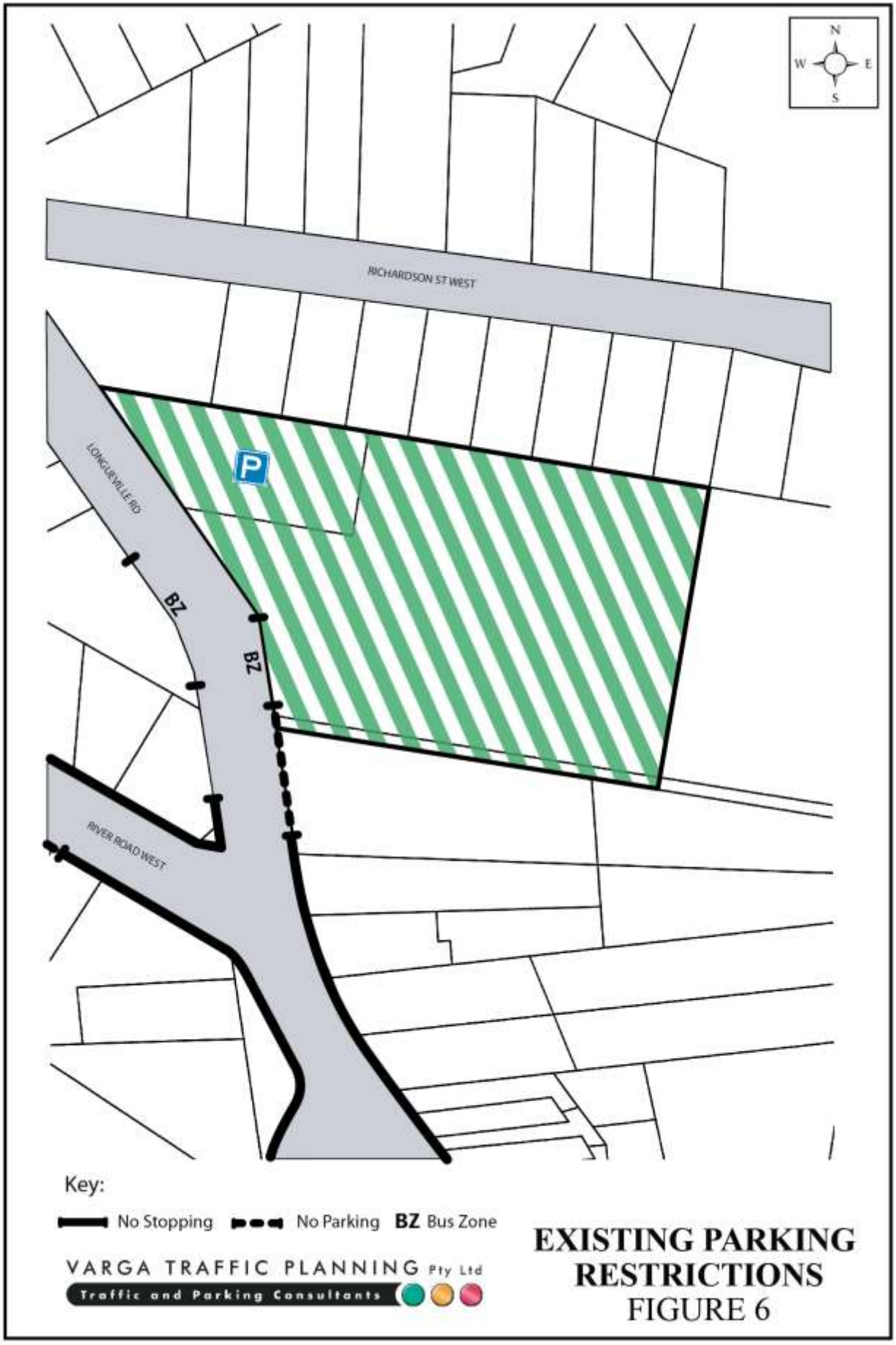
The off-street parking requirements applicable to the development proposal are specified in Council's *DCP 2006* and in the *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* which specify the following off-street car parking requirements applicable to the development proposal:

Division 4 Self Contained Dwellings

50 Standards that cannot be used to refuse development consent for self-contained dwellings

A consent authority must not refuse consent to a development application made pursuant to this Chapter for the carrying out of development for the purpose of a self-contained dwelling (including in-fill self-care housing and services self-care housing) on any of the following grounds:

(d) parking: if at least the following is provided:


N
W
E
S
RICHARDSON ST WEST
LONGUEVILLE RD
P
BZ
BZ
RIVER ROAD WEST
Key:
No Stopping
No Parking
BZ Bus Zone
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
EXISTING PARKING RESTRICTIONS
FIGURE 6

(i) 0.5 parking space for each bedroom where the development application is made by a person other than a social housing provider

(ii) 1 car space for each 5 dwellings where the development application is made by, or is made by persons jointly with a social housing provider.

Division 2 Residential Care Facilities

48 Standards that cannot be used to refuse development consent for residential care facilities

A consent authority must not refuse consent to a development application made pursuant to this Chapter for the carrying out of development for the purpose of a residential care facility on any of the following grounds:

(d) parking for residents and visitors: if at least the following is provided:

(i) 1 parking space for each 10 beds in the residential care facility (or 1 parking space for each 15 beds if the facility provides care only for persons with dementia), and

(ii) 1 parking space for each 2 persons to be employed in connection with the development and on duty at any one time, and

(iii) 1 parking space suitable for an ambulance.

Application of the above parking requirements to the development proposal yields an off-street car parking requirement of 101 spaces as set out in the table below:

Independent Seniors Living Units: (82 dwellings):	76.5 spaces
Residential Aged Care Visitors (70 beds - standard):	7.0 spaces
Residential Aged Care Staff (max. 34 staff at PM changeover):	17.0 spaces
TOTAL:	**100.5 spaces**

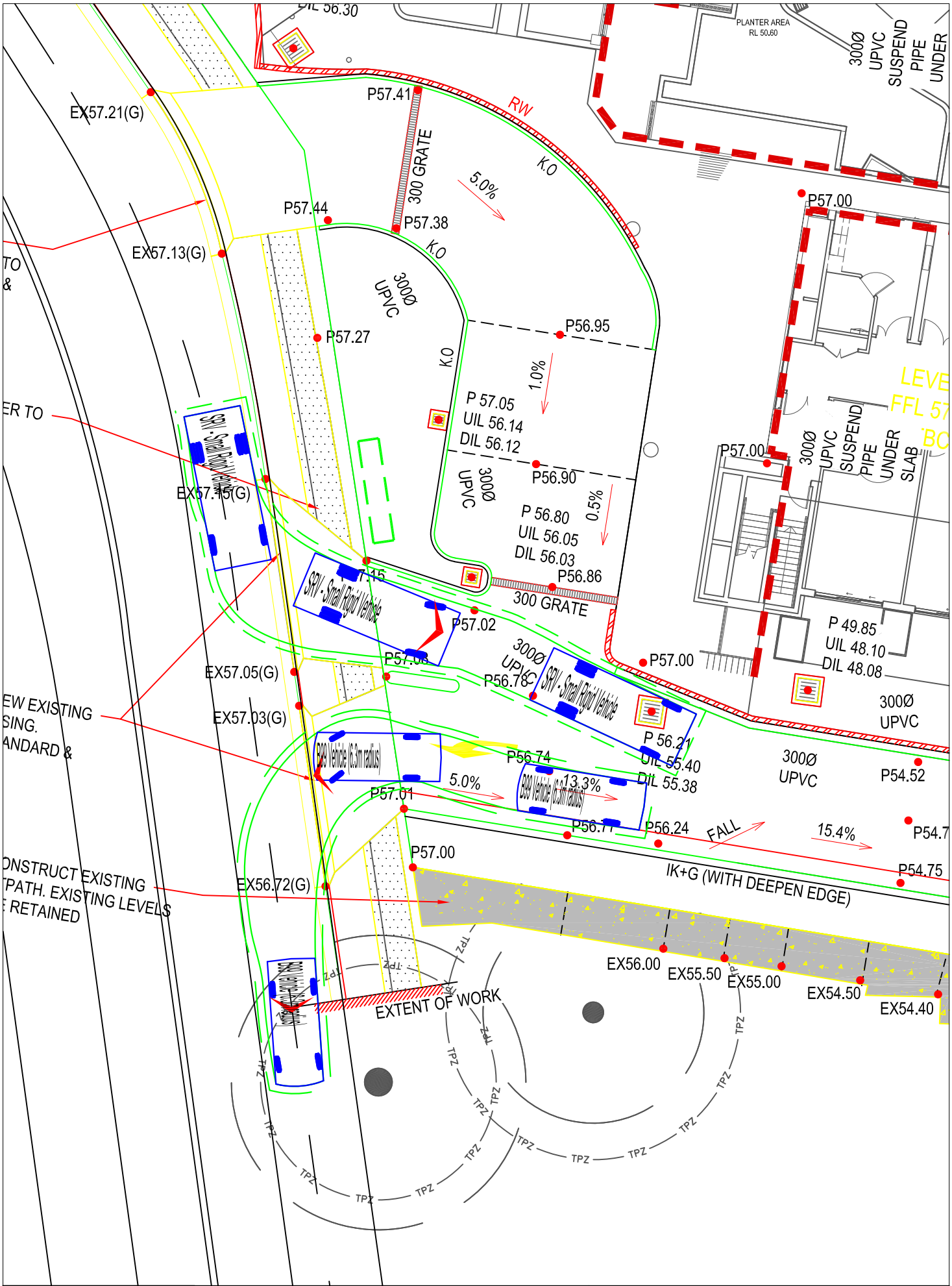
Whilst the *SEPP* does not nominate an off-street parking rate for visitors to the ILUs, visitor parking in the amended scheme is now proposed at a rate of *1 space per 4 units* – i.e. 21 spaces – consistent with the visitor parking rate for residential flat buildings nominated in Council's *DCP*.

The proposed development makes provision for a total of 122 off-street parking spaces, plus an ambulance bay, thereby satisfying the *SEPP* (and Council's *DCP*) requirements.

The geometric design layout of the proposed car parking facilities has been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1 - 2004* in respect of parking bay dimensions and aisle widths.

The amended vehicular access arrangements have also been designed to accommodate the largest vehicle expected to service the site which is a 6.4m long SRV truck. A series of swept turning path diagrams have been prepared which demonstrate that SRV trucks, and light passenger vehicles, can enter and exit the site in a forward direction at all times.

In summary, the proposed parking, loading and access arrangements satisfy the relevant requirements specified in *SEPP (2004)*, Council's *DCP*, Australian Standards and by the RMS, and it is therefore concluded that the proposed development will not have any unacceptable parking, servicing or access implications.



VARGA TRAFFIC PLANNING Pty Ltd
ABN 88 071 762 537
Suite 6, Level 1
20 Young Street
Neutral Bay, NSW 2089
Phone +61 2 9904 3224
PO Box 1868
Neutral Bay, NSW 2089
www.vargatraffic.com.au
Sydney, Australia

PROJECT
SENIORS LIVING DEVELOPMENT

N

DRAWING TITLE
B99 Vehicle Exit & 6.4m SRV Truck Entry
Swept Turning Paths

1:200 @ A4

ADDRESS
266 Longueville Road,
Lane Cove

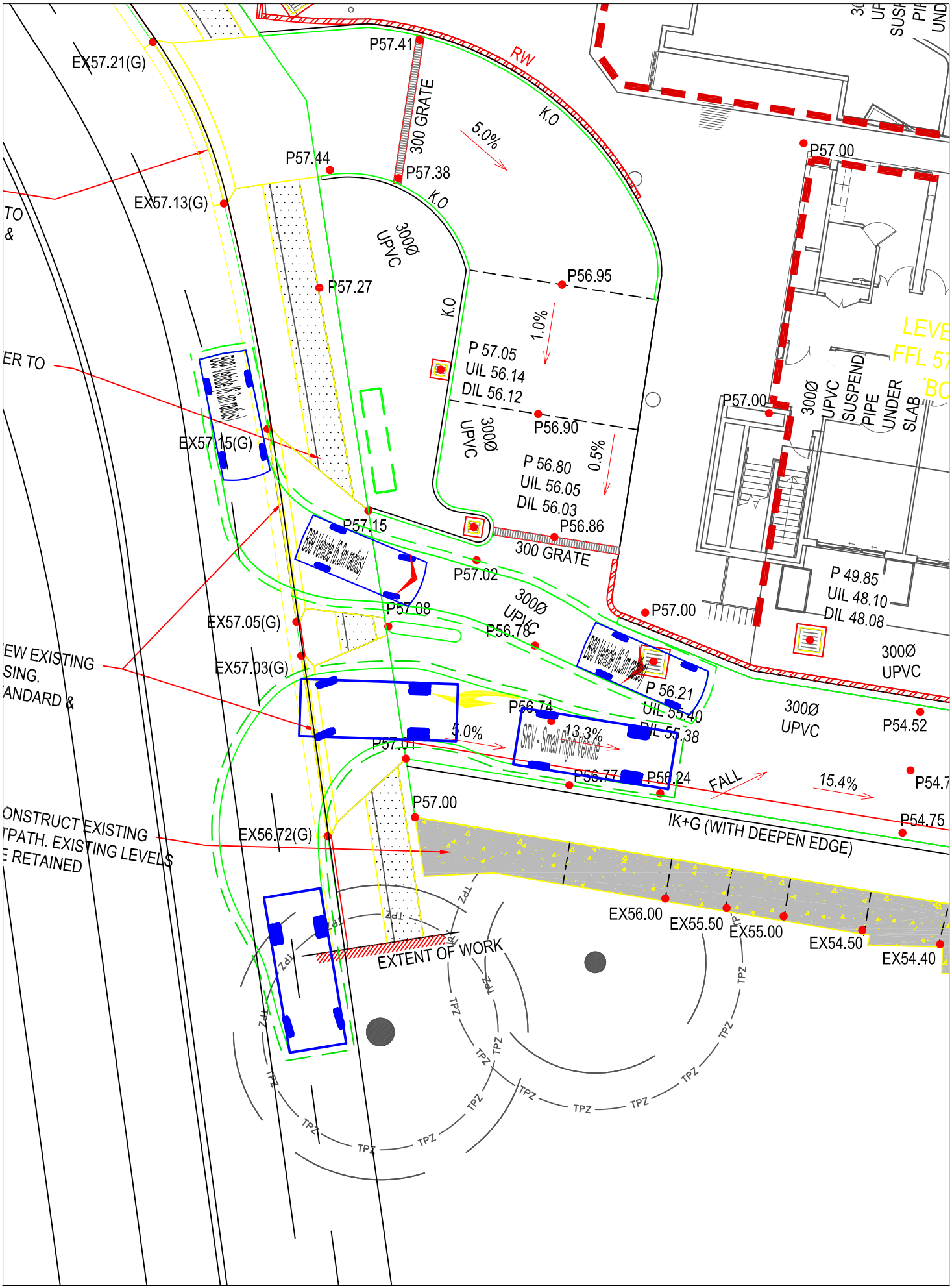
PROJECT NO.
17311

DATE DRAWN
2018-8-24

REVIEWED
CP

PREPARED
TN

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants



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DRAWING TITLE
B99 Vehicle Entry & 6.4m SRV Truck Exit
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1:200 @ A4

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266 Longueville Road,
Lane Cove

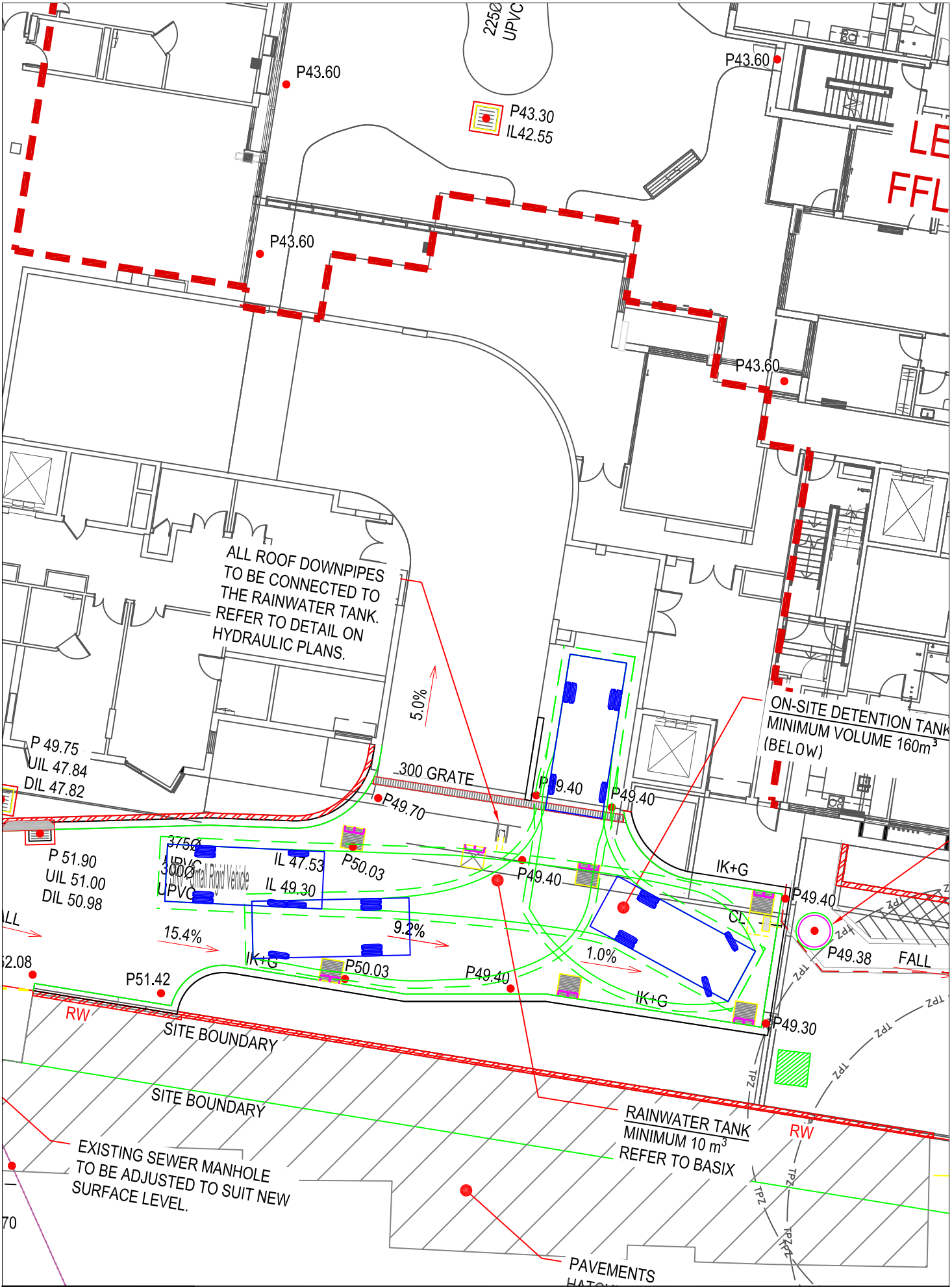
PROJECT NO.
17311

DATE DRAWN
2018-8-24

REVIEWED
CP

PREPARED
TN

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants



VARGA TRAFFIC PLANNING Pty Ltd
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20 Young Street
Neutral Bay, NSW 2089

Phone +61 2 9904 3224
PO Box 1868
Neutral Bay, NSW 2089
www.vargatraffic.com.au
Sydney, Australia

PROJECT
SENIORS LIVING DEVELOPMENT

N

DRAWING TITLE
6.4m SRV Truck Entry & Exit
Turning Path - Loading Bay

1:200 @ A4

ADDRESS
266 Longueville Road,
Lane Cove

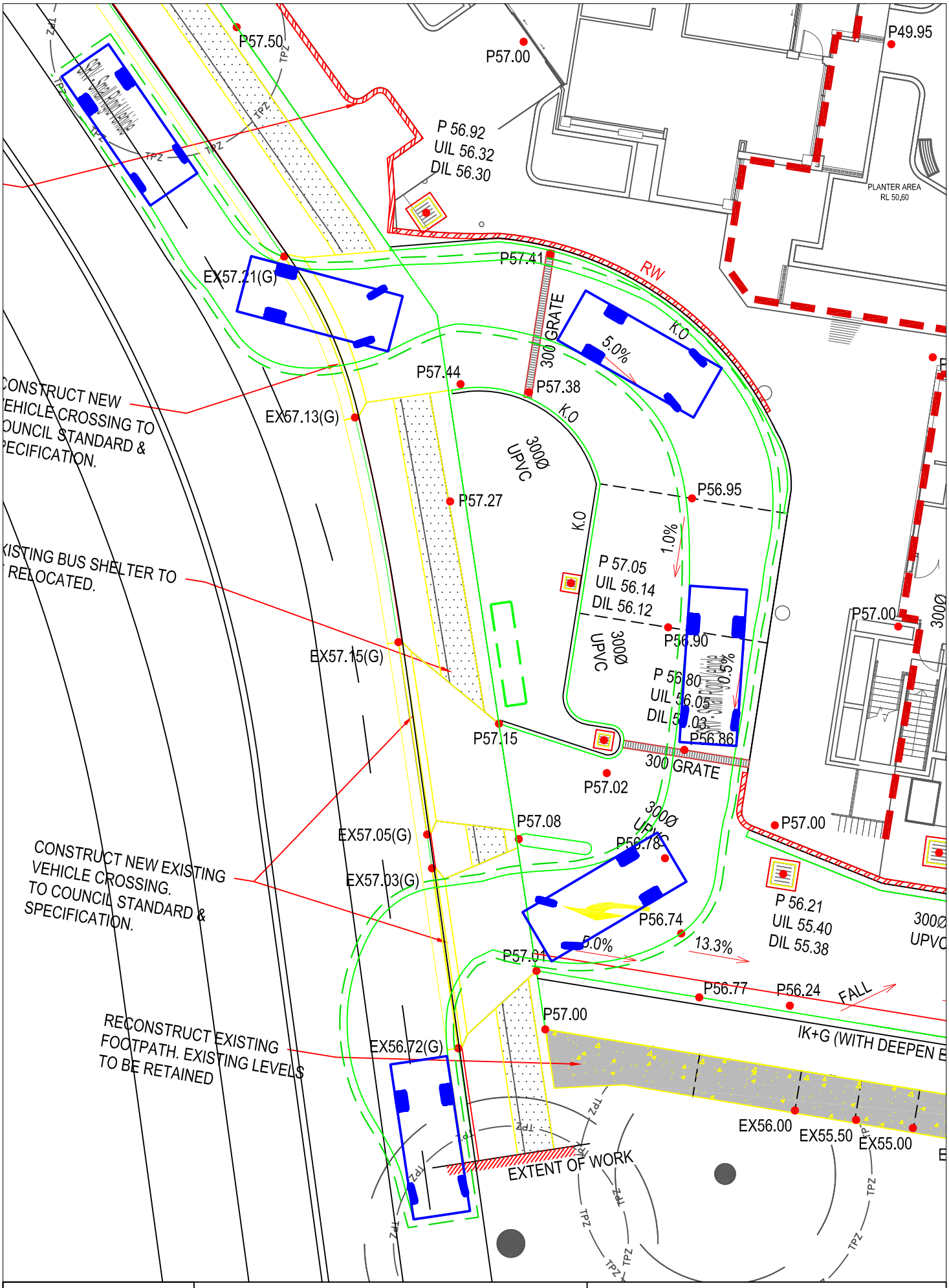
PROJECT NO.
17311

DATE DRAWN
2018-6-24

REVIEWED
CP

PREPARED
TN

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants



VARGA TRAFFIC PLANNING Pty Ltd
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20 Young Street
Neutral Bay, NSW 2089

Phone +61 2 9904 3224
PO Box 1868
Neutral Bay, NSW 2089
www.vargatraffic.com.au
Sydney, Australia

