Proposed Café / Bakery
44 to 55 Tench Avenue, Jamistown

Rezoning Traffic and Parking Assessment Report

Prepared for: MKT Café Pty Ltd

December 2019

Report No: PT1906501_Final

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1. Introduction

This report has been prepared on behalf of MKT Café Pty Ltd to present findings of a traffic and parking assessment of the proposed café development at the site known as 44 to 55 Tench Avenue. Jamistown.

The study has assessed existing traffic conditions, parking demands, access arrangements, future traffic conditions and design compliance.

The remainder of the report is set out as follows:

- Section 2 describes the existing traffic and parking conditions;
- Section 3 summarises the proposed development;
- Section 4 reviews the potential traffic impacts of the proposal;
- Section 5 reviews the design for compliance with relevant standards; and
- Section 6 presents the conclusions

2. Existing Development / Conditions

The following presents a summary of existing site and traffic conditions.

2.1 Site Location

The development site includes a single dwelling residence with driveway access to / from Tench Avenue. The location of the development site is shown in Figure 1.

Figure 1 - Site Location

Source: Google maps

The site is located directly opposite the Nepean River with mainly rural residential dwellings surrounding the site. The Nepean Shores cabin park is located to the north of the development site also with direct access to Tench Avenue.

2.2 Existing Site Traffic Generation

As stated above, the existing includes a single dwelling house within a rural residential setting. Applying the RMS rate for a single dwelling house, it is expected the existing site would generate one (1) peak hour trip in each the AM and PM peak periods.

2.3 Classification Criteria

It is usual to classify roads according to a road hierarchy in order to determine their functional role within the road network. Changes to traffic flows on the roads can then be assessed within the context of the road hierarchy. Roads are classified according to the role they fulfil and the volume of traffic they should appropriately carry. The RTA has set down the following guidelines for the functional classification of roads.

- Arterial Road – typically a main road carrying over 15,000 vehicles per day and fulfilling a role as a major inter-regional link (over 1,500 vehicles per hour)
- Sub-arterial Road – defined as secondary inter-regional links, typically carrying volumes between 5,000 and 20,000 vehicles per day (500 to 2,000 vehicles per hour)
- Collector Road – provides a link between local roads and regional roads, typically carrying between 2,000 and 10,000 vehicles per day (250 to 1,000 vehicles per hour). At volumes greater than 5,000 vehicles per day, residential amenity begins to decline noticeably.
- Local Road – provides access to individual allotments, carrying low volumes, typically less than 2,000 vehicles per day (250 vehicles per hour).

2.4 Existing Road Network

Tench Avenue– is a local road forming a loop connection between Mulgoa Road (via an underpass under the M4 Motorway) including Factory Road, Bellevue Road and Jamison Road. The street across the frontage includes 3.25m wide travel lanes in each direction, 1.2m wide formed shoulders and 90-degree parking spaces along the western side to provide parking access to the Tench Reserve Park. The street includes a posted speed limit of 50km/hr with raised thresholds installed along the street between Jamison Road and Bellevue Road.

Jamison Road – is a local east-west road linking Mulgoa Road in the east with Tench Avenue in the west. It also provides vehicular access to Cables Aqua Park. The intersection of Mulgoa Road / Jamison Road is controlled by traffic signals. Near Tench Avenue, Jamison Road includes 3.25m wide travel lanes in each direction, 1.2m wide formed shoulders and a posted speed limit of 50km/hr.

Factory Road – is a local east-west road linking Mulgoa Road in the east with Bellevue Road in the west. The intersection of Mulgoa Road / Factory Road is a priority-controlled intersection limited to left in / left out movements only. Near Tench Avenue, Factory Road includes a 7.0m wide carriageway and unformed shoulders and a posted speed limit of 50km/hr.

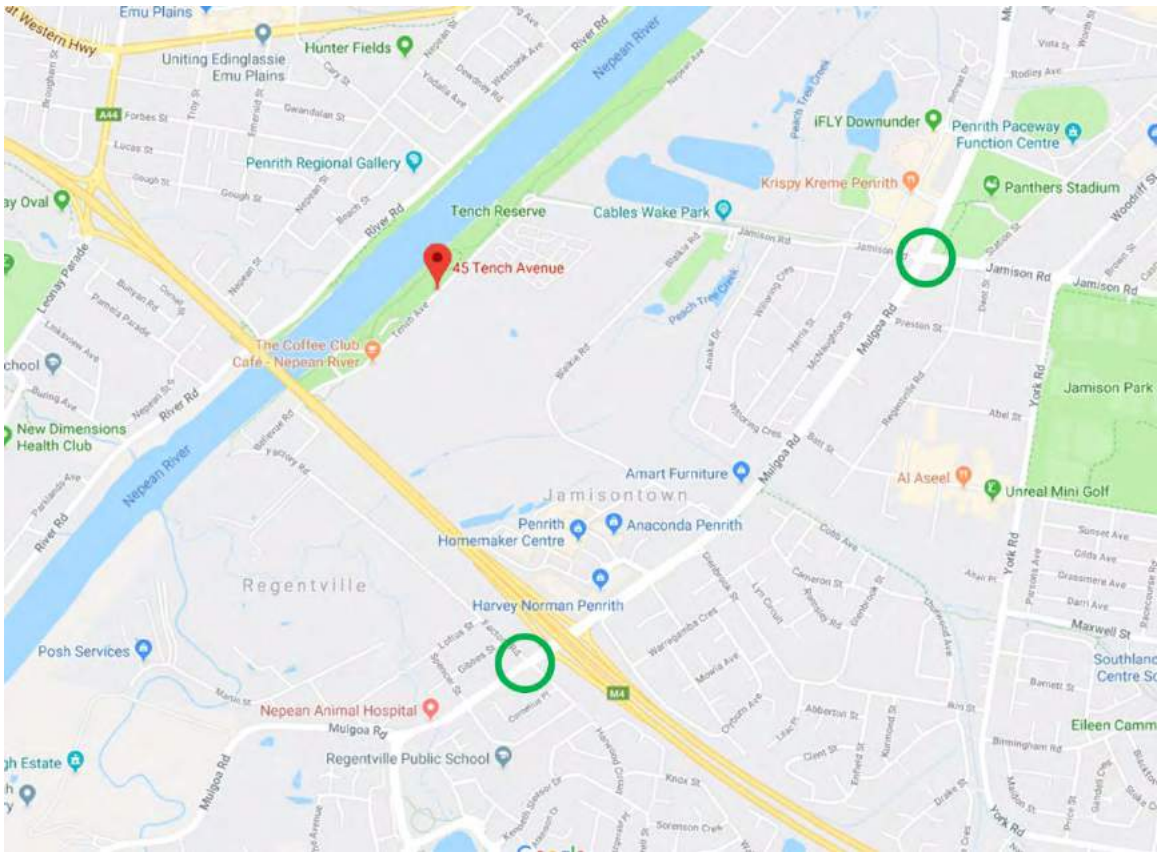
Mulgoa Road – Mulgoa Road is a State arterial road and a main access route from Penrith to the M4 Motorway. It generally includes 2 – 3 travel lanes in each direction, a posted speed limit of 60-70km/hr and carries large volumes of traffic during most periods of the day.

2.5 Existing Traffic Flows

To gauge existing traffic flows on the surrounding road network, intersection counts were undertaken at either end of the loop formed by Jamison Road / Tench Avenue, Bellevue Road and Factory Road with Mulgoa Road. As the proposal includes a café which can operate during the evening periods and on a weekend, counts were undertaken between the hours of 4:00pm – 7:00pm on a weekday and 10:00am – 2:00pm on a Saturday.

The locations where AM and PM intersection counts were undertaken are shown in Figure 2.

Figure 2 – Intersection Count Locations



Copies of the intersection count can be found in Appendix A of this report. Of note, Jamison Road provides access to the Cables Ski Aqua Park which in itself is a reasonable traffic generator. The peak flows by direction in each street at each intersection are summarised below.

Table 1 – Existing Weekday Peak Period Volumes in vicinity of site (veh/hr)

		Saturday AM		Weekday PM	
Road	Location	NB/EB	SB/WB	NB/EB	SB/WB
Mulgoa Road	North of Jamison Road	1,419	1,612	1,439	1,438
	South of Jamison Road	1,397	1,575	1,395	1,381
Jamison Road	West of Mulgoa Road	520	404	253	501
Mulgoa Road	North of Factory Road	1,240	1,277	1,291	1,852
	South of Factory Road	1,167	1,260	1,101	1,800
Factory Road	West of Mulgoa Road	114	41	234	45

From Table 1 it can be seen that existing flows on surrounding roads are in generally in line with their classification. It is noted that westbound flows on Jamison Road on a weekday were higher than expected for a local street. This is reflective of its role to provide access to Cable Ski Aqua Park, Nepean Shores Cabin Park and the Nepean Waterfront along with underpass access of the M4 Motorway.

2.6 Existing Intersection Operating Conditions

All intersections surveyed have been analysed using the Sidra Intersection analysis program. Sidra Intersection determines the average delay that vehicles encounter, the degree of saturation of the intersection, and the level of service. The degree of saturation is the ratio of the arrival rate of vehicles to the capacity of the approach. Sidra Intersection provides analysis of the operating conditions which can be compared to the performance criteria set out in Table 2.

Table 2 – Level of Service Criteria

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

Adapted from RTA Guide to Traffic Generating Developments, 2002.

For roundabouts and priority intersections, the reported average delay is for the individual movement with the highest average delay per vehicle. At signalised intersections, the reported average delay is over all movements.

The existing weekday and weekend day intersection operating conditions are presented in Table 3. Average delay is expressed in seconds per vehicle.

Table 3 – Existing Weekday AM / PM Intersection Operating Conditions

		Saturday AM Peak		Weekday PM Peak	
Intersection	Control	Av Delay	LOS	Av Delay	LOS
Jamison Rd / Mulgoa Rd	Signals	62.4	E	49.1	D
Factory Rd / Mulgoa Rd	Priority	13.2	A	12.6	A

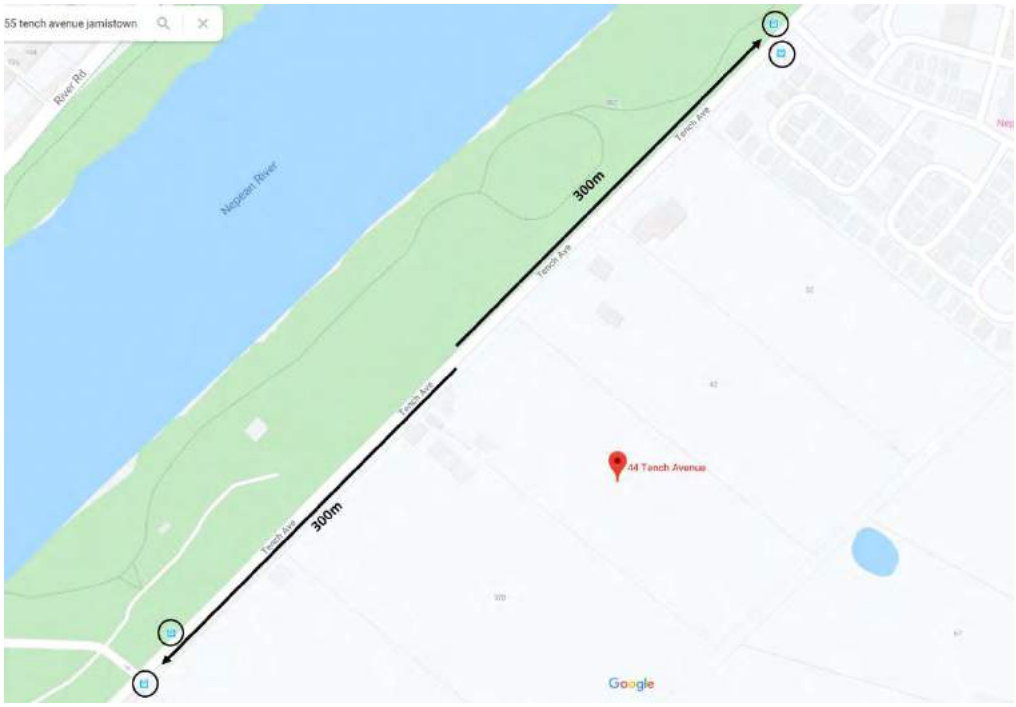
Avg Delay (sec/veh) is over all movements at signals, and for worst movement at priority and roundabouts

From Table 3 it is noted that all intersections in the vicinity of the development site currently operate within acceptable levels of service during both the weekend AM and weekday PM peak periods. However, the intersection of Mulgoa Road / Jamison Road is operating near capacity during the weekend AM peak period but functions with spare capacity during the weekday PM peak.

2.7 Public Transport - Buses

The development site is located some 300m walking distance from four (4) existing bus stops in Tench Avenue. The existing bus stops and walking distances to each is shown below in Figure 3.

Figure 3 – Walking Distance to Existing Bus Stops



The existing bus stops provide access to the following existing bus routes as summarised below in Table 4.

Table 4 – Existing Bus Services within Walking Distance to Development Site

Bus Route	Origin	Destination	Via
795	Penrith	Warragamba	Glenmore Park

From Table 4 it can be seen that the site is located within a convenient walking distance to an existing bus service to the regional centre of Penrith and the local centre of Mulgoa.

3. The Proposed Development

The key components of the proposed development are summarised below

- Alterations and additions to the existing dwelling to convert the building to a cafe with indoor and outdoor dining areas, bakery, take away coffee and amenities.
- Outdoor dining pavilion, wood fired pizza hut and farmers co-op pavilion.
- Water tanks.
- Demolish tin sheds.
- Seating pods and playground.
- Livestock enclosures.
- Car parking at the rear of the site behind orchard and disabled car parking near Tench Avenue.
- OSD basin and channel on southern boundary.
- Loading dock in south west corner behind cafe.
- Landscaping including vegetable gardens and windmill.

The front building would achieve a café area of 35sqm with a seating area of 105sqm. A further 40sqm is provided in a decked area outside the building.

The rear building extension would achieve a total of 258sqm of kitchen / café / bakery area with an 80sqm courtyard central to each component of this building. A further 190sqm within a pavilion space for seating is provided adjacent to the rear building.

The development achieve a total of 109 on site parking spaces including two (2) accessible parking spaces. The main car park includes aisle widths no less than 7.44m serving adjacent parking spaces with a minimum width of 2.5m parking spaces provided.

The proposed driveway access to Tench Avenue would include a minimum width of 8.16m at the boundary of the site.

Servicing of the small café / bakery development is proposed via a separate loading dock which permits up to a Small Rigid Truck to enter / leave the site in a forward direction.

Waste servicing of the site would occur at the kerbside via Council's own waste vehicles for 240 litre bins.

Plans of a potential development scheme for the development can be found in Appendix B of this report.

4. Potential Traffic Impacts

4.1 Introduction

The following presents an assessment of the potential traffic impacts of the proposal using the Roads and Traffic Authority Guide to Traffic Generating Developments standard approach.

4.2 Development Traffic Generation

4.2.1 Retail Component

The proposed development includes uses which would be considered a café / restaurant type of use. In terms of floorspace which could be considered as gross floor area which would be attributed to traffic generation, the following areas would be considered in the gross floor area estimate:

- 35sqm café
- 105sqm bakery
- 110sqm kitchen
- 190sqm pavilion seating area
- 40sqm decking seating area
- 105sqm internal seating area
- Total: 630sqm GFA

The RTA Guide to Traffic Generating Developments defines a 'restaurant' as the following:

5.8.2 Restaurants.

Definition.

A *restaurant* is a refreshment room where food is served to customers. It can either be licensed or unlicensed. This definition includes cafes, tea rooms, eating houses, etc.

On the above basis the following rates would apply:

- Evening peak hour vehicle trips = 5 per 100 m^2 gross floor area.
- Daily vehicle trips = 60 per 100m^2 gross floor area.

Thus, a total of 630sqm of café / restaurant space (excluding the central courtyard area of 80sqm), it is estimated that the proposed development would generate in the order of 32 PM peak hour trips two – way.

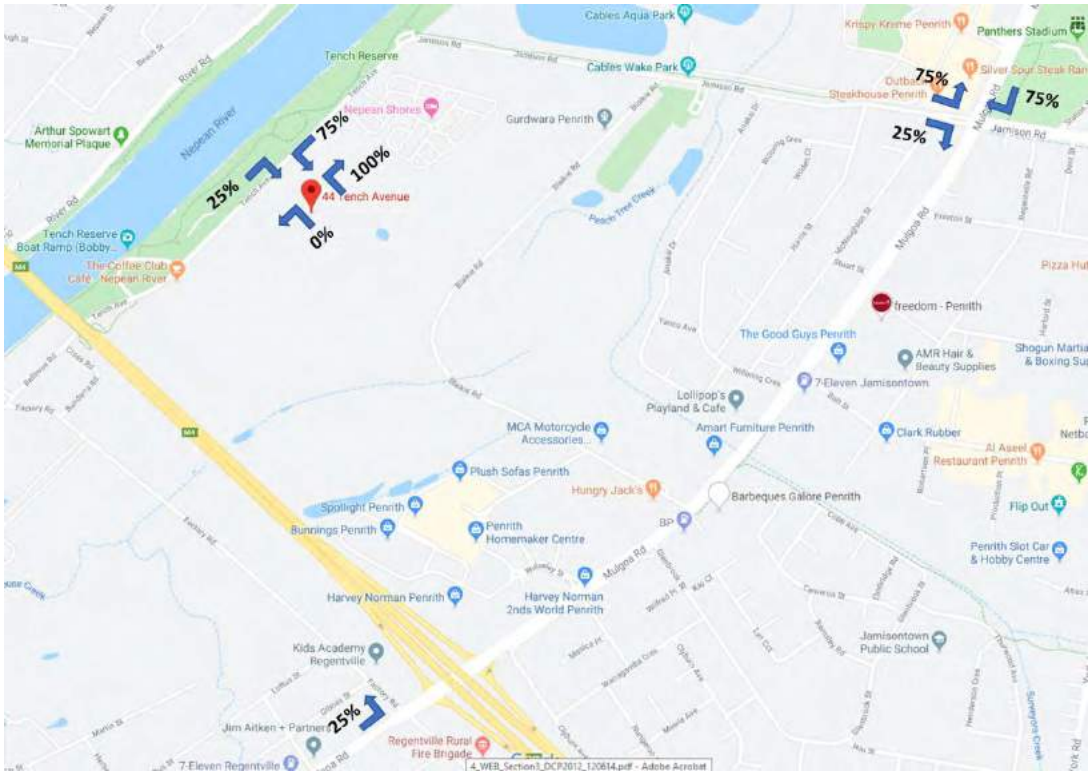
For the AM weekday peak, it is expected that trips generated would generally be confined to staff trips. However, as a conservative estimate the PM peak hour traffic generation has also been applied to the weekday AM peak and the weekend AM peak.

Further, it is assumed trips generated would be 50/50 split between inbound and outbound movements.

4.3 Trip Distribution / Future Traffic Flows

Having regard to the traffic flows recorded on each potential route to / from the development site via Jamison Road and Factory Road, it has been assumed 75% of the traffic would travel to / from the site via Jamison Road with the remaining 25% travelling to the site via Factory Road but from the site via Jamison Road as right turn movements out of Factory Road at Mulgoa Road are not available. The assumed trip distribution is shown below.

Figure 4 – Assumed Trip Distribution of Generated Trips



Using the trip distribution shown above in Figure 4, the additional traffic generated by the proposed development has been added to the existing traffic flows on the surrounding road network. The resultant future two-way traffic flows are shown in Table 5.

