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Deicorp Projects (Crows Nest) Pty Ltd

Traffic and Parking Impact Assessment

The Five Ways, Crows Nest

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1 Introduction

Barker Ryan Stewart have been engaged by Deicorp Projects (Crows Nest) Pty Ltd to prepare a Traffic and Parking Impact Assessment Report in accordance with the requirements of the NSW Government's "Guide to Traffic Generating Developments" and the North Sydney DCP 2013 to support a Planning Proposal to North Sydney Council for a mixed-use development consisting of residential apartments, commercial and retail space at the site known as the Five Ways Triangle on the Pacific Highway at Crows Nest.

The purpose of this report is to assess and address traffic, access, car parking and pedestrian issues generated by the proposed development. This can be briefly outlined as follows:

- The expected traffic generation to/from the proposed development.
- The impact of the proposed development on the road network.
- An analysis based on RMS traffic counts
- Vehicle parking provisions.
- Access design requirements.
- Provision for pedestrians
- Availability of public transport.

This Traffic and Parking Impact Assessment Report concludes that the subject site is suitable for the proposed development in relation to traffic impact, access and safety considerations.

1.1 References

- North Sydney Local Environmental Plan 2013
- North Sydney Development Control Plan 2013
- Existing Road Network – *St Leonards and Crows Nest Station Precinct Transport Study* prepared by Cardno for the NSW Department of Planning and Environment, 2017.
- NSW Roads and Maritime Services, *Guide to Traffic Generating Developments,* Version 2.2 dated October 2002.
- Australian Standards AS/NZS 2890: 2004 Parking - Off-street car parking, AS/NZS 2890.6: 2009 – Off-street parking for people with disabilities and AS 2890.2: 2018 Off-street commercial vehicle facilities.

2 Existing Conditions

2.1 The Site

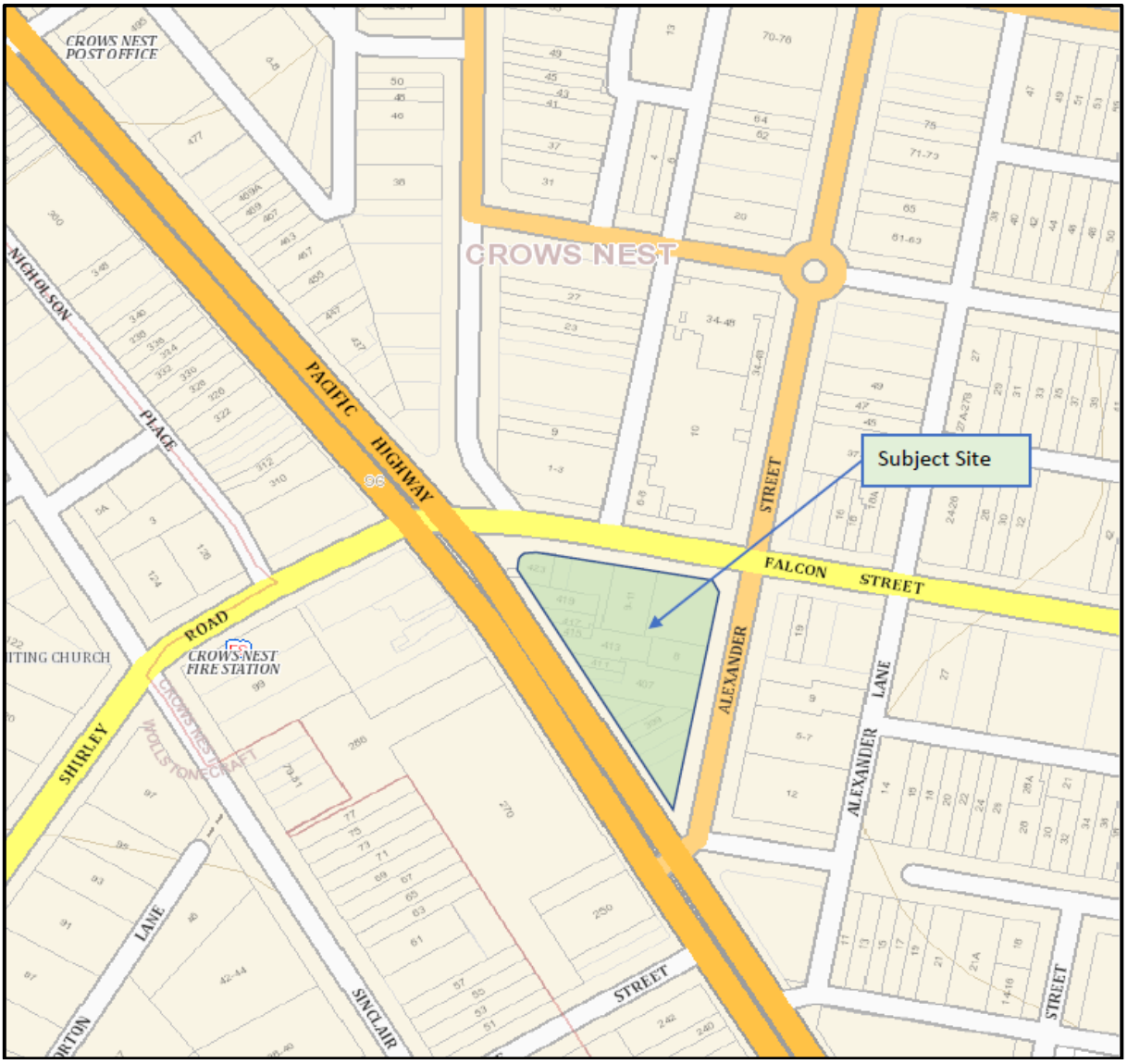

Figure 2.1: Site Location

The Five Ways Triangle comprises multiple sites on a triangular parcel of land bounded by the Pacific Highway in the west, Falcon Street in the north and Alexander Street in the east as shown above in **Figure 2.1.**

The property descriptions are Lots 1 to 6 DP 16402, Lots 1 to 11 DP 29672, Lot 1 DP 127595 and Lot 1 DP 562966. The street addresses are 401 to 423 Pacific Highway, 3 to 15 Falcon Street and 8 Alexander Street, Crows Nest.

According to the North Sydney LEP 2013, the site is zoned as B4 Mixed Use which permits the development of a variety of land uses including residential flat buildings and commercial premises (business, office and retail).

2.2 Surrounding Land Uses

The area north of the site is zoned as B3 Commercial Core and Mixed Use comprising the area around Willoughby Road with a variety of small businesses and retail shops and cafes.

East of the site is predominately R2 Low Density Residential and some R3 Medium Density Residential. The areas west and south

2.3 Existing Road Network

The roads immediately surrounding the site that will be directly impacted by the development are the Pacific Highway, Falcon street and Alexander Street.

Pacific Highway

The Pacific Highway is part of the state road network that provides the major north / south route through the locality from the Warringah Freeway at North Sydney to the M1 Motorway. It functions as an arterial road with 3 lanes in each direction, including a part-time bus lane (southbound) and a T3 Lane (northbound). It runs along the western boundary of the site where there are bus zones on either side of the road.

Falcon Street

Falcon Street is part of the state road network providing an east-west link between the Pacific Highway and the Warringah Freeway and runs along the northern boundary of the site. In the immediate vicinity of the site Falcon Street is a clearway in both directions. Further east of Alexander Street there is time-limited parking permitted on both sides of the road. There is a bus zone located on the northern side of the road opposite the site.

Alexander Street

Alexander Street is a local street aligned generally in a north / south direction along the eastern boundary of the site. It is line marked as a four-lane, two-way road with a BB centreline. There is a bus zone on the eastern side of the road, time-limited parking on both sides outside of peak periods and No Stopping during peak periods.

Street-level shops are located along both sides of Alexander Street immediately surrounding the site and there is a Woolworths supermarket and 4-storey carpark on the corner of Alexander Street and Falcon Street.

Shirley Road

Shirley Road is a local street that provides a connection between the Pacific Highway and the residential area of Wollstonecraft east of the north shore rail line. It also connects with River Road, a local collector road providing an east/west connection between Lane cove and Crows Nest.

The section of Shirley Road between the Pacific highway and River Road is line marked as a four-lane, two-way road with a BB centreline and full-time No Stopping restrictions on both sides.