PROJECT
SENIORS LIVING DEVELOPMENT

N

DRAWING TITLE
6.4m SRV Truck
Entering / Exiting Porte Cochere Area

1:200 @ A4

ADDRESS
266 Longueville Road,
Lane Cove

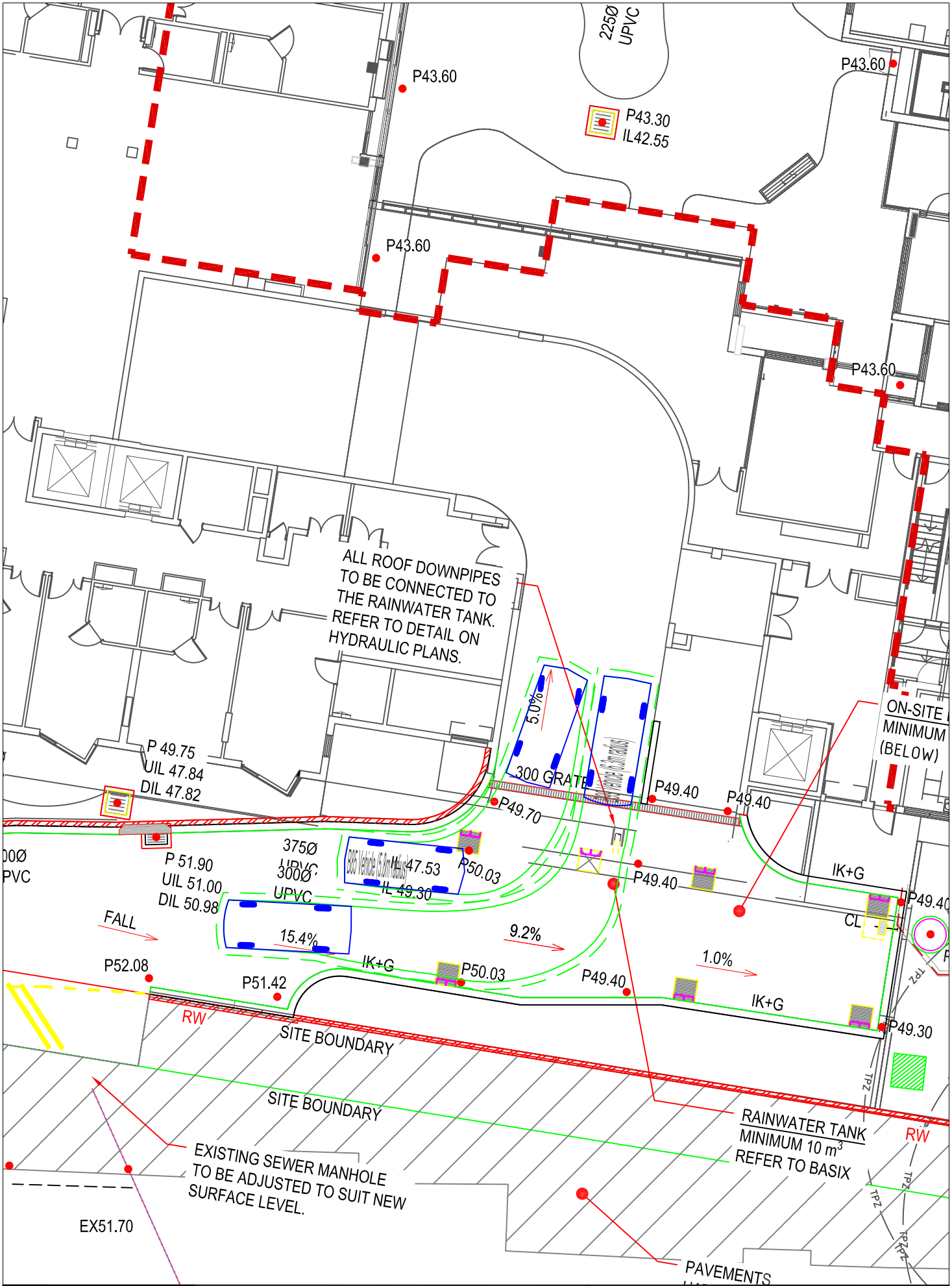
PROJECT NO.
17311

DATE DRAWN
2018-8-24

REVIEWED
CP

PREPARED
TN

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants



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20 Young Street
Neutral Bay, NSW 2089
Phone +61 2 9904 3224
PO Box 1868
Neutral Bay, NSW 2089
www.vargatraffic.com.au
Sydney, Australia

PROJECT
SENIORS LIVING DEVELOPMENT

N

DRAWING TITLE
B99 & B85 Vehicle Swept Tunring Paths

1:200 @ A4

ADDRESS
266 Longueville Road,
Lane Cove

PROJECT NO.
17311

DATE DRAWN
2018-8-24

REVIEWED
CP

PREPARED
TN

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants

APPENDIX A

CONCEPT TRAFFIC SIGNAL PLAN

RMS 10 JULY 2018

Transport
Roads & Maritime
Services

10 July 2018

The General Manager
Lane Cove Municipal Council
PO Box 20
LANE COVE NSW 1595

Attention: Sashika Perera, Coordinator – Traffic and Transport

Re: River Road West/Longueville Road Intersection Upgrade

Roads and Maritime Services have reviewed the River Road West/Longueville Road intersection and support Council with its preferred short-term and long-term options.

The short-term option includes:

- Provision of a designated right turn lane from Longueville Road into River Road West; and
- Redesign of the northbound approach to better align the through movement and exaggerate the right turn into Longueville Road.

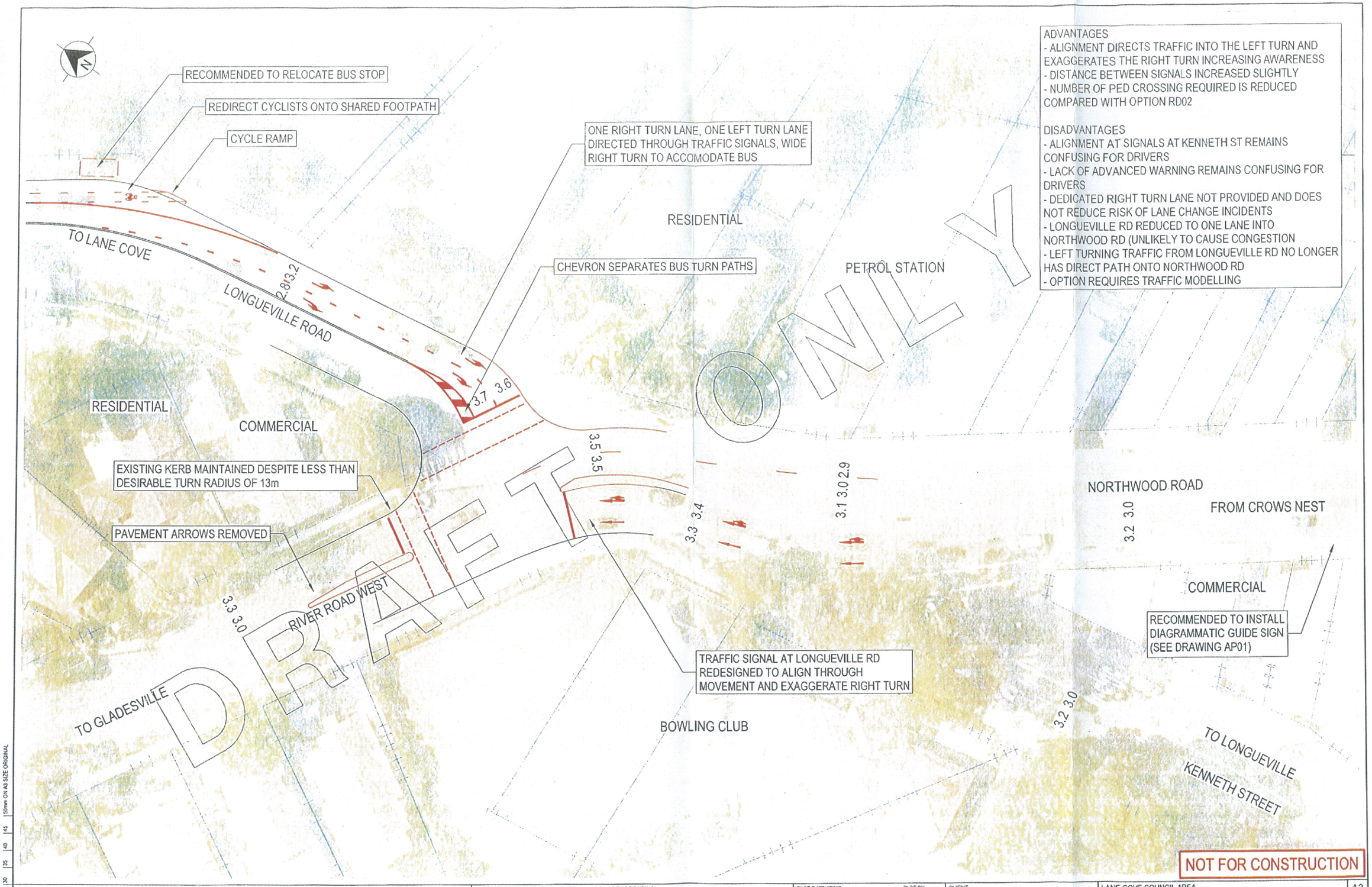
The long-term option includes:

- Provision of a designated right turn lane from Longueville Road into River Road West; and
- Provision of a dedicated right turn lane into Longueville Road and Kenneth Street; and
- Redesign of the northbound approach to better align the through movement and exaggerate the right turn into Longueville Road.

It is noted that subject to funding, approval has been granted for the implementation of the short-term option.

Yours sincerely,

Vicky Walker,
Senior Network and Safety Officer North
Roads and Maritime Services



ADVANTAGES
- ALIGNMENT DIRECTS TRAFFIC INTO THE LEFT TURN AND EXAGGERATES THE RIGHT TURN INCREASING AWARENESS
- DISTANCE BETWEEN SIGNALS INCREASED SLIGHTLY
- NUMBER OF PED CROSSING REQUIRED IS REDUCED COMPARED WITH OPTION RD02

DISADVANTAGES
- ALIGNMENT AT SIGNALS AT KENNETH ST REMAINS CONFUSING FOR DRIVERS
- LACK OF ADVANCED WARNING REMAINS CONFUSING FOR DRIVERS
- DEDICATED RIGHT TURN LANE NOT PROVIDED AND DOES NOT REDUCE RISK OF LANE CHANGE INCIDENTS
- LONGUEVILLE RD REDUCED TO ONE LANE INTO NORTHWOOD RD (UNLIKELY TO CAUSE CONGESTION
- LEFT TURNING TRAFFIC FROM LONGUEVILLE RD NO LONGER HAS DIRECT PATH ONTO NORTHWOOD RD
- OPTION REQUIRES TRAFFIC MODELLING

NOT FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING
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SCALES ON A3 SIZE DRAWING
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SCALE 1:500m

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

DRAWINGS / DESIGN PREPARED BY
Transport Roads & Maritime Services
ENGINEERING SERVICES
ROAD DESIGN
TRAFFIC SIGNAL OPERATIONS

PLOT DATE / TIME		PLOT BY
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TITLE	NAME	DATE
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DRG CHECK	J. SALES-LUIS	XX.XX.XX
DESIGN	M. ONG	XX.XX.XX
DESIGN CHECK	J. SALES-LUIS	XX.XX.XX
DESIGN MNGR	J. SALES-LUIS	XX.XX.XX
PROJECT MNGR	V. WALKER	XX.XX.XX

CLIENT
Transport Roads & Maritime Services

PREPARED FOR
NETWORK AND SAFETY SERVICES
NORTH-WEST PRECINCT

A3

LANE COVE COUNCIL AREA
RR2070 - RIVER ROAD WEST
INTERSECTION IMPROVEMENTS AT NORTHWOOD RD AND LONGUEVILLE RD LONGUEVILLE
OPTION RD02-1
SHEET 3 OF 9

RMS REGISTRATION No. DS2018 / 000623 PART
ISSUE STATUS: STRATEGIC DESIGN
EDMS No.: SF2018 / 183121
SHEET No.: RD02-1
ISSUE

TREATMENT OPTION WITH UNSIGNALISED SLIP LANE SIMILAR TO DRAWING RD02 CAN BE USED DEPENDING ON TRAFFIC MODELLING AND PEDESTRIAN VOLUMES

CHEVRON SEPARATES BUS TURN PATHS

ADVANTAGES
- ALIGNMENT DIRECTS TRAFFIC INTO THE LEFT TURN AND EXAGGERATES THE RIGHT TURN INCREASING AWARENESS
- DISTANCE BETWEEN SIGNALS INCREASED SLIGHTLY
- IMPROVED ALIGNMENT FROM KENNETH STREET TO LONGUEVILLE RD
- DEDICATED RIGHT TURN LANE NORTHBOUND DECREASES LANE CHANGE ACCIDENTS
- RIGHT TURN INTO KENNETH STREET MAINTAINED

DISADVANTAGES
- LONGUEVILLE RD REDUCED TO ONE LANE INTO NORTHWOOD RD (UNLIKELY TO CAUSE CONGESTION HOWEVER TRAFFIC MODELLING SHOULD BE UNDERTAKEN)
- RIGHT TURN LANE INTO LONGUEVILLE RD MAY NOT BE LONG ENOUGH TO CATER FOR DEMAND, SHORT SIGNAL PHASES COULD ASSIST THIS
- REQUIRES ACQUISITION INTO BOWLING CLUB AND PETROL STATION
- OPTION REQUIRES TRAFFIC MODELLING

TO LANE COVE

LONGUEVILLE ROAD

RESIDENTIAL

COMMERCIAL

PETROL STATION

NO ACQUISITION INTO RESIDENTIAL PROPERTY

ACQUISITION INTO PETROL STATION TO MAINTAIN RIGHT TURN (110sqm, 3m AT WIDEST POINT)

EXISTING KERB MAINTAINED DESPITE LESS THAN DESIRABLE TURN RADIUS OF 13m

MEDIAN REMOVED

PAVEMENT ARROWS REMOVED

RIVER ROAD WEST

TO GLADESVILLE

R 158 m

R 140 m

DEDICATED RIGHT TURN LANE PROVIDED INTO LONGUEVILLE RD AND KENNETH ST

NO ACQUISITION INTO RESIDENTIAL PROPERTY

ACQUISITION OF BOWLING CLUB TO IMPROVE ALIGNMENT (250sqm)

MEDIAN REMOVED TO IMPROVE ALIGNMENT

BOWLING CLUB

NORTHWOOD ROAD

FROM CROWS NEST

COMMERCIAL

RECOMMENDED TO INSTALL DIAGRAMMATIC GUIDE SIGN (SEE DRAWING AP01)

TO LONGUEVILLE

KENNETH STREET

NOT FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

150mm ON A3 SIZE ORIGINAL

DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING
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SCALE 1:500m

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

DRAWINGS / DESIGN PREPARED BY
Transport Roads & Maritime Services
ENGINEERING SERVICES
ROAD DESIGN
TRAFFIC SIGNAL OPERATIONS

PLOT DATE / TIME		PLOT BY
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DESIGN CHECK	J. SALES-LUIS	XX/XX/XX
DESIGN MNGR	J. SALES-LUIS	XX/XX/XX
PROJECT MNGR	V. WALKER	XX/XX/XX

CLIENT
Transport Roads & Maritime Services

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NORTH-WEST PRECINCT

LANE COVE COUNCIL AREA
RR2070 - RIVER ROAD WEST
INTERSECTION IMPROVEMENTS AT NORTHWOOD RD AND LONGUEVILLE RD LONGUEVILLE
OPTION RD07
A3
SHEET 8 OF 9

RMS REGISTRATION No. DS2018 / 000623
PART

ISSUE STATUS: STRATEGIC DESIGN
EDMS No.: SF2018 / 183121
SHEET No.: RD07
ISSUE

APPENDIX B

TRAFFIC SURVEY DATA

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

Client : Varga Traffic Planning
Job No/Name : 6772 LANE COVE Longueville Rd
Day/Date : Tuesday 1st May 2018

PEDS	NORTH	EAST	SOUTH	
Time Per	*Longueville*	*Access*	*Longueville*	TOT
0630 - 0645	0	3	0	**3**
0645 - 0700	0	5	0	**5**
0700 - 0715	0	5	0	**5**
0715 - 0730	1	4	2	**7**
0730 - 0745	0	6	2	**8**
0745 - 0800	1	2	2	**5**
0800 - 0815	0	9	0	**9**
0815 - 0830	1	11	0	**12**
0830 - 0845	0	5	0	**5**
0845 - 0900	1	2	1	**4**
0900 - 0915	1	7	1	**9**
0915 - 0930	1	2	1	**4**
Per End	**6**	**61**	**9**	**76**

PEDS	NORTH	EAST	SOUTH	
Peak Per	*Longueville*	*Access*	*Longueville*	TOT
0630 - 0730	1	17	2	**20**
0645 - 0745	1	20	4	**25**
0700 - 0800	2	17	6	**25**
0715 - 0815	2	21	6	**29**
0730 - 0830	2	28	4	**34**
0745 - 0845	2	27	2	**31**
0800 - 0900	2	27	1	**30**
0815 - 0915	3	25	2	**30**
0830 - 0930	3	16	3	**22**
PEAK HR	**2**	**27**	**1**	**30**

Lights	NORTH		EAST		SOUTH		
	Longueville Rd		*Access*		*Longueville Rd*		
Time Per	T	L	R	L	R	T	TOT
0630 - 0645	44	0	0	0	0	38	**82**
0645 - 0700	37	0	1	0	0	74	**112**
0700 - 0715	64	0	0	0	0	65	**129**
0715 - 0730	39	0	0	0	0	102	**141**
0730 - 0745	48	0	0	0	1	82	**131**
0745 - 0800	39	0	1	0	0	93	**133**
0800 - 0815	53	0	1	1	0	86	**141**
0815 - 0830	67	0	1	1	0	123	**192**
0830 - 0845	59	0	1	0	0	139	**199**
0845 - 0900	86	0	0	1	0	98	**185**
0900 - 0915	48	0	0	0	0	82	**130**
0915 - 0930	42	0	0	0	1	66	**109**
Per End	**626**	**0**	**5**	**3**	**2**	**1048**	**1684**

Heavies	NORTH		EAST		SOUTH		
	Longueville Rd		*Access*		*Longueville Rd*		
Time Per	T	L	R	L	R	T	TOT
0630 - 0645	1	0	0	0	0	2	**3**
0645 - 0700	4	0	0	0	0	1	**5**
0700 - 0715	5	0	0	0	0	3	**8**
0715 - 0730	5	0	0	0	0	2	**7**
0730 - 0745	2	0	0	0	0	6	**8**
0745 - 0800	1	0	0	0	0	2	**3**
0800 - 0815	1	0	0	0	0	4	**5**
0815 - 0830	2	0	0	0	0	4	**6**
0830 - 0845	1	0	0	0	0	3	**4**
0845 - 0900	1	0	0	0	0	3	**4**
0900 - 0915	3	0	0	0	0	2	**5**
0915 - 0930	3	0	0	0	0	1	**4**
Per End	**29**	**0**	**0**	**0**	**0**	**33**	**62**

Combined	NORTH		EAST		SOUTH		
	Longueville Rd		*Access*		*Longueville Rd*		
Time Per	T	L	R	L	R	T	TOT
0630 - 0645	45	0	0	0	0	40	**85**
0645 - 0700	41	0	1	0	0	75	**117**
0700 - 0715	69	0	0	0	0	68	**137**
0715 - 0730	44	0	0	0	0	104	**148**
0730 - 0745	50	0	0	0	1	88	**139**
0745 - 0800	40	0	1	0	0	95	**136**
0800 - 0815	54	0	1	1	0	90	**146**
0815 - 0830	69	0	1	1	0	127	**198**
0830 - 0845	60	0	1	0	0	142	**203**
0845 - 0900	87	0	0	1	0	101	**189**
0900 - 0915	51	0	0	0	0	84	**135**
0915 - 0930	45	0	0	0	1	67	**113**
Per End	**655**	**0**	**5**	**3**	**2**	**1081**	**1746**

Lights	NORTH		EAST		SOUTH		
	Longueville Rd		*Access*		*Longueville Rd*		
Peak Per	T	L	R	L	R	T	TOT
0630 - 0730	184	0	1	0	0	279	**464**
0645 - 0745	188	0	1	0	1	323	**513**
0700 - 0800	190	0	1	0	1	342	**534**
0715 - 0815	179	0	2	1	1	363	**546**
0730 - 0830	207	0	3	2	1	384	**597**
0745 - 0845	218	0	4	2	0	441	**665**
0800 - 0900	265	0	3	3	0	446	**717**
0815 - 0915	260	0	2	2	0	442	**706**
0830 - 0930	235	0	1	1	1	385	**623**
PEAK HR	**265**	**0**	**3**	**3**	**0**	**446**	**717**

Heavies	NORTH		EAST		SOUTH		
	Longueville Rd		*Access*		*Longueville Rd*		
Peak Per	T	L	R	L	R	T	TOT
0630 - 0730	15	0	0	0	0	8	**23**
0645 - 0745	16	0	0	0	0	12	**28**
0700 - 0800	13	0	0	0	0	13	**26**
0715 - 0815	9	0	0	0	0	14	**23**
0730 - 0830	6	0	0	0	0	16	**22**
0745 - 0845	5	0	0	0	0	13	**18**
0800 - 0900	5	0	0	0	0	14	**19**
0815 - 0915	7	0	0	0	0	12	**19**
0830 - 0930	8	0	0	0	0	9	**17**
PEAK HR	**5**	**0**	**0**	**0**	**0**	**14**	**19**

Combined	NORTH		EAST		SOUTH		
	Longueville Rd		*Access*		*Longueville Rd*		
Peak Per	T	L	R	L	R	T	TOT
0630 - 0730	199	0	1	0	0	287	**487**
0645 - 0745	204	0	1	0	1	335	**541**
0700 - 0800	203	0	1	0	1	355	**560**
0715 - 0815	188	0	2	1	1	377	**569**
0730 - 0830	213	0	3	2	1	400	**619**
0745 - 0845	223	0	4	2	0	454	**683**
0800 - 0900	270	0	3	3	0	460	**736**
0815 - 0915	267	0	2	2	0	454	**725**
0830 - 0930	243	0	1	1	1	394	**640**
PEAK HR	**270**	**0**	**3**	**3**	**0**	**460**	**736**

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

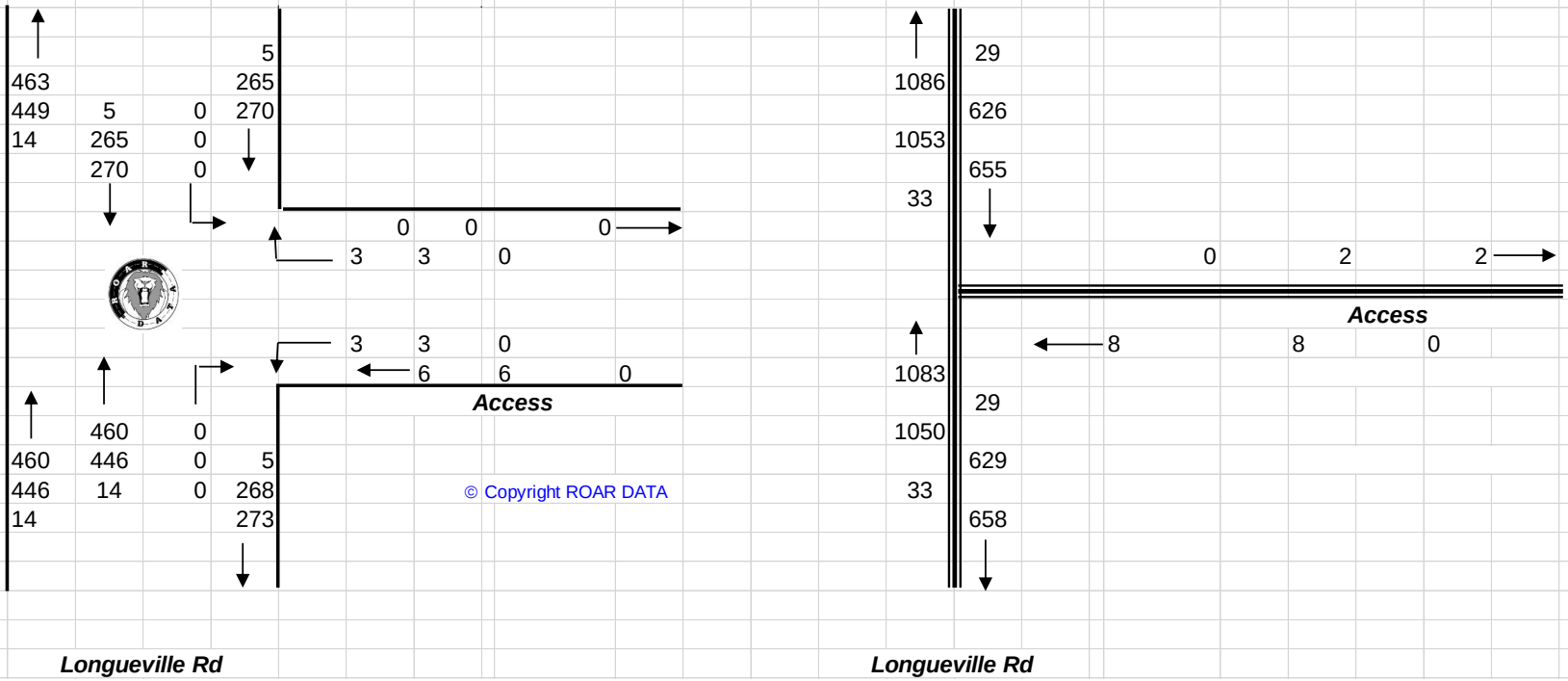
Client	: Varga Traffic Planning
Job No/Name	: 6772 LANE COVE Longueville Rd
Day/Date	: Tuesday 1st May 2018