Table 5 – Future Weekday Peak Period Volumes in vicinity of site (veh/hr)

		Saturday AM		Weekday PM	
Road	Location	NB/EB	SB/WB	NB/EB	SB/WB
Mulgoa Road	North of Jamison Road	1,436	1,629	1,456	1,455
	South of Jamison Road	1,397	1,579	1,395	1,383
Jamison Road	West of Mulgoa Road	539	415	274	512
Mulgoa Road	North of Factory Road	1,240	1,281	1,291	1,856
	South of Factory Road	1,171	1,264	1,105	1,804
Factory Road	West of Mulgoa Road	114	45	234	49

From Table 5 it can be seen that future traffic flows would be similar to that which currently occur and would remain generally within their current expected environmental maximum for each classification of surrounding streets.

4.4 Future Intersection Operation

The future traffic flows on the surrounding road network have been assessed in SIDRA. The resulting future intersection operation is presented below.

Table 6 – Future Weekday AM / PM Intersection Operating Conditions

		Saturday AM Peak		Weekday PM Peak	
Intersection	Control	Av Delay	LOS	Av Delay	LOS
Jamison Rd / Mulgoa Rd	Signals	64.2	E	50.6	D
Factory Rd / Mulgoa Rd	Priority	13.3	A	12.7	A

Avg Delay (sec/veh) is over all movements at signals, and for worst movement at priority and roundabouts

From Table 6 it is noted that all intersections surveyed in the vicinity of the development site would continue to operate at the same or with little change to existing level of service conditions in both peak periods at each location following the additional traffic generated by full development of the subject site. This assumes a conservative analysis of peak hour traffic generation on a Thursday evening applied to a Saturday AM peak period.

Having regard to the analysis presented above, it is concluded that the potential traffic impacts of the proposal are considered satisfactory.

Copies of the SIDRA outputs are provided in Appendix C of this report.

5. Parking and Access Review

5.1 Council DCP Parking Provision

The Penrith Development Control Plan 2014 (Penrith DCP 2014) does not provide any parking rates for a café. However, the DCP does include a rate of 1 space per 6sqm of seating area for *restaurants*.

Therefore, with a total seating area of 145sqm for the café and 190sqm for the rear building, the development would require a minimum of 56 on-site parking spaces to comply with the DCP.

As the proposed design for the car park includes a total of 109 parking spaces, the on-site parking provision exceeds the minimum requirements of the DCP and is considered satisfactory.

5.2 Car Park Classification

Given the nature of the development, it is not considered that this development would function as a shopping centre with many patrons spending some time at the development having meals or buying speciality food.

Thus, for the purpose of classification of the development in accordance with the Australian Standard for Off Street Car Parking Facilities, this development is considered a Class 2 development.

Thus, parking spaces should be provided at a minimum width of 2.5m with a minimum adjacent aisle width of 5.8m.

5.3 Car Park Compliance Assessment

All areas of the proposed car park have been reviewed for compliance with the Australian Standard for Off Street Car Parking Facilities – AS2890.1 and were found to be satisfactory.

All parking spaces and adjacent aisle width comply with or exceed the minimum requirements of a Class 2 development as detailed in AS2890.1.

Thus, overall the design of the car park is considered satisfactory.

5.4 Site Servicing

As stated above, the waste collection of the site would occur at the kerbside by Council waste vehicles. Further, the design of the site has included a separate entry / exit driveway to provide access to a service vehicle parking area.

The nature of the development is such that provision of goods for sale / food stuffs would occur via vans and up to a Small Rigid Truck.

A turning path assessment of the service vehicle area using the largest expected vehicle to access the area, a small rigid truck, has been undertaken using AutoTURN. These turn paths are provided in Appendix D of this report.

The turn path assessment provided in Appendix D of this report confirm the largest expected vehicle to access the service vehicle area can enter and exit the site in a forward direction. Thus, the provision for service vehicles is considered satisfactory.

5.5 Bicycle Parking

As stated above, the proposed development includes twenty (20) bicycle parking spaces.

On the matter of bicycle parking provision, the following is noted from Councils DCP:

Bicycle parking in accordance with the suggested bicycle parking provision rates for different land use types in the document 'Planning Guidelines for Walking and Cycling' (NSW Government 2004). Bicycle parking spaces should comply with AS2890.3:1993 Bicycle Parking Facilities.

Of note, AS2890.3 now includes a 2015 version which has replaced the 1993 version detailed in Council's DCP.

As noted in Table 1.1 of AS2890.3 – 2015, short term bicycle parking for retail developments require a 'Class 3' provision in the form of bicycle racks. The proposed development complies with this level of security.

Also of note, AS2890.3 -2015 does not include specific bicycle parking rates for a development.

As a comparison, Austroads Bicycle Parking Facilities: Updating the Austroads Guide to Traffic Management does include such rates. Table 5.1 of this guide suggests the following bicycle parking provision rates:

Table 5.1: Bicycle parking provision rates

Land Use	Description	Peak Population Density	10% Mode Share Rate	
			Short-Stay [3]	Long-Stay [3]
Retail	Bulky Goods Retail	27sqm NFA per person [4]	0.30 spaces per 100sqm NFA	0.07 spaces per 100sqm NFA

Therefore, the proposed development which is expected to include short term visiting of the site would require approximately two (2) short stay spaces. As the development includes a total of 20 bicycle parking spaces, the provision well exceeds the requirements of the Austroads Guide and is considered satisfactory.

6. Conclusions

This report has reviewed the potential traffic impacts of the proposed café / restaurant development at the site known as No.44 – 55 Tench Avenue, Jamistown. The findings of this assessment are presented below:

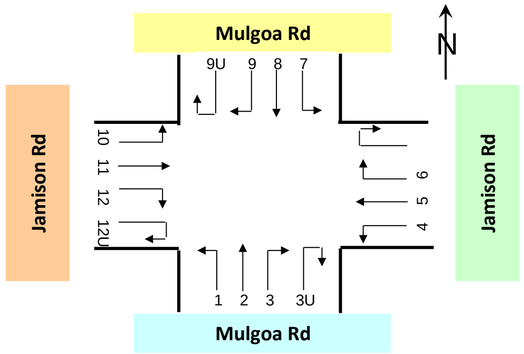
1. The potential traffic generation of the development would not impact on the surrounding road network to a point of detriment.
2. Intersections in the immediate vicinity of the development would operate at a satisfactory level of service in the future at full development.
3. The development is located within a short walking distance to a number of existing bus stops and services to surrounding regional centres.
4. The proposed on-site parking provision exceeds the minimum requirements of Council's DCP and is considered satisfactory.
5. The bicycle parking provision exceeds the minimum requirements of Austroads Bicycle Parking Facilities: Updating the Austroads Guide to Traffic Management.
6. The proposed service vehicle area enables the expected largest service vehicle to enter and exit the site in a forward direction and is considered satisfactory.

Overall the traffic impacts of the proposal are considered acceptable.

7. Appendix A – Intersection Counts

Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 1. Jamison Rd / Mulgoa Rd

Day/Date : Thu, 19th Sep 2019
Weather : Fine
Description : Classified Intersection Count
: 15 mins Data



MATRIX Traffic and Transport Data

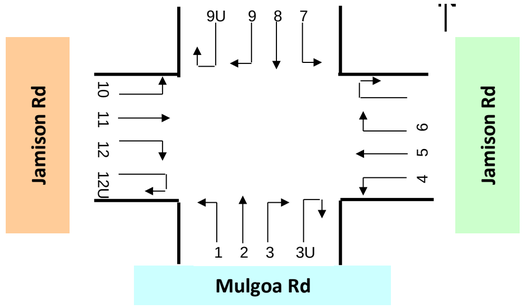
Classifications	Class 1	Class 2	Class 3
	Cars	Trucks	Buses

Approach	Mulgoa Rd																Jamison Rd															
Direction	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U Turn)				Direction 4 (Left Turn)				Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
16:00 to 16:15	5	0	0	**5**	203	12	0	**215**	76	1	2	**79**	0	0	0	**0**	96	5	1	**102**	61	1	0	**62**	59	1	1	**61**	0	0	0	**0**
16:15 to 16:30	6	0	0	**6**	194	10	0	**204**	89	2	2	**93**	0	0	0	**0**	105	1	2	**108**	59	0	0	**59**	48	6	1	**55**	0	0	0	**0**
16:30 to 16:45	4	0	0	**4**	260	15	5	**280**	80	1	2	**83**	0	0	0	**0**	70	1	2	**73**	50	0	0	**50**	57	6	3	**66**	0	0	0	**0**
16:45 to 17:00	6	0	0	**6**	234	9	3	**246**	89	1	0	**90**	0	0	0	**0**	95	2	2	**99**	55	0	0	**55**	65	3	1	**69**	0	0	0	**0**
17:00 to 17:15	6	0	0	**6**	242	8	1	**251**	88	1	2	**91**	0	0	0	**0**	92	3	0	**95**	74	0	0	**74**	74	6	0	**80**	0	0	0	**0**
17:15 to 17:30	3	0	0	**3**	236	9	0	**245**	88	1	1	**90**	0	0	0	**0**	94	0	1	**95**	75	1	0	**76**	89	4	2	**95**	0	0	0	**0**
17:30 to 17:45	5	0	0	**5**	215	6	0	**221**	76	0	2	**78**	0	0	0	**0**	107	1	1	**109**	88	0	0	**88**	62	3	1	**66**	0	0	0	**0**
17:45 to 18:00	5	2	0	**7**	273	8	0	**281**	85	0	1	**86**	0	0	0	**0**	87	0	1	**88**	52	0	0	**52**	85	2	1	**88**	0	0	0	**0**
18:00 to 18:15	7	0	0	**7**	215	7	0	**222**	82	0	1	**83**	0	0	0	**0**	99	1	2	**102**	37	1	0	**38**	91	2	1	**94**	0	0	0	**0**
18:15 to 18:30	3	0	0	**3**	240	5	0	**245**	87	1	2	**90**	0	0	0	**0**	95	1	1	**97**	39	1	0	**40**	62	2	0	**64**	0	0	0	**0**
18:30 to 18:45	2	0	0	**2**	210	1	0	**211**	89	0	0	**89**	0	0	0	**0**	91	0	1	**92**	34	0	0	**34**	52	1	1	**54**	0	0	0	**0**
18:45 to 19:00	4	0	0	**4**	199	2	0	**201**	73	1	2	**76**	0	0	0	**0**	97	0	1	**98**	25	0	0	**25**	56	3	0	**59**	0	0	0	**0**
Total	**56**	**2**	**0**	**58**	**2,721**	**92**	**9**	**2,822**	**1,002**	**9**	**17**	**1,028**	**0**	**0**	**0**	**0**	**1,128**	**15**	**15**	**1,158**	**649**	**4**	**0**	**653**	**800**	**39**	**12**	**851**	**0**	**0**	**0**	**0**

Approach	Mulgoa Rd																Jamison Rd															
Direction	Direction 7 (Left Turn)				Direction 8 (Through)				Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)				Direction 12 (Right Turn)				Direction 12U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
16:00 to 16:15	69	2	0	**71**	207	11	0	**218**	37	1	0	**38**	0	0	0	**0**	24	1	0	**25**	25	0	0	**25**	6	0	0	**6**	0	0	0	**0**
16:15 to 16:30	89	5	0	**94**	160	1	0	**161**	82	1	0	**83**	0	0	0	**0**	23	0	0	**23**	26	1	0	**27**	5	2	0	**7**	0	0	0	**0**
16:30 to 16:45	62	1	0	**63**	263	9	0	**272**	63	2	0	**65**	0	0	0	**0**	27	2	0	**29**	29	1	0	**30**	4	0	0	**4**	0	0	0	**0**
16:45 to 17:00	61	2	0	**63**	235	7	0	**242**	62	1	0	**63**	0	0	0	**0**	24	0	0	**24**	24	1	0	**25**	10	3	0	**13**	0	0	0	**0**
17:00 to 17:15	45	1	0	**46**	240	4	0	**244**	38	1	0	**39**	0	0	0	**0**	24	0	0	**24**	29	0	0	**29**	10	0	0	**10**	0	0	0	**0**
17:15 to 17:30	61	1	0	**62**	216	3	0	**219**	60	0	0	**60**	0	0	0	**0**	29	1	0	**30**	20	0	0	**20**	14	1	0	**15**	0	0	0	**0**
17:30 to 17:45	60	1	0	**61**	240	7	0	**247**	28	0	0	**28**	0	0	0	**0**	25	0	0	**25**	32	0	0	**32**	6	1	0	**7**	0	0	0	**0**
17:45 to 18:00	46	3	0	**49**	251	4	0	**255**	39	0	0	**39**	0	0	0	**0**	24	0	0	**24**	16	0	0	**16**	5	0	0	**5**	0	0	0	**0**
18:00 to 18:15	52	1	0	**53**	230	5	0	**235**	42	0	0	**42**	0	0	0	**0**	26	0	0	**26**	27	0	0	**27**	7	0	0	**7**	0	0	0	**0**
18:15 to 18:30	71	0	0	**71**	255	5	0	**260**	41	0	0	**41**	0	0	0	**0**	8	0	0	**8**	20	1	0	**21**	8	0	0	**8**	0	0	0	**0**
18:30 to 18:45	41	1	0	**42**	260	7	0	**267**	19	0	0	**19**	0	0	0	**0**	18	0	0	**18**	15	0	0	**15**	11	0	0	**11**	0	0	0	**0**
18:45 to 19:00	46	1	0	**47**	243	5	0	**248**	24	0	0	**24**	0	0	0	**0**	13	0	0	**13**	18	0	0	**18**	7	0	0	**7**	0	0	0	**0**
Total	**703**	**19**	**0**	**722**	**2,800**	**68**	**0**	**2,868**	**535**	**6**	**0**	**541**	**0**	**0**	**0**	**0**	**265**	**4**	**0**	**269**	**281**	**4**	**0**	**285**	**93**	**7**	**0**	**100**	**0**	**0**	**0**	**0**

Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 1. Jamison Rd / Mulgoa Rd

Day/Date : Thu, 19th Sep 2019
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



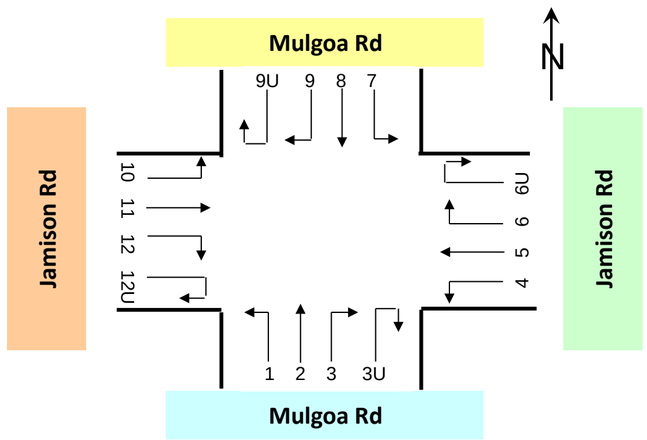
MATRIX Traffic and Transport Data

Approach	Mulgoa Rd																Jamison Rd															
Direction	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U Turn)				Direction 4 (Left Turn)				Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
16:00 to 17:00	21	0	0	**21**	891	46	8	**945**	334	5	6	**345**	0	0	0	**0**	366	9	7	**382**	225	1	0	**226**	229	16	6	**251**	0	0	0	**0**
16:15 to 17:15	22	0	0	**22**	930	42	9	**981**	346	5	6	**357**	0	0	0	**0**	362	7	6	**375**	238	0	0	**238**	244	21	5	**270**	0	0	0	**0**
16:30 to 17:30	19	0	0	**19**	972	41	9	**1,022**	345	4	5	**354**	0	0	0	**0**	351	6	5	**362**	254	1	0	**255**	285	19	6	**310**	0	0	0	**0**
16:45 to 17:45	20	0	0	**20**	927	32	4	**963**	341	3	5	**349**	0	0	0	**0**	388	6	4	**398**	292	1	0	**293**	290	16	4	**310**	0	0	0	**0**
17:00 to 18:00	19	2	0	**21**	966	31	1	**998**	337	2	6	**345**	0	0	0	**0**	380	4	3	**387**	289	1	0	**290**	310	15	4	**329**	0	0	0	**0**
17:15 to 18:15	20	2	0	**22**	939	30	0	**969**	331	1	5	**337**	0	0	0	**0**	387	2	5	**394**	252	2	0	**254**	327	11	5	**343**	0	0	0	**0**
17:30 to 18:30	20	2	0	**22**	943	26	0	**969**	330	1	6	**337**	0	0	0	**0**	388	3	5	**396**	216	2	0	**218**	300	9	3	**312**	0	0	0	**0**
17:45 to 18:45	17	2	0	**19**	938	21	0	**959**	343	1	4	**348**	0	0	0	**0**	372	2	5	**379**	162	2	0	**164**	290	7	3	**300**	0	0	0	**0**
18:00 to 19:00	16	0	0	**16**	864	15	0	**879**	331	2	5	**338**	0	0	0	**0**	382	2	5	**389**	135	2	0	**137**	261	8	2	**271**	0	0	0	**0**
Total	**56**	**2**	**0**	**58**	**2,721**	**92**	**9**	**2,822**	**1,002**	**9**	**17**	**1,028**	**0**	**0**	**0**	**0**	**1,128**	**15**	**15**	**1,158**	**649**	**4**	**0**	**653**	**800**	**39**	**12**	**851**	**0**	**0**	**0**	**0**

Approach	Mulgoa Rd																Jamison Rd															
Direction	Direction 7 (Left Turn)				Direction 8 (Through)				Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)				Direction 12 (Right Turn)				Direction 12U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
16:00 to 17:00	281	10	0	**291**	865	28	0	**893**	244	5	0	**249**	0	0	0	**0**	98	3	0	**101**	104	3	0	**107**	25	5	0	**30**	0	0	0	**0**
16:15 to 17:15	257	9	0	**266**	898	21	0	**919**	245	5	0	**250**	0	0	0	**0**	98	2	0	**100**	108	3	0	**111**	29	5	0	**34**	0	0	0	**0**
16:30 to 17:30	229	5	0	**234**	954	23	0	**977**	223	4	0	**227**	0	0	0	**0**	104	3	0	**107**	102	2	0	**104**	38	4	0	**42**	0	0	0	**0**
16:45 to 17:45	227	5	0	**232**	931	21	0	**952**	188	2	0	**190**	0	0	0	**0**	102	1	0	**103**	105	1	0	**106**	40	5	0	**45**	0	0	0	**0**
17:00 to 18:00	212	6	0	**218**	947	18	0	**965**	165	1	0	**166**	0	0	0	**0**	102	1	0	**103**	97	0	0	**97**	35	2	0	**37**	0	0	0	**0**
17:15 to 18:15	219	6	0	**225**	937	19	0	**956**	169	0	0	**169**	0	0	0	**0**	104	1	0	**105**	95	0	0	**95**	32	2	0	**34**	0	0	0	**0**
17:30 to 18:30	229	5	0	**234**	976	21	0	**997**	150	0	0	**150**	0	0	0	**0**	83	0	0	**83**	95	1	0	**96**	26	1	0	**27**	0	0	0	**0**
17:45 to 18:45	210	5	0	**215**	996	21	0	**1,017**	141	0	0	**141**	0	0	0	**0**	76	0	0	**76**	78	1	0	**79**	31	0	0	**31**	0	0	0	**0**
18:00 to 19:00	210	3	0	**213**	988	22	0	**1,010**	126	0	0	**126**	0	0	0	**0**	65	0	0	**65**	80	1	0	**81**	33	0	0	**33**	0	0	0	**0**
Total	**703**	**19**	**0**	**722**	**2,800**	**68**	**0**	**2,868**	**535**	**6**	**0**	**541**	**0**	**0**	**0**	**0**	**265**	**4**	**0**	**269**	**281**	**4**	**0**	**285**	**93**	**7**	**0**	**100**	**0**	**0**	**0**	**0**

Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 1. Jamison Rd / Mulgoa Rd

Day/Date : Thu, 19th Sep 2019
Weather : Fine
Description : Classified Intersection Count
: Peak Hour Summary



MATRIX Traffic and Transport Data

Approach	Mulgoa Rd				Jamison Rd				Mulgoa Rd				Jamison Rd				Grand Total
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	
16:30 to 17:30	1,336	45	14	**1,395**	890	26	11	**927**	1,406	32	0	**1,438**	244	9	0	**253**	**4,013**

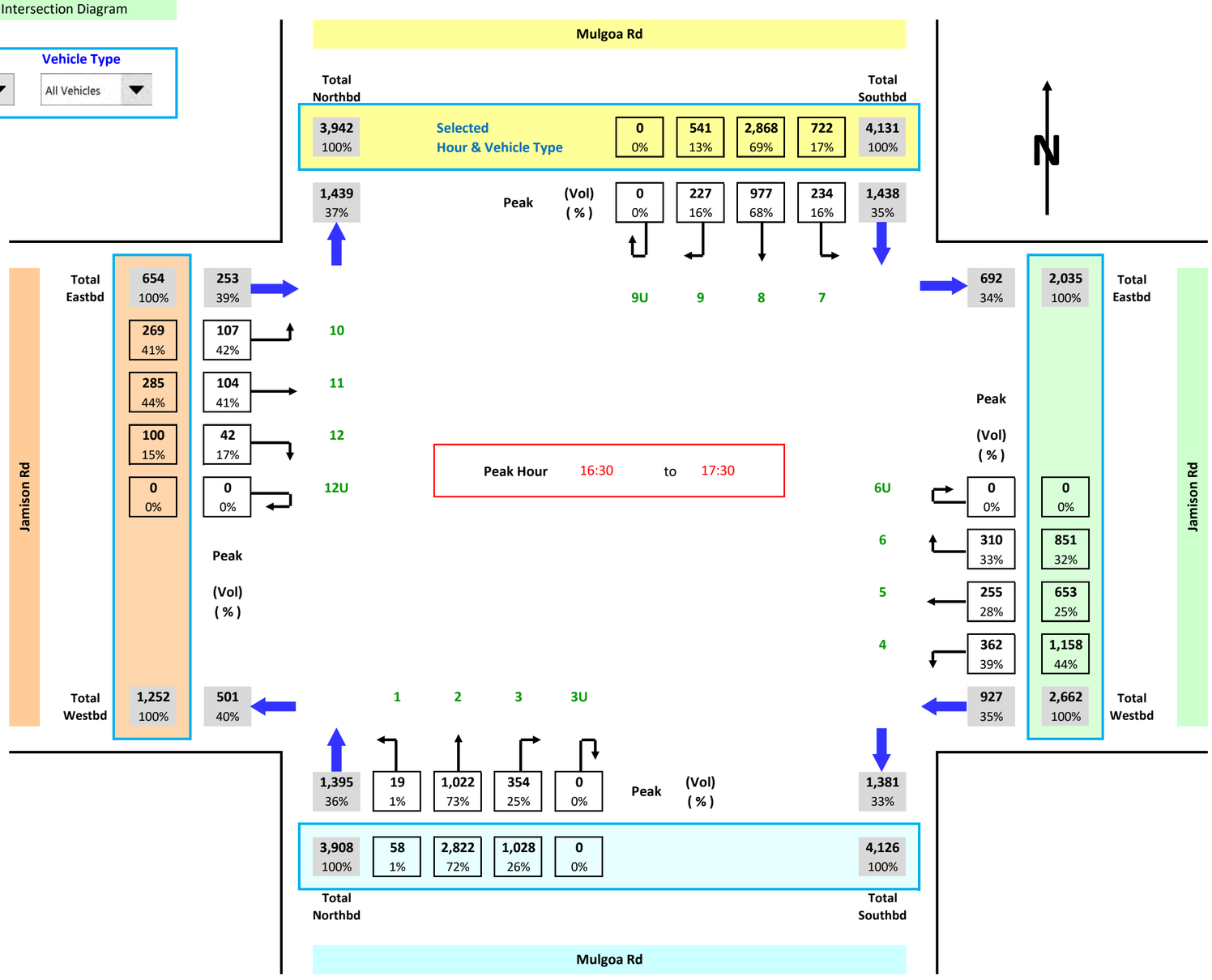
Approach	Mulgoa Rd				Jamison Rd				Mulgoa Rd				Jamison Rd				Grand Total
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	
16:00 to 17:00	1,246	51	14	**1,311**	820	26	13	**859**	1,390	43	0	**1,433**	227	11	0	**238**	**3,841**
16:15 to 17:15	1,298	47	15	**1,360**	844	28	11	**883**	1,400	35	0	**1,435**	235	10	0	**245**	**3,923**
16:30 to 17:30	1,336	45	14	**1,395**	890	26	11	**927**	1,406	32	0	**1,438**	244	9	0	**253**	**4,013**
16:45 to 17:45	1,288	35	9	**1,332**	970	23	8	**1,001**	1,346	28	0	**1,374**	247	7	0	**254**	**3,961**
17:00 to 18:00	1,322	35	7	**1,364**	979	20	7	**1,006**	1,324	25	0	**1,349**	234	3	0	**237**	**3,956**
17:15 to 18:15	1,290	33	5	**1,328**	966	15	10	**991**	1,325	25	0	**1,350**	231	3	0	**234**	**3,903**
17:30 to 18:30	1,293	29	6	**1,328**	904	14	8	**926**	1,355	26	0	**1,381**	204	2	0	**206**	**3,841**
17:45 to 18:45	1,298	24	4	**1,326**	824	11	8	**843**	1,347	26	0	**1,373**	185	1	0	**186**	**3,728**
18:00 to 19:00	1,211	17	5	**1,233**	778	12	7	**797**	1,324	25	0	**1,349**	178	1	0	**179**	**3,558**
Total	**3,779**	**103**	**26**	3,908	**2,577**	**58**	**27**	2,662	**4,038**	**93**	**0**	4,131	**639**	**15**	**0**	654	**11,355**

Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 1. Jamison Rd / Mulgoa Rd

Day/Date : Thu, 19th Sep 2019
Weather : Fine
Description : Classified Intersection Count
: Intersection Diagram

MATRIX Traffic and Transport Data

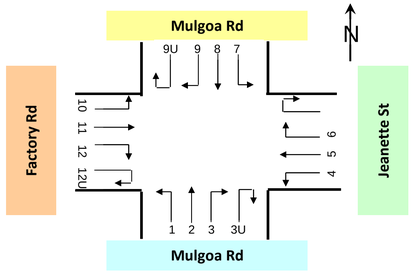
Hour Starting Total
Vehicle Type All Vehicles



Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 2. Mulgoa Rd & Factory Rd & Jeanette St

Day/Date : Thu, 19th Sep 2019
Weather : Fine
Description : Classified Intersection Count
: 15 mins Data

	Class 1	Class 2	Class 3
Classifications	Cars	Trucks	Buses



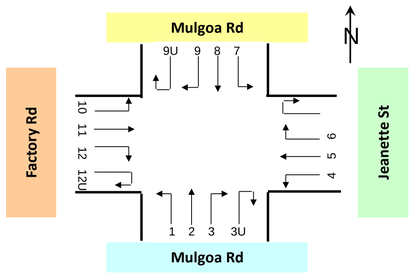
MATRIX Traffic and Transport Data

Approach	Mulgoa Rd																Jeanette St															
Direction	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U Turn)				Direction 4 (Left Turn)				Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
16:00 to 16:15	23	0	0	**23**	238	7	4	**249**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
16:15 to 16:30	9	0	0	**9**	239	5	7	**251**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
16:30 to 16:45	11	0	0	**11**	217	9	3	**229**	0	0	0	**0**	0	0	0	**0**	3	0	0	**3**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
16:45 to 17:00	5	0	0	**5**	261	11	4	**276**	0	0	0	**0**	0	0	0	**0**	3	0	0	**3**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:00 to 17:15	10	0	0	**10**	246	8	0	**254**	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:15 to 17:30	10	0	0	**10**	272	3	4	**279**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:30 to 17:45	15	0	0	**15**	250	9	1	**260**	0	0	0	**0**	0	0	0	**0**	11	0	0	**11**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:45 to 18:00	9	0	0	**9**	260	3	1	**264**	0	0	0	**0**	0	0	0	**0**	5	0	0	**5**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
18:00 to 18:15	5	0	0	**5**	221	4	3	**228**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
18:15 to 18:30	9	0	0	**9**	209	2	1	**212**	0	0	0	**0**	0	0	0	**0**	3	0	0	**3**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
18:30 to 18:45	2	0	0	**2**	189	2	2	**193**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
18:45 to 19:00	9	0	0	**9**	198	3	1	**202**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Total	**117**	**0**	**0**	**117**	**2,800**	**66**	**31**	**2,897**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**31**	**0**	**0**	**31**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Approach	Mulgoa Rd																Factory Rd															
Direction	Direction 7 (Left Turn)				Direction 8 (Through)				Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)				Direction 12 (Right Turn)				Direction 12U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
16:00 to 16:15	5	1	1	**7**	420	18	0	**438**	2	0	0	**2**	0	0	0	**0**	38	0	0	**38**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
16:15 to 16:30	14	0	0	**14**	477	6	0	**483**	0	0	0	**0**	0	0	0	**0**	31	0	0	**31**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
16:30 to 16:45	10	1	2	**13**	373	10	2	**385**	0	0	0	**0**	0	0	0	**0**	25	0	0	**25**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
16:45 to 17:00	20	1	1	**22**	419	18	1	**438**	1	0	0	**1**	0	0	0	**0**	53	1	0	**54**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:00 to 17:15	15	0	1	**16**	431	3	0	**434**	0	0	0	**0**	0	0	0	**0**	48	0	0	**48**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:15 to 17:30	26	2	0	**28**	471	4	0	**475**	0	0	0	**0**	0	0	0	**0**	71	2	0	**73**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:30 to 17:45	8	1	0	**9**	412	3	1	**416**	1	0	0	**1**	0	0	0	**0**	62	0	0	**62**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:45 to 18:00	15	0	2	**17**	448	6	2	**456**	0	0	0	**0**	0	0	0	**0**	51	0	0	**51**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
18:00 to 18:15	6	0	1	**7**	416	9	1	**426**	0	0	0	**0**	0	0	0	**0**	21	0	0	**21**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
18:15 to 18:30	10	0	0	**10**	409	10	1	**420**	0	0	0	**0**	0	0	0	**0**	30	0	0	**30**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
18:30 to 18:45	14	0	1	**15**	349	6	0	**355**	0	0	0	**0**	0	0	0	**0**	18	0	0	**18**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
18:45 to 19:00	23	1	0	**24**	287	4	1	**292**	0	0	0	**0**	0	0	0	**0**	15	0	0	**15**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Total	**166**	**7**	**9**	**182**	**4,912**	**97**	**9**	**5,018**	**4**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**463**	**3**	**0**	**466**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 2. Mulgoa Rd & Factory Rd & Jeanette St

Day/Date : Thu, 19th Sep 2019
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



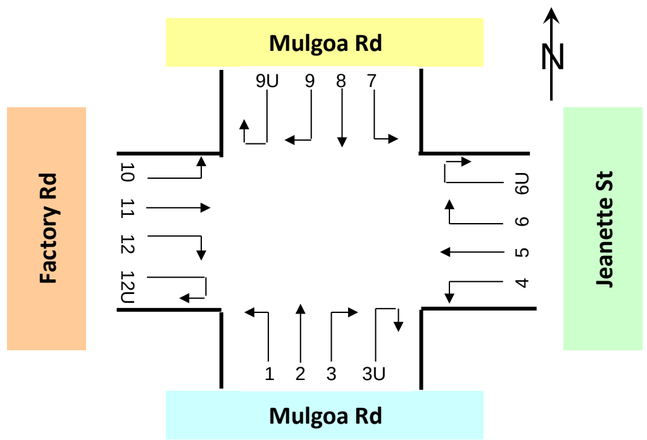
MATRIX Traffic and Transport Data

Approach	Mulgoa Rd																Jeanette St															
Direction	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U Turn)				Direction 4 (Left Turn)				Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
16:00 to 17:00	48	0	0	**48**	955	32	18	**1,005**	0	0	0	**0**	0	0	0	**0**	7	0	0	**7**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
16:15 to 17:15	35	0	0	**35**	963	33	14	**1,010**	0	0	0	**0**	0	0	0	**0**	9	0	0	**9**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
16:30 to 17:30	36	0	0	**36**	996	31	11	**1,038**	0	0	0	**0**	0	0	0	**0**	9	0	0	**9**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
16:45 to 17:45	40	0	0	**40**	1,029	31	9	**1,069**	0	0	0	**0**	0	0	0	**0**	17	0	0	**17**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:00 to 18:00	44	0	0	**44**	1,028	23	6	**1,057**	0	0	0	**0**	0	0	0	**0**	19	0	0	**19**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:15 to 18:15	39	0	0	**39**	1,003	19	9	**1,031**	0	0	0	**0**	0	0	0	**0**	18	0	0	**18**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:30 to 18:30	38	0	0	**38**	940	18	6	**964**	0	0	0	**0**	0	0	0	**0**	20	0	0	**20**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:45 to 18:45	25	0	0	**25**	879	11	7	**897**	0	0	0	**0**	0	0	0	**0**	9	0	0	**9**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
18:00 to 19:00	25	0	0	**25**	817	11	7	**835**	0	0	0	**0**	0	0	0	**0**	5	0	0	**5**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Total	**117**	**0**	**0**	**117**	**2,800**	**66**	**31**	**2,897**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**31**	**0**	**0**	**31**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Approach	Mulgoa Rd																Factory Rd															
Direction	Direction 7 (Left Turn)				Direction 8 (Through)				Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)				Direction 12 (Right Turn)				Direction 12U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
16:00 to 17:00	49	3	4	**56**	1,689	52	3	**1,744**	3	0	0	**3**	0	0	0	**0**	147	1	0	**148**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
16:15 to 17:15	59	2	4	**65**	1,700	37	3	**1,740**	1	0	0	**1**	0	0	0	**0**	157	1	0	**158**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
16:30 to 17:30	71	4	4	**79**	1,694	35	3	**1,732**	1	0	0	**1**	0	0	0	**0**	197	3	0	**200**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
16:45 to 17:45	69	4	2	**75**	1,733	28	2	**1,763**	2	0	0	**2**	0	0	0	**0**	234	3	0	**237**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:00 to 18:00	64	3	3	**70**	1,762	16	3	**1,781**	1	0	0	**1**	0	0	0	**0**	232	2	0	**234**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:15 to 18:15	55	3	3	**61**	1,747	22	4	**1,773**	1	0	0	**1**	0	0	0	**0**	205	2	0	**207**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:30 to 18:30	39	1	3	**43**	1,685	28	5	**1,718**	1	0	0	**1**	0	0	0	**0**	164	0	0	**164**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
17:45 to 18:45	45	0	4	**49**	1,622	31	4	**1,657**	0	0	0	**0**	0	0	0	**0**	120	0	0	**120**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
18:00 to 19:00	53	1	2	**56**	1,461	29	3	**1,493**	0	0	0	**0**	0	0	0	**0**	84	0	0	**84**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Total	**166**	**7**	**9**	**182**	**4,912**	**97**	**9**	**5,018**	**4**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**463**	**3**	**0**	**466**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 2. Mulgoa Rd & Factory Rd & Jeanette St

Day/Date : Thu, 19th Sep 2019
Weather : Fine
Description : Classified Intersection Count
: Peak Hour Summary



MATRIX Traffic and Transport Data

Approach	Mulgoa Rd				Jeanette St				Mulgoa Rd				Factory Rd				Grand Total
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	
17:00 to 18:00	1,072	23	6	**1,101**	19	0	0	**19**	1,827	19	6	**1,852**	232	2	0	**234**	**3,206**

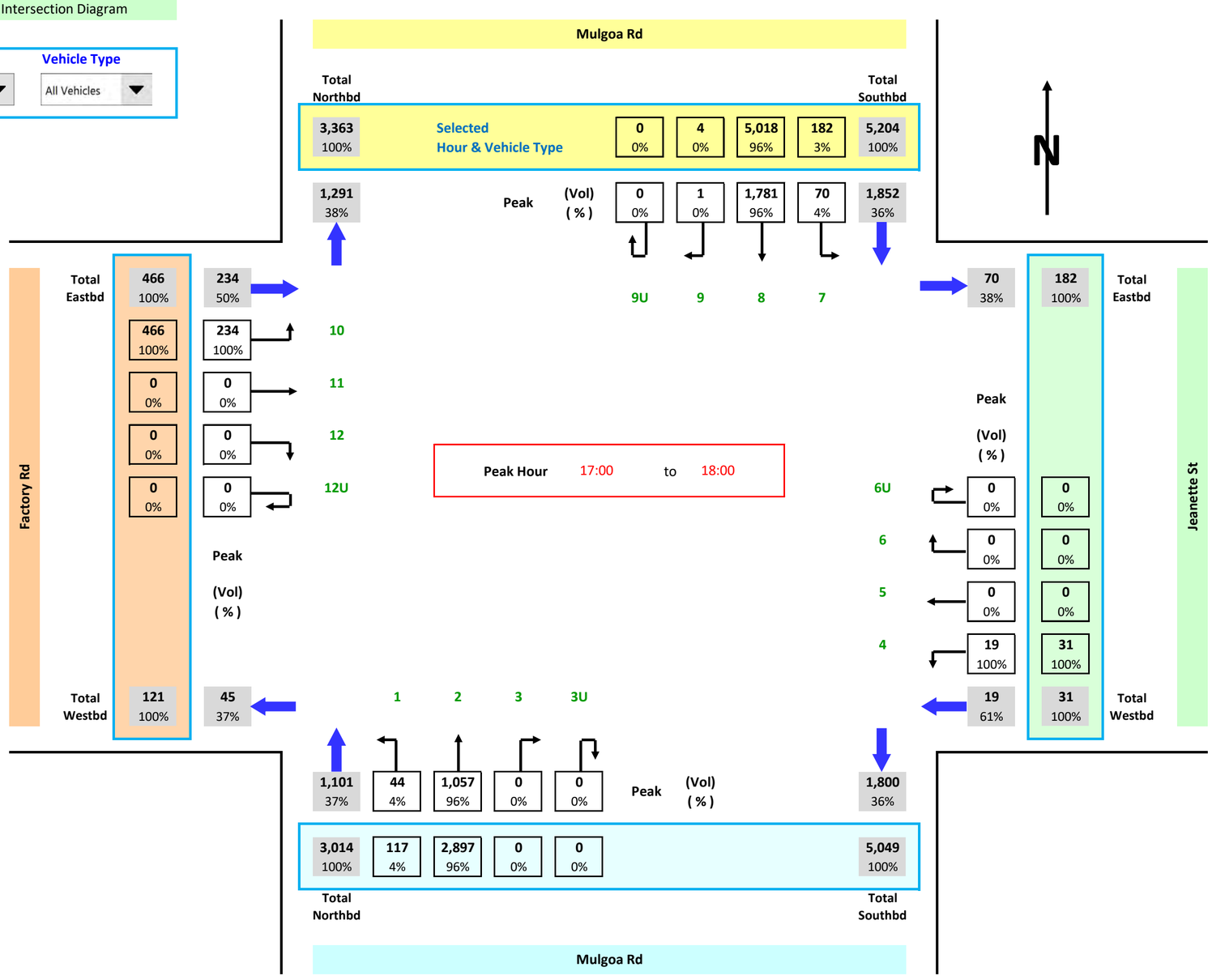
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Grand Total
16:00 to 17:00	1,003	32	18	**1,053**	7	0	0	**7**	1,741	55	7	**1,803**	147	1	0	**148**	**3,011**
16:15 to 17:15	998	33	14	**1,045**	9	0	0	**9**	1,760	39	7	**1,806**	157	1	0	**158**	**3,018**
16:30 to 17:30	1,032	31	11	**1,074**	9	0	0	**9**	1,766	39	7	**1,812**	197	3	0	**200**	**3,095**
16:45 to 17:45	1,069	31	9	**1,109**	17	0	0	**17**	1,804	32	4	**1,840**	234	3	0	**237**	**3,203**
17:00 to 18:00	1,072	23	6	**1,101**	19	0	0	**19**	1,827	19	6	**1,852**	232	2	0	**234**	**3,206**
17:15 to 18:15	1,042	19	9	**1,070**	18	0	0	**18**	1,803	25	7	**1,835**	205	2	0	**207**	**3,130**
17:30 to 18:30	978	18	6	**1,002**	20	0	0	**20**	1,725	29	8	**1,762**	164	0	0	**164**	**2,948**
17:45 to 18:45	904	11	7	**922**	9	0	0	**9**	1,667	31	8	**1,706**	120	0	0	**120**	**2,757**
18:00 to 19:00	842	11	7	**860**	5	0	0	**5**	1,514	30	5	**1,549**	84	0	0	**84**	**2,498**
Total	**2,917**	**66**	**31**	**3,014**	**31**	**0**	**0**	**31**	**5,082**	**104**	**18**	**5,204**	**463**	**3**	**0**	**466**	**8,715**

Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 2. Mulgoa Rd & Factory Rd & Jeanette St

Day/Date : Thu, 19th Sep 2019
Weather : Fine
Description : Classified Intersection Count
: Intersection Diagram

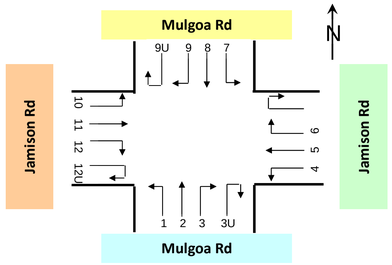
MATRIX Traffic and Transport Data

Hour Starting Total
Vehicle Type All Vehicles



Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 1. Jamison Rd / Mulgoa Rd

Day/Date : Sat, 21st Sep 2019
Weather : Fine
Description : Classified Intersection Count
: 15 mins Data



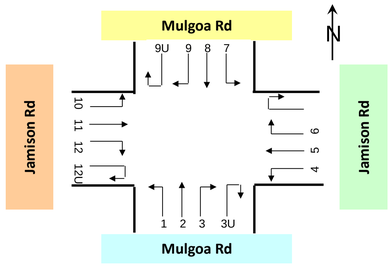
Classifications	Class 1	Class 2	Class 3
	Cars	Trucks	Buses

Approach	Mulgoa Rd																Jamison Rd															
Direction	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U Turn)				Direction 4 (Left Turn)				Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
10:00 to 10:15	16	0	1	**17**	229	7	1	**237**	86	0	1	**87**	0	0	0	**0**	102	3	0	**105**	50	1	0	**51**	67	5	2	**74**	0	0	0	**0**
10:15 to 10:30	4	0	0	**4**	239	6	1	**246**	80	0	1	**81**	0	0	0	**0**	115	1	1	**117**	44	2	0	**46**	84	4	0	**88**	0	0	0	**0**
10:30 to 10:45	13	0	0	**13**	247	6	0	**253**	96	0	0	**96**	0	0	0	**0**	90	0	1	**91**	39	0	0	**39**	46	4	2	**52**	0	0	0	**0**
10:45 to 11:00	11	0	0	**11**	208	7	0	**215**	101	0	0	**101**	0	0	0	**0**	88	1	0	**89**	56	0	0	**56**	66	2	1	**69**	0	0	0	**0**
11:00 to 11:15	14	0	0	**14**	255	7	0	**262**	97	1	1	**99**	0	0	0	**0**	100	3	0	**103**	80	0	0	**80**	51	0	1	**52**	0	0	0	**0**
11:15 to 11:30	13	0	0	**13**	217	10	0	**227**	105	1	1	**107**	0	0	0	**0**	119	4	0	**123**	83	0	1	**84**	66	3	0	**69**	0	0	0	**0**
11:30 to 11:45	23	0	0	**23**	280	2	0	**282**	114	1	0	**115**	0	0	0	**0**	104	1	1	**106**	57	1	0	**58**	63	1	2	**66**	0	0	0	**0**
11:45 to 12:00	9	0	0	**9**	220	5	0	**225**	85	1	0	**86**	0	0	0	**0**	108	3	1	**112**	61	1	0	**62**	83	1	0	**84**	0	0	0	**0**
12:00 to 12:15	22	0	0	**22**	252	8	1	**261**	97	0	1	**98**	0	0	0	**0**	110	3	0	**113**	66	3	0	**69**	77	0	0	**77**	0	0	0	**0**
12:15 to 12:30	21	0	1	**22**	254	4	0	**258**	84	1	2	**87**	0	0	0	**0**	105	4	1	**110**	62	2	0	**64**	75	3	1	**79**	0	0	0	**0**
12:30 to 12:45	10	0	0	**10**	223	5	0	**228**	111	0	0	**111**	0	0	0	**0**	108	2	2	**112**	57	2	0	**59**	78	2	1	**81**	0	0	0	**0**
12:45 to 13:00	23	1	0	**24**	246	8	0	**254**	88	1	0	**89**	0	0	0	**0**	103	2	0	**105**	55	0	0	**55**	101	1	2	**104**	0	0	0	**0**
13:00 to 13:15	15	1	0	**16**	235	6	0	**241**	96	0	1	**97**	0	0	0	**0**	91	0	0	**91**	65	0	0	**65**	66	5	1	**72**	0	0	0	**0**
13:15 to 13:30	20	0	0	**20**	188	6	1	**195**	110	1	1	**112**	0	0	0	**0**	110	4	1	**115**	53	1	0	**54**	53	5	0	**58**	0	0	0	**0**
13:30 to 13:45	17	0	0	**17**	248	7	0	**255**	71	1	0	**72**	0	0	0	**0**	114	1	0	**115**	51	1	0	**52**	51	2	1	**54**	0	0	0	**0**
13:45 to 14:00	9	0	1	**10**	226	2	4	**232**	84	0	0	**84**	0	0	0	**0**	106	1	1	**108**	35	1	1	**37**	53	3	0	**56**	0	0	0	**0**
Total	**240**	**2**	**3**	**245**	**3,767**	**96**	**8**	**3,871**	**1,505**	**8**	**9**	**1,522**	**0**	**0**	**0**	**0**	**1,673**	**33**	**9**	**1,715**	**914**	**15**	**2**	**931**	**1,080**	**41**	**14**	**1,135**	**0**	**0**	**0**	**0**

Approach	Mulgoa Rd																Jamison Rd															
Direction	Direction 7 (Left Turn)				Direction 8 (Through)				Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)				Direction 12 (Right Turn)				Direction 12U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
10:00 to 10:15	35	0	0	**35**	219	3	0	**222**	30	2	0	**32**	0	0	0	**0**	39	0	0	**39**	33	0	0	**33**	18	0	0	**18**	0	0	0	**0**
10:15 to 10:30	41	1	0	**42**	203	7	0	**210**	36	0	0	**36**	0	0	0	**0**	43	1	0	**44**	32	0	0	**32**	28	1	0	**29**	0	0	0	**0**
10:30 to 10:45	41	0	0	**41**	245	5	1	**251**	45	0	0	**45**	0	0	0	**0**	39	0	0	**39**	35	0	0	**35**	14	0	1	**15**	0	0	0	**0**
10:45 to 11:00	38	1	0	**39**	218	5	0	**223**	52	0	0	**52**	0	0	0	**0**	55	0	0	**55**	48	0	0	**48**	14	0	0	**14**	0	0	0	**0**
11:00 to 11:15	51	0	0	**51**	263	6	0	**269**	36	1	0	**37**	0	0	0	**0**	45	0	0	**45**	38	0	1	**39**	18	0	1	**19**	0	0	0	**0**
11:15 to 11:30	54	0	0	**54**	193	8	0	**201**	48	1	0	**49**	0	0	0	**0**	51	0	0	**51**	32	0	0	**32**	20	0	2	**22**	0	0	0	**0**
11:30 to 11:45	56	0	0	**56**	243	3	0	**246**	51	1	0	**52**	0	0	0	**0**	38	0	0	**38**	30	0	0	**30**	22	2	0	**24**	0	0	0	**0**
11:45 to 12:00	61	0	0	**61**	248	4	0	**252**	51	0	0	**51**	0	0	0	**0**	59	0	0	**59**	44	0	0	**44**	22	1	0	**23**	0	0	0	**0**
12:00 to 12:15	68	0	0	**68**	237	2	0	**239**	45	1	0	**46**	0	0	0	**0**	37	0	0	**37**	41	0	0	**41**	17	2	0	**19**	0	0	0	**0**
12:15 to 12:30	54	1	0	**55**	240	4	0	**244**	48	0	0	**48**	0	0	0	**0**	41	0	0	**41**	29	0	0	**29**	24	1	0	**25**	0	0	0	**0**
12:30 to 12:45	63	1	0	**64**	246	5	1	**252**	54	2	0	**56**	0	0	0	**0**	46	0	0	**46**	37	0	0	**37**	19	0	0	**19**	0	0	0	**0**
12:45 to 13:00	84	0	0	**84**	289	4	1	**294**	42	0	0	**42**	0	0	0	**0**	52	0	0	**52**	37	0	0	**37**	10	0	1	**11**	0	0	0	**0**
13:00 to 13:15	75	2	0	**77**	243	3	0	**246**	55	0	0	**55**	0	0	0	**0**	49	0	0	**49**	48	1	0	**49**	16	0	0	**16**	0	0	0	**0**
13:15 to 13:30	78	1	0	**79**	290	9	0	**299**	64	0	0	**64**	0	0	0	**0**	39	0	0	**39**	34	0	0	**34**	15	0	0	**15**	0	0	0	**0**
13:30 to 13:45	57	1	0	**58**	247	5	0	**252**	40	0	0	**40**	0	0	0	**0**	45	0	0	**45**	54	0	0	**54**	31	0	0	**31**	0	0	0	**0**
13:45 to 14:00	56	1	0	**57**	220	1	0	**221**	42	0	0	**42**	0	0	0	**0**	45	0	0	**45**	44	0	0	**44**	12	0	0	**12**	0	0	0	**0**
Total	**912**	**9**	**0**	**921**	**3,844**	**74**	**3**	**3,921**	**739**	**8**	**0**	**747**	**0**	**0**	**0**	**0**	**723**	**1**	**0**	**724**	**616**	**1**	**1**	**618**	**300**	**7**	**5**	**312**	**0**	**0**	**0**	**0**

Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 1. Jamison Rd / Mulgoa Rd

Day/Date : Sat, 21st Sep 2019
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



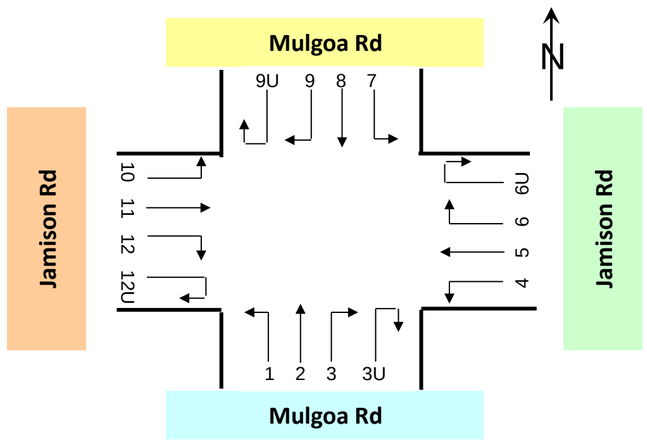
MATRIX Traffic and Transport Data

Approach	Mulgoa Rd																Jamison Rd															
Direction	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U Turn)				Direction 4 (Left Turn)				Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
10:00 to 11:00	44	0	1	**45**	923	26	2	**951**	363	0	2	**365**	0	0	0	**0**	395	5	2	**402**	189	3	0	**192**	263	15	5	**283**	0	0	0	**0**
10:15 to 11:15	42	0	0	**42**	949	26	1	**976**	374	1	2	**377**	0	0	0	**0**	393	5	2	**400**	219	2	0	**221**	247	10	4	**261**	0	0	0	**0**
10:30 to 11:30	51	0	0	**51**	927	30	0	**957**	399	2	2	**403**	0	0	0	**0**	397	8	1	**406**	258	0	1	**259**	229	9	4	**242**	0	0	0	**0**
10:45 to 11:45	61	0	0	**61**	960	26	0	**986**	417	3	2	**422**	0	0	0	**0**	411	9	1	**421**	276	1	1	**278**	246	6	4	**256**	0	0	0	**0**
11:00 to 12:00	59	0	0	**59**	972	24	0	**996**	401	4	2	**407**	0	0	0	**0**	431	11	2	**444**	281	2	1	**284**	263	5	3	**271**	0	0	0	**0**
11:15 to 12:15	67	0	0	**67**	969	25	1	**995**	401	3	2	**406**	0	0	0	**0**	441	11	2	**454**	267	5	1	**273**	289	5	2	**296**	0	0	0	**0**
11:30 to 12:30	75	0	1	**76**	1,006	19	1	**1,026**	380	3	3	**386**	0	0	0	**0**	427	11	3	**441**	246	7	0	**253**	298	5	3	**306**	0	0	0	**0**
11:45 to 12:45	62	0	1	**63**	949	22	1	**972**	377	2	3	**382**	0	0	0	**0**	431	12	4	**447**	246	8	0	**254**	313	6	2	**321**	0	0	0	**0**
12:00 to 13:00	76	1	1	**78**	975	25	1	**1,001**	380	2	3	**385**	0	0	0	**0**	426	11	3	**440**	240	7	0	**247**	331	6	4	**341**	0	0	0	**0**
12:15 to 13:15	69	2	1	**72**	958	23	0	**981**	379	2	3	**384**	0	0	0	**0**	407	8	3	**418**	239	4	0	**243**	320	11	5	**336**	0	0	0	**0**
12:30 to 13:30	68	2	0	**70**	892	25	1	**918**	405	2	2	**409**	0	0	0	**0**	412	8	3	**423**	230	3	0	**233**	298	13	4	**315**	0	0	0	**0**
12:45 to 13:45	75	2	0	**77**	917	27	1	**945**	365	3	2	**370**	0	0	0	**0**	418	7	1	**426**	224	2	0	**226**	271	13	4	**288**	0	0	0	**0**
13:00 to 14:00	61	1	1	**63**	897	21	5	**923**	361	2	2	**365**	0	0	0	**0**	421	6	2	**429**	204	3	1	**208**	223	15	2	**240**	0	0	0	**0**
Total	**240**	**2**	**3**	**245**	**3,767**	**96**	**8**	**3,871**	**1,505**	**8**	**9**	**1,522**	**0**	**0**	**0**	**0**	**1,673**	**33**	**9**	**1,715**	**914**	**15**	**2**	**931**	**1,080**	**41**	**14**	**1,135**	**0**	**0**	**0**	**0**

Approach	Mulgoa Rd																Jamison Rd															
Direction	Direction 7 (Left Turn)				Direction 8 (Through)				Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)				Direction 12 (Right Turn)				Direction 12U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
10:00 to 11:00	155	2	0	**157**	885	20	1	**906**	163	2	0	**165**	0	0	0	**0**	176	1	0	**177**	148	0	0	**148**	74	1	1	**76**	0	0	0	**0**
10:15 to 11:15	171	2	0	**173**	929	23	1	**953**	169	1	0	**170**	0	0	0	**0**	182	1	0	**183**	153	0	1	**154**	74	1	2	**77**	0	0	0	**0**
10:30 to 11:30	184	1	0	**185**	919	24	1	**944**	181	2	0	**183**	0	0	0	**0**	190	0	0	**190**	153	0	1	**154**	66	0	4	**70**	0	0	0	**0**
10:45 to 11:45	199	1	0	**200**	917	22	0	**939**	187	3	0	**190**	0	0	0	**0**	189	0	0	**189**	148	0	1	**149**	74	2	3	**79**	0	0	0	**0**
11:00 to 12:00	222	0	0	**222**	947	21	0	**968**	186	3	0	**189**	0	0	0	**0**	193	0	0	**193**	144	0	1	**145**	82	3	3	**88**	0	0	0	**0**
11:15 to 12:15	239	0	0	**239**	921	17	0	**938**	195	3	0	**198**	0	0	0	**0**	185	0	0	**185**	147	0	0	**147**	81	5	2	**88**	0	0	0	**0**
11:30 to 12:30	239	1	0	**240**	968	13	0	**981**	195	2	0	**197**	0	0	0	**0**	175	0	0	**175**	144	0	0	**144**	85	6	0	**91**	0	0	0	**0**
11:45 to 12:45	246	2	0	**248**	971	15	1	**987**	198	3	0	**201**	0	0	0	**0**	183	0	0	**183**	151	0	0	**151**	82	4	0	**86**	0	0	0	**0**
12:00 to 13:00	269	2	0	**271**	1,012	15	2	**1,029**	189	3	0	**192**	0	0	0	**0**	176	0	0	**176**	144	0	0	**144**	70	3	1	**74**	0	0	0	**0**
12:15 to 13:15	276	4	0	**280**	1,018	16	2	**1,036**	199	2	0	**201**	0	0	0	**0**	188	0	0	**188**	151	1	0	**152**	69	1	1	**71**	0	0	0	**0**
12:30 to 13:30	300	4	0	**304**	1,068	21	2	**1,091**	215	2	0	**217**	0	0	0	**0**	186	0	0	**186**	156	1	0	**157**	60	0	1	**61**	0	0	0	**0**
12:45 to 13:45	294	4	0	**298**	1,069	21	1	**1,091**	201	0	0	**201**	0	0	0	**0**	185	0	0	**185**	173	1	0	**174**	72	0	1	**73**	0	0	0	**0**
13:00 to 14:00	266	5	0	**271**	1,000	18	0	**1,018**	201	0	0	**201**	0	0	0	**0**	178	0	0	**178**	180	1	0	**181**	74	0	0	**74**	0	0	0	**0**
Total	**912**	**9**	**0**	**921**	**3,844**	**74**	**3**	**3,921**	**739**	**8**	**0**	**747**	**0**	**0**	**0**	**0**	**723**	**1**	**0**	**724**	**616**	**1**	**1**	**618**	**300**	**7**	**5**	**312**	**0**	**0**	**0**	**0**

Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 1. Jamison Rd / Mulgoa Rd

Day/Date : Sat, 21st Sep 2019
Weather : Fine
Description : Classified Intersection Count
: Peak Hour Summary