Intersections

The 3 intersections surrounding the site, Pacific Highway / Alexander Street, Pacific Highway / Falcon Street / Shirley Road and Falcon street / Alexander Street are all controlled by traffic signals. At the Pacific Highway / Falcon Street intersection the right turn movement from the Pacific Highway south leg to Falcon Street is not permitted. Access from the Pacific Highway to Falcon Street is facilitated by right

turns at the Pacific Highway / Alexander Street intersection and at the Alexander Street / Falcon Street intersection.

2.4 Existing Traffic Volumes

To assess the existing traffic volumes on the road network relevant to this report, AM and PM peak period traffic counts were conducted at the three signalised intersections surrounding the site on Wednesday 22 April 2020 from 7.00am to 9.00am and from 4.00pm to 6.00pm.

Note: It is acknowledged that the traffic counts were conducted at a time of reduced traffic volumes generally across Sydney due to the Coronavirus pandemic. Consequently, SCATS traffic count data was obtained from Transport for NSW for a typical mid-week day in February 2020 for the Pacific Highway / Alexander Street and the Pacific highway / Falcon Street / Shirley Road intersections and used to calibrate the observed traffic data. The SCATS data is provided at Appendix B.

The April 2020 traffic counts at these intersections were compared to the SCATS detector counts recorded on Wednesday 5 February 2020. This comparison indicated that the February 2020 SCATS volumes were significantly higher than the April 2020 counts in both peak periods as follows:

	SCATS Volumes		Counts		% Increase	
	AM	PM	AM	PM	AM	PM
Pacific Hwy / Alexander St	2875	2681	1364	1338	210%	200%
Pacific Hwy / Falcon St	3516	3716	2136	2293	165%	162%

Consequently, the April 2020 volumes at all intersections were increased by these factors for input to the Sidra modelling.

The results of these calibrated traffic counts are illustrated below.

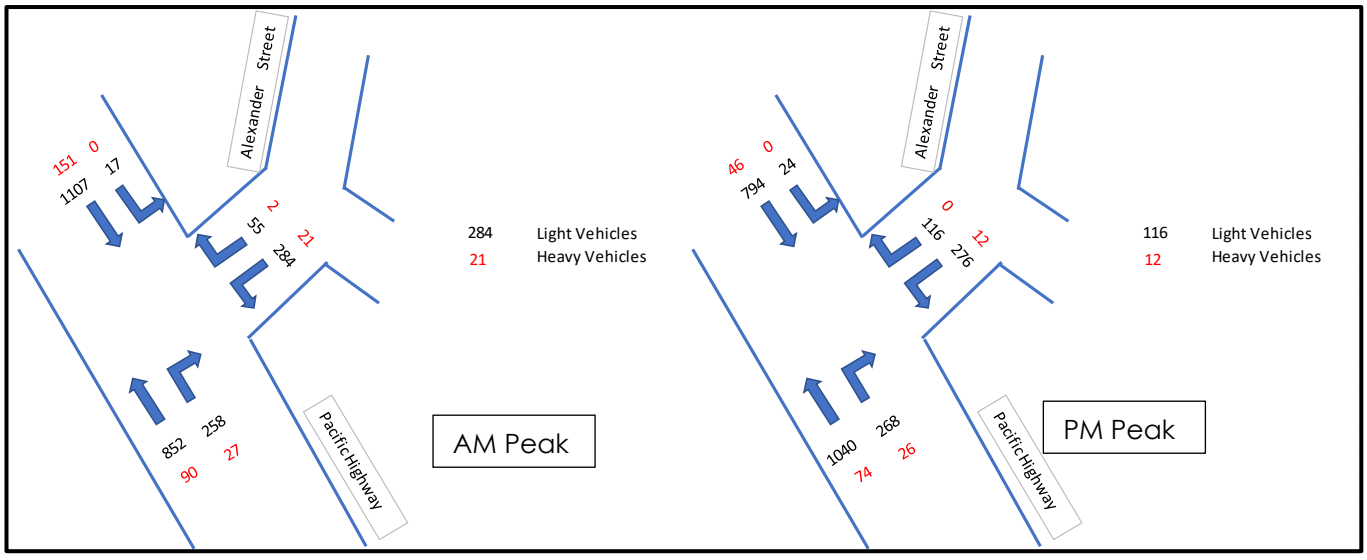

Figure 2.2: Pacific Highway / Alexander Street

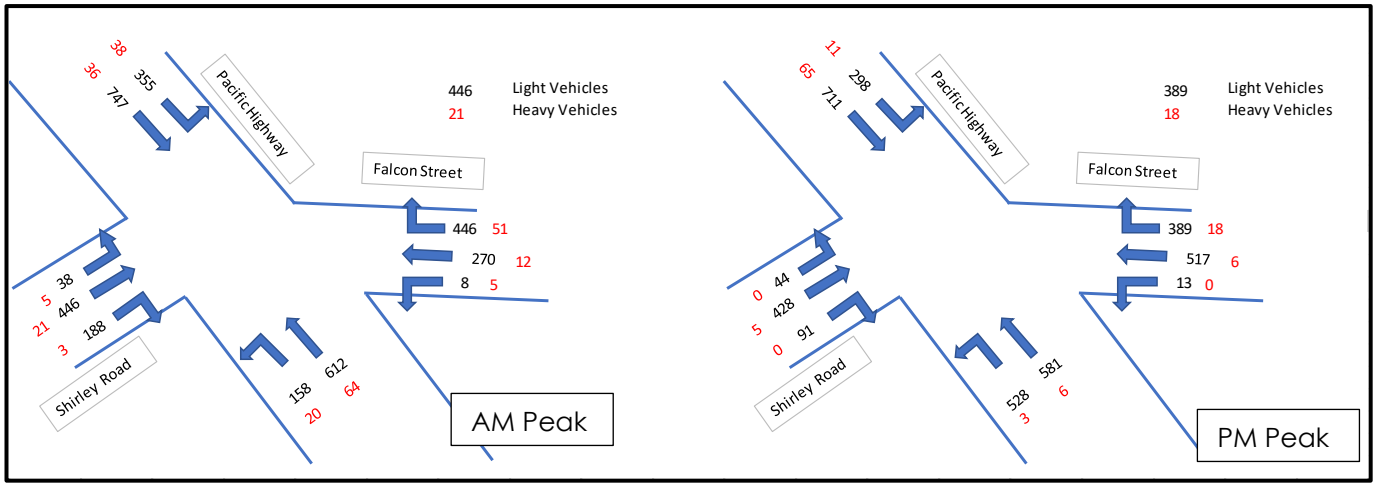

Figure 2.3: Pacific Highway / Falcon Street / Shirley Road

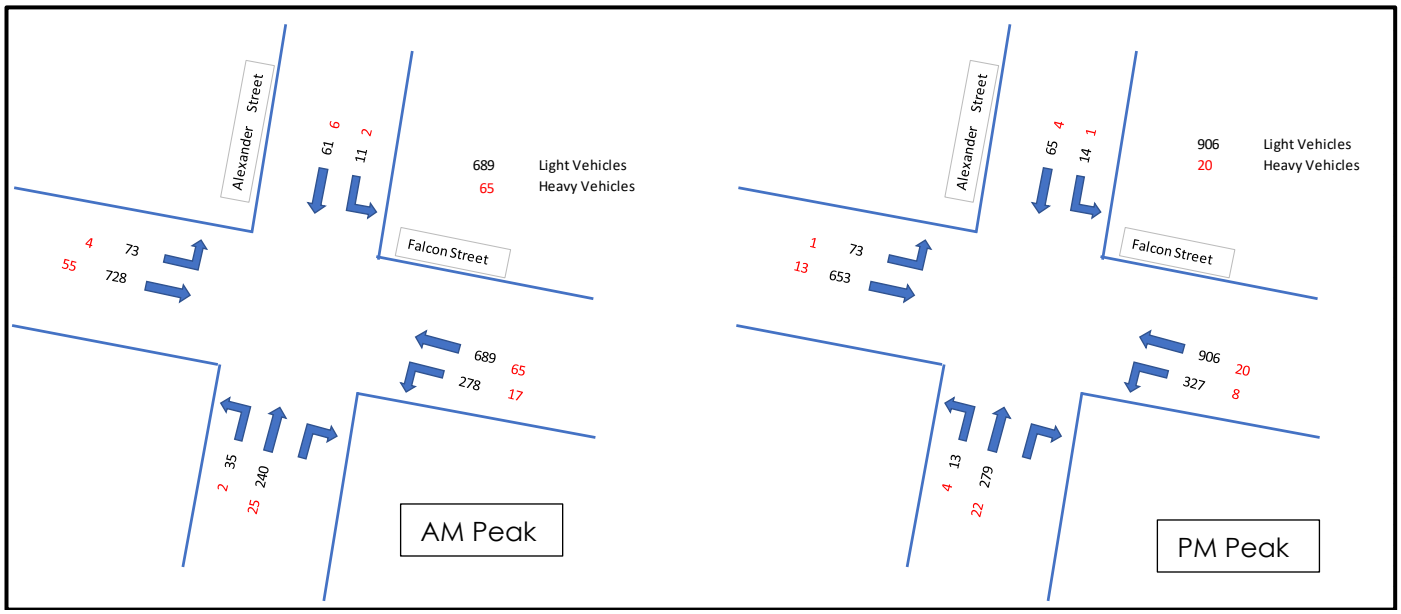

Figure 2.4: Falcon Street / Alexander Street

The calibrated traffic counts and SCATS data for the 3 intersections for this assessment provide data on the current hourly volumes and an indication of the existing peak hour operational performance of each of the roads in the area surrounding the site.