1	2	3
4	5	6
7	8	9

N

AM PEAK
0800 - 0900

TOTAL VOLUMES FOR COUNT PERIOD



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

Client : Varga Traffic Planning
Job No/Name : 6772 LANE COVE Longueville Rd
Day/Date : Tuesday 1st May 2018

PEDS	NORTH	EAST	SOUTH	
Time Per	Longueville Rd	Access	Longueville Rd	TOT
1530 - 1545	0	11	0	11
1545 - 1600	0	3	0	3
1600 - 1615	1	5	0	6
1615 - 1630	0	3	0	3
1630 - 1645	0	4	0	4
1645 - 1700	0	2	0	2
1700 - 1715	0	5	0	5
1715 - 1730	0	3	0	3
1730 - 1745	0	5	0	5
1745 - 1800	0	11	0	11
1800 - 1815	0	4	0	4
1815 - 1830	0	9	0	9
Per End	**1**	**65**	**0**	66

PEDS	NORTH	EAST	SOUTH	
Peak Per	Longueville Rd	Access	Longueville Rd	TOT
1530 - 1630	1	22	0	23
1545 - 1645	1	15	0	16
1600 - 1700	1	14	0	15
1615 - 1715	0	14	0	14
1630 - 1730	0	14	0	14
1645 - 1745	0	15	0	15
1700 - 1800	0	24	0	24
1715 - 1815	0	23	0	23
1730 - 1830	0	29	0	29
PEAK HR	**0**	**15**	**0**	**15**

Lights	NORTH		EAST		SOUTH		
	Longueville Rd		Access		Longueville Rd		
Time Per	T	L	R	L	R	T	TOT
1530 - 1545	70	0	0	0	0	82	**152**
1545 - 1600	59	0	1	0	0	68	**128**
1600 - 1615	63	1	0	0	0	73	**137**
1615 - 1630	56	1	0	0	0	73	**130**
1630 - 1645	83	0	0	1	0	74	**158**
1645 - 1700	80	0	0	0	0	99	**179**
1700 - 1715	86	0	0	0	0	96	**182**
1715 - 1730	59	0	1	1	1	85	**147**
1730 - 1745	95	3	1	0	1	82	**182**
1745 - 1800	63	1	0	0	0	82	**146**
1800 - 1815	73	3	0	0	0	80	**156**
1815 - 1830	67	1	1	0	0	76	**145**
Per End	**854**	**10**	**4**	**2**	**2**	**970**	**1842**

Heavies	NORTH		EAST		SOUTH		
	Longueville Rd		Access		Longueville Rd		
Time Per	T	L	R	L	R	T	TOT
1530 - 1545	4	0	0	0	0	0	**4**
1545 - 1600	7	0	0	0	0	5	**12**
1600 - 1615	3	0	0	0	0	2	**5**
1615 - 1630	5	0	0	0	0	4	**9**
1630 - 1645	0	0	0	0	0	2	**2**
1645 - 1700	2	0	0	0	0	2	**4**
1700 - 1715	1	0	0	0	0	1	**2**
1715 - 1730	2	0	0	0	0	3	**5**
1730 - 1745	1	0	0	0	0	1	**2**
1745 - 1800	4	0	0	0	0	2	**6**
1800 - 1815	1	0	0	0	0	1	**2**
1815 - 1830	3	0	0	0	0	1	**4**
Per End	**33**	**0**	**0**	**0**	**0**	**24**	**57**

Combined	NORTH		EAST		SOUTH		
	Longueville Rd		Access		Longueville Rd		
Time Per	T	L	R	L	R	T	TOT
1530 - 1545	74	0	0	0	0	82	**156**
1545 - 1600	66	0	1	0	0	73	**140**
1600 - 1615	66	1	0	0	0	75	**142**
1615 - 1630	61	1	0	0	0	77	**139**
1630 - 1645	83	0	0	1	0	76	**160**
1645 - 1700	82	0	0	0	0	101	**183**
1700 - 1715	87	0	0	0	0	97	**184**
1715 - 1730	61	0	1	1	1	88	**152**
1730 - 1745	96	3	1	0	1	83	**184**
1745 - 1800	67	1	0	0	0	84	**152**
1800 - 1815	74	3	0	0	0	81	**158**
1815 - 1830	70	1	1	0	0	77	**149**
Per End	**887**	**10**	**4**	**2**	**2**	**994**	**1899**

Lights	NORTH		EAST		SOUTH		
	Longueville Rd		Access		Longueville Rd		
Peak Per	T	L	R	L	R	T	TOT
1530 - 1630	248	2	1	0	0	296	**547**
1545 - 1645	261	2	1	1	0	288	**553**
1600 - 1700	282	2	0	1	0	319	**604**
1615 - 1715	305	1	0	1	0	342	**649**
1630 - 1730	308	0	1	2	1	354	**666**
1645 - 1745	320	3	2	1	2	362	**690**
1700 - 1800	303	4	2	1	2	345	**657**
1715 - 1815	290	7	2	1	2	329	**631**
1730 - 1830	298	8	2	0	1	320	**629**
PEAK HR	**320**	**3**	**2**	**1**	**2**	**362**	**690**

Heavies	NORTH		EAST		SOUTH		
	Longueville Rd		Access		Longueville Rd		
Peak Per	T	L	R	L	R	T	TOT
1530 - 1630	19	0	0	0	0	11	**30**
1545 - 1645	15	0	0	0	0	13	**28**
1600 - 1700	10	0	0	0	0	10	**20**
1615 - 1715	8	0	0	0	0	9	**17**
1630 - 1730	5	0	0	0	0	8	**13**
1645 - 1745	6	0	0	0	0	7	**13**
1700 - 1800	8	0	0	0	0	7	**15**
1715 - 1815	8	0	0	0	0	7	**15**
1730 - 1830	9	0	0	0	0	5	**14**
PEAK HR	**6**	**0**	**0**	**0**	**0**	**7**	**13**

Combined	NORTH		EAST		SOUTH		
	Longueville Rd		Access		Longueville Rd		
Peak Per	T	L	R	L	R	T	TOT
1530 - 1630	267	2	1	0	0	307	**577**
1545 - 1645	276	2	1	1	0	301	**581**
1600 - 1700	292	2	0	1	0	329	**624**
1615 - 1715	313	1	0	1	0	351	**666**
1630 - 1730	313	0	1	2	1	362	**679**
1645 - 1745	326	3	2	1	2	369	**703**
1700 - 1800	311	4	2	1	2	352	**672**
1715 - 1815	298	7	2	1	2	336	**646**
1730 - 1830	307	8	2	0	1	325	**643**
PEAK HR	**326**	**3**	**2**	**1**	**2**	**369**	**703**

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

Client	: Varga Traffic Planning
Job No/Name	: 6772 LANE COVE Longueville Rd
Day/Date	: Tuesday 1st May 2018

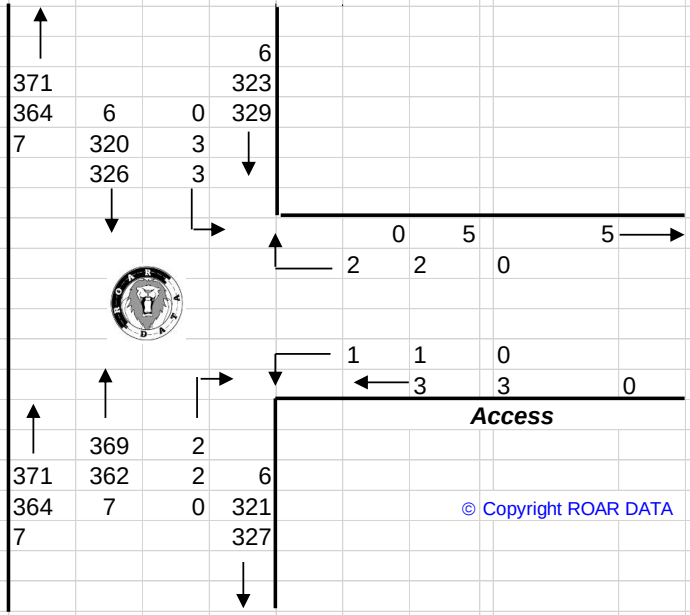
1	2	3
4	5	6
7	8	9

N

PM PEAK
1645 - 1745

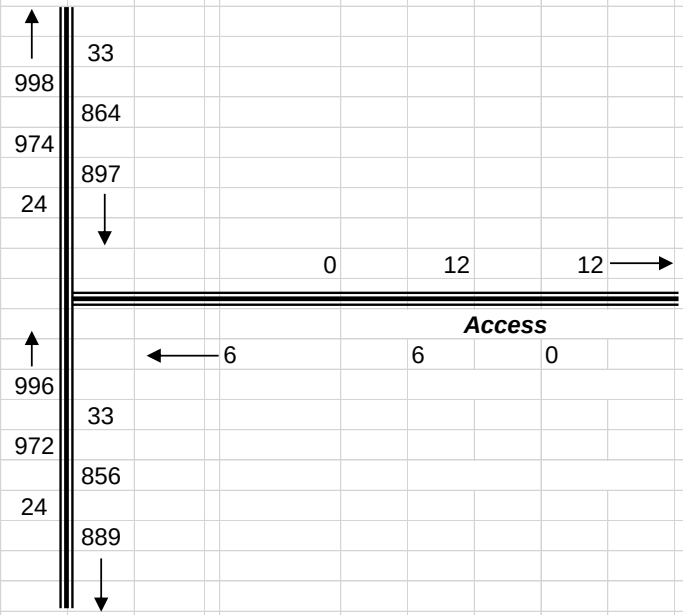
TOTAL VOLUMES FOR COUNT PERIOD

Longueville Rd



Longueville Rd

Longueville Rd



Longueville Rd

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

Client	: Varga Traffic Planning
Job No/Name	: 6772 LANE COVE Longueville Rd
Day/Date	: Tuesday 1st May 2018

Intersection Details

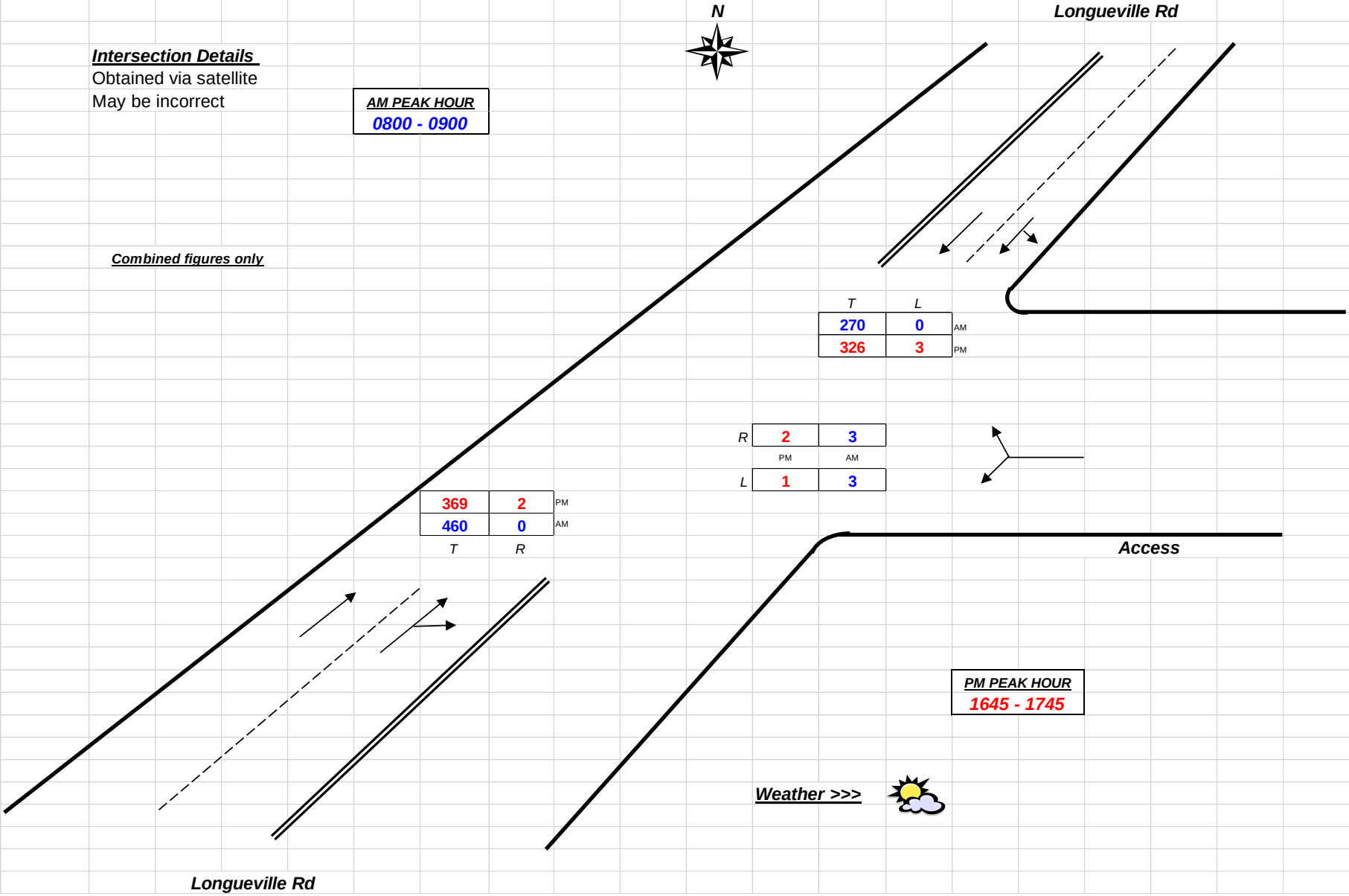
Obtained via satellite

May be incorrect

AM PEAK HOUR

0800 - 0900

Combined figures only



PM PEAK HOUR

1645 - 1745

Weather >>>

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

Client : Varga Traffic Planning
Job No/Name : 6772 LANE COVE Longueville Rd
Day/Date : Tuesday 1st May 2018

PEDS	WEST	SOUTH	EAST	
Time Per	*Longueville*	*Kenneth St*	*Norwood Rd*	TOT
0630 - 0645	0	0	0	**0**
0645 - 0700	0	1	1	**2**
0700 - 0715	1	2	0	**3**
0715 - 0730	0	3	5	**8**
0730 - 0745	1	5	2	**8**
0745 - 0800	0	4	4	**8**
0800 - 0815	0	3	6	**9**
0815 - 0830	0	2	0	**2**
0830 - 0845	0	1	5	**6**
0845 - 0900	0	0	2	**2**
0900 - 0915	0	0	2	**2**
0915 - 0930	0	2	3	**5**
Per End	**2**	**23**	**30**	**55**

PEDS	WEST	SOUTH	EAST	
Peak Per	*Longueville*	*Kenneth St*	*Norwood Rd*	TOT
0630 - 0730	1	6	6	**13**
0645 - 0745	2	11	8	**21**
0700 - 0800	2	14	11	**27**
0715 - 0815	1	15	17	**33**
0730 - 0830	1	14	12	**27**
0745 - 0845	0	10	15	**25**
0800 - 0900	0	6	13	**19**
0815 - 0915	0	3	9	**12**
0830 - 0930	0	3	12	**15**
PEAK HR	**1**	**14**	**12**	**27**

Lights	WEST		SOUTH		EAST		
	Longueville Rd		*Kenneth St*		*Norwood Rd*		
Time Per	T	R	L	R	L	T	TOT
0630 - 0645	202	26	16	19	5	76	**344**
0645 - 0700	276	32	32	16	7	131	**494**
0700 - 0715	318	35	36	33	6	125	**553**
0715 - 0730	276	25	33	41	4	129	**508**
0730 - 0745	381	33	38	35	3	208	**698**
0745 - 0800	344	24	39	51	4	174	**636**
0800 - 0815	398	37	35	32	4	221	**727**
0815 - 0830	368	35	48	35	6	205	**697**
0830 - 0845	335	38	41	18	4	166	**602**
0845 - 0900	370	50	38	17	8	163	**646**
0900 - 0915	277	33	32	16	2	150	**510**
0915 - 0930	273	37	29	20	8	124	**491**
Per End	**3818**	**405**	**417**	**333**	**61**	**1872**	**6906**

Heavies	WEST		SOUTH		EAST		
	Longueville Rd		*Kenneth St*		*Norwood Rd*		
Time Per	T	R	L	R	L	T	TOT
0630 - 0645	1	0	0	0	0	0	**1**
0645 - 0700	2	0	0	1	0	0	**3**
0700 - 0715	2	0	3	1	1	0	**7**
0715 - 0730	5	1	0	0	0	1	**7**
0730 - 0745	6	0	0	3	0	1	**10**
0745 - 0800	2	0	0	2	0	5	**9**
0800 - 0815	0	0	1	1	0	1	**3**
0815 - 0830	1	1	0	0	0	0	**2**
0830 - 0845	0	0	1	1	1	2	**5**
0845 - 0900	1	0	0	0	0	3	**4**
0900 - 0915	1	1	1	1	0	0	**4**
0915 - 0930	1	0	1	0	0	1	**3**
Per End	**22**	**3**	**7**	**10**	**2**	**14**	**58**

Combined	WEST		SOUTH		EAST		
	Longueville Rd		*Kenneth St*		*Norwood Rd*		
Time Per	T	R	L	R	L	T	TOT
0630 - 0645	203	26	16	19	5	76	**345**
0645 - 0700	278	32	32	17	7	131	**497**
0700 - 0715	320	35	39	34	7	125	**560**
0715 - 0730	281	26	33	41	4	130	**515**
0730 - 0745	387	33	38	38	3	209	**708**
0745 - 0800	346	24	39	53	4	179	**645**
0800 - 0815	398	37	36	33	4	222	**730**
0815 - 0830	369	36	48	35	6	205	**699**
0830 - 0845	335	38	42	19	5	168	**607**
0845 - 0900	371	50	38	17	8	166	**650**
0900 - 0915	278	34	33	17	2	150	**514**
0915 - 0930	274	37	30	20	8	125	**494**
Per End	**3840**	**408**	**424**	**343**	**63**	**1886**	**6964**

Lights	WEST		SOUTH		EAST		
	Longueville Rd		*Kenneth St*		*Norwood Rd*		
Peak Per	T	R	L	R	L	T	TOT
0630 - 0730	1072	118	117	109	22	461	**1899**
0645 - 0745	1251	125	139	125	20	593	**2253**
0700 - 0800	1319	117	146	160	17	636	**2395**
0715 - 0815	1399	119	145	159	15	732	**2569**
0730 - 0830	1491	129	160	153	17	808	**2758**
0745 - 0845	1445	134	163	136	18	766	**2662**
0800 - 0900	1471	160	162	102	22	755	**2672**
0815 - 0915	1350	156	159	86	20	684	**2455**
0830 - 0930	1255	158	140	71	22	603	**2249**
PEAK HR	**1491**	**129**	**160**	**153**	**17**	**808**	**2758**

Heavies	WEST		SOUTH		EAST		
	Longueville Rd		*Kenneth St*		*Norwood Rd*		
Peak Per	T	R	L	R	L	T	TOT
0630 - 0730	10	1	3	2	1	1	**18**
0645 - 0745	15	1	3	5	1	2	**27**
0700 - 0800	15	1	3	6	1	7	**33**
0715 - 0815	13	1	1	6	0	8	**29**
0730 - 0830	9	1	1	6	0	7	**24**
0745 - 0845	3	1	2	4	1	8	**19**
0800 - 0900	2	1	2	2	1	6	**14**
0815 - 0915	3	2	2	2	1	5	**15**
0830 - 0930	3	1	3	2	1	6	**16**
PEAK HR	**9**	**1**	**1**	**6**	**0**	**7**	**24**

Combined	WEST		SOUTH		EAST		
	Longueville Rd		*Kenneth St*		*Norwood Rd*		
Peak Per	T	R	L	R	L	T	TOT
0630 - 0730	1082	119	120	111	23	462	**1917**
0645 - 0745	1266	126	142	130	21	595	**2280**
0700 - 0800	1334	118	149	166	18	643	**2428**
0715 - 0815	1412	120	146	165	15	740	**2598**
0730 - 0830	1500	130	161	159	17	815	**2782**
0745 - 0845	1448	135	165	140	19	774	**2681**
0800 - 0900	1473	161	164	104	23	761	**2686**
0815 - 0915	1353	158	161	88	21	689	**2470**
0830 - 0930	1258	159	143	73	23	609	**2265**
PEAK HR	**1500**	**130**	**161**	**159**	**17**	**815**	**2782**

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

Client	: Varga Traffic Planning
Job No/Name	: 6772 LANE COVE Longueville Rd
Day/Date	: Tuesday 1st May 2018

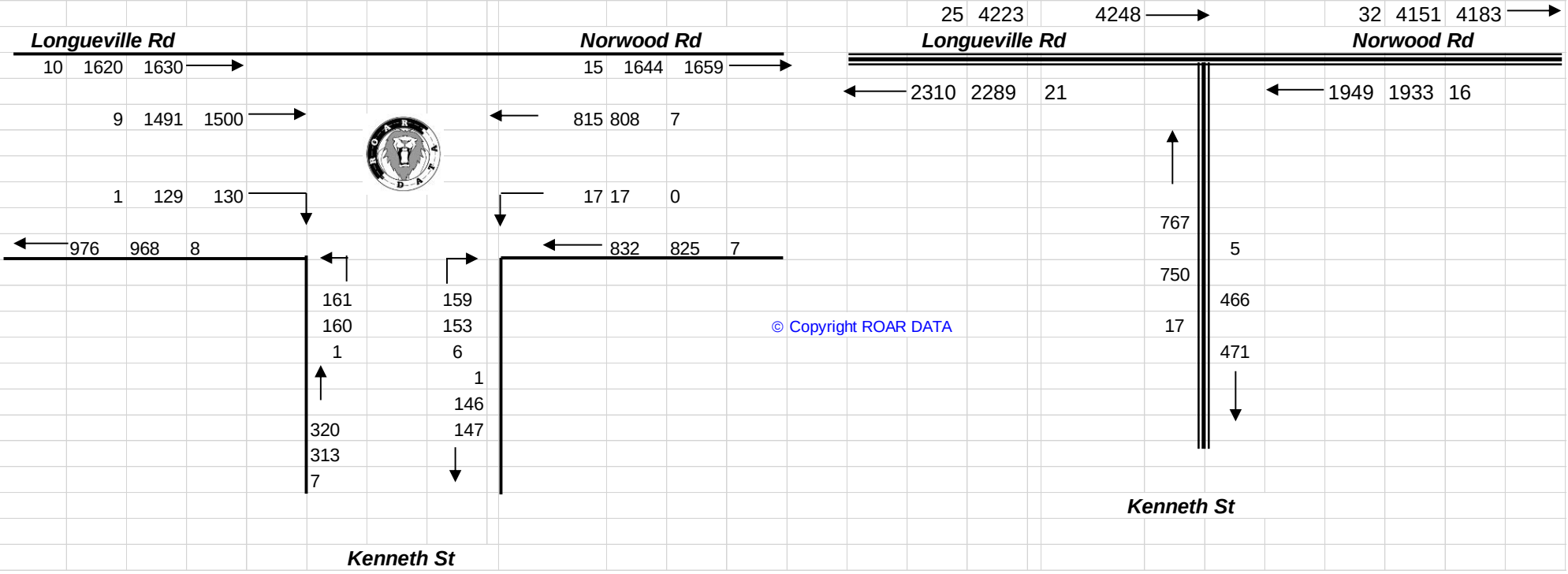
1 2 3

4 5 6 ***AM PEAK*** ***0730 - 0830***

7 8 9

TOTAL VOLUMES FOR COUNT PERIOD

N



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

Client : Varga Traffic Planning
Job No/Name : 6772 LANE COVE Longueville Rd
Day/Date : Tuesday 1st May 2018