MATRIX Traffic and Transport Data

Approach	Mulgoa Rd				Jamison Rd				Mulgoa Rd				Jamison Rd				Grand Total
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	
12:30 to 13:30	1,365	29	3	**1,397**	940	24	7	**971**	1,583	27	2	**1,612**	402	1	1	**404**	**4,384**

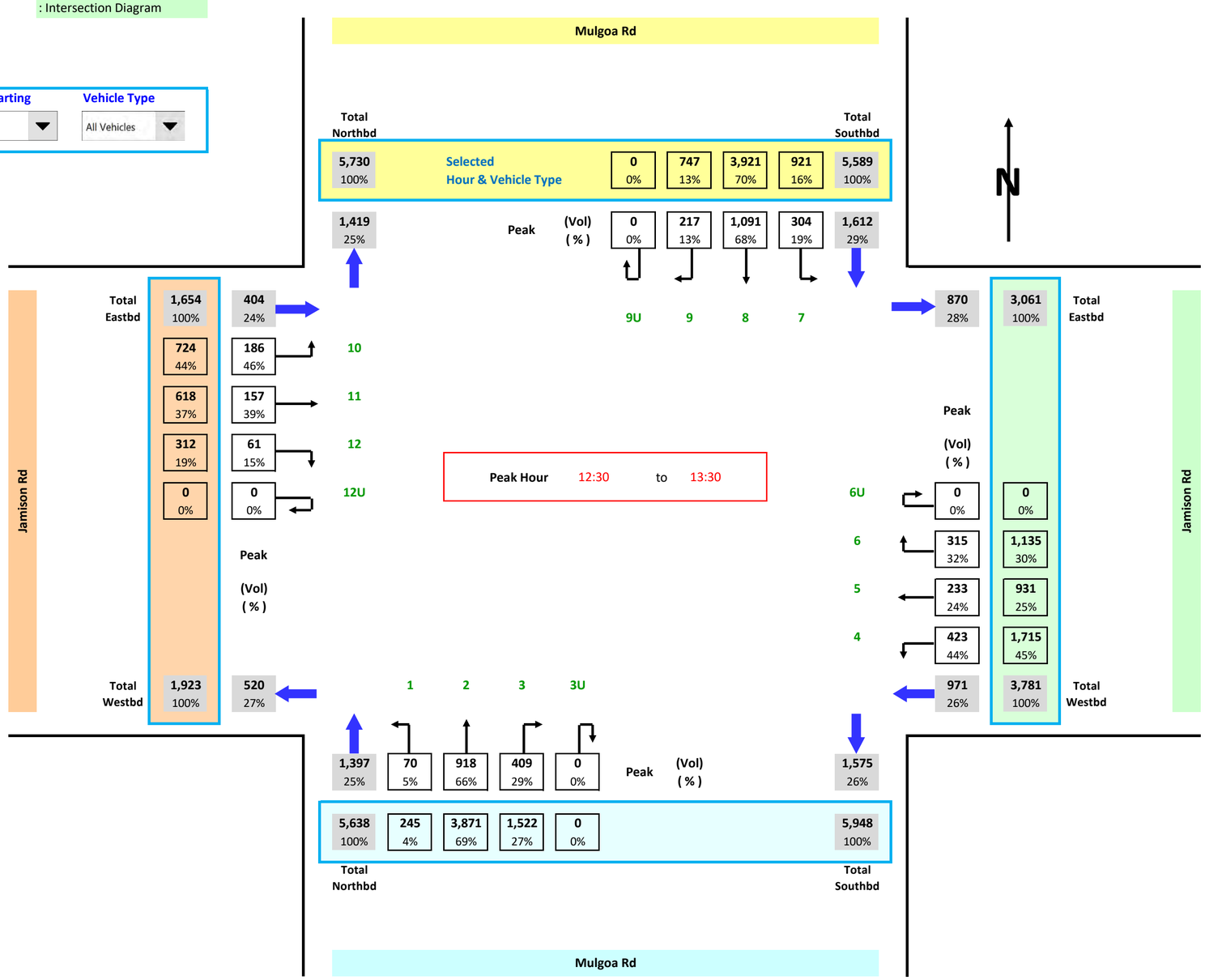
Time Period	Mulgoa Rd				Jamison Rd				Mulgoa Rd				Jamison Rd				Grand Total
	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	
10:00 to 11:00	1,330	26	5	**1,361**	847	23	7	**877**	1,203	24	1	**1,228**	398	2	1	**401**	**3,867**
10:15 to 11:15	1,365	27	3	**1,395**	859	17	6	**882**	1,269	26	1	**1,296**	409	2	3	**414**	**3,987**
10:30 to 11:30	1,377	32	2	**1,411**	884	17	6	**907**	1,284	27	1	**1,312**	409	0	5	**414**	**4,044**
10:45 to 11:45	1,438	29	2	**1,469**	933	16	6	**955**	1,303	26	0	**1,329**	411	2	4	**417**	**4,170**
11:00 to 12:00	1,432	28	2	**1,462**	975	18	6	**999**	1,355	24	0	**1,379**	419	3	4	**426**	**4,266**
11:15 to 12:15	1,437	28	3	**1,468**	997	21	5	**1,023**	1,355	20	0	**1,375**	413	5	2	**420**	**4,286**
11:30 to 12:30	1,461	22	5	**1,488**	971	23	6	**1,000**	1,402	16	0	**1,418**	404	6	0	**410**	**4,316**
11:45 to 12:45	1,388	24	5	**1,417**	990	26	6	**1,022**	1,415	20	1	**1,436**	416	4	0	**420**	**4,295**
12:00 to 13:00	1,431	28	5	**1,464**	997	24	7	**1,028**	1,470	20	2	**1,492**	390	3	1	**394**	**4,378**
12:15 to 13:15	1,406	27	4	**1,437**	966	23	8	**997**	1,493	22	2	**1,517**	408	2	1	**411**	**4,362**
12:30 to 13:30	1,365	29	3	**1,397**	940	24	7	**971**	1,583	27	2	**1,612**	402	1	1	**404**	**4,384**
12:45 to 13:45	1,357	32	3	**1,392**	913	22	5	**940**	1,564	25	1	**1,590**	430	1	1	**432**	**4,354**
13:00 to 14:00	1,319	24	8	**1,351**	848	24	5	**877**	1,467	23	0	**1,490**	432	1	0	**433**	**4,151**
Total	**5,512**	**106**	**20**	**5,638**	**3,667**	**89**	**25**	**3,781**	**5,495**	**91**	**3**	**5,589**	**1,639**	**9**	**6**	**1,654**	**16,662**

Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 1. Jamison Rd / Mulgoa Rd

Day/Date : Sat, 21st Sep 2019
Weather : Fine
Description : Classified Intersection Count
: Intersection Diagram

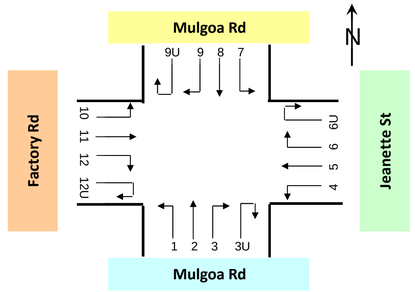
MATRIX Traffic and Transport Data

Hour Starting: Total
Vehicle Type: All Vehicles



Job No.	: N5321
Client	: Positive Traffic Pty Ltd
Suburb	: Penrith Surveys
Location	: 2. Mulgoa Rd & Factory Rd & Jeanette St
Day/Date	: Sat, 21st Sep 2019
Weather	: Fine
Description	: Classified Intersection Count
	: 15 mins Data

	Class 1	Class 2	Class 3
Classifications	Cars	Trucks	Buses



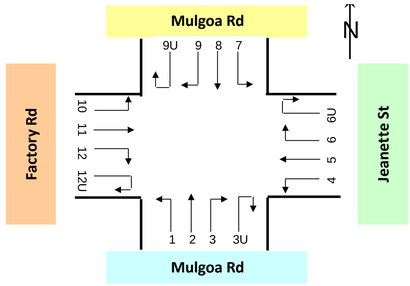
MATRIX Traffic and Transport Data

Approach	Mulgoa Rd																Jeanette St															
Direction	**Direction 1 (Left Turn)**				**Direction 2 (Through)**				**Direction 3 (Right Turn)**				**Direction 3U (U Turn)**				**Direction 4 (Left Turn)**				**Direction 5 (Through)**				**Direction 6 (Right Turn)**				**Direction 6U (U Turn)**			
Time Period	**Cars**	**Trucks**	**Buses**	**Total**	**Cars**	**Trucks**	**Buses**	**Total**	**Cars**	**Trucks**	**Buses**	**Total**	**Cars**	**Trucks**	**Buses**	**Total**	**Cars**	**Trucks**	**Buses**	**Total**	**Cars**	**Trucks**	**Buses**	**Total**	**Cars**	**Trucks**	**Buses**	**Total**	**Cars**	**Trucks**	**Buses**	**Total**
10:00 to 10:15	5	0	0	**5**	305	7	1	**313**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
10:15 to 10:30	11	0	0	**11**	286	4	2	**292**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
10:30 to 10:45	10	1	0	**11**	264	6	0	**270**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
10:45 to 11:00	10	0	1	**11**	293	6	1	**300**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
11:00 to 11:15	15	0	0	**15**	290	5	0	**295**	0	0	0	**0**	0	0	0	**0**	4	0	0	**4**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
11:15 to 11:30	10	0	0	**10**	258	5	1	**264**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
11:30 to 11:45	9	0	0	**9**	255	2	0	**257**	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**	0	0	0	**0**	0	2	0	**2**	0	0	0	**0**
11:45 to 12:00	12	0	0	**12**	271	7	0	**278**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
12:00 to 12:15	18	0	0	**18**	278	3	1	**282**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
12:15 to 12:30	10	0	0	**10**	286	1	2	**289**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
12:30 to 12:45	4	1	0	**5**	288	1	0	**289**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
12:45 to 13:00	8	0	0	**8**	259	6	1	**266**	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**
13:00 to 13:15	3	0	0	**3**	262	3	0	**265**	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
13:15 to 13:30	8	0	1	**9**	223	4	1	**228**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
13:30 to 13:45	6	0	0	**6**	224	6	0	**230**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
13:45 to 14:00	6	0	0	**6**	209	1	1	**211**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Total	**145**	**2**	**2**	**149**	**4,251**	**67**	**11**	**4,329**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**

Approach	Mulgoa Rd																Factory Rd															
Direction	Direction 7 (Left Turn)				Direction 8 (Through)				Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)				Direction 12 (Right Turn)				Direction 12U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
10:00 to 10:15	3	0	0	**3**	246	8	0	**254**	0	0	0	**0**	0	0	0	**0**	21	1	0	**22**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
10:15 to 10:30	4	0	1	**5**	260	5	0	**265**	0	0	0	**0**	0	0	0	**0**	13	0	0	**13**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
10:30 to 10:45	3	0	0	**3**	310	5	0	**315**	0	0	0	**0**	0	0	0	**0**	28	0	0	**28**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**
10:45 to 11:00	7	0	0	**7**	257	11	1	**269**	0	0	0	**0**	0	0	0	**0**	25	1	0	**26**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
11:00 to 11:15	4	0	0	**4**	273	3	0	**276**	0	0	0	**0**	0	0	0	**0**	19	0	0	**19**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
11:15 to 11:30	6	0	0	**6**	327	6	0	**333**	0	0	0	**0**	0	0	0	**0**	17	0	0	**17**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
11:30 to 11:45	3	0	1	**4**	277	9	0	**286**	0	0	0	**0**	0	0	0	**0**	20	0	0	**20**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
11:45 to 12:00	3	0	0	**3**	296	2	1	**299**	1	0	0	**1**	0	0	0	**0**	26	0	0	**26**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**
12:00 to 12:15	5	1	0	**6**	318	7	0	**325**	0	0	0	**0**	0	0	0	**0**	25	0	0	**25**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
12:15 to 12:30	2	1	1	**4**	310	11	0	**321**	0	0	0	**0**	0	0	0	**0**	28	2	0	**30**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
12:30 to 12:45	4	0	0	**4**	298	3	0	**301**	0	0	0	**0**	0	0	0	**0**	27	1	0	**28**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
12:45 to 13:00	5	1	0	**6**	305	4	1	**310**	0	0	0	**0**	0	0	0	**0**	30	0	0	**30**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**
13:00 to 13:15	12	1	0	**13**	302	13	0	**315**	0	0	0	**0**	0	0	0	**0**	17	1	0	**18**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
13:15 to 13:30	8	1	1	**10**	333	6	1	**340**	0	0	0	**0**	0	0	0	**0**	28	0	0	**28**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
13:30 to 13:45	4	0	0	**4**	303	12	0	**315**	0	0	0	**0**	0	0	0	**0**	30	1	0	**31**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
13:45 to 14:00	4	1	0	**5**	320	4	1	**325**	0	0	0	**0**	1	0	0	**1**	27	0	0	**27**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Total	**77**	**6**	**4**	**87**	**4,735**	**109**	**5**	**4,849**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**381**	**7**	**0**	**388**	**1**	**0**	**0**	**1**	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**

Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 2. Mulgoa Rd & Factory Rd & Jeanette St

Day/Date : Sat, 21st Sep 2019
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



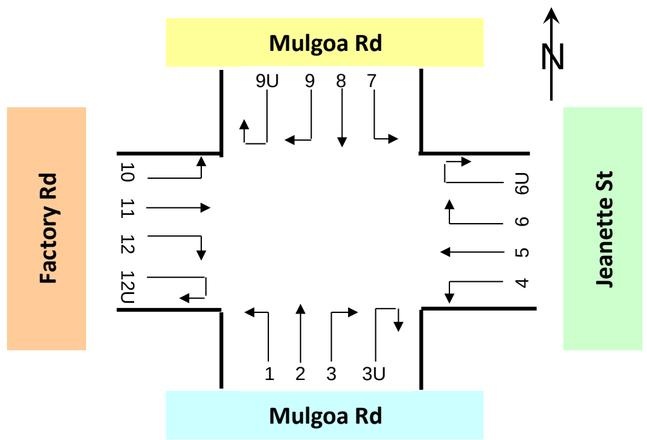
MATRIX Traffic and Transport Data

Approach	Mulgoa Rd																Jeanette St															
Direction	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U Turn)				Direction 4 (Left Turn)				Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
10:00 to 11:00	36	1	1	**38**	1,148	23	4	**1,175**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
10:15 to 11:15	46	1	1	**48**	1,133	21	3	**1,157**	0	0	0	**0**	0	0	0	**0**	5	0	0	**5**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
10:30 to 11:30	45	1	1	**47**	1,105	22	2	**1,129**	0	0	0	**0**	0	0	0	**0**	5	0	0	**5**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
10:45 to 11:45	44	0	1	**45**	1,096	18	2	**1,116**	0	0	0	**0**	0	0	0	**0**	7	0	0	**7**	0	0	0	**0**	0	2	0	**2**	0	0	0	**0**
11:00 to 12:00	46	0	0	**46**	1,074	19	1	**1,094**	0	0	0	**0**	0	0	0	**0**	7	0	0	**7**	0	0	0	**0**	0	2	0	**2**	0	0	0	**0**
11:15 to 12:15	49	0	0	**49**	1,062	17	2	**1,081**	0	0	0	**0**	0	0	0	**0**	4	0	0	**4**	0	0	0	**0**	0	2	0	**2**	0	0	0	**0**
11:30 to 12:30	49	0	0	**49**	1,090	13	3	**1,106**	0	0	0	**0**	0	0	0	**0**	3	0	0	**3**	0	0	0	**0**	0	2	0	**2**	0	0	0	**0**
11:45 to 12:45	44	1	0	**45**	1,123	12	3	**1,138**	0	0	0	**0**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
12:00 to 13:00	40	1	0	**41**	1,111	11	4	**1,126**	0	0	0	**0**	0	0	0	**0**	3	0	0	**3**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**
12:15 to 13:15	25	1	0	**26**	1,095	11	3	**1,109**	0	0	0	**0**	0	0	0	**0**	4	0	0	**4**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**
12:30 to 13:30	23	1	1	**25**	1,032	14	2	**1,048**	0	0	0	**0**	0	0	0	**0**	4	0	0	**4**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**
12:45 to 13:45	25	0	1	**26**	968	19	2	**989**	0	0	0	**0**	0	0	0	**0**	4	0	0	**4**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**
13:00 to 14:00	23	0	1	**24**	918	14	2	**934**	0	0	0	**0**	0	0	0	**0**	3	0	0	**3**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Total	**145**	**2**	**2**	**149**	**4,251**	**67**	**11**	**4,329**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**

Approach	Mulgoa Rd																Factory Rd															
Direction	Direction 7 (Left Turn)				Direction 8 (Through)				Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)				Direction 12 (Right Turn)				Direction 12U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
10:00 to 11:00	17	0	1	**18**	1,073	29	1	**1,103**	0	0	0	**0**	0	0	0	**0**	87	2	0	**89**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**
10:15 to 11:15	18	0	1	**19**	1,100	24	1	**1,125**	0	0	0	**0**	0	0	0	**0**	85	1	0	**86**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**
10:30 to 11:30	20	0	0	**20**	1,167	25	1	**1,193**	0	0	0	**0**	0	0	0	**0**	89	1	0	**90**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**
10:45 to 11:45	20	0	1	**21**	1,134	29	1	**1,164**	0	0	0	**0**	0	0	0	**0**	81	1	0	**82**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
11:00 to 12:00	16	0	1	**17**	1,173	20	1	**1,194**	1	0	0	**1**	0	0	0	**0**	82	0	0	**82**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**
11:15 to 12:15	17	1	1	**19**	1,218	24	1	**1,243**	1	0	0	**1**	0	0	0	**0**	88	0	0	**88**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**
11:30 to 12:30	13	2	2	**17**	1,201	29	1	**1,231**	1	0	0	**1**	0	0	0	**0**	99	2	0	**101**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**
11:45 to 12:45	14	2	1	**17**	1,222	23	1	**1,246**	1	0	0	**1**	0	0	0	**0**	106	3	0	**109**	0	0	0	**0**	1	0	0	**1**	0	0	0	**0**
12:00 to 13:00	16	3	1	**20**	1,231	25	1	**1,257**	0	0	0	**0**	0	0	0	**0**	110	3	0	**113**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**
12:15 to 13:15	23	3	1	**27**	1,215	31	1	**1,247**	0	0	0	**0**	0	0	0	**0**	102	4	0	**106**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**
12:30 to 13:30	29	3	1	**33**	1,238	26	2	**1,266**	0	0	0	**0**	0	0	0	**0**	102	2	0	**104**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**
12:45 to 13:45	29	3	1	**33**	1,243	35	2	**1,280**	0	0	0	**0**	0	0	0	**0**	105	2	0	**107**	1	0	0	**1**	0	0	0	**0**	0	0	0	**0**
13:00 to 14:00	28	3	1	**32**	1,258	35	2	**1,295**	0	0	0	**0**	1	0	0	**1**	102	2	0	**104**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Total	**77**	**6**	**4**	**87**	**4,735**	**109**	**5**	**4,849**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**381**	**7**	**0**	**388**	**1**	**0**	**0**	**1**	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**

Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 2. Mulgoa Rd & Factory Rd & Jeanette St

Day/Date : Sat, 21st Sep 2019
Weather : Fine
Description : Classified Intersection Count
: Peak Hour Summary