Below is an overview of the hourly traffic volumes and the current operational performance of the surrounding network, based on the *'Guide to Traffic Generating Developments'* that states:

'typical one-way mid-block lane capacities on urban arterial roads under interrupted flow conditions are 900-1000 veh/hr/lane. This calculation assumes Clearway conditions. The capacity falls to 600 veh/hr/lane for a kerbside lane with occasional parked vehicles. These capacities at times may increase under ideal conditions to 1200-1400 veh/hr.'

<u>Pacific Highway (North of Falcon Street)</u>

AM – 2,392 vehicles per hour two-way (1,216 northbound and 1,176 southbound). The northbound carriageway (3 lanes) averaged 405 vehicles per lane (LoS B). The southbound carriageway (3 lanes) averaged 392 vehicles per lane (LoS B).

PM – 2,123 vehicles per hour, two-way (1,038 northbound and 1,085 southbound). The northbound carriageway (3 lanes) averaged 346 vehicles per lane LoS B). The southbound carriageway (3 lanes) averaged 362 vehicles per lane (LoS B).

These volumes indicate that the Pacific Highway is operating at less than 50% capacity during peak periods.

Falcon Street

AM – 1,652 vehicles per hour, two-way (860 eastbound and 792 westbound). Eastbound carriageway (2 lanes) averaged 430 vehicles per lane (LoS C). Westbound carriageway (2 lanes) averaged 396 vehicles per hour (LoS B).
PM – 1,685 vehicles per hour, two-way (742 eastbound and 943 westbound). Eastbound carriageway (2 lanes) averaged 371vehicles per lane (LoS B). Westbound carriageway (2 lanes) averaged 472 vehicles per hour (LoS B).

These volumes indicate that Falcon Street is operating at around 50% capacity during peak periods.

Shirley Road

AM – 1,161 vehicles per hour, two-way (701 eastbound and 460 westbound). Eastbound carriageway (2 lanes) averaged 350 vehicles per lane (LoS B). Westbound carriageway (2 lanes) averaged 230 vehicles per hour (LoS A).
PM – 1,622 vehicles per hour, two-way (568 eastbound and 1,054 westbound). Eastbound carriageway (2 lanes) averaged 284 vehicles per lane (LoS B). Westbound carriageway (2 lanes) averaged 527 vehicles per hour (LoS C).

These volumes indicate that Shirley Road is operating at around 50% capacity during peak periods.

Alexander Street

AM - 664 vehicles per hour, two-way (302 northbound and 362 southbound) The northbound carriageway (2 lanes) averaged 151 vehicles per lane (LoS A). The southbound carriageway (2 lanes) averaged 181 vehicles per lane (LoS A).

These volumes indicate that Alexander Street is operating at 20 to 30% capacity during peak periods.

These hourly volumes indicate that the road network surrounding the site is operating at a high level of service, which shows that the network has ample capacity to cater for additional traffic that will be generated by developments in the area.

2.5 Public Transport, Pedestrians

The site is located close to several bus routes providing the services along the Pacific Highway, Falcon Street, Shirley Road and Alexander Street to a wide range of destinations including King Street Wharf, North Sydney, Chatswood, Lane Cove, McMahons Point, Bondi, Epping, Mascot, Gore Hill, Ryde, Riverview, Denistone east, Manly, Balmoral Beach, Spit Junction and Kingsford.

Bus stops are located within 100 metres of the site in the Pacific Highway, Falcon Street, Shirley Road and Alexander Street.

St Leonards Station is located 1km to the north-west along the Pacific Highway and the new Crows Nest Metro Station will be located on the eastern side of the Pacific Highway generally bounded by Oxley Street, Clark Lane and Hume Street. Station access will be via the corner of Clark Street and Hume Street and at the corner of Pacific Highway and Oxley Street. The closest station entrance will be 240 metres from the site.

Sydney Metro will create connections between Sydney's north-west, west and south-west regions to Sydney's CBD and is scheduled for completion by 2024.

The site is therefore well-serviced by public transport offering a convenient alternative to the use of private vehicles for access to and from the site.

Pedestrian access to and from the site is facilitated by the existing network of pedestrian footways connecting the site to the nearby supermarket and a variety of cafes, restaurants and speciality shops located along both sides of Willoughby Road.

The locations of public transport infrastructure in the vicinity of the site are shown below in **Figure 2.5**.

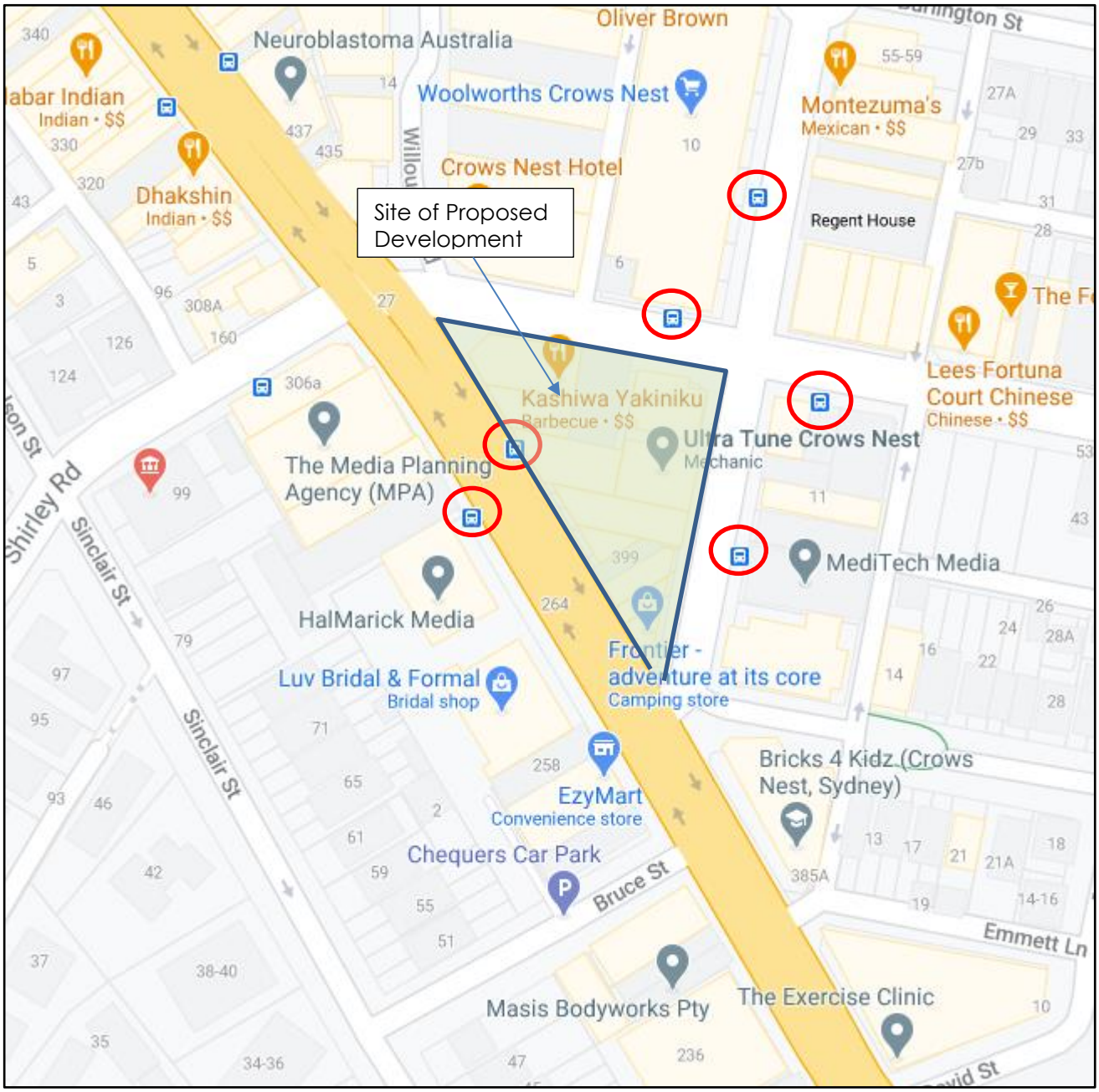

Figure 2.5: Bus stops close to the site. *(Source: Google Maps 2020)*

3 Proposed Development

3.1 The Development

The proposal is for a mixed-use development consisting of 233 residential apartments and 8,002m² of non-residential space (1,830m² retail and 6,172m² commercial). It is proposed to provide 385 parking spaces in 7 separate basement levels as well as storage for 404 bicycles and parking spaces for 22 motor cycles.