PEDS	WEST	SOUTH	EAST	
Time Per	*Longueville Rd*	*Kenneth St*	*Norwood Rd*	TOT
1530 - 1545	0	0	4	**4**
1545 - 1600	0	2	13	**15**
1600 - 1615	0	5	14	**19**
1615 - 1630	0	8	4	**12**
1630 - 1645	0	9	8	**17**
1645 - 1700	0	0	7	**7**
1700 - 1715	0	0	4	**4**
1715 - 1730	0	2	12	**14**
1730 - 1745	0	0	5	**5**
1745 - 1800	0	1	8	**9**
1800 - 1815	0	1	7	**8**
1815 - 1830	0	0	4	**4**
Per End	**0**	**28**	**90**	**118**

PEDS	WEST	SOUTH	EAST	
Peak Per	*Longueville Rd*	*Kenneth St*	*Norwood Rd*	TOT
1530 - 1630	0	15	35	**50**
1545 - 1645	0	24	39	**63**
1600 - 1700	0	22	33	**55**
1615 - 1715	0	17	23	**40**
1630 - 1730	0	11	31	**42**
1645 - 1745	0	2	28	**30**
1700 - 1800	0	3	29	**32**
1715 - 1815	0	4	32	**36**
1730 - 1830	0	2	24	**26**
PEAK HR	**0**	**2**	**28**	**30**

Lights	WEST		SOUTH		EAST		
	Longueville Rd		*Kenneth St*		*Norwood Rd*		
Time Per	T	R	L	R	L	T	TOT
1530 - 1545	153	38	46	17	9	255	**518**
1545 - 1600	138	38	25	13	6	316	**536**
1600 - 1615	116	41	33	10	5	289	**494**
1615 - 1630	149	32	43	11	4	307	**546**
1630 - 1645	154	52	34	14	11	303	**568**
1645 - 1700	181	51	41	18	4	357	**652**
1700 - 1715	156	49	42	16	5	283	**551**
1715 - 1730	195	49	39	14	7	363	**667**
1730 - 1745	194	44	42	21	5	341	**647**
1745 - 1800	179	44	39	21	7	347	**637**
1800 - 1815	172	43	40	13	7	271	**546**
1815 - 1830	185	47	35	13	10	264	**554**
Per End	**1972**	**528**	**459**	**181**	**80**	**3696**	**6916**

Heavies	WEST		SOUTH		EAST		
	Longueville Rd		*Kenneth St*		*Norwood Rd*		
Time Per	T	R	L	R	L	T	TOT
1530 - 1545	1	0	1	0	0	1	**3**
1545 - 1600	1	0	2	1	1	2	**7**
1600 - 1615	5	1	2	1	0	2	**11**
1615 - 1630	2	2	3	0	0	1	**8**
1630 - 1645	2	0	0	1	0	1	**4**
1645 - 1700	1	0	2	0	0	2	**5**
1700 - 1715	0	0	1	1	0	0	**2**
1715 - 1730	2	0	1	0	0	0	**3**
1730 - 1745	1	1	0	1	0	0	**3**
1745 - 1800	1	0	1	0	0	0	**2**
1800 - 1815	2	0	0	1	0	0	**3**
1815 - 1830	1	0	1	1	0	0	**3**
Per End	**19**	**4**	**14**	**7**	**1**	**9**	**54**

Combined	WEST		SOUTH		EAST		
	Longueville Rd		*Kenneth St*		*Norwood Rd*		
Time Per	T	R	L	R	L	T	TOT
1530 - 1545	154	38	47	17	9	256	**521**
1545 - 1600	139	38	27	14	7	318	**543**
1600 - 1615	121	42	35	11	5	291	**505**
1615 - 1630	151	34	46	11	4	308	**554**
1630 - 1645	156	52	34	15	11	304	**572**
1645 - 1700	182	51	43	18	4	359	**657**
1700 - 1715	156	49	43	17	5	283	**553**
1715 - 1730	197	49	40	14	7	363	**670**
1730 - 1745	195	45	42	22	5	341	**650**
1745 - 1800	180	44	40	21	7	347	**639**
1800 - 1815	174	43	40	14	7	271	**549**
1815 - 1830	186	47	36	14	10	264	**557**
Per End	**1991**	**532**	**473**	**188**	**81**	**3705**	**6970**

Lights	WEST		SOUTH		EAST		
	Longueville Rd		*Kenneth St*		*Norwood Rd*		
Peak Per	T	R	L	R	L	T	TOT
1530 - 1630	556	149	147	51	24	1167	**2094**
1545 - 1645	557	163	135	48	26	1215	**2144**
1600 - 1700	600	176	151	53	24	1256	**2260**
1615 - 1715	640	184	160	59	24	1250	**2317**
1630 - 1730	686	201	156	62	27	1306	**2438**
1645 - 1745	726	193	164	69	21	1344	**2517**
1700 - 1800	724	186	162	72	24	1334	**2502**
1715 - 1815	740	180	160	69	26	1322	**2497**
1730 - 1830	730	178	156	68	29	1223	**2384**
PEAK HR	**726**	**193**	**164**	**69**	**21**	**1344**	**2517**

Heavies	WEST		SOUTH		EAST		
	Longueville Rd		*Kenneth St*		*Norwood Rd*		
Peak Per	T	R	L	R	L	T	TOT
1530 - 1630	9	3	8	2	1	6	**29**
1545 - 1645	10	3	7	3	1	6	**30**
1600 - 1700	10	3	7	2	0	6	**28**
1615 - 1715	5	2	6	2	0	4	**19**
1630 - 1730	5	0	4	2	0	3	**14**
1645 - 1745	4	1	4	2	0	2	**13**
1700 - 1800	4	1	3	2	0	0	**10**
1715 - 1815	6	1	2	2	0	0	**11**
1730 - 1830	5	1	2	3	0	0	**11**
PEAK HR	**4**	**1**	**4**	**2**	**0**	**2**	**13**

Combined	WEST		SOUTH		EAST		
	Longueville Rd		*Kenneth St*		*Norwood Rd*		
Peak Per	T	R	L	R	L	T	TOT
1530 - 1630	565	152	155	53	25	1173	**2123**
1545 - 1645	567	166	142	51	27	1221	**2174**
1600 - 1700	610	179	158	55	24	1262	**2288**
1615 - 1715	645	186	166	61	24	1254	**2336**
1630 - 1730	691	201	160	64	27	1309	**2452**
1645 - 1745	730	194	168	71	21	1346	**2530**
1700 - 1800	728	187	165	74	24	1334	**2512**
1715 - 1815	746	181	162	71	26	1322	**2508**
1730 - 1830	735	179	158	71	29	1223	**2395**
PEAK HR	**730**	**194**	**168**	**71**	**21**	**1346**	**2530**

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

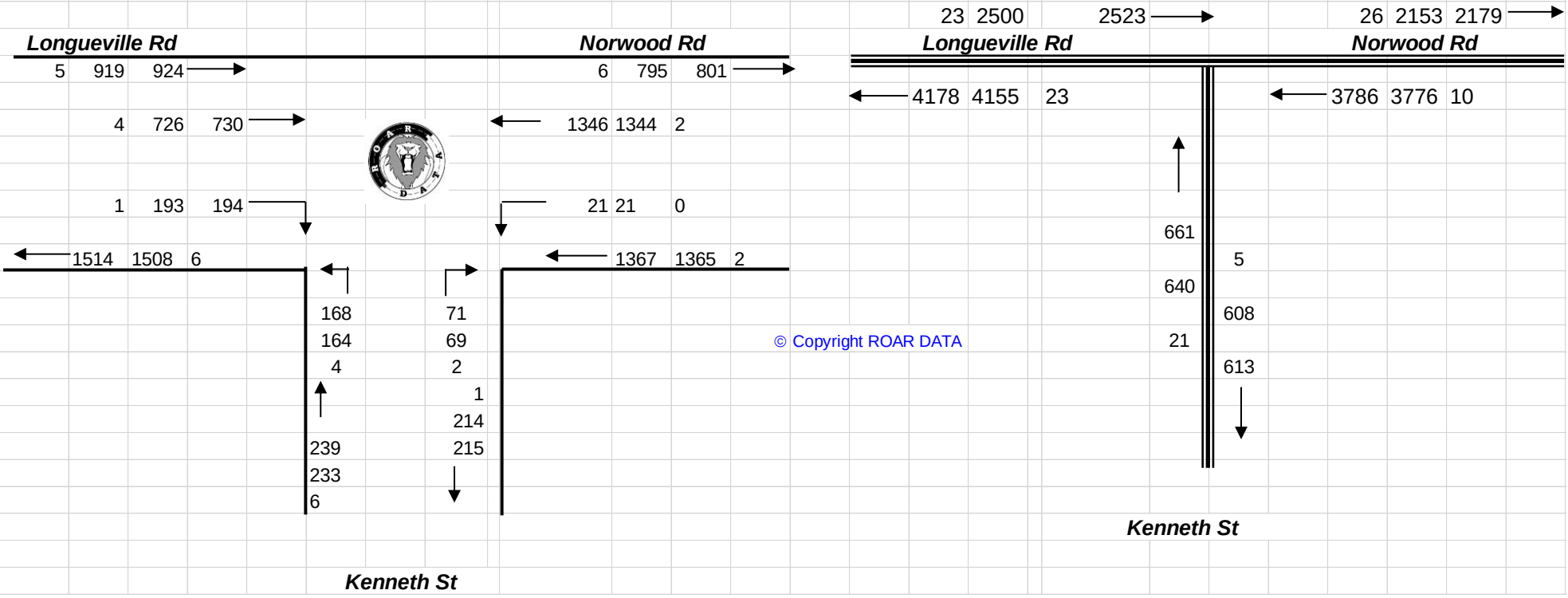
Client	: Varga Traffic Planning
Job No/Name	: 6772 LANE COVE Longueville Rd
Day/Date	: Tuesday 1st May 2018

1 2 3

4 5 6 ***PM PEAK*** ***1645 - 1745***

7 8 9

TOTAL VOLUMES FOR COUNT PERIOD



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client	: Varga Traffic Planning
Job No/Name	: 6772 LANE COVE Longueville Rd
Day/Date	: Tuesday 1st May 2018

Intersection Details

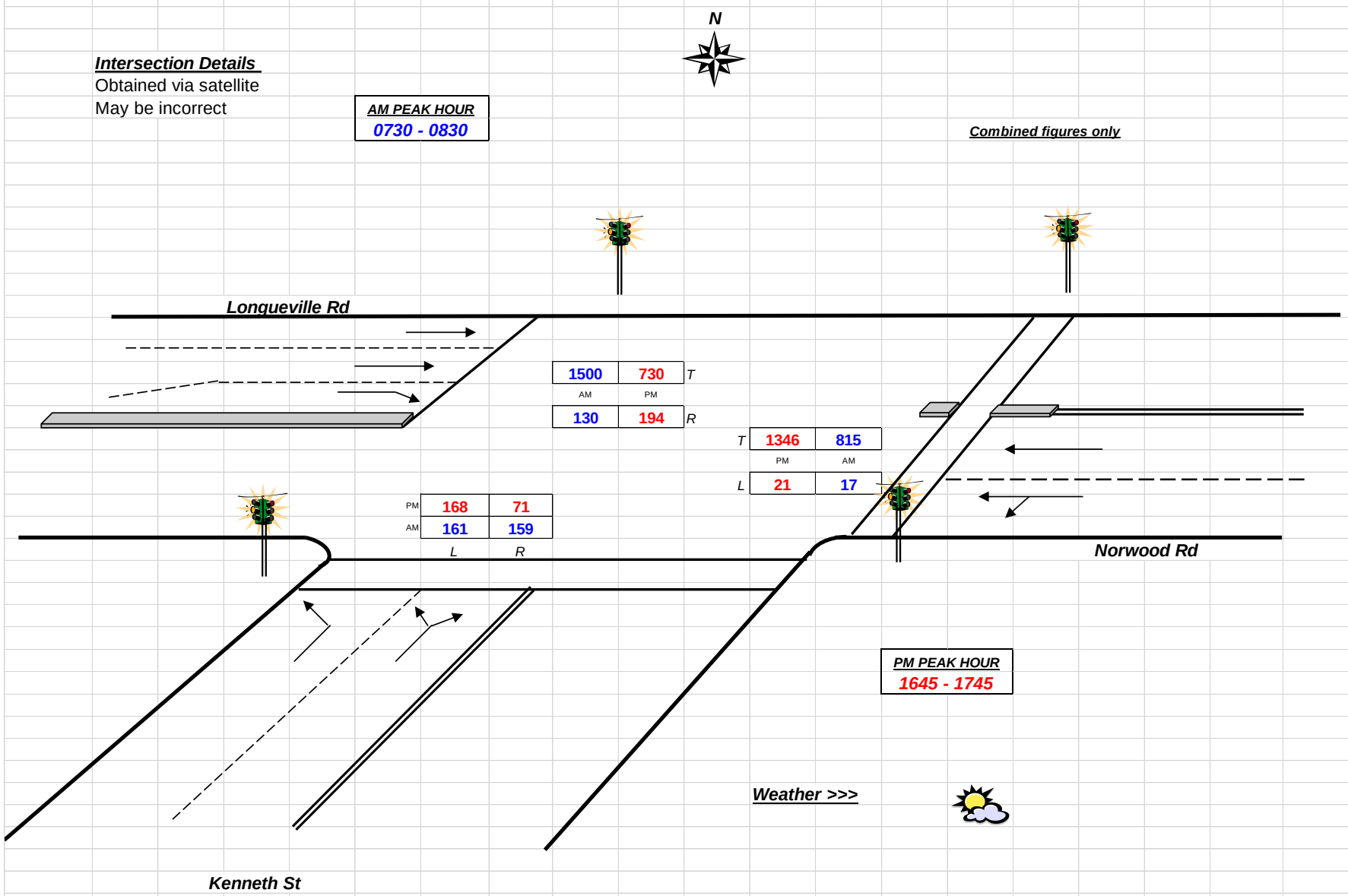
Obtained via satellite

May be incorrect

AM PEAK HOUR

0730 - 0830

Combined figures only



PM PEAK HOUR

1645 - 1745

Weather >>>

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

Client : Varga Traffic Planning
Job No/Name : 6772 LANE COVE Longueville Rd
Day/Date : Tuesday 1st May 2018

PEDS	WEST	NORTH	EAST	
Time Per	*River Rd*	*Longueville Rd*	*Longueville Rd*	TOT
0630 - 0645	3	0	0	**3**
0645 - 0700	3	2	0	**5**
0700 - 0715	3	0	0	**3**
0715 - 0730	5	1	0	**6**
0730 - 0745	10	0	0	**10**
0745 - 0800	3	4	0	**7**
0800 - 0815	2	3	0	**5**
0815 - 0830	8	0	0	**8**
0830 - 0845	4	1	0	**5**
0845 - 0900	3	2	0	**5**
0900 - 0915	5	0	0	**5**
0915 - 0930	2	2	0	**4**
Per End	**51**	**15**	**0**	**66**

PEDS	WEST	NORTH	EAST	
Peak Per	*River Rd*	*Longueville Rd*	*Longueville Rd*	TOT
0630 - 0730	14	3	0	**17**
0645 - 0745	21	3	0	**24**
0700 - 0800	21	5	0	**26**
0715 - 0815	20	8	0	**28**
0730 - 0830	23	7	0	**30**
0745 - 0845	17	8	0	**25**
0800 - 0900	17	6	0	**23**
0815 - 0915	20	3	0	**23**
0830 - 0930	14	5	0	**19**
PEAK HR	**17**	**6**	**0**	**23**

Lights	WEST		NORTH		EAST		
	River Rd		*Longueville Rd*		*Longueville Rd*		
Time Per	T	L	R	L	R	T	TOT
0630 - 0645	240	10	0	43	29	87	**409**
0645 - 0700	271	15	0	36	61	90	**473**
0700 - 0715	285	19	0	61	41	116	**522**
0715 - 0730	303	34	0	38	66	132	**573**
0730 - 0745	346	21	0	46	62	157	**632**
0745 - 0800	345	27	0	38	66	151	**627**
0800 - 0815	327	34	0	51	52	165	**629**
0815 - 0830	317	33	0	68	82	174	**674**
0830 - 0845	335	60	0	55	87	140	**677**
0845 - 0900	313	41	0	88	64	127	**633**
0900 - 0915	261	31	0	60	51	142	**545**
0915 - 0930	244	21	0	45	45	112	**467**
Per End	**3587**	**346**	**0**	**629**	**706**	**1593**	**6861**

Heavies	WEST		NORTH		EAST		
	River Rd		*Longueville Rd*		*Longueville Rd*		
Time Per	T	L	R	L	R	T	TOT
0630 - 0645	0	2	0	1	0	0	**3**
0645 - 0700	0	1	1	3	0	0	**5**
0700 - 0715	0	2	4	1	1	3	**11**
0715 - 0730	4	2	2	3	0	1	**12**
0730 - 0745	3	5	0	2	1	2	**13**
0745 - 0800	1	2	0	1	0	3	**7**
0800 - 0815	0	3	1	0	1	1	**6**
0815 - 0830	1	3	1	1	0	1	**7**
0830 - 0845	0	3	1	0	1	2	**7**
0845 - 0900	0	2	0	1	1	1	**5**
0900 - 0915	1	1	2	1	1	2	**8**
0915 - 0930	0	1	2	1	0		**4**
Per End	**10**	**27**	**14**	**15**	**6**	**16**	**88**

Combined	WEST		NORTH		EAST		
	River Rd		*Longueville Rd*		*Longueville Rd*		
Time Per	T	L	R	L	R	T	TOT
0630 - 0645	240	12	0	44	29	87	**412**
0645 - 0700	271	16	1	39	61	90	**478**
0700 - 0715	285	21	4	62	42	119	**533**
0715 - 0730	307	36	2	41	66	133	**585**
0730 - 0745	349	26	0	48	63	159	**645**
0745 - 0800	346	29	0	39	66	154	**634**
0800 - 0815	327	37	1	51	53	166	**635**
0815 - 0830	318	36	1	69	82	175	**681**
0830 - 0845	335	63	1	55	88	142	**684**
0845 - 0900	313	43	0	89	65	128	**638**
0900 - 0915	262	32	2	61	52	144	**553**
0915 - 0930	244	22	2	46	45	112	**471**
Per End	**3597**	**373**	**14**	**644**	**712**	**1609**	**6949**

Lights	WEST		NORTH		EAST		
	River Rd		*Longueville Rd*		*Longueville Rd*		
Peak Per	T	L	R	L	R	T	TOT
0630 - 0730	1099	78	0	178	197	425	**1977**
0645 - 0745	1205	89	0	181	230	495	**2200**
0700 - 0800	1279	101	0	183	235	556	**2354**
0715 - 0815	1321	116	0	173	246	605	**2461**
0730 - 0830	1335	115	0	203	262	647	**2562**
0745 - 0845	1324	154	0	212	287	630	**2607**
0800 - 0900	1292	168	0	262	285	606	**2613**
0815 - 0915	1226	165	0	271	284	583	**2529**
0830 - 0930	1153	153	0	248	247	521	**2322**
PEAK HR	**1292**	**168**	**0**	**262**	**285**	**606**	**2613**

Heavies	WEST		NORTH		EAST		
	River Rd		*Longueville Rd*		*Longueville Rd*		
Peak Per	T	L	R	L	R	T	TOT
0630 - 0730	4	7	7	8	1	4	**31**
0645 - 0745	7	10	7	9	2	6	**41**
0700 - 0800	8	11	6	7	2	9	**43**
0715 - 0815	8	12	3	6	2	7	**38**
0730 - 0830	5	13	2	4	2	7	**33**
0745 - 0845	2	11	3	2	2	7	**27**
0800 - 0900	1	11	3	2	3	5	**25**
0815 - 0915	2	9	4	3	3	6	**27**
0830 - 0930	1	7	5	3	3	5	**24**
PEAK HR	**1**	**11**	**3**	**2**	**3**	**5**	**25**

Combined	WEST		NORTH		EAST		
	River Rd		*Longueville Rd*		*Longueville Rd*		
Peak Per	T	L	R	L	R	T	TOT
0630 - 0730	1103	85	7	186	198	429	**2008**
0645 - 0745	1212	99	7	190	232	501	**2241**
0700 - 0800	1287	112	6	190	237	565	**2397**
0715 - 0815	1329	128	3	179	248	612	**2499**
0730 - 0830	1340	128	2	207	264	654	**2595**
0745 - 0845	1326	165	3	214	289	637	**2634**
0800 - 0900	1293	179	3	264	288	611	**2638**
0815 - 0915	1228	174	4	274	287	589	**2556**
0830 - 0930	1154	160	5	251	250	526	**2346**
PEAK HR	**1293**	**179**	**3**	**264**	**288**	**611**	**2638**

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

Client	: Varga Traffic Planning
Job No/Name	: 6772 LANE COVE Longueville Rd
Day/Date	: Tuesday 1st May 2018

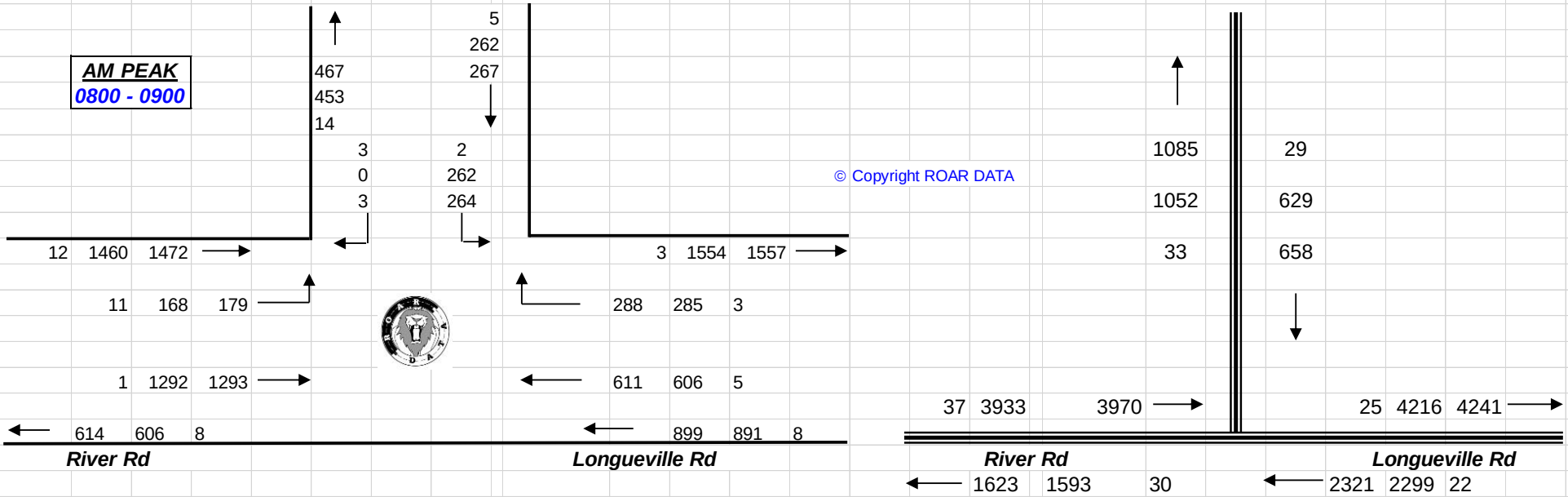
1 2 3

4 5 6

7 8 9

TOTAL VOLUMES FOR COUNT PERIOD

N



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

Client : Varga Traffic Planning
Job No/Name : 6772 LANE COVE Longueville Rd
Day/Date : Tuesday 1st May 2018