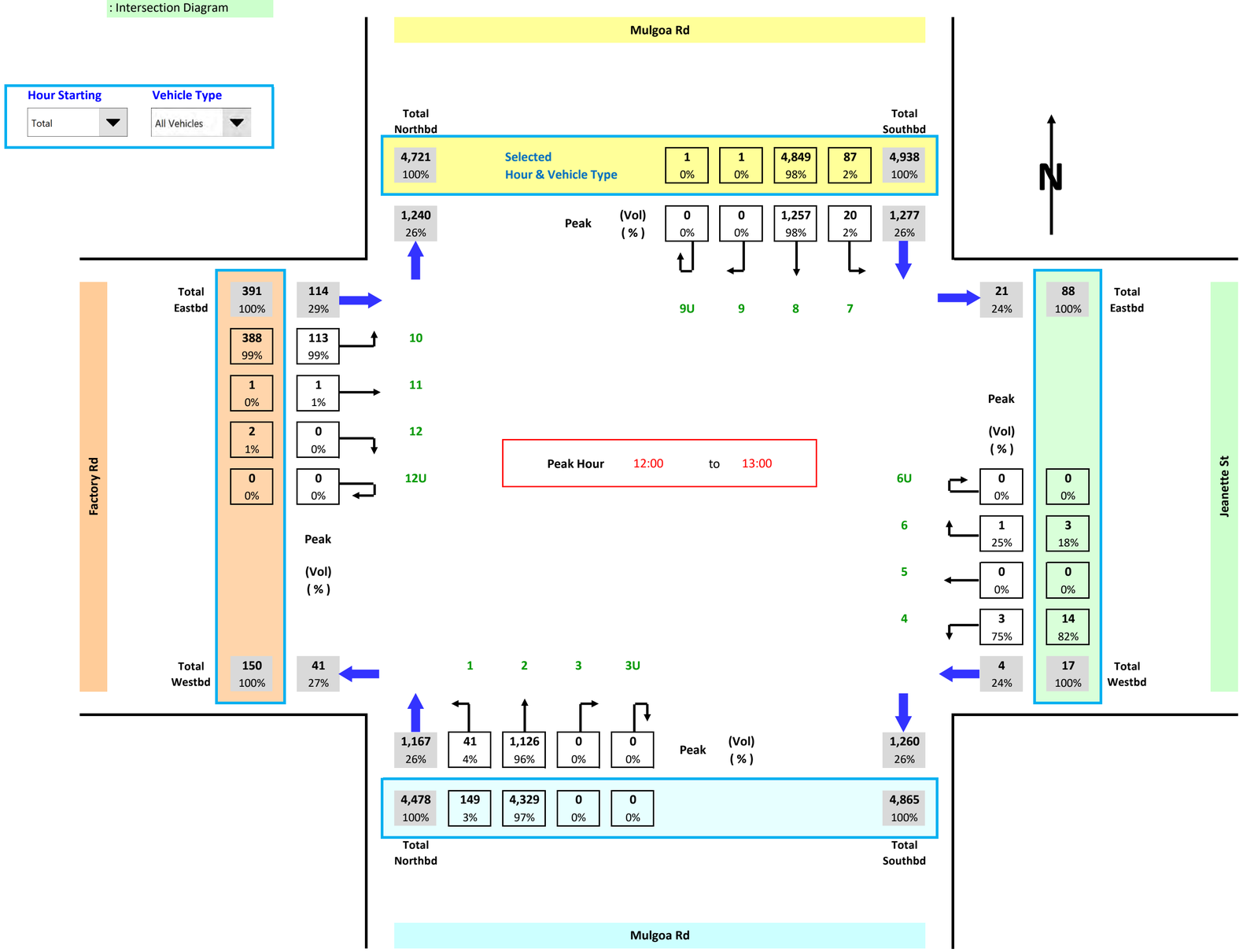
MATRIX Traffic and Transport Data

Approach	Mulgoa Rd				Jeanette St				Mulgoa Rd				Factory Rd				Grand Total
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	
12:00 to 13:00	1,151	12	4	**1,167**	3	1	0	**4**	1,247	28	2	**1,277**	111	3	0	**114**	**2,562**
10:00 to 11:00	1,184	24	5	**1,213**	1	0	0	**1**	1,090	29	2	**1,121**	88	2	0	**90**	**2,425**
10:15 to 11:15	1,179	22	4	**1,205**	5	0	0	**5**	1,118	24	2	**1,144**	86	1	0	**87**	**2,441**
10:30 to 11:30	1,150	23	3	**1,176**	5	0	0	**5**	1,187	25	1	**1,213**	90	1	0	**91**	**2,485**
10:45 to 11:45	1,140	18	3	**1,161**	7	2	0	**9**	1,154	29	2	**1,185**	81	1	0	**82**	**2,437**
11:00 to 12:00	1,120	19	1	**1,140**	7	2	0	**9**	1,190	20	2	**1,212**	83	0	0	**83**	**2,444**
11:15 to 12:15	1,111	17	2	**1,130**	4	2	0	**6**	1,236	25	2	**1,263**	89	0	0	**89**	**2,488**
11:30 to 12:30	1,139	13	3	**1,155**	3	2	0	**5**	1,215	31	3	**1,249**	100	2	0	**102**	**2,511**
11:45 to 12:45	1,167	13	3	**1,183**	1	0	0	**1**	1,237	25	2	**1,264**	107	3	0	**110**	**2,558**
12:00 to 13:00	1,151	12	4	**1,167**	3	1	0	**4**	1,247	28	2	**1,277**	111	3	0	**114**	**2,562**
12:15 to 13:15	1,120	12	3	**1,135**	4	1	0	**5**	1,238	34	2	**1,274**	103	4	0	**107**	**2,521**
12:30 to 13:30	1,055	15	3	**1,073**	4	1	0	**5**	1,267	29	3	**1,299**	103	2	0	**105**	**2,482**
12:45 to 13:45	993	19	3	**1,015**	4	1	0	**5**	1,272	38	3	**1,313**	106	2	0	**108**	**2,441**
13:00 to 14:00	941	14	3	**958**	3	0	0	**3**	1,287	38	3	**1,328**	102	2	0	**104**	**2,393**
Total	**4,396**	**69**	**13**	**4,478**	**14**	**3**	**0**	**17**	**4,814**	**115**	**9**	**4,938**	**384**	**7**	**0**	**391**	**9,824**

Job No. : N5321
Client : Positive Traffic Pty Ltd
Suburb : Penrith Surveys
Location : 2. Mulgoa Rd & Factory Rd & Jeanette St

Day/Date : Sat, 21st Sep 2019
Weather : Fine
Description : Classified Intersection Count
: Intersection Diagram

MATRIX Traffic and Transport Data



8. Appendix B – Plans of Proposed Scheme

44 - 50 TENCH AVE JAMISONTOWN

DEVELOPMENT APPLICATION

ORANGE FIELDS - CAFE

1 LOCATION PLAN
SCALE 1:1750 @ A2

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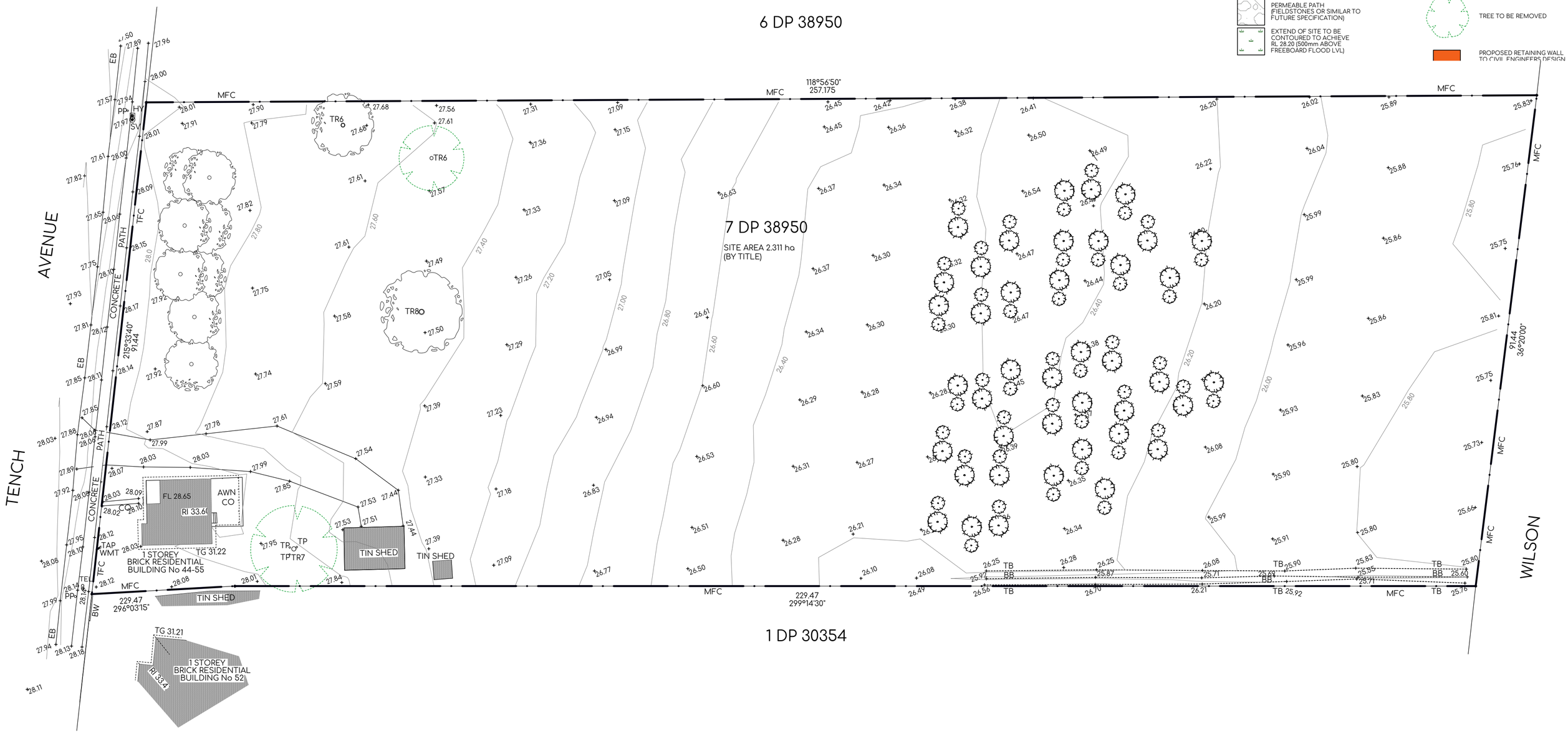
PROJECT
ORANGE FIELDS

CLIENT: MKT CAFE PTY LTD
ADDRESS: 44-50 TENCH AVE JAMISONTOWN NSW
DRAWING NAME: COVER PAGE

SCALE: SHOWN@A2
JOB NO.: 0461
DATE: 27.09.19
DRAWN: MW
DRAWING NO.: 00
ISSUE: D

LEGEND OF FINISHES

- SEMI PERMEABLE GROUND COVERING (TO FUTURE SPECIFICATION)
- ACCESSIBLE PAVED PATHWAY & PARKING (TO FUTURE SPECIFICATION)
- COMPRESSED GRAVEL / ROAD BASE DRIVEWAY (TO FUTURE SPECIFICATION)
- PERMEABLE PATH (FIELDSTONES OR SIMILAR TO FUTURE SPECIFICATION)
- EXTEND OF SITE TO BE CONTOURED TO ACHIEVE RL 28.20 (500mm ABOVE FREEBOARD FLOOD LVL)
- TREE TO BE RETAINED
- ORANGE TREE LOCATION
- RUSTIC LANDSCAPING (FEATHER GRASS OR SIMILAR TO FUTURE SPECIFICATION)
- TREE TO BE REMOVED
- PROPOSED RETAINING WALL TO CIVIL ENGINEERS DESIGN



1 SURVEY SITE PLAN
SCALE 1:500 @ A2

0 10 20 M

N

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PROJECT
ORANGE FIELDS

CLIENT	MKT CAFE PTY LTD
ADDRESS	44-50 TENCH AVE JAMISONTOWN NSW
DRAWING NAME	EXISTING SITE PLAN

SCALE	SHOWN@A2	JOB NO.	0461
DATE	27.09.19	DRAWN	MW
DRAWING NO.	01	ISSUE	D

ACCESSIBLE CAR PARKING PAVEMENT SLOPE AND SURFACE - AS 2890.6 (2009), SECTION 2.3
PARKING SPACES FOR PEOPLE WITH DISABILITIES AND RELATED WALKING AND WHEELCHAIR UNLOADING AREAS SHALL COMPRISE A FIRM PLANE SURFACE WITH A FALL NOT EXCEEDING 1 IN 40 (1.43 DEGREES APPROXIMATELY OR 2.5% GRADE) IN ANY DIRECTION (1 IN 33 (1.73 DEGREES) IF THE SURFACE IS A BITUMINOUS SEAL AND THE PARKING SPACE IS OUT OF DOORS).
THESE AREAS SHALL HAVE A SLIP-RESISTANT SURFACE.

WALKWAYS - AS 1428.1 (2009), CLAUSE 10
WALKWAYS, RAMPS AND LANDINGS THAT ARE PROVIDED ON A CONTINUOUS ACCESSIBLE PATH OF TRAVEL SHALL MEET THE REQUIREMENTS OF AS 1428.1 (2009), CLAUSE 10.

ENSURE THE FINAL DESIGN COMPLIES WITH ALL ELEMENTS OF AS 1428.1 (2009), CLAUSE 10 INCLUDING BUT NOT LIMITED TO:
- WALKWAY GRADIENTS OF 1 IN 33, LANDINGS PROVIDED AT INTERVALS NO GREATER THAN 25M;
- WALKWAY GRADIENTS OF 1 IN 20, LANDINGS PROVIDED AT INTERVALS NO GREATER THAN 15M;
- WALKWAY GRADIENTS BETWEEN 1 IN 20 AND 1 IN 33, LANDINGS PROVIDED AT INTERVALS

THAT SHALL BE OBTAINED BY LINEAR INTERPOLATION; FOR WALKWAYS SHALLOWER THAN 1 IN 33, NO LANDING ARE REQUIRED.

SURFACE ABUTTING WALKWAY - AS 1428.1 (2009), CLAUSE 10.2
THE FLOOR OR GROUND ABUTTING THE SIDES OF A WALKWAY SHALL PROVIDE A FIRM AND LEVEL SURFACE OF A DIFFERENT MATERIAL TO THAT OF THE WALKWAY, FOLLOW THE GRADE OF THE WALKWAY AND EXTEND HORIZONTALLY FOR A MINIMUM OF 600MM UNLESS ONE OF THE FOLLOWING IS PROVIDED:
- A KERB; OR
- A KERB RAIL AND HANDRAIL; OR
- A WALL NOT LESS THAN 450MM IN HEIGHT.

KERB RAMPS - AS 1428.1 (2009), CLAUSE 10.7
KERB RAMPS AT ROAD/PATH JUNCTION SHALL BE ALIGNED IN THE DIRECTION OF TRAVEL TO MEET THE REQUIREMENTS OF WITH AS 1428.1(2009), CLAUSE 10.7 AND FIGURES 23/24.

A CONTINUOUS ACCESSIBLE PATH OF TRAVEL IS TO BE PROVIDED TO ANY BUILDING REQUIRED TO BE ACCESSIBLE FROM:
- THE MAIN POINTS OF PEDESTRIAN ENTRY AT THE ALLOTMENT BOUNDARY; AND
- FROM ANOTHER ACCESSIBLE BUILDING CONNECTED BY A PEDESTRIAN LINK; AND
- FROM ANY REQUIRED ACCESSIBLE CAR PARKING SPACE ON THE ALLOTMENT.

(BCA CLAUSE D3.1)

LEGEND OF FINISHES

- SEMI PERMEABLE GROUND COVERING (TO FUTURE SPECIFICATION)
- ACCESSIBLE PAVED PATHWAY & PARKING (TO FUTURE SPECIFICATION)
- COMPRESSED GRAVEL / ROAD BASE DRIVEWAY (TO FUTURE SPECIFICATION)
- PERMEABLE PATH (FIELDSTONES OR SIMILAR TO FUTURE SPECIFICATION)
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- ORANGE TREE LOCATION
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- TREE TO BE REMOVED
- PROPOSED RETAINING WALL TO CIVIL ENGINEERS DESIGN

6 DP 38950

7 DP 38950
SITE AREA 2.311 ha
(BY TITLE)

1 DP 30354

AVENUE

TENCH

LANE

WILSON

SITE BOUNDARY

SITE BOUNDARY 118°56'50" 257.175

SITE BOUNDARY 229.47 299°14'30"

DIVIDED CARRIAGEWAY TO INCLUDE RUSTIC "FEATHER GRASS" LANDSCAPING

PROPOSED COMPACTED GRAVEL DRIVE WAY TO FOLLOW NATURAL FALL OF EXISTING SITE TOPOGRAPHY
NEW ROAD TO INCLUDE CAMBER AS TO ALLOW WATER TO DRAIN OFF & TO ENSURE NO POOLING IN THE CENTRE OF THE DRIVE

LIVESTOCK ENCLOSURES

TIMBER POST & RAIL FENCE

PLAYGROUND

DINING PAVILION FFL 28.20

KITCHEN FFL 28.20

HOUSE DINING FFL 28.65

COURTYARD FFL 28.20

BAKERY & RETAIL FFL 28.20

AMENITIES FFL 28.20

CO-OP FFL 28.20

RW

TIN SHED

1 STOREY BRICK RESIDENTIAL BUILDING No 52

EXISTING SCATTERED ORANGE TREES

PATH

CAR PARK

NEW FILL RL 28.02

NEW FILL RL 26.63

NEW FILL RL 27.77

PROPOSED GROUND WORKS TO FOLLOW THE NATURAL FALL OF EXISTING SITE TOPOGRAPHY TO MAINTAIN THE SAME BEHAVIOURAL CHARACTERISTICS OF THE 1% AEP FLOOD.

PROPOSED ABOVE GROUND OSD BASIN INCLUDING STORM WATER CULVERT & EROSION PROTECTION TO STORM WATER ENGINEERS DESIGN

OSC BASIN DISCHARGING INTO THE EXISTING OVERLAND CHANNEL TBC
CHANNEL IS TO BE CHECKED FOR ADEQUATE CAPACITY, OTHERWISE TO BE AMENDED TO SUIT.