The proposed unit mix is provided below:

1-bedroom	34 apartments
2-bedroom	176 apartments
3-bedroom	23 apartments

Total = 233 apartments

3.1 Access

Vehicular access to and from the site will be via a single 9 metre wide driveway off Alexander Street that will be utilised by residents, visitors and service vehicles (deliveries and waste collection).

The entry/exit driveway complies with AS/NZS 2890.1-2004 Parking Facilities – Off Street Car Parking, AS 2890.2-2002 Parking Facilities – Off Street Commercial Vehicle Facilities and Council's DCP requirements.

The proposed driveway location complies with Figure 3.3 – Minimum Sight Distance for Pedestrian Safety AS/NZS 2890.1 and the proposed driveway gradients comply with AS/NZS 2890.1.

Pedestrian access to the residential lobby will be via Alexander Street and access to the commercial lobby will be via Falcon Street. The retail and community spaces will be on the ground floor with access from Pacific Highway, Falcon Street and Alexander Street via through site links.

Swept path plans will be provided at DA stage demonstrating the circulation of vehicles within the basement carpark levels.

3.2 Service Vehicles and loading

Waste collection is proposed to be conducted by Council waste vehicles utilizing the collection area which is located at the north-western corner of Basement 01. Waste and recycling bins will be stored in separate designated residential, retail and commercial refuse areas. Vehicle manoeuvring into and out of this area will facilitated by a turntable that will allow vehicles to enter and exit the site in a forward direction.

Swept path plans will be provided at DA stage demonstrating forward ingress and egress of the Council waste vehicle.

3.3 Parking Provision and Requirements

The parking requirements for the residential apartments and the non-residential developments will be provided in accordance with the requirements of North Sydney Council's Development Control Plan 2013.

Car Parking

For residential flat buildings (B4 Mixed-Use) the parking requirements are:

- Studio/1 bedroom – 0.5 spaces per dwelling;
- 2 or more bedrooms – 1 space per dwelling;
- Food and drink premises – 1 space per 50m$^{2;}$
- All other commercial/retail uses - 1 space per 60m$^{2.}$

Table 3.1: Car parking requirements and provision

Land Use	North Sydney DCP 2013	Proposed Parking Provision
Residential: • 34 x 1-bedroom units; • 176 x 2-bedroom units; • 23 x 3-bedroom units. Total = 233 units Non-Residential: 8,000m² GFA	DCP Rates • 0.5 space per 1-br x 34 = **17 spaces** • 1 space per 2-br x 176 = **176 spaces** • 1 space per 3-br x 23 = **23 spaces** **Total = 216 resident spaces** 1 space per 60m² = 8,000 / 60 = 134 spaces **Total spaces = 216 + 134 = 350 spaces**	**385 spaces** • 216 residential • 23 residential visitors • 134 non-residential • 12 Car Share

Table 3.1 shows that the parking provision for the development meets the North Sydney DCP requirements.

Proximity to public transport

As discussed in Section 2.5 of this report, the site is well-serviced by public transport offering a convenient alternative to the use of private vehicles for access to and from the site.

The site is located close to several bus routes providing services along the Pacific Highway, Falcon Street, Shirley Road and Alexander Street to a wide range of destinations across the Sydney metropolitan area, bus stops are located within 100 metres of the site in the Pacific Highway, Falcon Street, Shirley Road and Alexander Street and St Leonards Station is located 1km to the north-west along the Pacific Highway. In addition, the new Crows Nest Metro Station will be located on the eastern side of the Pacific Highway with the closest station entrance 400 metres from the site.

Sydney Metro will create connections between Sydney's north-west, west and south-west regions to Sydney's CBD and is scheduled for completion by 2024.

The site will therefore meet the requirements of transit-oriented developments which usually have the following characteristics;
• A rapid and frequent transit service;
• High accessibility to the transit station;
• A mix of residential, retail, commercial and community uses;
• High quality public spaces and streets, which are pedestrian and cyclist friendly
• Medium to high density development within 800 metres of the transit station; and
• Reduced rates of private car parking.

Cross use of parking spaces

The mixed-use nature of the proposed development provides opportunity for a discount of parking requirements as there will be a significant cross use of parking spaces by residents utilising the adjacent retail, commercial and community facilities within the building.

Car Share

The provision of 12 car share spaces will also assist in meeting the travel needs of the residents and contribute to reducing the demand for individually held parking spaces. The availability of the car share facility will provide a viable alternative to the purchase of a vehicle or an additional vehicle, particularly in situations where a vehicle is only required on an intermittent basis.

Accessible Parking

The North Sydney DCP requires accessible parking at the rate of 1 space per 10 residential parking spaces provided (excluding visitor spaces). The proposed development will therefore require 22 of the residential spaces to be accessible parking spaces.

Bicycle Parking

Secure bicycle parking for residents will be provided within the each of the basement carparks from Basements 02 to 07 in separate bicycle storage areas. Bicycle racks will be provided in Basements 01 and 02 for the use of visitors to the various land uses within the site (residential, commercial, retail and community). These will service the bicycle parking needs of both residents and visitors.

Table 3.2: Bicycle parking requirements and provision

Land Use	North Sydney DCP 2013	Proposed Parking Provision
Residential (233 units) Residential visitors Commercial (6,172m²) Retail (1,830m²)	1 resident space per units = 233 spaces 1 visitor space per 10 units x 233 = 23 spaces 1 space per 150m² for staff = 6,172/ 150 = 41 spaces 1 space per 400m² for visitors = 6,172/ 400 = 16 spaces 1 space per 25m² for staff = 1,830/ 25 = 73 spaces 1 space per 100m² for visitors = 1,830/ 100 = 18 spaces **Total = 404 spaces**	**Total: 404 spaces**

The provision of 404 bicycle spaces meets the DCP requirement.

Motorcycle Parking

Table 3.3: Motorcycle parking requirements and provision

Land Use	North Sydney DCP 2013	Proposed Parking Provision
Residential: 216 residential car spaces	1 space per 10 residential car spaces = 22 spaces	22 spaces

The proposed motorcycle parking provisions achieve the development outcomes set out in the North Sydney DCP 2013.

The parking for the residential and non-residential components of the site have been designed in accordance with AS/NZS 2890: 2004 Parking- Off-street car parking and AS/NZS 2890.6: 2009 – Off-street parking for people with disabilities.

4 Traffic Assessment

4.1 Trip Generation

In accordance with the *RMS "Guide to Traffic Generating Developments"* and Technical Direction TDT 2013/04a *"Guide to Traffic Generating Developments, Updated Traffic Surveys"* the following trip generation rates have been adopted for this assessment:

Table 4.1: Trip generation rates

Use	AM trip rates	PM trip rates
Residential	0.19 trips per unit	0.15 trips per unit
Retail	1.94 per 100m²	2.7 trips per 100m²
Commercial	1.6 trips per 100m²	1.2 trips per 100m²

4.1.1 Existing Development

The existing developments on the site consist of a mix of retail and commercial sites covering an area of approximately 3,200m².