PEDS	WEST	NORTH	EAST	
Time Per	*River Rd*	*Longueville Rd*	*Longueville Rd*	TOT
1530 - 1545	8	1	0	**9**
1545 - 1600	6	0	0	**6**
1600 - 1615	2	1	0	**3**
1615 - 1630	3	0	0	**3**
1630 - 1645	3	0	0	**3**
1645 - 1700	3	0	0	**3**
1700 - 1715	2	2	0	**4**
1715 - 1730	2	0	0	**2**
1730 - 1745	3	1	0	**4**
1745 - 1800	0	0	0	**0**
1800 - 1815	3	2	0	**5**
1815 - 1830	4	1	0	**5**
Per End	**39**	**8**	**0**	**47**

PEDS	WEST	NORTH	EAST	
Peak Per	*River Rd*	*Longueville Rd*	*Longueville Rd*	TOT
1530 - 1630	19	2	0	**21**
1545 - 1645	14	1	0	**15**
1600 - 1700	11	1	0	**12**
1615 - 1715	11	2	0	**13**
1630 - 1730	10	2	0	**12**
1645 - 1745	10	3	0	**13**
1700 - 1800	7	3	0	**10**
1715 - 1815	8	3	0	**11**
1730 - 1830	10	4	0	**14**
PEAK HR	**10**	**3**	**0**	**13**

Lights	WEST		NORTH		EAST		
	River Rd		*Longueville Rd*		*Longueville Rd*		
Time Per	T	L	R	L	R	T	TOT
1530 - 1545	128	19	0	69	65	258	**539**
1545 - 1600	121	18	1	56	53	275	**524**
1600 - 1615	103	16	0	60	59	287	**525**
1615 - 1630	112	16	0	56	56	294	**534**
1630 - 1645	125	13	0	84	67	273	**562**
1645 - 1700	139	23	0	79	76	342	**659**
1700 - 1715	154	22	1	85	74	258	**594**
1715 - 1730	148	21	0	64	65	338	**636**
1730 - 1745	170	15	0	93	70	328	**676**
1745 - 1800	149	23	0	64	64	294	**594**
1800 - 1815	168	15	0	76	65	257	**581**
1815 - 1830	133	14	0	65	60	215	**487**
Per End	**1650**	**215**	**2**	**851**	**774**	**3419**	**6911**

Heavies	WEST		NORTH		EAST		
	River Rd		*Longueville Rd*		*Longueville Rd*		
Time Per	T	L	R	L	R	T	TOT
1530 - 1545	0	0	3	1	0	2	**6**
1545 - 1600	2	3	5	2	2	3	**17**
1600 - 1615	4	0	3	0	2	1	**10**
1615 - 1630	2	1	3	2	3	1	**12**
1630 - 1645	1	2	0	0	0	2	**5**
1645 - 1700	0	0	1	1	2	1	**5**
1700 - 1715	1	0	1	0	1	0	**3**
1715 - 1730	1	2	1	1	1	0	**6**
1730 - 1745	1	1	0	1	0	0	**3**
1745 - 1800	2	1	4	0	1	0	**8**
1800 - 1815	1	1	0	1	0	0	**3**
1815 - 1830	0	0	2	1	1	0	**4**
Per End	**15**	**11**	**23**	**10**	**13**	**10**	**82**

Combined	WEST		NORTH		EAST		
	River Rd		*Longueville Rd*		*Longueville Rd*		
Time Per	T	L	R	L	R	T	TOT
1530 - 1545	128	19	3	70	65	260	**545**
1545 - 1600	123	21	6	58	55	278	**541**
1600 - 1615	107	16	3	60	61	288	**535**
1615 - 1630	114	17	3	58	59	295	**546**
1630 - 1645	126	15	0	84	67	275	**567**
1645 - 1700	139	23	1	80	78	343	**664**
1700 - 1715	155	22	2	85	75	258	**597**
1715 - 1730	149	23	1	65	66	338	**642**
1730 - 1745	171	16	0	94	70	328	**679**
1745 - 1800	151	24	4	64	65	294	**602**
1800 - 1815	169	16	0	77	65	257	**584**
1815 - 1830	133	14	2	66	61	215	**491**
Per End	**1665**	**226**	**25**	**861**	**787**	**3429**	**6993**

Lights	WEST		NORTH		EAST		
	River Rd		*Longueville Rd*		*Longueville Rd*		
Peak Per	T	L	R	L	R	T	TOT
1530 - 1630	464	69	1	241	233	1114	**2122**
1545 - 1645	461	63	1	256	235	1129	**2145**
1600 - 1700	479	68	0	279	258	1196	**2280**
1615 - 1715	530	74	1	304	273	1167	**2349**
1630 - 1730	566	79	1	312	282	1211	**2451**
1645 - 1745	611	81	1	321	285	1266	**2565**
1700 - 1800	621	81	1	306	273	1218	**2500**
1715 - 1815	635	74	0	297	264	1217	**2487**
1730 - 1830	620	67	0	298	259	1094	**2338**
PEAK HR	**611**	**81**	**1**	**321**	**285**	**1266**	**2565**

Heavies	WEST		NORTH		EAST		
	River Rd		*Longueville Rd*		*Longueville Rd*		
Peak Per	T	L	R	L	R	T	TOT
1530 - 1630	8	4	14	5	7	7	**45**
1545 - 1645	9	6	11	4	7	7	**44**
1600 - 1700	7	3	7	3	7	5	**32**
1615 - 1715	4	3	5	3	6	4	**25**
1630 - 1730	3	4	3	2	4	3	**19**
1645 - 1745	3	3	3	3	4	1	**17**
1700 - 1800	5	4	6	2	3	0	**20**
1715 - 1815	5	5	5	3	2	0	**20**
1730 - 1830	4	3	6	3	2	0	**18**
PEAK HR	**3**	**3**	**3**	**3**	**4**	**1**	**17**

Combined	WEST		NORTH		EAST		
	River Rd		*Longueville Rd*		*Longueville Rd*		
Peak Per	T	L	R	L	R	T	TOT
1530 - 1630	472	73	15	246	240	1121	**2167**
1545 - 1645	470	69	12	260	242	1136	**2189**
1600 - 1700	486	71	7	282	265	1201	**2312**
1615 - 1715	534	77	6	307	279	1171	**2374**
1630 - 1730	569	83	4	314	286	1214	**2470**
1645 - 1745	614	84	4	324	289	1267	**2582**
1700 - 1800	626	85	7	308	276	1218	**2520**
1715 - 1815	640	79	5	300	266	1217	**2507**
1730 - 1830	624	70	6	301	261	1094	**2356**
PEAK HR	**614**	**84**	**4**	**324**	**289**	**1267**	**2582**

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

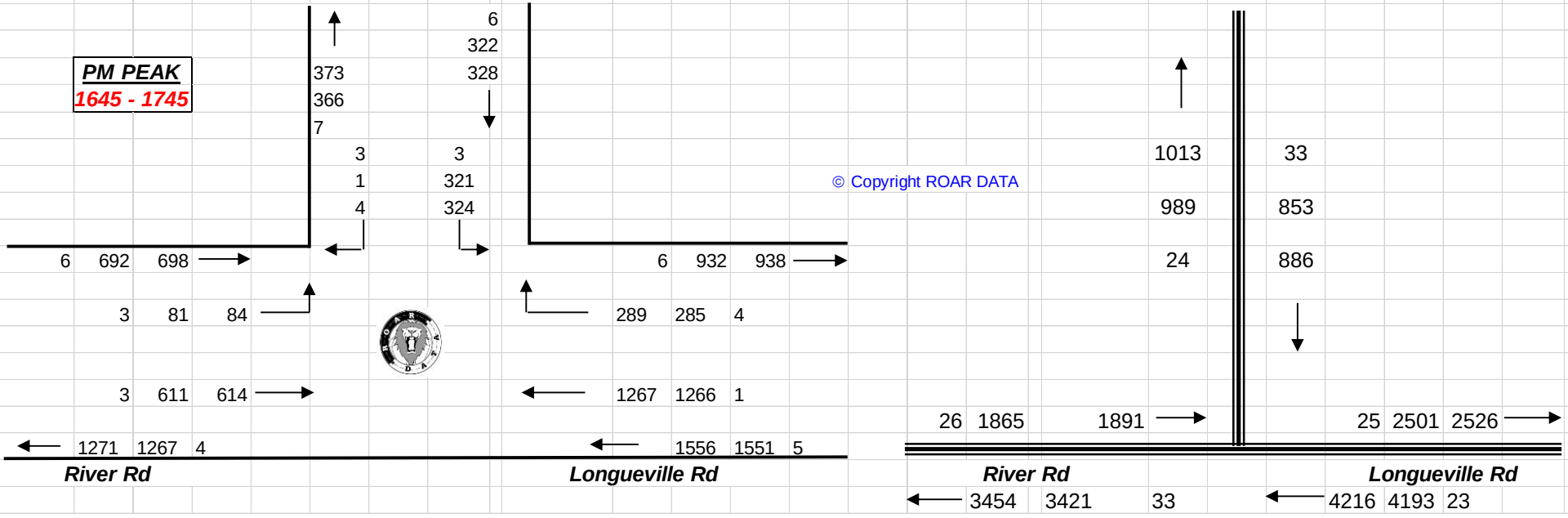
Client	: Varga Traffic Planning
Job No/Name	: 6772 LANE COVE Longueville Rd
Day/Date	: Tuesday 1st May 2018

1	2	3
4	5	6
7	8	9

TOTAL VOLUMES FOR COUNT PERIOD

N

PM PEAK
1645 - 1745



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob 0418239019

Client	: Varga Traffic Planning
Job No/Name	: 6772 LANE COVE Longueville Rd
Day/Date	: Tuesday 1st May 2018

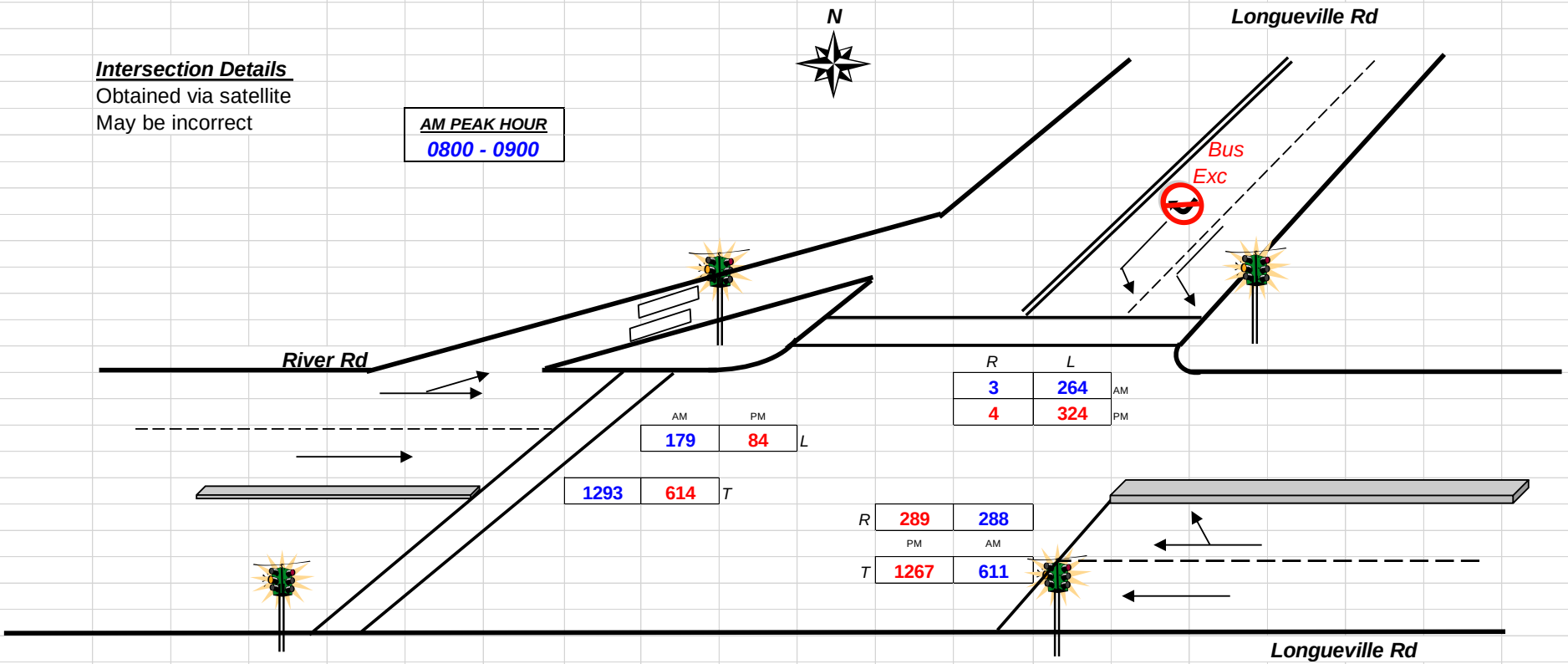
Intersection Details

Obtained via satellite

May be incorrect

AM PEAK HOUR

0800 - 0900



Combined figures only

PM PEAK HOUR

1645 - 1745

Weather >>>

APPENDIX C

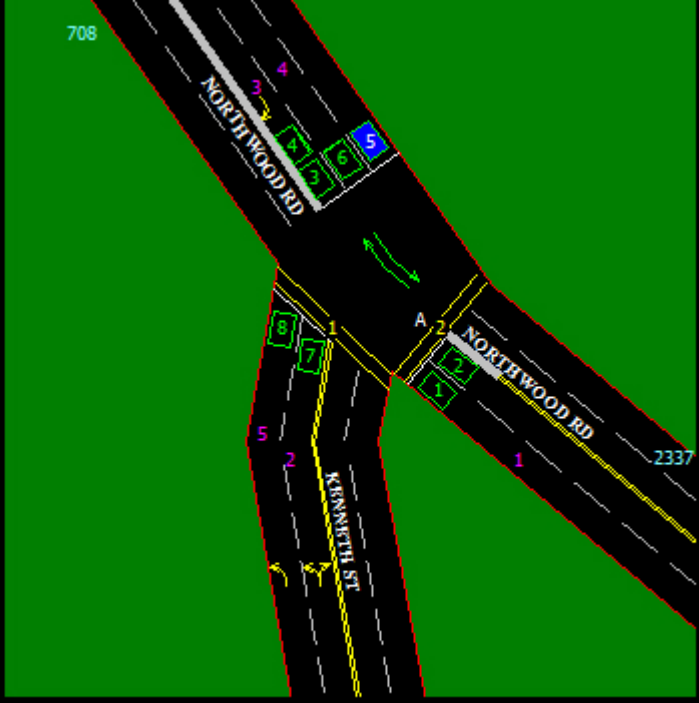
RMS IDM DATA

TCS 936

LONGUEVILLE 215E6

WILL SS=26

4 PHASES



Report: Periodic statistics for site 936

15 minute intervals
From 12:00:00 AM to 11:59:59 PM, on 15 August 2018

Period: 12:00:00 AM to 12:15:00 AM

Data	Freq.	Min	Max	Avg	Total
? phase	1	5	5	5	5
A phase	4	17	669	215	860
C phase	1	12	12	12	12
D phase	2	11	12	11	23

Period: 12:15:00 AM to 12:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	2	253	635	444	888
C phase	1	12	12	12	12

Period: 12:30:00 AM to 12:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 12:45:00 AM to 1:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	2	151	738	444	889
D phase	1	11	11	11	11

Period: 1:00:00 AM to 1:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 1:15:00 AM to 1:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 1:30:00 AM to 1:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 1:45:00 AM to 2:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 2:00:00 AM to 2:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 2:15:00 AM to 2:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 2:30:00 AM to 2:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 2:45:00 AM to 3:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 3:00:00 AM to 3:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 3:15:00 AM to 3:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 3:30:00 AM to 3:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	2	107	781	444	888
C phase	1	12	12	12	12

Period: 3:45:00 AM to 4:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	2	197	691	444	888
C phase	1	12	12	12	12

Period: 4:00:00 AM to 4:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	2	239	649	444	888
D phase	1	12	12	12	12

Period: 4:15:00 AM to 4:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	3	95	660	292	876
C phase	2	12	12	12	24

Period: 4:30:00 AM to 4:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 4:45:00 AM to 5:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	3	73	507	292	876
C phase	2	12	12	12	24

Period: 5:00:00 AM to 5:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	4	20	699	216	864
C phase	3	12	12	12	36

Period: 5:15:00 AM to 5:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	8	16	211	102	816
C phase	6	12	12	12	72
D phase	1	12	12	12	12

Period: 5:30:00 AM to 5:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	6	1	268	140	840
C phase	4	12	12	12	48
D phase	1	12	12	12	12

Period: 5:45:00 AM to 6:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	8	16	206	100	804
C phase	7	7	18	12	85
D phase	1	11	11	11	11
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	
Ped 2	1				

Period: 6:00:00 AM to 6:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	10	44	128	77	775
C phase	9	5	18	12	113
D phase	1	12	12	12	12
Nominal CL	3	28	60	49	
Active CL	3	28	60	49	
Ped 1	1				
Ped 2	2				

Period: 6:15:00 AM to 6:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	10	35	117	70	705
C phase	9	12	18	14	131
D phase	5	12	13	12	64
Ped 2	2				

Period: 6:30:00 AM to 6:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	14	33	102	49	686
C phase	12	3	19	13	162
D phase	4	12	15	13	52
Ped 2	2				

Period: 6:45:00 AM to 7:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	14	24	69	47	670
C phase	11	9	19	14	161
D phase	5	12	18	13	69
Nominal CL	6	69	82	75	
Active CL	6	69	82	75	
Ped 2	1				

Period: 7:00:00 AM to 7:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	12	4	83	52	627
C phase	10	13	22	16	169
D phase	7	13	24	14	104
Nominal CL	10	75	90	84	
Active CL	10	75	90	84	
Ped 2	2				

Period: 7:15:00 AM to 7:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	10	51	87	65	652
C phase	9	16	31	19	175
D phase	5	13	16	14	73
Nominal CL	8	90	100	95	
Active CL	8	90	100	95	
Ped 2	4				

Period: 7:30:00 AM to 7:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	10	26	91	62	624
C phase	9	18	28	20	187
D phase	6	12	16	14	89
Nominal CL	7	96	115	105	
Active CL	7	96	115	105	
Ped 1	1				
Ped 2	3				

Period: 7:45:00 AM to 8:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	10	42	88	65	654
C phase	9	18	27	21	191
D phase	4	13	15	13	55
Nominal CL	9	92	105	98	
Active CL	9	92	105	98	
Ped 1	1				
Ped 2	5				

Period: 8:00:00 AM to 8:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	9	36	90	71	647
C phase	9	13	33	20	181
D phase	5	12	16	14	72
Nominal CL	8	100	112	106	
Active CL	8	100	112	106	
Ped 1	1				
Ped 2	7				

Period: 8:15:00 AM to 8:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	8	60	100	79	637
C phase	9	6	19	15	139
D phase	8	12	23	15	124
Nominal CL	8	105	120	112	
Active CL	8	105	120	112	

Ped 1	2				
Ped 2	3				

Period: 8:30:00 AM to 8:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	8	43	96	80	642
C phase	8	5	19	17	138
D phase	8	12	16	15	120
Nominal CL	4	117	120	118	
Active CL	4	117	120	118	
Ped 2	4				

Period: 8:45:00 AM to 9:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	9	38	94	71	640
C phase	8	2	19	16	135
D phase	8	14	16	15	125
Nominal CL	7	93	120	107	
Active CL	7	93	120	107	
Ped 1	1				
Ped 2	5				

Period: 9:00:00 AM to 9:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	10	36	142	64	648
C phase	9	12	23	17	154
D phase	7	12	16	14	98
Nominal CL	11	62	97	81	
Active CL	11	62	97	81	
Ped 2	3				

Period: 9:15:00 AM to 9:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	13	14	66	46	606
C phase	12	12	23	17	205
D phase	7	11	13	12	89
Nominal CL	12	64	79	73	
Active CL	12	64	79	73	
Ped 1	2				
Ped 2	4				

Period: 9:30:00 AM to 9:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	14	34	79	45	639
C phase	11	5	24	15	168
D phase	7	12	14	13	93
Nominal CL	6	60	83	73	
Active CL	6	60	83	73	
Ped 1	1				
Ped 2	3				

Period: 9:45:00 AM to 10:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	15	11	95	41	625

C phase	13	12	19	14	185
D phase	7	12	13	12	90
Ped 1	2				
Ped 2	1				

Period: 10:00:00 AM to 10:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	16	21	53	38	612
C phase	9	12	20	17	155
D phase	9	11	20	14	133
Ped 2	4				

Period: 10:15:00 AM to 10:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	15	1	58	41	615
C phase	10	12	20	15	156
D phase	10	11	14	12	129
Nominal CL	7	64	76	71	
Active CL	7	64	76	71	
Ped 2	2				

Period: 10:30:00 AM to 10:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	14	15	95	44	623
C phase	11	12	19	14	159
D phase	9	12	15	13	118
Nominal CL	1	60	60	60	
Active CL	1	60	60	60	
Ped 2	3				

Period: 10:45:00 AM to 11:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	15	28	59	42	638
C phase	12	8	20	15	189
D phase	5	12	18	14	73
Nominal CL	4	60	67	64	
Active CL	4	60	67	64	
Ped 1	2				
Ped 2	3				

Period: 11:00:00 AM to 11:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	14	29	96	41	583
C phase	12	4	20	14	171
D phase	11	11	19	13	146
Ped 1	2				
Ped 2	3				

Period: 11:15:00 AM to 11:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	15	28	54	41	629
C phase	10	8	20	14	146
D phase	9	12	17	13	125
Nominal CL	1	69	69	69	

Active CL	1	69	69	69	
Ped 2	2				

Period: 11:30:00 AM to 11:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	15	10	57	40	610
C phase	13	2	20	13	173
D phase	9	11	17	13	117
Nominal CL	7	60	67	63	
Active CL	7	60	67	63	

Period: 11:45:00 AM to 12:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	18	46	37	602
C phase	13	12	20	14	194
D phase	8	12	15	13	104
Ped 1	1				
Ped 2	2				

Period: 12:00:00 PM to 12:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	15	105	41	623
C phase	10	12	20	16	165
D phase	8	12	20	14	112
Ped 2	2				

Period: 12:15:00 PM to 12:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	14	20	104	43	613
C phase	13	12	21	16	210
D phase	6	12	13	12	77
Nominal CL	7	60	75	67	
Active CL	7	60	75	67	
Ped 2	1				

Period: 12:30:00 PM to 12:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	13	51	38	613
C phase	13	12	20	13	181
D phase	8	12	16	13	106
Ped 1	1				

Period: 12:45:00 PM to 1:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	18	101	43	645
C phase	10	12	20	14	144
D phase	9	11	14	12	111
Ped 1	1				
Ped 2	1				

Period: 1:00:00 PM to 1:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	21	114	43	649

C phase	8	12	20	13	109
D phase	11	11	16	12	142

Period: 1:15:00 PM to 1:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	22	113	42	631
C phase	12	12	18	13	163
D phase	8	11	18	13	106
Ped 2	1				

Period: 1:30:00 PM to 1:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	22	97	42	636
C phase	12	12	19	13	159
D phase	8	12	15	13	105
Ped 1	1				
Ped 2	1				

Period: 1:45:00 PM to 2:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	21	48	37	604
C phase	14	12	20	13	195
D phase	8	12	13	12	101
Ped 2	1				

Period: 2:00:00 PM to 2:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	14	101	40	613
C phase	13	12	20	14	182
D phase	8	12	16	13	105
Ped 1	1				

Period: 2:15:00 PM to 2:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	14	21	64	43	609
C phase	12	12	18	14	172
D phase	10	3	14	11	119
Nominal CL	7	60	80	71	
Active CL	7	60	80	71	
Ped 1	2				
Ped 2	3				