INDICATIVE LOCATION FOR SERVICES TO BE COORDINATED WITH CONSULTANTS

INDICATIVE LOCATION FOR RECYCLING & WASTE

RAISED GARDENS / VEGETABLE PATCHES

RAIN WATER DETENTION TANK

1 SITE PLAN
SCALE 1:500 @ A2

0 10 20 M

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PROJECT
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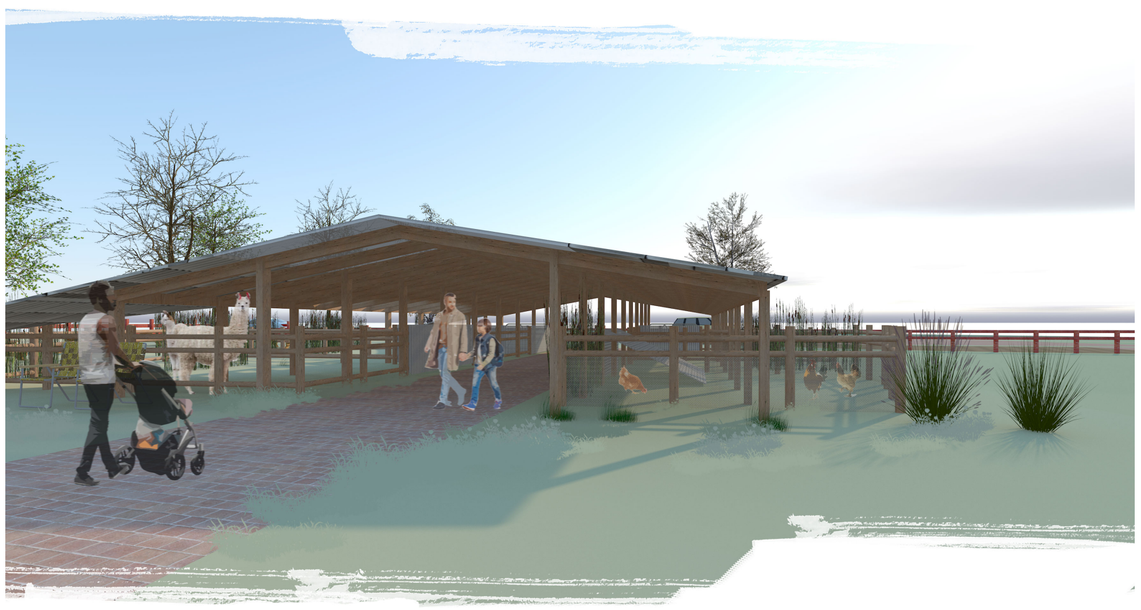
CLIENT	MKT CAFE PTY LTD
ADDRESS	44-50 TENCH AVE JAMISONTOWN NSW
DRAWING NAME	PROPOSED SITE PLAN
SCALE	SHOWN@A2
JOB NO.	0461
DATE	27.09.19
DRAWN	MW
DRAWING NO.	02
ISSUE	D

2 FROM TENCH AVE PEDESTRIAN ENTRANCE
NTS

4 TOWARDS WC'S & RETAIL
NTS

1 TOWARDS DINING PAVILIONS
SCALE 1:100 @ A2



3 TOWARDS ANIMAL ENCLOSURES
NTS

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PROJECT
ORANGE FIELDS

CLIENT: MKT CAFE PTY LTD
ADDRESS: 44-50 TENCH AVE JAMISONTOWN NSW
DRAWING NAME: VISUALISATIONS

SCALE: SHOWN@A2
JOB NO.: 0461
DATE: 27.09.19
DRAWN: MW
DRAWING NO.: 81
ISSUE: D

9. Appendix C – SIDRA Outputs

INTERSECTION SUMMARY

Site: 101 [Mulgoa_Factory_Wday_PM_Ex]

New Site
Giveway / Yield (Two-Way)

Intersection Performance - Hourly Values				
Performance Measure	**Vehicles**		**Persons**	
Travel Speed (Average)	57.8	km/h	57.8	km/h
Travel Distance (Total)	1428.2	veh-km/h	1713.9	pers-km/h
Travel Time (Total)	24.7	veh-h/h	29.6	pers-h/h
Demand Flows (Total)	1405	veh/h	1686	pers/h
Percent Heavy Vehicles (Demand)	2.6	%		
Degree of Saturation	0.303			
Practical Spare Capacity	223.0	%		
Effective Intersection Capacity	4632	veh/h		
Control Delay (Total)	0.74	veh-h/h	0.88	pers-h/h
Control Delay (Average)	1.9	sec	1.9	sec
Control Delay (Worst Lane)	12.6	sec		
Control Delay (Worst Movement)	9.5	sec	9.5	sec
Geometric Delay (Average)	1.2	sec		
Stop-Line Delay (Average)	0.7	sec		
Idling Time (Average)	0.3	sec		
Intersection Level of Service (LOS)	NA			
95% Back of Queue - Vehicles (Worst Lane)	0.7	veh		
95% Back of Queue - Distance (Worst Lane)	4.9	m		
Queue Storage Ratio (Worst Lane)	0.00			
Total Effective Stops	223	veh/h	268	pers/h
Effective Stop Rate	0.16	per veh	0.16	per pers
Proportion Queued	0.11		0.11	
Performance Index	26.3		26.3	
Cost (Total)	558.08	$/h	558.08	$/h
Fuel Consumption (Total)	97.5	L/h		
Carbon Dioxide (Total)	231.0	kg/h		
Hydrocarbons (Total)	0.017	kg/h		
Carbon Monoxide (Total)	0.279	kg/h		
NOx (Total)	0.235	kg/h		

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
NA: Intersection LOS for Vehicles is Not Applicable for two-way sign control since the average intersection 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.

Intersection Performance - Annual Values				
Performance Measure	**Vehicles**		**Persons**	
Demand Flows (Total)	674,526	veh/y	809,432	pers/y
Delay	354	veh-h/y	424	pers-h/y
Effective Stops	107,200	veh/y	128,640	pers/y
Travel Distance	685,545	veh-km/y	822,653	pers-km/y
Travel Time	11,853	veh-h/y	14,224	pers-h/y
Cost	267,876	$/y	267,876	$/y
Fuel Consumption	46,806	L/y		
Carbon Dioxide	110,880	kg/y		
Hydrocarbons	8	kg/y		
Carbon Monoxide	134	kg/y		
NOx	113	kg/y		

MOVEMENT SUMMARY

Site: 101 [Mulgoa_Factory_Wday_PM_Ex]

New Site
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand 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: Mulgoa Rd											
1	L2	46	1.0	0.303	5.6	LOS A	0.0	0.0	0.00	0.05	57.8
2	T1	1113	3.0	0.303	0.0	LOS A	0.0	0.0	0.00	0.02	59.7
Approach		1159	2.9	0.303	0.3	NA	0.0	0.0	0.00	0.02	59.6
West: Factory Rd											
10	L2	246	1.0	0.172	9.5	LOS A	0.7	4.9	0.60	0.79	50.6
Approach		246	1.0	0.172	9.5	LOS A	0.7	4.9	0.60	0.79	50.6
All Vehicles		1405	2.6	0.303	1.9	NA	0.7	4.9	0.11	0.16	57.8

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

INTERSECTION SUMMARY

Site: 101 [Mulgoa_Factory_Wday_PM_Ex+Dev]

New Site
Giveway / Yield (Two-Way)

Intersection Performance - Hourly Values				
Performance Measure	**Vehicles**		**Persons**	
Travel Speed (Average)	57.8	km/h	57.8	km/h
Travel Distance (Total)	1432.5	veh-km/h	1719.0	pers-km/h
Travel Time (Total)	24.8	veh-h/h	29.7	pers-h/h
Demand Flows (Total)	1409	veh/h	1691	pers/h
Percent Heavy Vehicles (Demand)	2.6	%		
Degree of Saturation	0.305			
Practical Spare Capacity	221.8	%		
Effective Intersection Capacity	4628	veh/h		
Control Delay (Total)	0.74	veh-h/h	0.89	pers-h/h
Control Delay (Average)	1.9	sec	1.9	sec
Control Delay (Worst Lane)	12.7	sec		
Control Delay (Worst Movement)	9.5	sec	9.5	sec
Geometric Delay (Average)	1.2	sec		
Stop-Line Delay (Average)	0.7	sec		
Idling Time (Average)	0.3	sec		
Intersection Level of Service (LOS)	NA			
95% Back of Queue - Vehicles (Worst Lane)	0.7	veh		
95% Back of Queue - Distance (Worst Lane)	4.9	m		
Queue Storage Ratio (Worst Lane)	0.00			
Total Effective Stops	226	veh/h	271	pers/h
Effective Stop Rate	0.16	per veh	0.16	per pers
Proportion Queued	0.10		0.10	
Performance Index	26.4		26.4	
Cost (Total)	560.23	$/h	560.23	$/h
Fuel Consumption (Total)	97.9	L/h		
Carbon Dioxide (Total)	231.8	kg/h		
Hydrocarbons (Total)	0.017	kg/h		
Carbon Monoxide (Total)	0.280	kg/h		
NOx (Total)	0.236	kg/h		

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
NA: Intersection LOS for Vehicles is Not Applicable for two-way sign control since the average intersection 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.

Intersection Performance - Annual Values				
Performance Measure	**Vehicles**		**Persons**	
Demand Flows (Total)	676,547	veh/y	811,857	pers/y
Delay	356	veh-h/y	428	pers-h/y
Effective Stops	108,303	veh/y	129,964	pers/y
Travel Distance	687,597	veh-km/y	825,117	pers-km/y
Travel Time	11,892	veh-h/y	14,270	pers-h/y
Cost	268,908	$/y	268,908	$/y
Fuel Consumption	46,977	L/y		
Carbon Dioxide	111,284	kg/y		
Hydrocarbons	8	kg/y		
Carbon Monoxide	135	kg/y		
NOx	113	kg/y		

MOVEMENT SUMMARY

Site: 101 [Mulgoa_Factory_Wday_PM_Ex+Dev]

New Site
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand 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: Mulgoa Rd											
1	L2	51	1.0	0.305	5.6	LOS A	0.0	0.0	0.00	0.05	57.8
2	T1	1113	3.0	0.305	0.0	LOS A	0.0	0.0	0.00	0.02	59.7
Approach		1163	2.9	0.305	0.3	NA	0.0	0.0	0.00	0.03	59.6
West: Factory Rd											
10	L2	246	1.0	0.172	9.5	LOS A	0.7	4.9	0.60	0.79	50.6
Approach		246	1.0	0.172	9.5	LOS A	0.7	4.9	0.60	0.79	50.6
All Vehicles		1409	2.6	0.305	1.9	NA	0.7	4.9	0.10	0.16	57.8

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

INTERSECTION SUMMARY

Site: 101 [Mulgoa_Factory_WEnd_AM_Ex]

New Site
Giveway / Yield (Two-Way)

Intersection Performance - Hourly Values				
Performance Measure	**Vehicles**		**Persons**	
Travel Speed (Average)	58.7	km/h	58.7	km/h
Travel Distance (Total)	1369.5	veh-km/h	1643.4	pers-km/h
Travel Time (Total)	23.3	veh-h/h	28.0	pers-h/h
Demand Flows (Total)	1347	veh/h	1617	pers/h
Percent Heavy Vehicles (Demand)	2.8	%		
Degree of Saturation	0.322			
Practical Spare Capacity	204.8	%		
Effective Intersection Capacity	4190	veh/h		
Control Delay (Total)	0.40	veh-h/h	0.48	pers-h/h
Control Delay (Average)	1.1	sec	1.1	sec
Control Delay (Worst Lane)	13.2	sec		
Control Delay (Worst Movement)	9.7	sec	9.7	sec
Geometric Delay (Average)	0.7	sec		
Stop-Line Delay (Average)	0.4	sec		
Idling Time (Average)	0.2	sec		
Intersection Level of Service (LOS)	NA			
95% Back of Queue - Vehicles (Worst Lane)	0.3	veh		
95% Back of Queue - Distance (Worst Lane)	2.4	m		
Queue Storage Ratio (Worst Lane)	0.00			
Total Effective Stops	119	veh/h	142	pers/h
Effective Stop Rate	0.09	per veh	0.09	per pers
Proportion Queued	0.05		0.05	
Performance Index	24.1		24.1	
Cost (Total)	511.09	$/h	511.09	$/h
Fuel Consumption (Total)	90.7	L/h		
Carbon Dioxide (Total)	215.0	kg/h		
Hydrocarbons (Total)	0.016	kg/h		
Carbon Monoxide (Total)	0.261	kg/h		
NOx (Total)	0.227	kg/h		

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
NA: Intersection LOS for Vehicles is Not Applicable for two-way sign control since the average intersection 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.

Intersection Performance - Annual Values				
Performance Measure	**Vehicles**		**Persons**	
Demand Flows (Total)	646,737	veh/y	776,084	pers/y
Delay	193	veh-h/y	231	pers-h/y
Effective Stops	56,955	veh/y	68,346	pers/y
Travel Distance	657,346	veh-km/y	788,815	pers-km/y
Travel Time	11,193	veh-h/y	13,432	pers-h/y
Cost	245,325	$/y	245,325	$/y
Fuel Consumption	43,525	L/y		
Carbon Dioxide	103,187	kg/y		
Hydrocarbons	8	kg/y		
Carbon Monoxide	125	kg/y		
NOx	109	kg/y		

MOVEMENT SUMMARY

Site: 101 [Mulgoa_Factory_WEnd_AM_Ex]

New Site
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand 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: Mulgoa Rd											
1	L2	43	1.0	0.322	5.6	LOS A	0.0	0.0	0.00	0.04	57.9
2	T1	1185	3.0	0.322	0.0	LOS A	0.0	0.0	0.00	0.02	59.7
Approach		1228	2.9	0.322	0.2	NA	0.0	0.0	0.00	0.02	59.7
West: Factory Rd											
10	L2	119	1.0	0.089	9.7	LOS A	0.3	2.4	0.60	0.78	50.5
Approach		119	1.0	0.089	9.7	LOS A	0.3	2.4	0.60	0.78	50.5
All Vehicles		1347	2.8	0.322	1.1	NA	0.3	2.4	0.05	0.09	58.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
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.

INTERSECTION SUMMARY

Site: 101 [Mulgoa_Factory_WEnd_AM_Ex+Dev]

New Site
Giveway / Yield (Two-Way)

Intersection Performance - Hourly Values				
Performance Measure	**Vehicles**		**Persons**	
Travel Speed (Average)	58.7	km/h	58.7	km/h
Travel Distance (Total)	1373.7	veh-km/h	1648.5	pers-km/h
Travel Time (Total)	23.4	veh-h/h	28.1	pers-h/h
Demand Flows (Total)	1352	veh/h	1622	pers/h
Percent Heavy Vehicles (Demand)	2.8	%		
Degree of Saturation	0.323			
Practical Spare Capacity	203.7	%		
Effective Intersection Capacity	4189	veh/h		
Control Delay (Total)	0.41	veh-h/h	0.49	pers-h/h
Control Delay (Average)	1.1	sec	1.1	sec
Control Delay (Worst Lane)	13.3	sec		
Control Delay (Worst Movement)	9.7	sec	9.7	sec
Geometric Delay (Average)	0.7	sec		
Stop-Line Delay (Average)	0.4	sec		
Idling Time (Average)	0.2	sec		
Intersection Level of Service (LOS)	NA			
95% Back of Queue - Vehicles (Worst Lane)	0.3	veh		
95% Back of Queue - Distance (Worst Lane)	2.4	m		
Queue Storage Ratio (Worst Lane)	0.00			
Total Effective Stops	121	veh/h	145	pers/h
Effective Stop Rate	0.09	per veh	0.09	per pers
Proportion Queued	0.05		0.05	
Performance Index	24.2		24.2	
Cost (Total)	513.25	$/h	513.25	$/h
Fuel Consumption (Total)	91.0	L/h		
Carbon Dioxide (Total)	215.8	kg/h		
Hydrocarbons (Total)	0.016	kg/h		
Carbon Monoxide (Total)	0.262	kg/h		
NOx (Total)	0.228	kg/h		

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
NA: Intersection LOS for Vehicles is Not Applicable for two-way sign control since the average intersection 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.

Intersection Performance - Annual Values				
Performance Measure	**Vehicles**		**Persons**	
Demand Flows (Total)	648,758	veh/y	778,510	pers/y
Delay	196	veh-h/y	235	pers-h/y
Effective Stops	58,113	veh/y	69,736	pers/y
Travel Distance	659,399	veh-km/y	791,279	pers-km/y
Travel Time	11,232	veh-h/y	13,478	pers-h/y
Cost	246,361	$/y	246,361	$/y
Fuel Consumption	43,697	L/y		
Carbon Dioxide	103,591	kg/y		
Hydrocarbons	8	kg/y		
Carbon Monoxide	126	kg/y		
NOx	109	kg/y		

MOVEMENT SUMMARY

Site: 101 [Mulgoa_Factory_WEnd_AM_Ex+Dev]

New Site
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand 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: Mulgoa Rd											
1	L2	47	1.0	0.323	5.6	LOS A	0.0	0.0	0.00	0.05	57.9
2	T1	1185	3.0	0.323	0.0	LOS A	0.0	0.0	0.00	0.02	59.7
Approach		1233	2.9	0.323	0.3	NA	0.0	0.0	0.00	0.02	59.6
West: Factory Rd											
10	L2	119	1.0	0.089	9.7	LOS A	0.3	2.4	0.59	0.78	50.5
Approach		119	1.0	0.089	9.7	LOS A	0.3	2.4	0.59	0.78	50.5
All Vehicles		1352	2.8	0.323	1.1	NA	0.3	2.4	0.05	0.09	58.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
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.

INTERSECTION SUMMARY

Site: 101 [Mulgoa_Jamison_Wday_PM_Ex]

New Site
Signals - Fixed Time Isolated Cycle Time = 110 seconds (Optimum Cycle Time - Minimum Delay)

Intersection Performance - Hourly Values								
Performance Measure	**Vehicles**			**Pedestrians**			**Persons**	
Travel Speed (Average)	33.2	km/h		2.1	km/h		32.3	km/h
Travel Distance (Total)	4317.7	veh-km/h		9.4	ped-km/h		5190.6	pers-km/h
Travel Time (Total)	130.2	veh-h/h		4.5	ped-h/h		160.8	pers-h/h
Demand Flows (Total)	4224	veh/h		211	ped/h		5280	pers/h
Percent Heavy Vehicles (Demand)	2.1	%						
Degree of Saturation	0.909			0.080				
Practical Spare Capacity	-1.0	%						
Effective Intersection Capacity	4646	veh/h						
Control Delay (Total)	57.61	veh-h/h		2.53	ped-h/h		71.67	pers-h/h
Control Delay (Average)	49.1	sec		43.3	sec		48.9	sec
Control Delay (Worst Lane)	69.8	sec						
Control Delay (Worst Movement)	69.8	sec		49.3	sec		69.8	sec
Geometric Delay (Average)	2.3	sec						
Stop-Line Delay (Average)	46.8	sec						
Idling Time (Average)	41.3	sec						
Intersection Level of Service (LOS)	LOS D			LOS E				
95% Back of Queue - Vehicles (Worst Lane)	29.8	veh						
95% Back of Queue - Distance (Worst Lane)	213.6	m						
Queue Storage Ratio (Worst Lane)	0.26							
Total Effective Stops	3840	veh/h		187	ped/h		4794	pers/h
Effective Stop Rate	0.91	per veh		0.89	per ped		0.91	per pers
Proportion Queued	0.97			0.89			0.96	
Performance Index	338.1			5.6			343.7	
Cost (Total)	3989.07	$/h		114.41	$/h		4103.48	$/h
Fuel Consumption (Total)	456.3	L/h						
Carbon Dioxide (Total)	1077.7	kg/h						
Hydrocarbons (Total)	0.098	kg/h						
Carbon Monoxide (Total)	1.164	kg/h						
NOx (Total)	1.176	kg/h						

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Intersection LOS value for Vehicles is based on average delay for all vehicle movements.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Intersection Performance - Annual Values								
Performance Measure	**Vehicles**			**Pedestrians**			**Persons**	
Demand Flows (Total)	2,027,621	veh/y		101,053	ped/y		2,534,198	pers/y
Delay	27,653	veh-h/y		1,216	ped-h/y		34,399	pers-h/y
Effective Stops	1,843,155	veh/y		89,536	ped/y		2,301,322	pers/y
Travel Distance	2,072,485	veh-km/y		4,509	ped-km/y		2,491,491	pers-km/y
Travel Time	62,509	veh-h/y		2,179	ped-h/y		77,190	pers-h/y
Cost	1,914,754	$/y		54,915	$/y		1,969,668	$/y
Fuel Consumption	219,002	L/y						
Carbon Dioxide	517,308	kg/y						
Hydrocarbons	47	kg/y						
Carbon Monoxide	559	kg/y						
NOx	564	kg/y						

MOVEMENT SUMMARY

Site: 101 [Mulgoa_Jamison_Wday_PM_Ex]

New Site
Signals - Fixed Time Isolated Cycle Time = 110 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Mulgoa Rd											
1	L2	20	1.0	0.322	36.9	LOS C	7.8	55.9	0.81	0.69	38.7
2	T1	1076	3.0	0.766	37.6	LOS C	22.8	163.4	0.94	0.85	37.2
3	R2	373	2.0	0.700	56.4	LOS D	10.0	71.2	1.00	0.85	31.0
Approach		1468	2.7	0.766	42.4	LOS C	22.8	163.4	0.96	0.85	35.4
East: Jamison Rd											
4	L2	381	1.0	0.909	65.9	LOS E	24.2	170.9	1.00	1.00	28.4
5	T1	268	1.0	0.610	41.5	LOS C	13.1	92.4	0.95	0.80	35.9
6	R2	326	1.0	0.885	69.8	LOS E	10.0	70.9	1.00	0.99	27.8
Approach		976	1.0	0.909	60.5	LOS E	24.2	170.9	0.99	0.94	29.9
North: Mulgoa Rd											
7	L2	246	1.0	0.432	38.2	LOS C	10.6	74.6	0.85	0.80	36.2
8	T1	1028	3.0	0.870	47.7	LOS D	29.8	213.6	1.00	1.02	33.8
9	R2	239	1.0	0.891	67.8	LOS E	14.8	104.3	1.00	0.99	28.2
Approach		1514	2.4	0.891	49.3	LOS D	29.8	213.6	0.98	0.98	33.1
West: Jamison Rd											
10	L2	113	1.0	0.269	43.5	LOS D	5.0	35.4	0.87	0.77	34.4
11	T1	109	1.0	0.249	37.7	LOS C	4.8	34.1	0.86	0.69	37.3
12	R2	44	1.0	0.240	56.6	LOS E	2.3	16.0	0.96	0.74	31.0
Approach		266	1.0	0.269	43.3	LOS D	5.0	35.4	0.88	0.73	34.9
All Vehicles		4224	2.1	0.909	49.1	LOS D	29.8	213.6	0.97	0.91	33.2

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

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	39.4	LOS D	0.1	0.1	0.85	0.85
P3	North Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	53	35.3	LOS D	0.1	0.1	0.80	0.80
All Pedestrians		211	43.3	LOS E			0.89	0.89

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.