Retail developments (assume 1,200m²)
AM peak (1 hour) vehicle trips = 1,200 / 100 x 1.94 = 23 trips
PM peak (1 hour) vehicle trips = 1,200 / 100 x 2.7 = 32 trips

Commercial developments (1,600m²)
AM peak (1 hour) vehicle trips = 2,000 / 100 x 1.6 = 32 trips
PM peak (1 hour) vehicle trips = 2,000 / 100 x 1.2 = 24 trips

Total trip generation of the existing developments
AM peak (1 hour) vehicle trips = 55 trips
PM peak (1 hour) vehicle trips = 56 trips

4.1.2 Proposed Development:

Adopting the same trip generation rates as for the existing development, the proposed development would generate the following peak hour trips:

Table 4.2: AM and PM Trips

Land Use	Yield	AM Peak Hour Trip Rate	AM Peak Hour Trips	PM Peak Hour Trip Rate	PM Peak Hour Trips
Residential	233 units	0.19 trips / unit	45	0.15 trips / unit	35
Retail	1,830 m²	1.94 trips / 100m²	36	2.7 trips / 100m²	51
Commercial	6,172 m²	1.6 trips / 100m²	99	1.2 trips / 100m²	74
Total	**-**		**180**		**160**

The additional trips that would be generated by the development compared to the existing situation are calculated as:
AM peak hour trips = 180 - 55 = 125 trips
PM peak hour trips = 160 - 56 = 104 trips

Table 4.3: Calculation of additional trips

Land Use	Existing AM Peak Hour Trips	Proposed AM Peak Hour Trips	Difference	Existing PM Peak Hour Trips	Proposed PM Peak Hour Trips	Difference
Residential	-	45	45	-	35	35
Retail	23	36	13	32	51	19
Commercial	32	99	67	24	74	50
Total	**55**	**180**	**125**	**56**	**160**	**104**

4.2 Trip Distribution and Assignment

The additional trips that are expected to be generated by the proposed development consist of both inbound and outbound trips.

For residential developments it is generally assumed that in the AM peak 80% of trips will be outbound and 20% inbound with the reverse situation during the PM peak.

For commercial developments the distribution of trips is assumed to be 80% inbound and 20% outbound in the AM peak with the reverse situation during the PM peak.

For the retail developments and the community facility the distribution of trips is assumed to be 50% inbound and 50% outbound in the AM and PM peaks.

On this basis, the proposed development would generate the following additional trips to the road network:

AM Peak (125 trips):

- Outbound – 55 trips
  - Residential – 36
  - Retail – 6
  - Commercial – 13
- Inbound – 70 trips
  - Residential – 9
  - Retail – 7
  - Commercial – 54

PM Peak (104 trips):

- Outbound – 57 trips
  - Residential – 7
  - Retail – 10
  - Commercial – 40
- Inbound – 47 trips
  - Residential – 28
  - Retail – 9
  - Commercial – 10

These trips have been assigned to the network based on journey to work data for the North Sydney LGA provided in the 2016 census which indicated that trips should be assigned as 15% north, 65% south, 5% east and 15% west as derived from **Figure 4.1** below.

Employment location of resident workers by LGA

export reset

North Sydney Council area

LGA	2016 Number	2016 %
Sydney (C)	16,098	39.9
North Sydney (A)	10,112	25.0
Willoughby (C)	2,907	7.2
Ryde (C)	1,808	4.5
Northern Beaches (A)	1,355	3.4
Mosman (A)	785	1.9
No Fixed Address (NSW)	740	1.8
Parramatta (C)	724	1.8
Lane Cove (A)	699	1.7
Ku-ring-gai (A)	548	1.4
Inner West (A)	501	1.2
Botany Bay (C)	438	1.1
Randwick (C)	388	1.0
The Hills Shire (A)	370	0.9
Canada Bay (A)	282	0.7
Woollahra (A)	282	0.7
Hornsby (A)	277	0.7
Waverley (A)	264	0.7
Blacktown (C)	185	0.5
Canterbury-Bankstown (A)	159	0.4

Show me more!

Source: Australian Bureau of Statistics, Census of Population and Housing 2016. Compiled and presented in profile.id by .id , the population experts.
Excludes employment locations with fewer than 10 people.

Figure 4.1: Employment Location of resident Workers for North Sydney LGA

4.3 Impact of Generated Traffic

Intersection performance has been assessed using the SIDRA modelling software which uses the level of service (delay) model adopted by Transport for NSW to assess intersection performance. Average delay is used to determine the level of service (LOS), which ranges from 'A' which is excellent service to 'F', with a LOS of 'D' being the minimum ideal performance.

The intersections outlined above have been assessed as a network for the existing and 10-year growth scenarios for AM and PM peak periods. A growth rate of 0.5 % per annum has been applied to the surveyed intersections to obtain the 10-year growth volumes, based on average historical growth rates recorded at Transport for NSW counting stations at Willoughby Road (Station ID: 33098) and River Road (Station ID: 32039) and an assumed reduction in the growth of traffic volumes in the area as a result of the Sydney Metro.

The differences in intersection performance between the existing and 10 year growth scenarios are summarised in the tables below. SIDRA output reports are available in **Appendix C.**

Table 4.3: Pacific Highway / Falcon / Shirley Road SIDRA Modelling Summary

Pacific Highway / Falcon Street / Shirley Road		Existing Scenario		10-year growth scenario	
		Existing Conditions	Post Development Condition	Existing Conditions	Post Development Condition
AM	Delay (s)	35.4	35.0	89.2	99.7
	LOS	C	C	F	F
PM	Delay (s)	41.9	43.7	57.8	67.3
	LOS	C	D	E	E

Table 4.4: Pacific Highway / Alexander Street SIDRA Modelling Summary

Pacific Highway / Alexander Street		Existing Scenario		10-year growth scenario	
		Existing Conditions	Post Development Condition	Existing Conditions	Post Development Condition
AM	Delay (s)	12.5	12.2	19.6	20.7
	LOS	A	A	B	B
PM	Delay (s)	16.6	17.4	22.6	30.4
	LOS	B	B	B	C

Table 4.5: Falcon Street / Alexander Street SIDRA Modelling Summary

Falcon Street / Alexander Street		Existing Scenario		10-year growth scenario	
		Existing Conditions	Post Development Condition	Existing Conditions	Post Development Condition
AM	Delay (s)	16.3	16.0	48.6	48.3
	LOS	B	B	D	D
PM	Delay (s)	18.1	22.0	22.7	34.1
	LOS	B	B	B	C

As shown in the tables above, the existing intersections generally operate at high levels of service with acceptable average delays and will continue to do so with the additional traffic that will be generated by the proposed development.

In the future scenarios, the additional development traffic is expected to have only a minor impact on the delays experienced by motorists at the Pacific Highway / Alexander Street and the Falcon Street / Alexander street intersections that will continue to operate at high levels of service.

The Pacific Highway / Falcon Street / Shirley Road intersection, however, is expected to operate at low levels of service (E and F) in the future scenarios due primarily to the background growth in traffic through this intersection. The development traffic will only marginally impact on the intersection performance, increasing average delays by only 10 seconds.

In summary, the traffic from the subject development will not have any significant impact on the efficiency of the surrounding road network and should not be responsible for any network improvements.

Any future background growth should be addressed through changes in travel patterns and transport modes and/or intervention by the road authorities by upgrading infrastructure and /or introducing travel demand measures. Consequently, the development can be supported based on traffic grounds.

5 Conclusion

This Traffic Impact and Parking Impact Assessment Report has been prepared in accordance with the requirements of the North Sydney DCP 2013 and the NSW Government's "Guide to Traffic Generating Developments" to support a Development Application to North Sydney Council for a mixed-use development consisting of residential apartments, retail space and community space at the site known as the Five Ways Triangle on the Pacific Highway at Crows Nest.

The proposal is for a mixed-use development consisting of 233 residential apartments, commercial space (6,172m²) and retail space (1,830m²). It is proposed to provide 385 parking spaces in 7 separate basement levels as well as storage for 404 bicycles and parking spaces for 22 motor cycles.

The site is well serviced by public transport offering a convenient alternative to the use of private vehicles for access to and from the site, providing opportunities for reducing the parking requirements for the proposal.

Vehicular access to and from the site will be via a single 9 metre wide driveway off Alexander Street that will be utilised by residents, visitors and service vehicles (deliveries and waste collection). Pedestrian access to the residential lobby will be via Alexander Street and access to the commercial lobby will be via Falcon Street. The retail and community spaces will be on the ground floor with access from Pacific Highway, Falcon Street and Alexander Street via through site links.