Period: 2:30:00 PM to 2:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	14	34	59	43	614
C phase	12	3	20	14	170
D phase	9	10	14	12	116
Nominal CL	5	67	82	74	
Active CL	5	67	82	74	
Ped 2	1				

Period: 2:45:00 PM to 3:00:00 PM

Data	Freq.	Min	Max	Avg	Total

A phase	14	29	65	39	550
C phase	14	8	21	13	188
D phase	12	12	20	13	162
Nominal CL	6	60	74	67	
Active CL	6	60	74	67	
Ped 2	2				

Period: 3:00:00 PM to 3:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	13	29	65	42	558
C phase	13	5	20	13	179
D phase	12	12	16	13	163
Nominal CL	7	60	94	77	
Active CL	7	60	94	77	
Ped 1	1				
Ped 2	3				

Period: 3:15:00 PM to 3:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	11	39	70	56	619
C phase	10	4	19	14	142
D phase	10	13	16	13	139
Nominal CL	8	74	92	82	
Active CL	8	74	92	82	
Ped 2	3				

Period: 3:30:00 PM to 3:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	12	19	75	52	633
C phase	10	4	18	13	138
D phase	9	13	19	14	129
Nominal CL	11	62	99	77	
Active CL	11	62	99	77	
Ped 2	2				

Period: 3:45:00 PM to 4:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	13	3	89	43	559
C phase	11	12	19	17	191
D phase	10	13	17	15	150
Nominal CL	5	60	105	93	
Active CL	5	60	105	93	
Ped 1	2				
Ped 2	7				

Period: 4:00:00 PM to 4:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	10	52	81	64	641
C phase	8	17	19	18	144
D phase	8	12	17	14	115
Nominal CL	9	90	100	94	
Active CL	9	90	100	94	
Ped 1	2				
Ped 2	4				

Period: 4:15:00 PM to 4:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	11	4	85	55	606
C phase	10	15	20	17	175
D phase	8	13	18	14	119
Nominal CL	10	86	103	94	
Active CL	10	86	103	94	
Ped 2	4				

Period: 4:30:00 PM to 4:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	12	16	64	49	599
C phase	11	12	21	15	175
D phase	9	13	15	14	126
Nominal CL	9	71	96	82	
Active CL	9	71	96	82	
Ped 1	2				
Ped 2	2				

Period: 4:45:00 PM to 5:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	12	34	75	50	608
C phase	11	12	19	14	162
D phase	10	12	14	13	130
Nominal CL	12	63	86	75	
Active CL	12	63	86	75	
Ped 1	1				
Ped 2	3				

Period: 5:00:00 PM to 5:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	9	58	88	69	621
C phase	8	15	19	17	139
D phase	10	1	20	14	140
Nominal CL	7	92	111	101	
Active CL	7	92	111	101	
Ped 1	3				
Ped 2	3				

Period: 5:15:00 PM to 5:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	10	20	97	61	611
C phase	9	15	19	17	156
D phase	9	5	19	14	133
Nominal CL	9	89	106	97	
Active CL	9	89	106	97	
Ped 1	1				
Ped 2	4				

Period: 5:30:00 PM to 5:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	8	47	93	80	645
C phase	8	17	22	19	152
D phase	7	6	17	14	103
Nominal CL	5	112	120	116	

Active CL	5	112	120	116	
Ped 1	4				
Ped 2	4				

Period: 5:45:00 PM to 6:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	8	56	88	76	613
C phase	8	17	19	18	147
D phase	9	10	18	15	140
Nominal CL	8	98	120	111	
Active CL	8	98	120	111	
Ped 1	2				
Ped 2	5				

Period: 6:00:00 PM to 6:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	12	14	64	53	639
C phase	9	12	19	14	133
D phase	10	1	16	12	128
Nominal CL	10	60	97	78	
Active CL	10	60	97	78	
Ped 2	2				

Period: 6:15:00 PM to 6:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	13	15	62	42	558
C phase	12	12	19	15	186
D phase	12	12	14	13	156
Nominal CL	9	60	88	76	
Active CL	9	60	88	76	
Ped 1	2				
Ped 2	4				

Period: 6:30:00 PM to 6:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	1	55	35	575
C phase	12	12	20	14	170
D phase	11	12	21	14	155
Nominal CL	3	70	77	74	
Active CL	3	70	77	74	
Ped 1	1				
Ped 2	2				

Period: 6:45:00 PM to 7:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	14	22	58	42	588
C phase	11	12	19	15	168
D phase	11	12	15	13	144
Nominal CL	9	60	78	68	
Active CL	9	60	78	68	
Ped 2	4				

Period: 7:00:00 PM to 7:15:00 PM

Data	Freq.	Min	Max	Avg	Total

A phase	14	3	97	45	640
C phase	9	12	18	14	134
D phase	9	13	17	14	126
Nominal CL	8	60	75	68	
Active CL	8	60	75	68	
Ped 2	3				

Period: 7:15:00 PM to 7:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	15	105	44	671
C phase	10	12	17	13	132
D phase	8	11	13	12	97
Nominal CL	1	60	60	60	
Active CL	1	60	60	60	

Period: 7:30:00 PM to 7:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	26	94	44	661
C phase	8	12	18	13	111
D phase	10	11	15	12	128
Nominal CL	1	28	28	28	
Active CL	1	28	28	28	
Ped 2	1				

Period: 7:45:00 PM to 8:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	14	31	101	45	640
C phase	11	12	19	13	146
D phase	9	10	20	12	114
Nominal CL	1	60	60	60	
Active CL	1	60	60	60	
Ped 2	1				

Period: 8:00:00 PM to 8:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	10	36	169	71	711
C phase	10	12	19	13	139
D phase	5	3	12	10	50
Ped 2	3				

Period: 8:15:00 PM to 8:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	13	26	152	57	746
C phase	8	12	17	13	107
D phase	5	1	12	9	47
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	

Period: 8:30:00 PM to 8:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	14	22	102	52	729
C phase	10	12	18	13	136
D phase	3	11	13	11	35
Nominal CL	2	28	60	44	

Active CL	2	28	60	44	
Ped 2	1				

Period: 8:45:00 PM to 9:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	9	33	110	86	781
C phase	4	12	16	14	56
D phase	5	11	14	12	63

Period: 9:00:00 PM to 9:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	10	42	162	78	781
C phase	7	12	18	13	97
D phase	2	11	11	11	22
Ped 2	1				

Period: 9:15:00 PM to 9:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	7	46	189	115	808
C phase	5	12	20	13	69
D phase	2	11	12	11	23
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	

Period: 9:30:00 PM to 9:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	9	42	341	88	794
C phase	4	6	17	11	47
D phase	5	11	13	11	59
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	

Period: 9:45:00 PM to 10:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	10	16	168	75	755
C phase	9	6	18	13	120
D phase	2	12	13	12	25
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	
Ped 2	1				

Period: 10:00:00 PM to 10:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	9	42	165	86	775
C phase	6	7	18	14	87
D phase	3	11	14	12	38
Ped 2	1				

Period: 10:15:00 PM to 10:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	7	11	225	116	814
C phase	6	6	16	12	73
D phase	1	13	13	13	13

Nominal CL	2	28	60	44	
Active CL	2	28	60	44	

Period: 10:30:00 PM to 10:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	7	16	298	117	822
C phase	6	12	18	13	78
Nominal CL	1	28	28	28	
Active CL	1	28	28	28	
Ped 2	1				

Period: 10:45:00 PM to 11:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	4	35	716	216	865
D phase	3	11	12	11	35

Period: 11:00:00 PM to 11:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	8	30	213	102	819
C phase	4	12	12	12	48
D phase	3	11	11	11	33
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	

Period: 11:15:00 PM to 11:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	6	6	240	139	834
C phase	4	12	18	13	54
D phase	1	12	12	12	12
Ped 2	1				

Period: 11:30:00 PM to 11:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 11:45:00 PM to Unknown

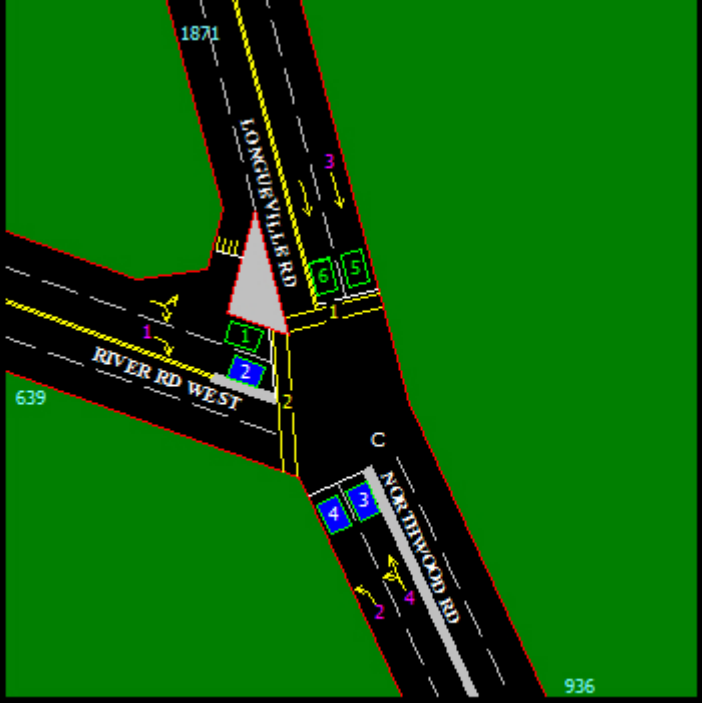
Data	Freq.	Min	Max	Avg	Total
? phase	1	5	5	5	5
A phase	2	118	764	441	882
C phase	1	12	12	12	12

TCS 708

LONGUEVILLE 215E5

WILL SS=26

3 PHASES



Report: Periodic statistics for site 708

15 minute intervals
From 12:00:00 AM to 11:59:59 PM, on 15 August 2018

Period: 12:00:00 AM to 12:15:00 AM

Data	Freq.	Min	Max	Avg	Total
? phase	1	8	8	8	8
A phase	7	11	296	116	818
B phase	6	11	14	12	74

Period: 12:15:00 AM to 12:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	6	44	295	140	842
B phase	5	11	13	11	58

Period: 12:30:00 AM to 12:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	2	319	569	444	888
B phase	1	12	12	12	12

Period: 12:45:00 AM to 1:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	2	63	822	442	885
B phase	1	15	15	15	15

Period: 1:00:00 AM to 1:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	2	319	569	444	888
B phase	1	12	12	12	12

Period: 1:15:00 AM to 1:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	2	240	648	444	888
B phase	1	12	12	12	12

Period: 1:30:00 AM to 1:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	3	191	464	292	876
B phase	2	12	12	12	24

Period: 1:45:00 AM to 2:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 2:00:00 AM to 2:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 2:15:00 AM to 2:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	2	345	543	444	888
B phase	1	12	12	12	12

Period: 2:30:00 AM to 2:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 2:45:00 AM to 3:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 3:00:00 AM to 3:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	1	900	900	900	900

Period: 3:15:00 AM to 3:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	2	416	473	444	889
B phase	1	11	11	11	11

Period: 3:30:00 AM to 3:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	3	12	587	290	870
B phase	1	11	11	11	11
C phase	1	19	19	19	19
IP3	1				
Ped 2	1				

Period: 3:45:00 AM to 4:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	2	268	618	443	886
B phase	1	14	14	14	14
IP2	1				
IP3	1				

Period: 4:00:00 AM to 4:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	3	39	624	292	876
B phase	2	12	12	12	24
IP2	2				
IP3	2				

Period: 4:15:00 AM to 4:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	3	180	512	291	875
B phase	2	12	13	12	25
IP2	3				
IP3	4				

Period: 4:30:00 AM to 4:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	6	13	303	140	841
B phase	5	11	13	11	59
IP2	2				
IP3	3				

Period: 4:45:00 AM to 5:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	6	20	291	139	837
B phase	5	12	14	12	63
IP3	1				

Period: 5:00:00 AM to 5:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	3	111	613	292	878
B phase	2	11	11	11	22
IP3	1				

Period: 5:15:00 AM to 5:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	10	16	239	78	786
B phase	9	11	14	12	114
IP2	1				
IP3	1				

Period: 5:30:00 AM to 5:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	11	30	128	70	773
B phase	9	11	13	12	109
C phase	1	18	18	18	18
IP2	2				
IP3	1				
Ped 2	1				

Period: 5:45:00 AM to 6:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	13	24	157	55	724
B phase	12	11	19	13	157
C phase	1	19	19	19	19
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	
IP2	4				
IP3	3				
Ped 2	1				

Period: 6:00:00 AM to 6:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	14	4	224	49	699
B phase	13	11	16	12	162
C phase	2	19	20	19	39
Nominal CL	3	28	60	49	
Active CL	3	28	60	49	
IP2	2				
IP3	2				

IP4	1				
Ped 2	2				

Period: 6:15:00 AM to 6:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	14	27	101	46	653
B phase	13	11	17	14	187
C phase	3	20	20	20	60
IP4	1				
IP5	1				
IP6	1				
IP7	2				
IP8	1				
Ped 2	3				

Period: 6:30:00 AM to 6:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	15	29	59	42	635
B phase	15	11	20	15	226
C phase	2	19	20	19	39
IP7	1				
IP8	1				
Ped 2	2				

Period: 6:45:00 AM to 7:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	14	12	63	46	647
B phase	13	12	21	14	193
C phase	3	20	20	20	60
Nominal CL	6	69	82	75	
Active CL	6	69	82	75	
IP7	2				
IP8	2				
Ped 2	3				

Period: 7:00:00 AM to 7:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	12	15	79	51	620
B phase	11	12	32	18	200
C phase	4	20	20	20	80
Nominal CL	10	75	90	84	
Active CL	10	75	90	84	
IP7	1				
IP8	1				
Ped 2	4				

Period: 7:15:00 AM to 7:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	10	50	83	68	681
B phase	9	13	31	22	199
C phase	1	20	20	20	20
Nominal CL	8	90	100	95	
Active CL	8	90	100	95	
IP8	1				
Ped 2	1				

Period: 7:30:00 AM to 7:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	10	22	98	62	622
B phase	9	15	26	19	178
C phase	5	20	20	20	100
Nominal CL	7	96	115	105	
Active CL	7	96	115	105	
IP6	2				
IP7	3				
IP8	2				
Ped 2	5				

Period: 7:45:00 AM to 8:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	10	39	91	65	659
B phase	9	15	24	20	181
C phase	3	20	20	20	60
Nominal CL	9	92	105	98	
Active CL	9	92	105	98	
IP5	1				
IP6	4				
IP7	2				
Ped 1	1				
Ped 2	3				

Period: 8:00:00 AM to 8:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	9	25	90	66	598
B phase	9	18	37	22	202
C phase	5	20	20	20	100
Nominal CL	8	100	112	106	
Active CL	8	100	112	106	
IP5	1				
IP6	2				
IP7	2				
IP8	1				
Ped 1	3				
Ped 2	5				

Period: 8:15:00 AM to 8:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	8	56	96	74	592
B phase	9	1	28	21	197
C phase	6	11	20	18	111
Nominal CL	8	105	120	112	
Active CL	8	105	120	112	
IP5	2				
IP6	2				
IP7	1				
Ped 1	2				
Ped 2	6				

Period: 8:30:00 AM to 8:45:00 AM

Data	Freq.	Min	Max	Avg	Total

A phase	8	62	95	81	654
B phase	7	16	31	25	177
C phase	4	9	20	17	69
Nominal CL	4	117	120	118	
Active CL	4	117	120	118	
IP5	2				
IP6	2				
IP7	1				
Ped 1	2				
Ped 2	3				

Period: 8:45:00 AM to 9:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	9	21	100	69	628
B phase	9	3	26	19	172
C phase	5	20	20	20	100
Nominal CL	7	93	120	107	
Active CL	7	93	120	107	
IP6	2				
IP7	4				
IP8	1				
Ped 1	1				
Ped 2	5				

Period: 9:00:00 AM to 9:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	11	38	79	55	610
B phase	11	16	29	20	230
C phase	3	20	20	20	60
Nominal CL	11	62	97	81	
Active CL	11	62	97	81	
IP6	2				
IP7	4				
IP8	1				
Ped 1	1				
Ped 2	3				

Period: 9:15:00 AM to 9:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	13	6	65	43	570
B phase	13	12	28	17	230
C phase	5	20	20	20	100
Nominal CL	12	64	79	73	
Active CL	12	64	79	73	
IP6	1				
IP7	4				
IP8	2				
Ped 2	5				

Period: 9:30:00 AM to 9:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	14	25	71	43	610
B phase	14	12	30	17	251
C phase	2	19	20	19	39
Nominal CL	6	60	83	73	
Active CL	6	60	83	73	

IP5	1				
IP6	2				
IP7	3				
IP8	1				
Ped 2	2				

Period: 9:45:00 AM to 10:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	15	22	47	37	563
B phase	16	1	25	16	257
C phase	4	20	20	20	80
IP5	2				
IP6	3				
IP7	1				
Ped 2	4				

Period: 10:00:00 AM to 10:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	15	25	43	36	552
B phase	15	13	31	19	288
C phase	3	20	20	20	60
IP5	1				
IP6	4				
IP7	2				
Ped 2	3				

Period: 10:15:00 AM to 10:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	14	21	58	40	571
B phase	14	13	23	17	249
C phase	4	20	20	20	80
Nominal CL	8	60	76	70	
Active CL	8	60	76	70	
IP4	1				
IP5	4				
IP6	4				
IP7	1				
Ped 2	4				

Period: 10:30:00 AM to 10:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	16	8	60	35	568
B phase	15	12	26	16	253
C phase	4	19	20	19	79
IP5	2				
IP6	5				
IP7	4				
Ped 2	4				

Period: 10:45:00 AM to 11:00:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	16	4	56	34	550
B phase	15	11	29	19	290
C phase	3	20	20	20	60
Nominal CL	4	60	67	64	

Active CL	4	60	67	64	
IP4	1				
IP5	2				
IP6	1				
IP7	1				
Ped 1	1				
Ped 2	3				

Period: 11:00:00 AM to 11:15:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	16	3	49	36	585
B phase	15	11	24	17	255
C phase	3	20	20	20	60
IP5	3				
IP6	5				
IP7	2				
Ped 2	3				

Period: 11:15:00 AM to 11:30:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	16	6	46	36	589
B phase	15	14	34	19	291
C phase	1	20	20	20	20
Nominal CL	1	69	69	69	
Active CL	1	69	69	69	
IP5	4				
IP6	5				
IP7	1				
Ped 2	1				

Period: 11:30:00 AM to 11:45:00 AM

Data	Freq.	Min	Max	Avg	Total
A phase	15	29	55	42	633
B phase	14	13	27	19	267
Nominal CL	7	60	67	63	
Active CL	7	60	67	63	
IP4	1				
IP5	3				
IP6	3				
IP7	2				

Period: 11:45:00 AM to 12:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	11	48	34	550
B phase	15	12	39	20	310
C phase	2	20	20	20	40
IP3	1				
IP4	2				
IP5	4				
IP6	2				
Ped 1	1				
Ped 2	2				

Period: 12:00:00 PM to 12:15:00 PM

Data	Freq.	Min	Max	Avg	Total

A phase	16	11	42	34	547
B phase	15	14	35	20	313
C phase	2	20	20	20	40
IP5	4				
IP6	4				
Ped 2	2				

Period: 12:15:00 PM to 12:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	13	58	39	589
B phase	14	12	26	17	251
C phase	3	20	20	20	60
Nominal CL	7	60	75	67	
Active CL	7	60	75	67	
IP4	1				
IP5	4				
IP6	4				
IP7	1				
Ped 1	1				
Ped 2	3				

Period: 12:30:00 PM to 12:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	6	49	34	556
B phase	15	12	28	19	285
C phase	3	19	20	19	59
IP5	3				
IP6	4				
IP7	2				
Ped 1	1				
Ped 2	3				

Period: 12:45:00 PM to 1:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	10	45	36	579
B phase	15	13	29	18	281
C phase	2	20	20	20	40
IP4	2				
IP5	5				
IP6	3				
IP7	1				
Ped 1	1				
Ped 2	2				

Period: 1:00:00 PM to 1:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	12	54	36	588
B phase	15	15	24	18	272
C phase	2	20	20	20	40
IP4	3				
IP5	5				
IP6	3				
IP7	1				
Ped 2	2				

Period: 1:15:00 PM to 1:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	8	46	35	562
B phase	15	12	35	18	279
C phase	3	19	20	19	59
IP5	3				
IP6	6				
IP7	2				
Ped 1	1				
Ped 2	3				

Period: 1:30:00 PM to 1:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	30	70	41	625
B phase	14	11	23	18	255
C phase	1	20	20	20	20
IP5	1				
IP6	3				
IP7	2				
Ped 1	1				
Ped 2	1				

Period: 1:45:00 PM to 2:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	8	46	34	559
B phase	15	14	25	18	281
C phase	3	20	20	20	60
IP3	2				
IP4	3				
IP5	4				
IP6	2				
Ped 2	3				

Period: 2:00:00 PM to 2:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	9	45	34	550
B phase	15	15	39	18	271
C phase	4	19	20	19	79
IP4	2				
IP5	2				
Ped 2	4				

Period: 2:15:00 PM to 2:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	6	62	38	584
B phase	14	14	31	21	296
C phase	1	20	20	20	20
Nominal CL	7	60	80	71	
Active CL	7	60	80	71	
IP4	3				
IP5	3				
Ped 2	1				

Period: 2:30:00 PM to 2:45:00 PM

Data	Freq.	Min	Max	Avg	Total

A phase	14	32	64	43	608
B phase	14	13	27	19	272
C phase	1	20	20	20	20
Nominal CL	5	67	82	74	
Active CL	5	67	82	74	
IP4	1				
IP5	3				
IP6	2				
IP7	1				
Ped 1	1				
Ped 2	1				

Period: 2:45:00 PM to 3:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	14	24	58	41	581
B phase	14	17	31	21	299
C phase	1	20	20	20	20
Nominal CL	6	60	74	67	
Active CL	6	60	74	67	
IP4	3				
IP5	7				
IP6	3				
Ped 2	1				

Period: 3:00:00 PM to 3:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	13	16	67	39	517
B phase	14	1	42	20	287
C phase	5	16	20	19	96
Nominal CL	7	60	94	77	
Active CL	7	60	94	77	
IP2	1				
IP3	4				
IP4	4				
IP5	2				
Ped 1	2				
Ped 2	5				

Period: 3:15:00 PM to 3:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	12	7	68	46	562
B phase	11	16	33	24	274
C phase	4	4	20	16	64
Nominal CL	8	74	92	82	
Active CL	8	74	92	82	
IP1	1				
IP2	1				
IP3	2				
IP4	1				
Ped 2	3				

Period: 3:30:00 PM to 3:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	12	23	80	49	594
B phase	12	1	34	23	286
C phase	1	20	20	20	20

Nominal CL	11	62	99	77	
Active CL	11	62	99	77	
IP1	2				
IP2	3				
IP3	3				
IP4	1				
Ped 2	1				

Period: 3:45:00 PM to 4:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	11	17	64	42	462
B phase	11	20	64	32	358
C phase	4	20	20	20	80
Nominal CL	6	60	105	94	
Active CL	6	60	105	94	
IP1	1				
IP2	1				
IP3	2				
IP4	1				
Ped 2	4				

Period: 4:00:00 PM to 4:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	10	27	76	57	572
B phase	10	18	61	26	268
C phase	3	20	20	20	60
Nominal CL	8	90	100	93	
Active CL	8	90	100	93	
IP1	1				
IP2	1				
Ped 1	1				
Ped 2	3				

Period: 4:15:00 PM to 4:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	10	34	82	55	559
B phase	10	15	40	26	261
C phase	4	20	20	20	80
Nominal CL	10	86	103	94	
Active CL	10	86	103	94	
IP1	1				
IP2	1				
Ped 2	4				

Period: 4:30:00 PM to 4:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	12	13	77	47	568
B phase	11	13	45	24	272
C phase	3	20	20	20	60
Nominal CL	9	71	96	82	
Active CL	9	71	96	82	
IP1	1				
IP2	2				
IP3	2				
IP4	1				
Ped 2	3				