INTERSECTION SUMMARY

Site: 101 [Mulgoa_Jamison_Wday_PM_Ex+Dev]

New Site
Signals - Fixed Time Isolated Cycle Time = 100 seconds (Optimum Cycle Time - Minimum Delay)

Intersection Performance - Hourly Values						
Performance Measure	**Vehicles**		**Pedestrians**		**Persons**	
Travel Speed (Average)	32.7	km/h	2.1	km/h	31.9	km/h
Travel Distance (Total)	4356.3	veh-km/h	9.4	ped-km/h	5236.9	pers-km/h
Travel Time (Total)	133.2	veh-h/h	4.4	ped-h/h	164.2	pers-h/h
Demand Flows (Total)	4262	veh/h	211	ped/h	5325	pers/h
Percent Heavy Vehicles (Demand)	2.1	%				
Degree of Saturation	0.939		0.073			
Practical Spare Capacity	-4.2	%				
Effective Intersection Capacity	4538	veh/h				
Control Delay (Total)	59.90	veh-h/h	2.37	ped-h/h	74.24	pers-h/h
Control Delay (Average)	50.6	sec	40.5	sec	50.2	sec
Control Delay (Worst Lane)	69.1	sec				
Control Delay (Worst Movement)	69.1	sec	44.3	sec	69.1	sec
Geometric Delay (Average)	2.3	sec				
Stop-Line Delay (Average)	48.3	sec				
Idling Time (Average)	42.1	sec				
Intersection Level of Service (LOS)	LOS D		LOS E			
95% Back of Queue - Vehicles (Worst Lane)	31.2	veh				
95% Back of Queue - Distance (Worst Lane)	224.0	m				
Queue Storage Ratio (Worst Lane)	0.27					
Total Effective Stops	4112	veh/h	189	ped/h	5123	pers/h
Effective Stop Rate	0.96	per veh	0.90	per ped	0.96	per pers
Proportion Queued	0.97		0.90		0.97	
Performance Index	339.4		5.4		344.9	
Cost (Total)	4098.05	$/h	110.23	$/h	4208.28	$/h
Fuel Consumption (Total)	465.9	L/h				
Carbon Dioxide (Total)	1100.4	kg/h				
Hydrocarbons (Total)	0.101	kg/h				
Carbon Monoxide (Total)	1.184	kg/h				
NOx (Total)	1.207	kg/h				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Intersection LOS value for Vehicles is based on average delay for all vehicle movements.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Intersection Performance - Annual Values						
Performance Measure	**Vehicles**		**Pedestrians**		**Persons**	
Demand Flows (Total)	2,045,811	veh/y	101,053	ped/y	2,556,025	pers/y
Delay	28,751	veh-h/y	1,136	ped-h/y	35,638	pers-h/y
Effective Stops	1,973,562	veh/y	90,894	ped/y	2,459,169	pers/y
Travel Distance	2,091,016	veh-km/y	4,509	ped-km/y	2,513,729	pers-km/y
Travel Time	63,923	veh-h/y	2,100	ped-h/y	78,807	pers-h/y
Cost	1,967,063	$/y	52,909	$/y	2,019,972	$/y
Fuel Consumption	223,625	L/y				
Carbon Dioxide	528,209	kg/y				
Hydrocarbons	48	kg/y				
Carbon Monoxide	568	kg/y				
NOx	579	kg/y				

MOVEMENT SUMMARY

Site: 101 [Mulgoa_Jamison_Wday_PM_Ex+Dev]

New Site
Signals - Fixed Time Isolated Cycle Time = 100 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Mulgoa Rd											
1	L2	20	1.0	0.343	35.8	LOS C	7.3	52.6	0.83	0.70	39.2
2	T1	1076	3.0	0.817	38.7	LOS C	22.4	161.1	0.97	0.91	36.7
3	R2	373	2.0	0.678	51.3	LOS D	9.1	64.4	1.00	0.84	32.4
Approach		1468	2.7	0.817	41.9	LOS C	22.4	161.1	0.97	0.89	35.6
East: Jamison Rd											
4	L2	381	1.0	0.939	69.1	LOS E	23.9	168.6	1.00	1.05	27.7
5	T1	268	1.0	0.630	38.7	LOS C	12.1	85.2	0.96	0.81	36.9
6	R2	326	1.0	0.885	64.8	LOS E	9.2	65.0	1.00	1.01	28.9
Approach		976	1.0	0.939	59.3	LOS E	23.9	168.6	0.99	0.97	30.2
North: Mulgoa Rd											
7	L2	246	1.0	0.461	37.1	LOS C	9.9	70.1	0.87	0.81	36.6
8	T1	1028	3.0	0.927	56.3	LOS D	31.2	224.0	1.00	1.14	31.3
9	R2	256	1.0	0.925	68.5	LOS E	15.4	108.5	1.00	1.05	28.1
Approach		1531	2.3	0.927	55.3	LOS D	31.2	224.0	0.98	1.07	31.4
West: Jamison Rd											
10	L2	129	1.0	0.319	41.3	LOS C	5.4	37.9	0.88	0.78	35.2
11	T1	109	1.0	0.257	35.1	LOS C	4.5	31.5	0.87	0.69	38.3
12	R2	48	1.0	0.263	52.3	LOS D	2.3	16.1	0.96	0.74	32.1
Approach		287	1.0	0.319	40.8	LOS C	5.4	37.9	0.89	0.74	35.7
All Vehicles		4262	2.1	0.939	50.6	LOS D	31.2	224.0	0.97	0.96	32.7

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

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P2	East Full Crossing	53	38.8	LOS D	0.1	0.1	0.88	0.88
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	34.5	LOS D	0.1	0.1	0.83	0.83
All Pedestrians		211	40.5	LOS E			0.90	0.90

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.

INTERSECTION SUMMARY

Site: 101 [Mulgoa_Jamison_WEnd_AM_Ex]

New Site
Signals - Fixed Time Isolated Cycle Time = 110 seconds (Optimum Cycle Time - Minimum Delay)

Intersection Performance - Hourly Values						
Performance Measure	**Vehicles**		**Pedestrians**		**Persons**	
Travel Speed (Average)	29.6	km/h	2.1	km/h	29.0	km/h
Travel Distance (Total)	4715.4	veh-km/h	9.4	ped-km/h	5667.9	pers-km/h
Travel Time (Total)	159.4	veh-h/h	4.5	ped-h/h	195.7	pers-h/h
Demand Flows (Total)	4615	veh/h	211	ped/h	5748	pers/h
Percent Heavy Vehicles (Demand)	2.0	%				
Degree of Saturation	0.989		0.080			
Practical Spare Capacity	-9.0	%				
Effective Intersection Capacity	4666	veh/h				
Control Delay (Total)	79.96	veh-h/h	2.49	ped-h/h	98.45	pers-h/h
Control Delay (Average)	62.4	sec	42.7	sec	61.7	sec
Control Delay (Worst Lane)	95.5	sec				
Control Delay (Worst Movement)	95.5	sec	49.3	sec	95.5	sec
Geometric Delay (Average)	2.5	sec				
Stop-Line Delay (Average)	59.9	sec				
Idling Time (Average)	53.3	sec				
Intersection Level of Service (LOS)	LOS E		LOS E			
95% Back of Queue - Vehicles (Worst Lane)	44.5	veh				
95% Back of Queue - Distance (Worst Lane)	319.6	m				
Queue Storage Ratio (Worst Lane)	0.39					
Total Effective Stops	4648	veh/h	185	ped/h	5763	pers/h
Effective Stop Rate	1.01	per veh	0.88	per ped	1.00	per pers
Proportion Queued	0.96		0.88		0.96	
Performance Index	418.9		5.5		424.4	
Cost (Total)	4944.07	$/h	113.45	$/h	5057.53	$/h
Fuel Consumption (Total)	523.2	L/h				
Carbon Dioxide (Total)	1235.6	kg/h				
Hydrocarbons (Total)	0.115	kg/h				
Carbon Monoxide (Total)	1.310	kg/h				
NOx (Total)	1.302	kg/h				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Intersection LOS value for Vehicles is based on average delay for all vehicle movements.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Intersection Performance - Annual Values						
Performance Measure	**Vehicles**		**Pedestrians**		**Persons**	
Demand Flows (Total)	2,215,074	veh/y	101,053	ped/y	2,759,142	pers/y
Delay	38,382	veh-h/y	1,197	ped-h/y	47,256	pers-h/y
Effective Stops	2,231,137	veh/y	88,846	ped/y	2,766,210	pers/y
Travel Distance	2,263,413	veh-km/y	4,509	ped-km/y	2,720,605	pers-km/y
Travel Time	76,493	veh-h/y	2,161	ped-h/y	93,953	pers-h/y
Cost	2,373,156	$/y	54,458	$/y	2,427,613	$/y
Fuel Consumption	251,152	L/y				
Carbon Dioxide	593,080	kg/y				
Hydrocarbons	55	kg/y				
Carbon Monoxide	629	kg/y				
NOx	625	kg/y				

MOVEMENT SUMMARY

Site: 101 [Mulgoa_Jamison_WEnd_AM_Ex]

New Site
Signals - Fixed Time Isolated Cycle Time = 110 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Mulgoa Rd											
1	L2	74	1.0	0.298	35.9	LOS C	7.2	51.3	0.80	0.71	38.4
2	T1	966	3.0	0.708	35.1	LOS C	20.4	146.6	0.93	0.81	38.1
3	R2	431	2.0	0.924	74.3	LOS F	14.0	99.6	1.00	1.05	27.0
Approach		1471	2.6	0.924	46.6	LOS D	20.4	146.6	0.94	0.87	34.0
East: Jamison Rd											
4	L2	445	1.0	0.984	89.7	LOS F	34.2	241.3	1.00	1.11	24.0
5	T1	245	1.0	0.516	38.9	LOS C	11.5	81.0	0.92	0.77	36.8
6	R2	332	1.0	0.989	95.5	LOS F	12.3	86.7	1.00	1.16	23.3
Approach		1022	1.0	0.989	79.4	LOS F	34.2	241.3	0.98	1.04	25.9
North: Mulgoa Rd											
7	L2	320	1.0	0.545	38.9	LOS C	14.2	100.3	0.88	0.82	36.0
8	T1	1148	3.0	0.975	75.8	LOS F	44.5	319.6	1.00	1.26	26.8
9	R2	228	1.0	0.973	88.6	LOS F	16.5	116.4	1.00	1.12	24.3
Approach		1697	2.4	0.975	70.6	LOS F	44.5	319.6	0.98	1.16	27.8
West: Jamison Rd											
10	L2	196	1.0	0.433	43.6	LOS D	9.0	63.2	0.89	0.80	34.4
11	T1	165	1.0	0.348	37.0	LOS C	7.4	51.9	0.87	0.71	37.5
12	R2	64	1.0	0.383	58.7	LOS E	3.4	24.0	0.98	0.76	30.4
Approach		425	1.0	0.433	43.3	LOS D	9.0	63.2	0.90	0.76	34.8
All Vehicles		4615	2.0	0.989	62.4	LOS E	44.5	319.6	0.96	1.01	29.6

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

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	38.6	LOS D	0.1	0.1	0.84	0.84
P3	North Full Crossing	53	48.3	LOS E	0.2	0.2	0.94	0.94
P4	West Full Crossing	53	34.5	LOS D	0.1	0.1	0.79	0.79
All Pedestrians		211	42.7	LOS E			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.

INTERSECTION SUMMARY

Site: 101 [Mulgoa_Jamison_WEnd_AM_Ex+Dev]

New Site
Signals - Fixed Time Isolated Cycle Time = 125 seconds (Optimum Cycle Time - Minimum Delay)

Intersection Performance - Hourly Values						
Performance Measure	**Vehicles**		**Pedestrians**		**Persons**	
Travel Speed (Average)	29.2	km/h	2.0	km/h	28.5	km/h
Travel Distance (Total)	4754.0	veh-km/h	9.4	ped-km/h	5714.3	pers-km/h
Travel Time (Total)	163.1	veh-h/h	4.7	ped-h/h	200.4	pers-h/h
Demand Flows (Total)	4653	veh/h	211	ped/h	5794	pers/h
Percent Heavy Vehicles (Demand)	2.0	%				
Degree of Saturation	0.978		0.069			
Practical Spare Capacity	-8.0	%				
Effective Intersection Capacity	4757	veh/h				
Control Delay (Total)	83.00	veh-h/h	2.70	ped-h/h	102.30	pers-h/h
Control Delay (Average)	64.2	sec	46.2	sec	63.6	sec
Control Delay (Worst Lane)	98.2	sec				
Control Delay (Worst Movement)	98.2	sec	54.9	sec	98.2	sec
Geometric Delay (Average)	2.6	sec				
Stop-Line Delay (Average)	61.7	sec				
Idling Time (Average)	55.8	sec				
Intersection Level of Service (LOS)	LOS E		LOS E			
95% Back of Queue - Vehicles (Worst Lane)	48.8	veh				
95% Back of Queue - Distance (Worst Lane)	350.2	m				
Queue Storage Ratio (Worst Lane)	0.43					
Total Effective Stops	4504	veh/h	181	ped/h	5585	pers/h
Effective Stop Rate	0.97	per veh	0.86	per ped	0.96	per pers
Proportion Queued	0.96		0.86		0.95	
Performance Index	445.2		5.7		451.0	
Cost (Total)	5061.05	$/h	118.68	$/h	5179.73	$/h
Fuel Consumption (Total)	528.4	L/h				
Carbon Dioxide (Total)	1247.8	kg/h				
Hydrocarbons (Total)	0.117	kg/h				
Carbon Monoxide (Total)	1.322	kg/h				
NOx (Total)	1.299	kg/h				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Intersection LOS value for Vehicles is based on average delay for all vehicle movements.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Intersection Performance - Annual Values						
Performance Measure	**Vehicles**		**Pedestrians**		**Persons**	
Demand Flows (Total)	2,233,263	veh/y	101,053	ped/y	2,780,969	pers/y
Delay	39,839	veh-h/y	1,297	ped-h/y	49,104	pers-h/y
Effective Stops	2,161,938	veh/y	86,691	ped/y	2,681,018	pers/y
Travel Distance	2,281,944	veh-km/y	4,509	ped-km/y	2,742,842	pers-km/y
Travel Time	78,266	veh-h/y	2,260	ped-h/y	96,180	pers-h/y
Cost	2,429,304	$/y	56,965	$/y	2,486,269	$/y
Fuel Consumption	253,649	L/y				
Carbon Dioxide	598,962	kg/y				
Hydrocarbons	56	kg/y				
Carbon Monoxide	635	kg/y				
NOx	624	kg/y				

MOVEMENT SUMMARY

Site: 101 [Mulgoa_Jamison_WEnd_AM_Ex+Dev]

New Site
Signals - Fixed Time Isolated Cycle Time = 125 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Mulgoa Rd											
1	L2	74	1.0	0.289	38.9	LOS C	8.0	57.2	0.79	0.71	37.3
2	T1	966	3.0	0.687	38.5	LOS C	22.7	163.2	0.91	0.80	36.8
3	R2	431	2.0	0.864	72.4	LOS F	14.5	103.2	1.00	0.96	27.3
Approach		1471	2.6	0.864	48.4	LOS D	22.7	163.2	0.93	0.84	33.4
East: Jamison Rd											
4	L2	445	1.0	0.974	91.5	LOS F	36.6	258.6	1.00	1.07	23.7
5	T1	245	1.0	0.510	43.7	LOS D	12.9	91.2	0.91	0.77	35.1
6	R2	332	1.0	0.937	86.0	LOS F	12.2	86.3	1.00	1.04	24.8
Approach		1022	1.0	0.974	78.3	LOS F	36.6	258.6	0.98	0.99	26.1
North: Mulgoa Rd											
7	L2	320	1.0	0.529	42.2	LOS C	15.8	111.7	0.87	0.82	34.9
8	T1	1148	3.0	0.966	76.9	LOS F	48.8	350.2	1.00	1.20	26.6
9	R2	245	1.0	0.978	98.2	LOS F	19.9	140.7	1.00	1.10	22.9
Approach		1714	2.3	0.978	73.5	LOS F	48.8	350.2	0.98	1.12	27.2
West: Jamison Rd											
10	L2	213	1.0	0.465	48.7	LOS D	11.1	78.2	0.90	0.81	32.8
11	T1	165	1.0	0.344	41.6	LOS C	8.3	58.5	0.87	0.71	35.9
12	R2	68	1.0	0.387	64.8	LOS E	4.1	28.7	0.98	0.76	29.0
Approach		446	1.0	0.465	48.6	LOS D	11.1	78.2	0.90	0.77	33.2
All Vehicles		4653	2.0	0.978	64.2	LOS E	48.8	350.2	0.96	0.97	29.2

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

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	54.9	LOS E	0.2	0.2	0.94	0.94
P2	East Full Crossing	53	40.9	LOS E	0.2	0.2	0.81	0.81
P3	North Full Crossing	53	52.1	LOS E	0.2	0.2	0.91	0.91
P4	West Full Crossing	53	36.9	LOS D	0.1	0.1	0.77	0.77
All Pedestrians		211	46.2	LOS E			0.86	0.86

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.

10. Appendix D – Service Vehicle Area Turning Path Analysis