The proposed parking facilities meet the requirements of the North Sydney DCP and have been designed in accordance with the requirements AS2890.1 – Off Street Car Parking and AS2896.6 – Off Street Car Parking for People with Disabilities.

The additional traffic that will be generated by the development is not expected to have any significant impact on the performance of the surrounding intersections, or the local road network.

From the above assessment, the subject site is considered suitable for the proposed development in relation to traffic impact, access and safety considerations.

Appendix A
Site Plan

TURNER

Ground Level

13 November 2020

Appendix B
SCATS Traffic Data

Site	Date	Interval start	Interval end	Detector 1	Detector 2	Detector 3	Detector 4	Detector 5	Detector 6	Detector 7	Detector 8	Detector 9	Total
Pacific Hwy / Alexander Street													
763	Wednesday, 5 February 2020	7:00:00 AM AEDT	7:15:00 AM AEDT	34	44	90	62	7	104	131	18	24	514
763	Wednesday, 5 February 2020	7:15:00 AM AEDT	7:30:00 AM AEDT	24	32	86	65	10	112	143	17	39	528
763	Wednesday, 5 February 2020	7:30:00 AM AEDT	7:45:00 AM AEDT	29	49	106	76	11	136	163	22	42	634
763	Wednesday, 5 February 2020	7:45:00 AM AEDT	8:00:00 AM AEDT	34	89	105	98	14	126	145	38	66	715
763	Wednesday, 5 February 2020	8:00:00 AM AEDT	8:15:00 AM AEDT	19	71	144	106	23	144	155	21	70	753
763	Wednesday, 5 February 2020	8:15:00 AM AEDT	8:30:00 AM AEDT	28	62	138	101	6	136	150	19	51	691
763	Wednesday, 5 February 2020	8:30:00 AM AEDT	8:45:00 AM AEDT	30	64	113	72	13	171	184	23	46	716
763	Wednesday, 5 February 2020	8:45:00 AM AEDT	9:00:00 AM AEDT	24	73	119	98	13	138	147	29	75	716
763	Wednesday, 5 February 2020	9:00:00 AM AEDT	9:15:00 AM AEDT	25	49	114	94	6	121	137	20	50	616
763	Wednesday, 5 February 2020	9:15:00 AM AEDT	9:30:00 AM AEDT	32	56	94	69	7	106	131	27	42	564
763	Wednesday, 5 February 2020	9:30:00 AM AEDT	9:45:00 AM AEDT	33	48	89	75	14	78	91	16	53	497
763	Wednesday, 5 February 2020	9:45:00 AM AEDT	10:00:00 AM AEDT	49	64	97	60	7	85	114	18	39	533
763	Wednesday, 5 February 2020	3:00:00 PM AEDT	3:15:00 PM AEDT	55	75	155	87	3	79	95	21	41	611
763	Wednesday, 5 February 2020	3:15:00 PM AEDT	3:30:00 PM AEDT	39	67	133	90	7	88	96	23	48	591
763	Wednesday, 5 February 2020	3:30:00 PM AEDT	3:45:00 PM AEDT	38	62	142	93	8	77	77	25	31	553
763	Wednesday, 5 February 2020	3:45:00 PM AEDT	4:00:00 PM AEDT	30	49	127	67	0	65	85	28	38	489
763	Wednesday, 5 February 2020	4:00:00 PM AEDT	4:15:00 PM AEDT	42	56	123	80	2	68	90	29	45	535
763	Wednesday, 5 February 2020	4:15:00 PM AEDT	4:30:00 PM AEDT	40	54	138	93	9	80	92	22	51	579
763	Wednesday, 5 February 2020	4:30:00 PM AEDT	4:45:00 PM AEDT	42	52	130	69	4	72	80	23	52	524
763	Wednesday, 5 February 2020	4:45:00 PM AEDT	5:00:00 PM AEDT	39	58	160	90	8	111	111	26	45	648
763	Wednesday, 5 February 2020	5:00:00 PM AEDT	5:15:00 PM AEDT	37	55	148	102	4	103	108	33	62	652
763	Wednesday, 5 February 2020	5:15:00 PM AEDT	5:30:00 PM AEDT	42	61	167	101	5	112	142	30	41	701
763	Wednesday, 5 February 2020	5:30:00 PM AEDT	5:45:00 PM AEDT	43	68	160	77	4	112	121	21	52	658
763	Wednesday, 5 February 2020	5:45:00 PM AEDT	6:00:00 PM AEDT	47	77	147	77	11	110	133	28	40	670

Site	Date	Interval start	Interval end	Detector 1	Detector 2	Detector 3	Detector 4	Detector 5	Detector 6	Detector 7	Detector 8	Detector 9	Total
Pacific Highway / Falcon Street / Shirley Road													
765	Wednesday, 5 February 2020	7:00:00 AM AEDT	7:15:00 AM AEDT	70	97	59	59	40	76	67	48	76	694
765	Wednesday, 5 February 2020	7:15:00 AM AEDT	7:30:00 AM AEDT	89	121	56	56	39	98	55	69	76	757
765	Wednesday, 5 February 2020	7:30:00 AM AEDT	7:45:00 AM AEDT	105	130	58	66	51	96	64	77	65	806
765	Wednesday, 5 February 2020	7:45:00 AM AEDT	8:00:00 AM AEDT	102	118	80	90	47	82	93	94	78	890
765	Wednesday, 5 February 2020	8:00:00 AM AEDT	8:15:00 AM AEDT	110	118	84	102	65	90	65	73	70	874
765	Wednesday, 5 February 2020	8:15:00 AM AEDT	8:30:00 AM AEDT	103	124	79	91	75	81	70	83	71	877
765	Wednesday, 5 February 2020	8:30:00 AM AEDT	8:45:00 AM AEDT	137	150	73	72	50	91	57	73	61	875
765	Wednesday, 5 February 2020	8:45:00 AM AEDT	9:00:00 AM AEDT	131	143	84	91	67	106	50	66	44	891
765	Wednesday, 5 February 2020	9:00:00 AM AEDT	9:15:00 AM AEDT	86	115	81	91	50	73	72	82	57	806
765	Wednesday, 5 February 2020	9:15:00 AM AEDT	9:30:00 AM AEDT	75	99	57	72	45	70	93	92	65	807
765	Wednesday, 5 February 2020	9:30:00 AM AEDT	9:45:00 AM AEDT	71	78	65	66	37	74	59	69	53	791
765	Wednesday, 5 February 2020	9:45:00 AM AEDT	10:00:00 AM AEDT	76	105	71	61	35	84	76	78	46	717
765	Wednesday, 5 February 2020	3:00:00 PM AEDT	3:15:00 PM AEDT	62	90	83	63	68	102	92	85	30	783
765	Wednesday, 5 February 2020	3:15:00 PM AEDT	3:30:00 PM AEDT	61	90	80	85	65	91	90	92	51	876
765	Wednesday, 5 February 2020	3:30:00 PM AEDT	3:45:00 PM AEDT	55	69	67	81	84	91	120	110	49	829
765	Wednesday, 5 February 2020	3:45:00 PM AEDT	4:00:00 PM AEDT	51	75	61	64	80	88	116	97	45	787
765	Wednesday, 5 February 2020	4:00:00 PM AEDT	4:15:00 PM AEDT	58	83	68	82	68	118	103	76	38	762
765	Wednesday, 5 February 2020	4:15:00 PM AEDT	4:30:00 PM AEDT	63	83	69	93	75	111	87	80	44	815
765	Wednesday, 5 February 2020	4:30:00 PM AEDT	4:45:00 PM AEDT	61	77	69	67	72	101	120	92	38	834
765	Wednesday, 5 February 2020	4:45:00 PM AEDT	5:00:00 PM AEDT	87	112	65	91	114	103	100	59	58	884
765	Wednesday, 5 February 2020	5:00:00 PM AEDT	5:15:00 PM AEDT	81	110	69	79	108	107	111	79	49	902
765	Wednesday, 5 February 2020	5:15:00 PM AEDT	5:30:00 PM AEDT	81	127	87	93	100	138	96	104	55	1011
765	Wednesday, 5 February 2020	5:30:00 PM AEDT	5:45:00 PM AEDT	76	109	73	72	103	115	115	96	50	934
765	Wednesday, 5 February 2020	5:45:00 PM AEDT	6:00:00 PM AEDT	76	133	54	57	96	112	96	80	61	869