Period: 4:45:00 PM to 5:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	13	17	67	38	494
B phase	12	16	45	27	326
C phase	4	20	20	20	80
Nominal CL	12	63	86	75	
Active CL	12	63	86	75	
IP2	1				
IP3	3				
IP4	3				
Ped 2	4				

Period: 5:00:00 PM to 5:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	10	31	74	56	560
B phase	9	17	40	26	240
C phase	5	20	20	20	100
Nominal CL	7	92	111	101	
Active CL	7	92	111	101	
IP1	1				
IP2	1				
IP3	1				
IP4	1				
Ped 1	1				
Ped 2	5				

Period: 5:15:00 PM to 5:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	10	31	74	50	509
B phase	9	14	64	36	331
C phase	3	20	20	20	60
Nominal CL	9	89	106	97	
Active CL	9	89	106	97	
IP1	2				
IP2	1				
Ped 1	2				
Ped 2	3				

Period: 5:30:00 PM to 5:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	8	13	98	54	435
B phase	8	18	82	48	390
C phase	4	15	20	18	75
Nominal CL	5	112	120	116	
Active CL	5	112	120	116	
IP1	1				
Ped 1	1				
Ped 2	4				

Period: 5:45:00 PM to 6:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	9	3	84	52	475
B phase	8	26	67	45	360
C phase	4	5	20	16	65

Nominal CL	8	98	120	111	
Active CL	8	98	120	111	
IP1	1				
Ped 1	1				
Ped 2	3				

Period: 6:00:00 PM to 6:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	12	29	70	51	621
B phase	12	4	39	21	259
C phase	1	20	20	20	20
Nominal CL	10	60	97	78	
Active CL	10	60	97	78	
IP1	3				
IP2	3				
IP3	1				
Ped 2	1				

Period: 6:15:00 PM to 6:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	12	22	72	47	568
B phase	13	8	30	22	292
C phase	2	20	20	20	40
Nominal CL	9	60	88	76	
Active CL	9	60	88	76	
IP2	1				
IP3	4				
IP4	3				
Ped 1	2				
Ped 2	2				

Period: 6:30:00 PM to 6:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	2	63	38	580
B phase	15	9	31	18	280
C phase	2	20	20	20	40
Nominal CL	3	70	77	74	
Active CL	3	70	77	74	
IP2	1				
IP3	1				
IP4	1				
IP5	1				
IP6	2				
IP7	1				
Ped 2	2				

Period: 6:45:00 PM to 7:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	14	22	63	44	620
B phase	14	10	26	18	260
C phase	1	20	20	20	20
Nominal CL	9	60	78	68	
Active CL	9	60	78	68	
IP4	1				
IP5	4				
IP6	4				

IP7	1				
Ped 2	1				

Period: 7:00:00 PM to 7:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	14	23	58	44	624
B phase	14	9	21	16	236
C phase	2	20	20	20	40
Nominal CL	8	60	75	68	
Active CL	8	60	75	68	
IP5	3				
IP6	4				
IP7	2				
Ped 2	2				

Period: 7:15:00 PM to 7:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	6	48	38	613
B phase	14	14	24	17	247
C phase	2	20	20	20	40
Nominal CL	1	60	60	60	
Active CL	1	60	60	60	
IP5	3				
IP6	3				
IP7	1				
Ped 2	2				

Period: 7:30:00 PM to 7:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	6	104	43	648
B phase	15	8	21	15	232
C phase	1	20	20	20	20
Nominal CL	1	28	28	28	
Active CL	1	28	28	28	
IP4	2				
IP5	4				
IP6	2				
Ped 1	2				
Ped 2	1				

Period: 7:45:00 PM to 8:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	24	71	43	655
B phase	15	8	31	16	245
Nominal CL	1	60	60	60	
Active CL	1	60	60	60	
IP2	1				
IP3	4				
IP4	4				

Period: 8:00:00 PM to 8:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	14	67	42	678
B phase	15	12	19	14	222
IP4	1				

IP5	2				
IP6	4				
IP7	2				

Period: 8:15:00 PM to 8:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	25	60	41	662
B phase	15	12	23	15	238
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	
IP1	2				
IP2	2				
IP3	1				
IP4	1				
IP5	1				
IP6	1				

Period: 8:30:00 PM to 8:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	17	8	50	38	654
B phase	16	12	21	15	246
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	
IP1	3				
IP2	4				
IP3	1				

Period: 8:45:00 PM to 9:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	11	3	229	67	738
B phase	10	12	21	16	162
IP1	1				
IP2	4				
IP3	3				
IP4	1				

Period: 9:00:00 PM to 9:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	15	5	97	46	692
B phase	14	12	25	14	208
IP1	1				
IP2	3				
IP3	2				
IP4	1				

Period: 9:15:00 PM to 9:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	17	1	72	40	683
B phase	16	11	20	13	217
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	
IP1	2				
IP2	3				
IP3	2				
IP4	1				

Period: 9:30:00 PM to 9:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	16	7	106	43	690
B phase	15	12	21	14	210
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	
IP2	2				
IP3	2				

Period: 9:45:00 PM to 10:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	18	13	50	34	629
B phase	17	11	28	14	251
C phase	1	20	20	20	20
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	
IP1	1				
IP2	3				
IP3	1				
Ped 2	1				

Period: 10:00:00 PM to 10:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	12	31	194	62	746
B phase	11	11	18	14	154
IP2	3				
IP3	4				
IP4	2				
IP5	1				

Period: 10:15:00 PM to 10:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	12	1	158	64	770
B phase	11	11	14	11	130
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	
IP1	1				
IP2	2				
IP3	1				
IP4	1				
IP5	1				

Period: 10:30:00 PM to 10:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	10	11	261	79	791
B phase	9	11	13	12	109
Nominal CL	1	28	28	28	
Active CL	1	28	28	28	
IP1	3				
IP2	5				
IP3	1				

Period: 10:45:00 PM to 11:00:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	10	12	155	78	785
B phase	9	11	17	12	115
IP1	5				
IP2	5				

Period: 11:00:00 PM to 11:15:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	9	6	352	89	801
B phase	8	11	15	12	99
Nominal CL	2	28	60	44	
Active CL	2	28	60	44	
IP1	4				
IP2	3				

Period: 11:15:00 PM to 11:30:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	7	15	374	118	827
B phase	6	11	13	12	73
IP1	3				
IP2	2				

Period: 11:30:00 PM to 11:45:00 PM

Data	Freq.	Min	Max	Avg	Total
A phase	5	4	407	169	848
B phase	4	11	16	13	52
IP1	3				
IP2	3				

Period: 11:45:00 PM to Unknown

Data	Freq.	Min	Max	Avg	Total
? phase	1	11	11	11	11
A phase	7	20	297	116	812
B phase	6	11	17	12	76
IP1	2				
IP2	2				

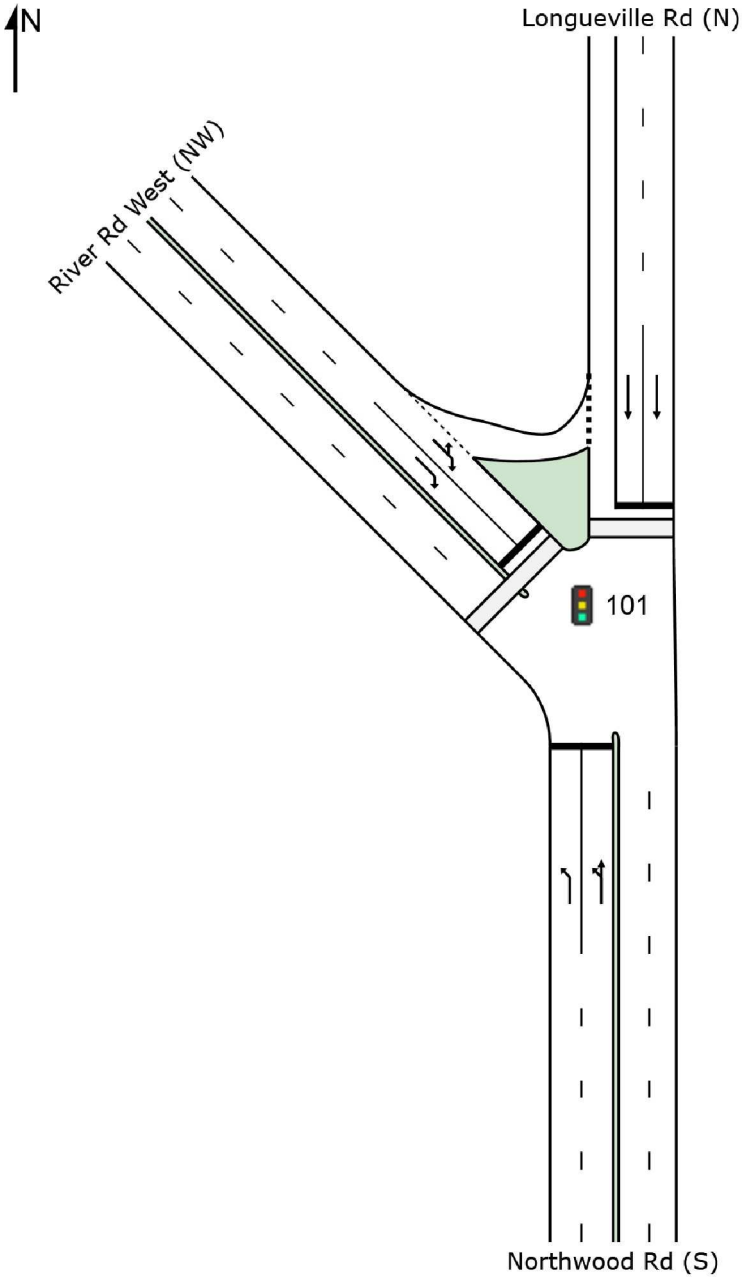
APPENDIX D

SIDRA MOVEMENT SUMMARIES

SITE LAYOUT

Site: 101 [LON_RIVX AM]

Longueville Rd, River Rd & Northwood Rd, Lane Cove
Signals - Fixed Time Isolated



MOVEMENT SUMMARY

Site: 101 [LON_RIVX AM]

Network: N101 [Existing AM (Existing Arrangements)]

Longueville Rd, River Rd & Northwood Rd, Lane Cove
Signals - Fixed Time Coordinated Cycle Time = 112 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Northwood Rd (S)													
1a	L1	611	0.8	611	0.8	0.367	2.6	LOS A	1.5	10.6	0.05	0.49	45.7
2	T1	288	1.0	288	1.0	1.030	106.9	LOS F	6.9	49.0	1.00	1.27	1.3
Approach		899	0.9	899	0.9	1.030	36.0	LOS C	6.9	49.0	0.35	0.74	21.2
North: Longueville Rd (N)													
8	T1	264	0.8	264	0.8	0.957	86.9	LOS F	7.4	52.2	1.00	1.19	1.8
Approach		264	0.8	264	0.8	0.957	86.9	LOS F	7.4	52.2	1.00	1.19	1.8
NorthWest: River Rd West (NW)													
27b	L3	179	6.1	179	6.1	0.991	83.8	LOS F	69.4	491.8	1.00	1.23	15.6
29a	R1	1293	0.1	1293	0.1	0.991	82.7	LOS F	69.4	491.8	1.00	1.23	15.4
Approach		1472	0.8	1472	0.8	0.991	82.9	LOS F	69.4	491.8	1.00	1.23	15.4
All Vehicles		2635	0.8	2635	0.8	1.030	67.3	LOS E	69.4	491.8	0.78	1.06	15.5

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 32.5 %
Number of Iterations: 10 (maximum specified: 10)

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P3	North Full Crossing	6	5.5	LOS A	0.0	0.0	0.31	0.31
P7	NorthWest Full Crossing	17	50.2	LOS E	0.1	0.1	0.95	0.95
All Pedestrians		23	38.5	LOS D			0.78	0.78

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 [LON_RIVX PM]

Network: N101 [Existing PM (Existing Arrangements)]

Longueville Rd, River Rd & Northwood Rd, Lane Cove
Signals - Fixed Time Coordinated Cycle Time = 87 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Northwood Rd (S)													
1a	L1	1267	0.1	1267	0.1	0.630	7.8	LOS A	6.9	49.0	0.21	0.56	40.9
2	T1	289	1.4	289	1.4	0.630	32.4	LOS C	6.9	49.0	1.00	0.88	4.1
Approach		1556	0.3	1556	0.3	0.630	12.4	LOS A	6.9	49.0	0.36	0.62	35.4
North: Longueville Rd (N)													
8	T1	324	0.9	324	0.9	0.279	17.1	LOS B	5.7	39.9	0.68	0.57	7.8
Approach		324	0.9	324	0.9	0.279	17.1	LOS B	5.7	39.9	0.68	0.57	7.8
NorthWest: River Rd West (NW)													
27b	L3	84	3.6	84	3.6	0.629	27.0	LOS B	14.6	103.0	0.84	0.84	29.6
29a	R1	614	0.5	614	0.5	0.629	25.3	LOS B	14.6	103.0	0.84	0.83	29.6
Approach		698	0.9	698	0.9	0.629	25.5	LOS B	14.6	103.0	0.84	0.83	29.6
All Vehicles		2578	0.5	2578	0.5	0.630	16.5	LOS B	14.6	103.0	0.53	0.67	31.8

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.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 19.6 %
Number of Iterations: 10 (maximum specified: 10)

Movement Performance - Pedestrians

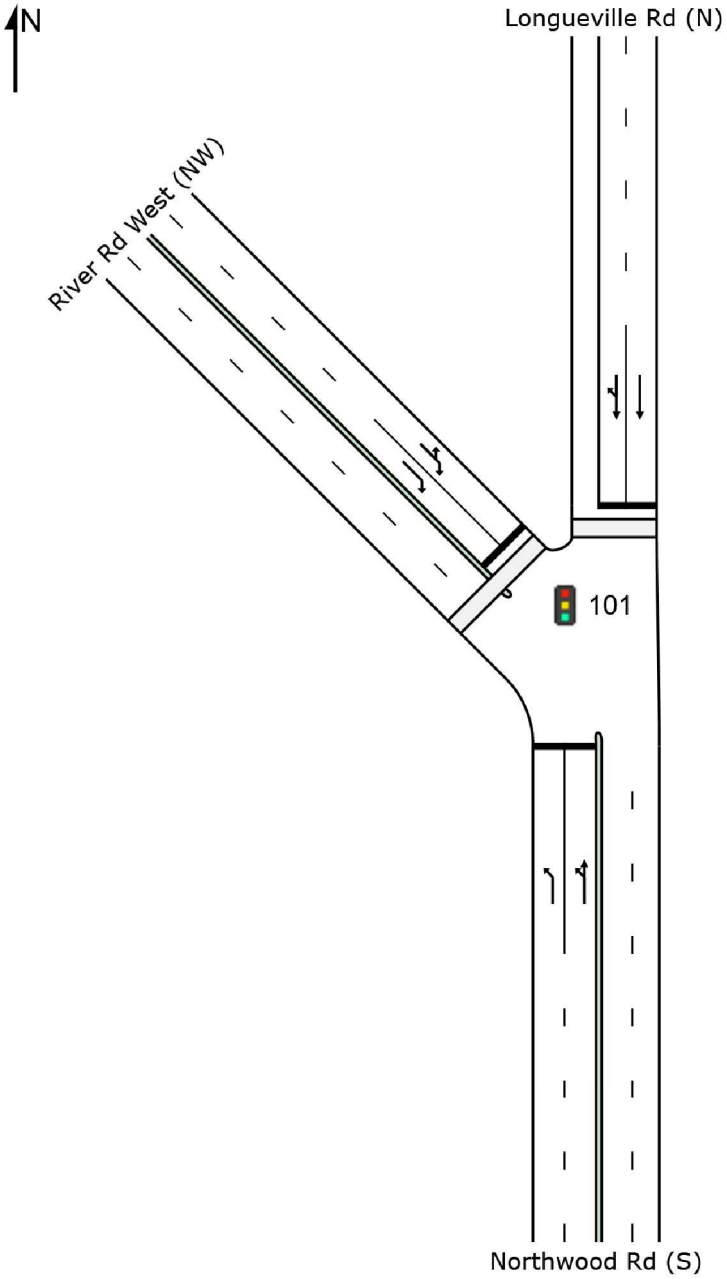
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P3	North Full Crossing	3	18.7	LOS B	0.0	0.0	0.66	0.66
P7	NorthWest Full Crossing	10	37.7	LOS D	0.0	0.0	0.93	0.93
All Pedestrians		13	33.3	LOS D			0.87	0.87

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.

SITE LAYOUT

Site: 101 [LON_RIVP(P) AM]

Longueville Rd, River Rd & Northwood Rd, Lane Cove
Signals - Fixed Time Isolated



MOVEMENT SUMMARY

Site: 101 [LON_RIVP(P) AM]

Network: N101 [Proposed AM (Proposed Arrangements)]

Longueville Rd, River Rd & Northwood Rd, Lane Cove
Signals - Fixed Time Coordinated Cycle Time = 114 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Northwood Rd (S)													
1a	L1	621	0.8	621	0.8	0.384	2.9	LOS A	2.1	15.0	0.07	0.50	45.5
2	T1	288	1.0	288	1.0	0.839	62.4	LOS E	6.9	49.0	1.00	0.92	2.3
Approach		909	0.9	909	0.9	0.839	21.7	LOS B	6.9	49.0	0.36	0.63	27.5
North: Longueville Rd (N)													
8	T1	261	0.8	261	0.8	0.477	36.7	LOS C	7.4	52.2	0.88	0.74	4.0
9b	R3	43	0.0	43	0.0	0.511	65.3	LOS E	2.5	17.7	1.00	0.75	19.6
Approach		304	0.7	304	0.7	0.511	40.8	LOS C	7.4	52.2	0.90	0.75	8.5
NorthWest: River Rd West (NW)													
27b	L3	179	6.1	179	6.1	0.861	28.5	LOS C	47.2	334.0	0.89	0.91	28.9
29a	R1	1293	0.1	1293	0.1	0.861	31.1	LOS C	47.2	334.0	0.89	0.93	27.1
Approach		1472	0.8	1472	0.8	0.861	30.8	LOS C	47.2	334.0	0.89	0.92	27.3
All Vehicles		2685	0.8	2685	0.8	0.861	28.8	LOS C	47.2	334.0	0.71	0.80	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.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 10 (maximum specified: 10)

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P3	North Full Crossing	6	11.4	LOS B	0.0	0.0	0.45	0.45
P7	NorthWest Full Crossing	17	51.2	LOS E	0.1	0.1	0.95	0.95
All Pedestrians		23	40.8	LOS E			0.82	0.82

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 [LON_RIVP(P) PM]

Network: N101 [Proposed PM (Proposed Arrangements)]

Longueville Rd, River Rd & Northwood Rd, Lane Cove
Signals - Fixed Time Coordinated Cycle Time = 88 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Northwood Rd (S)													
1a	L1	1279	0.1	1279	0.1	0.691	12.8	LOS A	7.0	49.0	0.64	0.76	37.0
2	T1	289	1.4	289	1.4	0.691	37.4	LOS C	6.9	49.0	1.00	0.88	3.6
Approach		1568	0.3	1568	0.3	0.691	17.4	LOS B	7.0	49.0	0.71	0.78	32.0
North: Longueville Rd (N)													
8	T1	318	0.9	318	0.9	0.319	13.4	LOS A	7.4	52.2	0.62	0.54	9.5
9b	R3	45	0.0	45	0.0	0.413	49.7	LOS D	2.0	14.1	1.00	0.74	23.2
Approach		363	0.8	363	0.8	0.413	17.9	LOS B	7.4	52.2	0.67	0.56	15.3
NorthWest: River Rd West (NW)													
27b	L3	84	3.6	84	3.6	0.711	32.5	LOS C	17.5	123.6	0.92	0.85	27.2
29a	R1	614	0.5	614	0.5	0.711	31.9	LOS C	17.5	123.6	0.92	0.87	26.7
Approach		698	0.9	698	0.9	0.711	32.0	LOS C	17.5	123.6	0.92	0.86	26.8
All Vehicles		2629	0.5	2629	0.5	0.711	21.3	LOS B	17.5	123.6	0.76	0.77	29.0

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.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 145.2 %
Number of Iterations: 10 (maximum specified: 10)

Movement Performance - Pedestrians

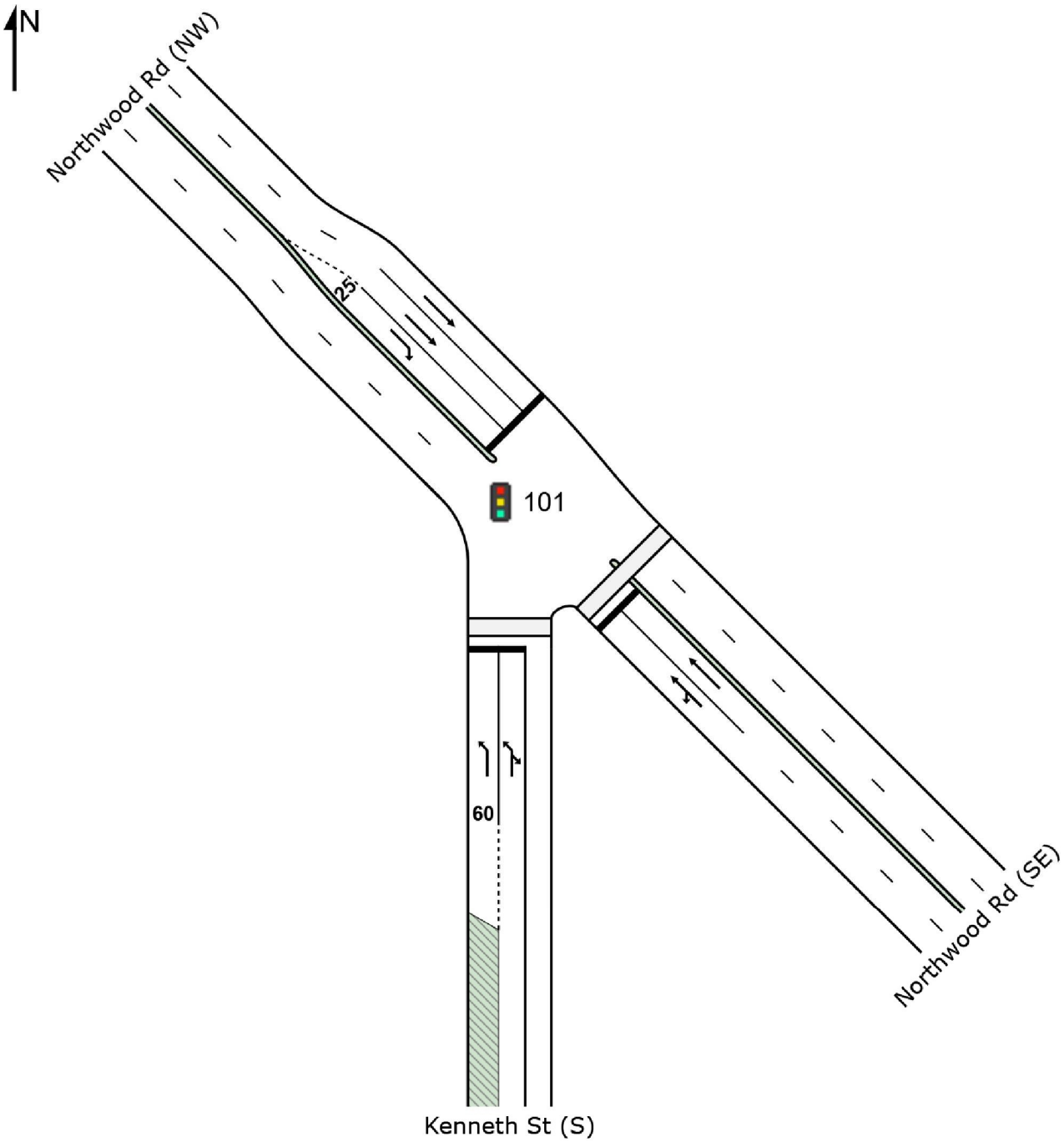
Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue Pedestrian	Distance	Prop. Queued	Effective Stop Rate
		ped/h	sec		ped	m		per ped
P3	North Full Crossing	3	23.3	LOS C	0.0	0.0	0.73	0.73
P7	NorthWest Full Crossing	10	38.2	LOS D	0.0	0.0	0.93	0.93
All Pedestrians		13	34.8	LOS D			0.88	0.88

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.