Appendix C
Sidra Movement Summaries

MOVEMENT SUMMARY

Site: FA [FALCON / ALEXANDER - EXISTING AM]

Network: N101 [FIVE WAYS Existing AM]

FALCON / ALEXANDER - EXISTING AM
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 90 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: ALEXANDER STREET														
1	L2	39	5.4	39	5.4	0.487	41.2	LOS C	3.5	26.3	0.94	0.78	0.94	8.8
2	T1	279	9.4	279	9.4	0.487	35.4	LOS C	4.3	32.8	0.93	0.76	0.93	20.3
3	R2	2	0.0	2	0.0	0.487	40.8	LOS C	4.3	32.8	0.92	0.76	0.92	20.0
Approach		320	8.9	320	8.9	0.487	36.1	LOS C	4.3	32.8	0.93	0.77	0.93	19.1
East: FALCON STREET														
4	L2	311	5.8	311	5.8	0.761	16.1	LOS B	11.1	82.7	0.71	0.76	0.78	29.7
5	T1	794	8.6	794	8.6	0.761	13.0	LOS A	11.1	82.7	0.72	0.73	0.79	28.8
Approach		1104	7.8	1104	7.8	0.761	13.9	LOS A	11.1	82.7	0.72	0.74	0.79	29.0
North: ALEXANDER STREET														
7	L2	14	15.4	14	15.4	0.116	37.9	LOS C	0.9	7.0	0.85	0.67	0.85	24.0
8	T1	71	9.0	71	9.0	0.116	32.2	LOS C	1.0	7.3	0.85	0.65	0.85	17.0
Approach		84	10.0	84	10.0	0.116	33.1	LOS C	1.0	7.3	0.85	0.65	0.85	18.5
West: FALCON STREET														
10	L2	81	5.2	81	5.2	0.369	13.4	LOS A	6.4	47.6	0.57	0.55	0.57	36.5
11	T1	824	7.0	824	7.0	0.369	10.4	LOS A	8.6	64.1	0.68	0.63	0.68	37.3
Approach		905	6.9	905	6.9	0.369	10.7	LOS A	8.6	64.1	0.67	0.62	0.67	37.3
All Vehicles		2414	7.7	2414	7.7	0.761	16.3	LOS B	11.1	82.7	0.73	0.69	0.77	29.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
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	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	40	39.3	LOS D	0.1	0.1	0.93	0.93
P2	East Full Crossing	57	39.3	LOS D	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94
P4	West Full Crossing	52	39.3	LOS D	0.1	0.1	0.94	0.94
All Pedestrians		201	39.3	LOS D			0.94	0.94

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

MOVEMENT SUMMARY

Site: FA [FALCON / ALEXANDER - EXISTING PM]

Network: N101 [FIVE WAYS Existing PM]

FALCON / ALEXANDER - EXISTING PM
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: ALEXANDER STREET														
1	L2	18	23.5	18	23.5	0.796	61.5	LOS E	5.1	38.6	1.00	0.87	1.13	6.1
2	T1	317	7.3	317	7.3	0.796	55.7	LOS D	5.7	42.4	1.00	0.87	1.12	14.8
3	R2	2	0.0	2	0.0	0.796	61.0	LOS E	5.7	42.4	1.00	0.87	1.12	14.6
Approach		337	8.1	337	8.1	0.796	56.1	LOS D	5.7	42.4	1.00	0.87	1.12	14.4
East: FALCON STREET														
4	L2	353	2.4	353	2.4	0.789	14.6	LOS B	14.0	100.1	0.65	0.71	0.67	31.7
5	T1	975	2.2	975	2.2	0.789	10.8	LOS A	14.0	100.1	0.65	0.68	0.69	31.4
Approach		1327	2.2	1327	2.2	0.789	11.8	LOS A	14.0	100.1	0.65	0.69	0.69	31.4
North: ALEXANDER STREET														
7	L2	16	6.7	16	6.7	0.196	49.7	LOS D	1.2	9.0	0.94	0.71	0.94	20.4
8	T1	73	5.8	73	5.8	0.196	44.0	LOS D	1.2	9.1	0.94	0.70	0.94	13.5
Approach		88	6.0	88	6.0	0.196	45.0	LOS D	1.2	9.1	0.94	0.71	0.94	15.0
West: FALCON STREET														
10	L2	78	1.4	78	1.4	0.270	11.8	LOS A	6.0	42.6	0.56	0.55	0.56	39.1
11	T1	701	2.0	701	2.0	0.270	9.2	LOS A	8.7	62.0	0.71	0.65	0.71	39.0
Approach		779	1.9	779	1.9	0.270	9.4	LOS A	8.7	62.0	0.69	0.64	0.69	39.0
All Vehicles		2532	3.0	2532	3.0	0.796	18.1	LOS B	14.0	100.1	0.72	0.70	0.75	27.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
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	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	11	44.2	LOS E	0.0	0.0	0.94	0.94
P2	East Full Crossing	13	44.2	LOS E	0.0	0.0	0.94	0.94
P3	North Full Crossing	14	44.2	LOS E	0.0	0.0	0.94	0.94
P4	West Full Crossing	16	44.2	LOS E	0.0	0.0	0.94	0.94
All Pedestrians		53	44.2	LOS E			0.94	0.94

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

MOVEMENT SUMMARY

Site: PA [PACIFIC / ALEXANDER - EXISTING AM]

Network: N101 [FIVE WAYS Existing AM]

PACIFIC / ALEXANDER - EXISTING AM
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 90 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: PACIFIC HIGHWAY														
2	T1	992	9.6	992	9.6	0.332	2.6	LOS A	3.6	27.2	0.29	0.26	0.29	45.2
3a	R1	300	9.5	300	9.5	0.552	33.2	LOS C	6.9	51.9	0.89	0.81	0.89	12.2
Approach		1292	9.5	1292	9.5	0.552	9.7	LOS A	6.9	51.9	0.43	0.39	0.43	27.2
NorthEast: ALEXANDER STREET														
24a	L1	321	6.9	321	6.9	0.406	27.6	LOS B	7.2	53.5	0.89	0.82	0.89	19.0
26b	R3	60	3.5	60	3.5	0.566	54.6	LOS D	1.7	12.5	1.00	0.77	1.05	6.6
Approach		381	6.4	381	6.4	0.566	31.8	LOS C	7.2	53.5	0.91	0.81	0.92	16.4
North: PACIFIC HIGHWAY														
7b	L3	18	0.0	18	0.0	0.566	11.3	LOS A	3.1	23.9	0.28	0.26	0.28	36.6
8	T1	1324	12.0	1324	12.0	0.566	9.8	LOS A	8.9	68.7	0.44	0.39	0.44	36.3
Approach		1342	11.8	1342	11.8	0.566	9.8	LOS A	8.9	68.7	0.44	0.39	0.44	36.3
All Vehicles		3015	10.2	3015	10.2	0.566	12.5	LOS A	8.9	68.7	0.50	0.44	0.50	28.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	39	39.3	LOS D	0.1	0.1	0.93	0.93
P3	North Full Crossing	18	39.2	LOS D	0.0	0.0	0.93	0.93
All Pedestrians		57	39.3	LOS D			0.93	0.93

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

MOVEMENT SUMMARY

Site: PA [PACIFIC / ALEXANDER - EXISTING PM]

Network: N101 [FIVE WAYS Existing PM]

PACIFIC / ALEXANDER - EXISTING PM
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: PACIFIC HIGHWAY														
2	T1	1173	6.6	1173	6.6	0.693	7.8	LOS A	9.5	70.3	0.55	0.50	0.55	30.1
3a	R1	309	8.8	309	8.8	0.515	33.6	LOS C	7.5	56.6	0.86	0.80	0.86	12.0
Approach		1482	7.1	1482	7.1	0.693	13.2	LOS A	9.5	70.3	0.61	0.56	0.61	22.6
NorthEast: ALEXANDER STREET														
24a	L1	303	4.2	303	4.2	0.701	47.0	LOS D	6.7	48.5	0.98	0.85	1.05	13.1
26b	R3	122	0.0	122	0.0	0.701	44.5	LOS D	5.7	40.6	0.94	0.83	0.99	7.8
Approach		425	3.0	425	3.0	0.701	46.3	LOS D	6.7	48.5	0.97	0.85	1.03	11.8
North: PACIFIC HIGHWAY														
7b	L3	25	0.0	25	0.0	0.500	11.4	LOS A	1.8	13.3	0.21	0.23	0.21	35.5
8	T1	884	5.5	884	5.5	0.500	8.1	LOS A	4.7	34.2	0.32	0.28	0.32	38.8
Approach		909	5.3	909	5.3	0.500	8.2	LOS A	4.7	34.2	0.31	0.28	0.31	38.7
All Vehicles		2817	5.9	2817	5.9	0.701	16.6	LOS B	9.5	70.3	0.57	0.51	0.58	23.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	14	44.2	LOS E	0.0	0.0	0.94	0.94
All Pedestrians		66	44.3	LOS E			0.94	0.94