SITE LAYOUT

Site: 101 [NOR_KENX AM]

Northwood Rd & Kenneth St
Signals - Fixed Time Isolated



MOVEMENT SUMMARY

Site: 101 [NOR_KENX AM]

Network: N101 [Existing AM (Existing Arrangements)]

Northwood Rd & Kenneth St
Signals - Fixed Time Coordinated Cycle Time = 112 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Kenneth St (S)													
1a	L1	164	1.2	164	1.2	0.196	24.1	LOS B	5.4	38.5	0.65	0.70	30.2
3b	R3	104	1.9	104	1.9	0.922	78.4	LOS F	6.9	49.0	1.00	1.04	23.9
Approach		268	1.5	268	1.5	0.922	45.2	LOS D	6.9	49.0	0.79	0.83	26.4
SouthEast: Northwood Rd (SE)													
21b	L3	23	4.3	23	4.3	0.597	29.8	LOS C	21.3	150.0	0.80	0.72	37.3
22	T1	761	0.8	761	0.8	0.597	24.6	LOS B	21.3	150.0	0.80	0.71	29.9
Approach		784	0.9	784	0.9	0.597	24.7	LOS B	21.3	150.0	0.80	0.71	30.2
NorthWest: Northwood Rd (NW)													
28	T1	1473	0.1	1473	0.1	0.521	3.4	LOS A	7.0	49.0	0.33	0.31	46.0
29a	R1	161	0.6	161	0.6	0.786	42.6	LOS D	7.0	49.0	0.84	0.88	23.9
Approach		1634	0.2	1634	0.2	0.786	7.3	LOS A	7.0	49.0	0.38	0.36	42.1
All Vehicles		2686	0.5	2686	0.5	0.922	16.1	LOS B	21.3	150.0	0.55	0.51	35.5

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 32.5 %
Number of Iterations: 10 (maximum specified: 10)

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	14	20.7	LOS C	0.0	0.0	0.61	0.61
P5	SouthEast Full Crossing	12	50.2	LOS E	0.0	0.0	0.95	0.95
All Pedestrians		26	34.3	LOS D			0.76	0.76

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 [NOR_KENX PM]

Network: N101 [Existing PM (Existing Arrangements)]

Northwood Rd & Kenneth St
Signals - Fixed Time Coordinated Cycle Time = 87 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Kenneth St (S)													
1a	L1	168	2.4	168	2.4	0.275	27.3	LOS B	5.3	38.1	0.79	0.75	28.7
3b	R3	71	2.8	71	2.8	0.786	56.4	LOS D	3.4	24.6	1.00	0.91	27.9
Approach		239	2.5	239	2.5	0.786	35.9	LOS C	5.3	38.1	0.85	0.79	28.4
SouthEast: Northwood Rd (SE)													
21b	L3	21	0.0	21	0.0	0.870	31.7	LOS C	39.4	276.1	0.94	0.96	36.6
22	T1	1346	0.1	1346	0.1	0.870	29.5	LOS C	39.4	276.1	0.94	1.00	27.7
Approach		1367	0.1	1367	0.1	0.870	29.5	LOS C	39.4	276.1	0.94	1.00	27.9
NorthWest: Northwood Rd (NW)													
28	T1	730	0.5	730	0.5	0.241	2.3	LOS A	3.9	27.3	0.26	0.23	47.2
29a	R1	194	0.5	194	0.5	0.895	51.1	LOS D	7.0	49.0	1.00	0.98	21.7
Approach		924	0.5	924	0.5	0.895	12.6	LOS A	7.0	49.0	0.42	0.39	37.8
All Vehicles		2530	0.5	2530	0.5	0.895	23.9	LOS B	39.4	276.1	0.74	0.75	30.9

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.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 19.6 %
Number of Iterations: 10 (maximum specified: 10)

Movement Performance - Pedestrians

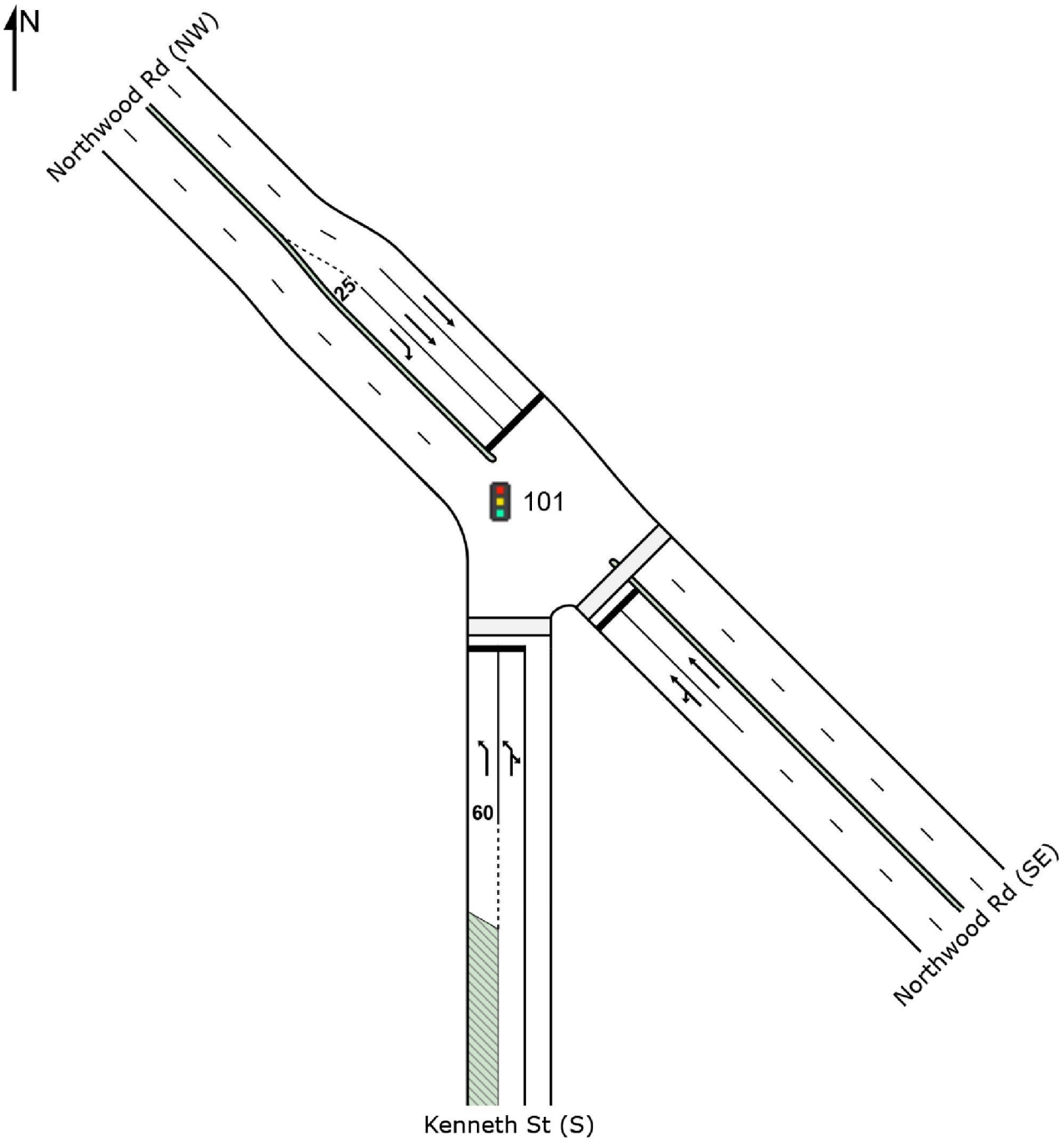
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	2	12.7	LOS B	0.0	0.0	0.54	0.54
P5	SouthEast Full Crossing	28	37.8	LOS D	0.1	0.1	0.93	0.93
All Pedestrians		30	36.1	LOS D			0.91	0.91

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.

SITE LAYOUT

Site: 101 [NOR_KENP(P) AM]

Northwood Rd & Kenneth St
Signals - Fixed Time Isolated



MOVEMENT SUMMARY

Site: 101 [NOR_KENP(P) AM]

Network: N101 [Proposed AM (Proposed Arrangements)]

Northwood Rd & Kenneth St
Signals - Fixed Time Coordinated Cycle Time = 114 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Kenneth St (S)													
1a	L1	164	1.2	164	1.2	0.174	20.6	LOS B	5.0	35.3	0.59	0.68	32.1
3b	R3	104	1.9	104	1.9	0.938	82.6	LOS F	7.2	50.9	1.00	1.06	23.3
Approach		268	1.5	268	1.5	0.938	44.7	LOS D	7.2	50.9	0.75	0.83	26.5
SouthEast: Northwood Rd (SE)													
21b	L3	23	4.3	23	4.3	0.682	35.4	LOS C	24.2	170.7	0.88	0.79	35.2
22	T1	771	0.8	771	0.8	0.682	30.5	LOS C	24.2	170.7	0.88	0.79	27.3
Approach		794	0.9	794	0.9	0.682	30.6	LOS C	24.2	170.7	0.88	0.79	27.6
NorthWest: Northwood Rd (NW)													
28	T1	1486	0.1	1486	0.1	0.514	3.1	LOS A	7.0	49.0	0.31	0.29	46.3
29a	R1	145	0.7	145	0.7	0.682	39.2	LOS C	7.0	49.0	0.92	0.80	25.0
Approach		1631	0.2	1631	0.2	0.682	6.3	LOS A	7.0	49.0	0.37	0.33	43.0
All Vehicles		2693	0.5	2693	0.5	0.938	17.3	LOS B	24.2	170.7	0.56	0.51	34.8

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.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 10 (maximum specified: 10)

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	14	24.7	LOS C	0.0	0.0	0.66	0.66
P5	SouthEast Full Crossing	12	51.2	LOS E	0.0	0.0	0.95	0.95
All Pedestrians		26	36.9	LOS D			0.79	0.79

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 [NOR_KENP(P) PM]

Network: N101 [Proposed PM (Proposed Arrangements)]

Northwood Rd & Kenneth St
Signals - Fixed Time Coordinated Cycle Time = 88 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Kenneth St (S)													
1a	L1	168	2.4	168	2.4	0.288	28.7	LOS C	5.5	39.4	0.80	0.75	28.1
3b	R3	71	2.8	71	2.8	0.795	57.3	LOS E	3.5	25.0	1.00	0.91	27.8
Approach		239	2.5	239	2.5	0.795	37.2	LOS C	5.5	39.4	0.86	0.80	28.0
SouthEast: Northwood Rd (SE)													
21b	L3	21	0.0	21	0.0	0.852	28.3	LOS B	37.5	262.7	0.91	0.91	37.9
22	T1	1358	0.1	1358	0.1	0.852	25.8	LOS B	37.5	262.7	0.91	0.94	29.3
Approach		1379	0.1	1379	0.1	0.852	25.9	LOS B	37.5	262.7	0.91	0.94	29.5
NorthWest: Northwood Rd (NW)													
28	T1	741	0.5	741	0.5	0.243	1.0	LOS A	1.9	13.5	0.10	0.09	48.7
29a	R1	175	0.6	175	0.6	0.866	50.3	LOS D	7.0	49.0	1.00	0.94	21.9
Approach		916	0.5	916	0.5	0.866	10.4	LOS A	7.0	49.0	0.27	0.25	39.4
All Vehicles		2534	0.5	2534	0.5	0.866	21.4	LOS B	37.5	262.7	0.68	0.68	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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 145.2 %
Number of Iterations: 10 (maximum specified: 10)

Movement Performance - Pedestrians

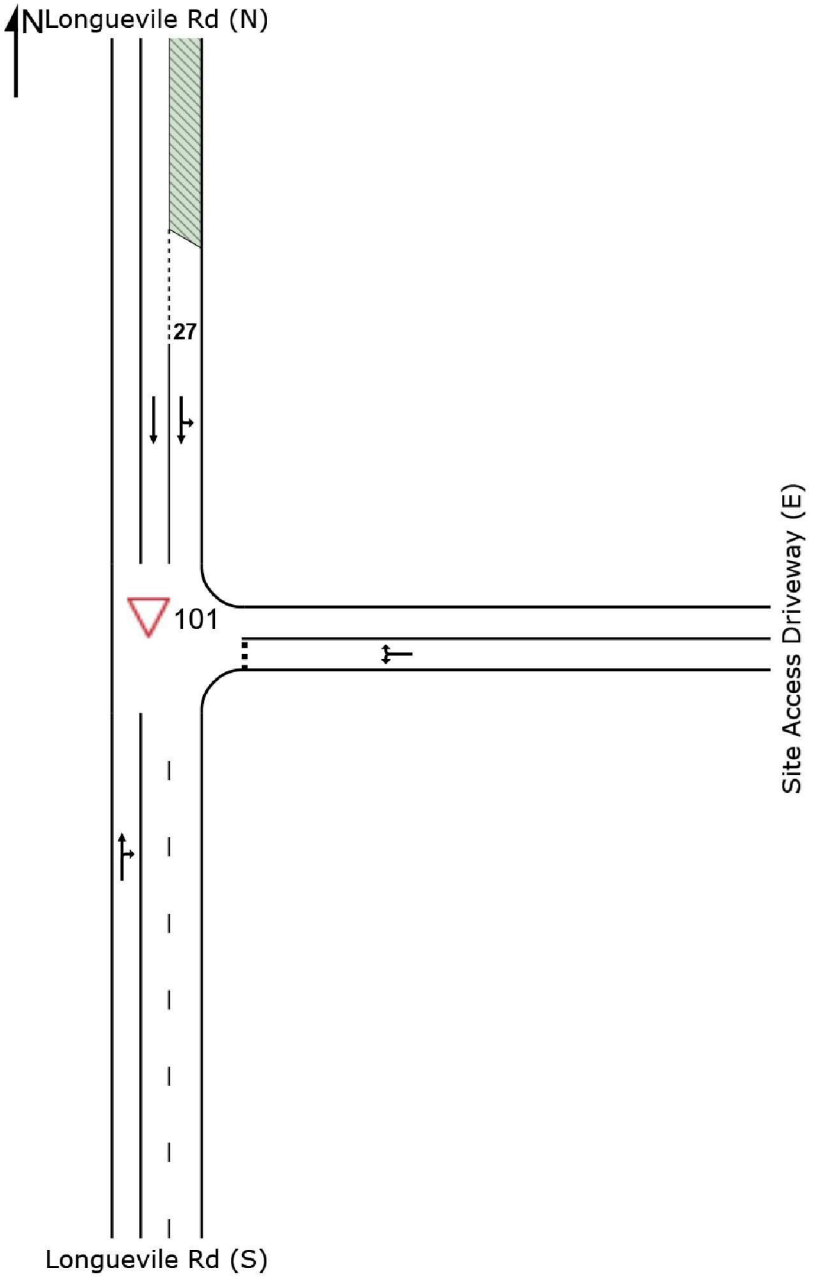
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	2	12.0	LOS B	0.0	0.0	0.52	0.52
P5	SouthEast Full Crossing	28	38.2	LOS D	0.1	0.1	0.93	0.93
All Pedestrians		30	36.5	LOS D			0.91	0.91

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.

SITE LAYOUT

Site: 101 [LON_ACCX AM]

Longueville Rd & Site Access Driveway
Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

Site: 101 [LON_ACCX AM]

Network: N101 [Existing AM (Existing Arrangements)]

Longueville Rd & Site Access Driveway
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Longuevile Rd (S)													
2	T1	460	3.0	460	3.0	0.245	0.0	LOS A	0.0	0.1	0.00	0.00	50.0
3	R2	1	0.0	1	0.0	0.245	4.5	LOS A	0.0	0.1	0.00	0.00	21.5
Approach		461	3.0	461	3.0	0.245	0.0	NA	0.0	0.1	0.00	0.00	49.8
East: Site Access Driveway (E)													
4	L2	3	0.0	3	0.0	0.012	0.4	LOS A	0.0	0.2	0.33	0.22	19.4
6	R2	3	0.0	3	0.0	0.012	5.2	LOS A	0.0	0.2	0.33	0.22	27.6
Approach		6	0.0	6	0.0	0.012	2.8	LOS A	0.0	0.2	0.33	0.22	24.2
North: Longuevile Rd (N)													
7	L2	1	0.0	1	0.0	0.071	4.6	LOS A	0.4	2.8	0.00	0.00	49.5
8	T1	270	1.9	270	1.9	0.071	0.0	LOS A	0.4	2.8	0.00	0.00	50.0
Approach		271	1.8	271	1.8	0.071	0.0	NA	0.4	2.8	0.00	0.00	50.0
All Vehicles		738	2.6	738	2.6	0.245	0.0	NA	0.4	2.8	0.00	0.00	49.3

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.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 32.5 %
Number of Iterations: 10 (maximum specified: 10)

MOVEMENT SUMMARY

Site: 101 [LON_ACCX PM]

Network: N101 [Existing PM (Existing Arrangements)]

Longueville Rd & Site Access Driveway
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

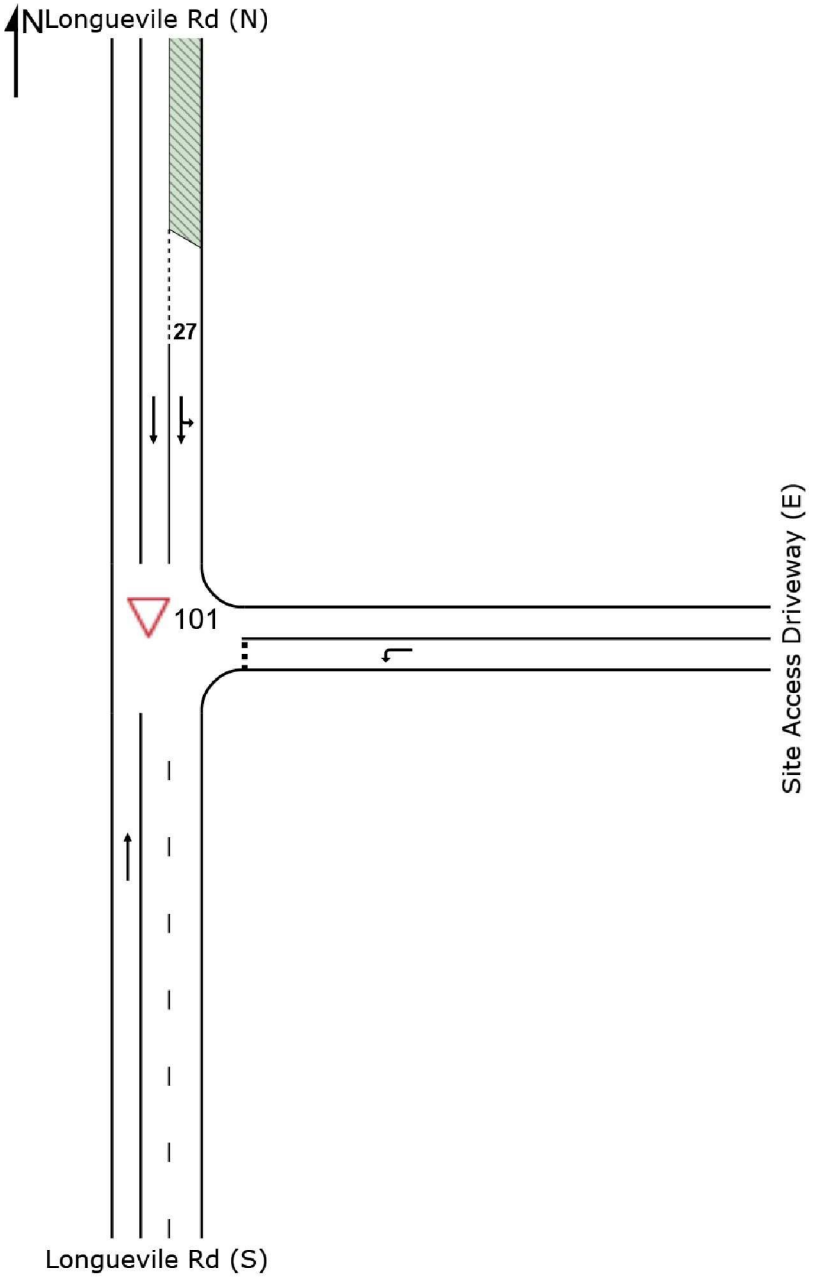
Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Longuevile Rd (S)													
2	T1	369	1.9	369	1.9	0.197	0.0	LOS A	0.0	0.1	0.00	0.00	49.9
3	R2	2	0.0	2	0.0	0.197	4.8	LOS A	0.0	0.1	0.00	0.00	21.5
Approach		371	1.9	371	1.9	0.197	0.0	NA	0.0	0.1	0.00	0.00	49.6
East: Site Access Driveway (E)													
4	L2	1	0.0	1	0.0	0.005	0.4	LOS A	0.0	0.1	0.40	0.26	19.3
6	R2	2	0.0	2	0.0	0.005	4.7	LOS A	0.0	0.1	0.40	0.26	27.5
Approach		3	0.0	3	0.0	0.005	3.3	LOS A	0.0	0.1	0.40	0.26	25.3
North: Longuevile Rd (N)													
7	L2	3	0.0	3	0.0	0.094	4.6	LOS A	0.0	0.0	0.00	0.01	49.4
8	T1	326	1.8	326	1.8	0.094	0.0	LOS A	0.0	0.0	0.00	0.00	49.9
Approach		329	1.8	329	1.8	0.094	0.1	NA	0.0	0.0	0.00	0.01	49.9
All Vehicles		703	1.8	703	1.8	0.197	0.1	NA	0.0	0.1	0.00	0.01	49.4

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.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 19.6 %
Number of Iterations: 10 (maximum specified: 10)

SITE LAYOUT

Site: 101 [LON_ACCP(P) AM]

Longueville Rd & Site Access Driveway
Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

Site: 101 [LON_ACCP(P) AM]

Network: N101 [Proposed AM (Proposed Arrangements)]

Longueville Rd & Site Access Driveway
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Longuevile Rd (S)													
2	T1	460	3.0	460	3.0	0.244	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		460	3.0	460	3.0	0.244	0.0	NA	0.0	0.0	0.00	0.00	50.0
East: Site Access Driveway (E)													
4	L2	37	0.0	37	0.0	0.025	0.3	LOS A	0.1	0.7	0.21	0.08	19.8
Approach		37	0.0	37	0.0	0.025	0.3	LOS A	0.1	0.7	0.21	0.08	19.8
North: Longuevile Rd (N)													
7	L2	30	0.0	30	0.0	0.079	4.6	LOS A	3.6	25.3	0.00	0.11	48.9
8	T1	270	1.9	270	1.9	0.079	0.0	LOS A	3.6	25.3	0.00	0.05	49.4
Approach		300	1.7	300	1.7	0.079	0.5	NA	3.6	25.3	0.00	0.05	49.3
All Vehicles		797	2.4	797	2.4	0.244	0.2	NA	3.6	25.3	0.01	0.02	46.6

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.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 10 (maximum specified: 10)

MOVEMENT SUMMARY

Site: 101 [LON_ACCP(P) PM]

Network: N101 [Proposed PM (Proposed Arrangements)]

Longueville Rd & Site Access Driveway
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Longuevile Rd (S)													
2	T1	369	1.9	369	1.9	0.195	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		369	1.9	369	1.9	0.195	0.0	NA	0.0	0.0	0.00	0.00	50.0
East: Site Access Driveway (E)													
4	L2	33	0.0	33	0.0	0.023	0.4	LOS A	0.1	0.6	0.23	0.10	19.8
Approach		33	0.0	33	0.0	0.023	0.4	LOS A	0.1	0.6	0.23	0.10	19.8
North: Longuevile Rd (N)													
7	L2	36	0.0	36	0.0	0.095	4.6	LOS A	0.4	2.9	0.00	0.11	48.9
8	T1	326	1.8	326	1.8	0.095	0.0	LOS A	0.4	2.9	0.00	0.05	49.4
Approach		362	1.7	362	1.7	0.095	0.5	NA	0.4	2.9	0.00	0.05	49.3
All Vehicles		764	1.7	764	1.7	0.195	0.2	NA	0.4	2.9	0.01	0.03	46.8

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.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 145.2 %
Number of Iterations: 10 (maximum specified: 10)