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

MOVEMENT SUMMARY

Site: PFS [PACIFIC / FALCON / SHIRLEY - EXISTING AM]

Network: N101 [FIVE WAYS Existing AM]

PACIFIC / FALCON / SHIRLEY - EXISTING AM
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 90 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: PACIFIC HIGHWAY														
1	L2	187	11.2	187	11.2	0.177	14.2	LOS A	2.2	17.1	0.48	0.70	0.48	32.4
2	T1	712	9.5	712	9.5	0.784	32.7	LOS C	9.1	68.7	0.94	0.85	1.00	22.9
Approach		899	9.8	899	9.8	0.784	28.8	LOS C	9.1	68.7	0.84	0.82	0.89	24.4
East: FALCON STREET														
4	L2	14	38.5	14	38.5	0.869	36.2	LOS C	10.8	80.0	0.97	0.94	1.10	9.6
5	T1	297	4.3	297	4.3	0.869	31.0	LOS C	10.8	80.0	0.97	0.94	1.10	21.5
6	R2	523	10.3	523	10.3	0.869	34.2	LOS C	10.8	80.0	0.95	0.92	1.09	20.0
Approach		834	8.6	834	8.6	0.869	33.1	LOS C	10.8	80.0	0.95	0.92	1.10	20.4
North: PACIFIC HIGHWAY														
7	L2	414	9.7	414	9.7	0.501	17.8	LOS B	6.6	50.2	0.64	0.77	0.64	25.3
8	T1	824	4.6	824	4.6	0.881	46.1	LOS D	12.7	92.7	1.00	1.06	1.29	13.2
Approach		1238	6.3	1238	6.3	0.881	36.7	LOS C	12.7	92.7	0.88	0.96	1.07	15.7
West: SHIRLEY ROAD														
10	L2	46	13.6	46	13.6	0.853	47.4	LOS D	11.6	85.0	1.00	1.03	1.25	21.5
11	T1	492	4.5	492	4.5	0.853	42.1	LOS C	11.6	85.0	1.00	1.03	1.25	14.1
12	R2	201	1.6	201	1.6	0.853	48.4	LOS D	10.7	76.9	1.00	1.03	1.27	13.4
Approach		739	4.3	739	4.3	0.853	44.1	LOS D	11.6	85.0	1.00	1.03	1.26	14.5
All Vehicles		3709	7.3	3709	7.3	0.881	35.4	LOS C	12.7	92.7	0.91	0.93	1.07	18.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	124	39.4	LOS D	0.3	0.3	0.94	0.94
P2	East Full Crossing	39	39.3	LOS D	0.1	0.1	0.93	0.93
P3	North Full Crossing	64	39.3	LOS D	0.2	0.2	0.94	0.94
P4	West Full Crossing	95	39.4	LOS D	0.2	0.2	0.94	0.94
All Pedestrians		322	39.4	LOS D			0.94	0.94

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.

MOVEMENT SUMMARY

Site: PFS [PACIFIC / FALCON / SHIRLEY - EXISTING PM]

Network: N101 [FIVE WAYS Existing PM]

PACIFIC / FALCON / SHIRLEY - EXISTING PM
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: PACIFIC HIGHWAY														
1	L2	559	0.6	559	0.6	0.950	46.0	LOS D	17.1	120.0	1.00	0.99	1.26	17.8
2	T1	618	1.0	618	1.0	0.509	25.8	LOS B	7.4	52.3	0.77	0.66	0.77	26.3
Approach		1177	0.8	1177	0.8	0.950	35.4	LOS C	17.1	120.0	0.88	0.82	1.00	21.5
East: FALCON STREET														
4	L2	14	0.0	14	0.0	0.948	66.6	LOS E	11.3	80.0	1.00	1.19	1.41	5.5
5	T1	551	1.1	551	1.1	0.948	61.5	LOS E	11.3	80.0	1.00	1.19	1.41	13.7
6	R2	428	4.4	428	4.4	0.797	43.8	LOS D	11.0	80.0	0.98	0.91	1.08	16.9
Approach		993	2.5	993	2.5	0.948	53.9	LOS D	11.3	80.0	0.99	1.07	1.27	14.8
North: PACIFIC HIGHWAY														
7	L2	325	3.6	325	3.6	0.573	37.0	LOS C	8.2	59.3	0.89	0.83	0.89	15.6
8	T1	817	8.4	817	8.4	0.705	33.2	LOS C	10.9	81.9	0.94	0.82	0.95	16.9
Approach		1142	7.0	1142	7.0	0.705	34.3	LOS C	10.9	81.9	0.93	0.82	0.93	16.5
West: SHIRLEY ROAD														
10	L2	47	2.2	47	2.2	0.832	52.7	LOS D	10.6	75.2	1.00	0.97	1.19	20.2
11	T1	456	1.2	456	1.2	0.832	47.8	LOS D	10.6	75.2	1.00	0.98	1.21	12.9
12	R2	96	0.0	96	0.0	0.832	54.4	LOS D	8.7	61.1	1.00	0.98	1.24	12.5
Approach		599	1.1	599	1.1	0.832	49.2	LOS D	10.6	75.2	1.00	0.98	1.21	13.5
All Vehicles		3911	3.1	3911	3.1	0.950	41.9	LOS C	17.1	120.0	0.94	0.91	1.08	16.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	166	44.5	LOS E	0.4	0.4	0.95	0.95
P2	East Full Crossing	48	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	78	44.3	LOS E	0.2	0.2	0.94	0.94
P4	West Full Crossing	143	44.4	LOS E	0.4	0.4	0.95	0.95
All Pedestrians		436	44.4	LOS E			0.95	0.95

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.

MOVEMENT SUMMARY

Site: FA [FALCON / ALEXANDER - EXISTING AM + DEVT]

Network: N101 [FIVE WAYS Existing AM + DEVELOPMENT]

FALCON / ALEXANDER - EXISTING AM + DEVT
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 80 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: ALEXANDER STREET														
1	L2	62	3.4	62	3.4	0.530	30.7	LOS C	3.4	25.1	0.84	0.73	0.84	11.4
2	T1	279	9.4	279	9.4	0.530	21.8	LOS B	3.6	26.9	0.77	0.67	0.77	26.5
3	R2	43	0.0	43	0.0	0.530	25.1	LOS B	3.6	26.9	0.73	0.64	0.73	27.0
Approach		384	7.4	384	7.4	0.530	23.6	LOS B	3.6	26.9	0.78	0.68	0.78	24.5
East: FALCON STREET														
4	L2	357	5.0	357	5.0	0.779	18.4	LOS B	11.3	83.4	0.77	0.82	0.88	26.9
5	T1	794	8.6	794	8.6	0.779	15.6	LOS B	11.3	83.4	0.79	0.81	0.89	26.3
Approach		1151	7.5	1151	7.5	0.779	16.5	LOS B	11.3	83.4	0.78	0.81	0.89	26.5
North: ALEXANDER STREET														
7	L2	14	15.4	14	15.4	0.097	31.6	LOS C	0.8	6.0	0.81	0.65	0.81	26.7
8	T1	71	9.0	71	9.0	0.097	25.9	LOS B	0.8	6.1	0.81	0.62	0.81	19.7
Approach		84	10.0	84	10.0	0.097	26.8	LOS B	0.8	6.1	0.81	0.63	0.81	21.2
West: FALCON STREET														
10	L2	81	5.2	81	5.2	0.402	14.2	LOS A	6.1	45.5	0.61	0.58	0.61	35.5
11	T1	824	7.0	824	7.0	0.402	11.0	LOS A	7.8	58.1	0.71	0.64	0.71	36.6
Approach		905	6.9	905	6.9	0.402	11.3	LOS A	7.8	58.1	0.70	0.64	0.70	36.5
All Vehicles		2524	7.3	2524	7.3	0.779	16.0	LOS B	11.3	83.4	0.75	0.72	0.80	29.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	40	34.3	LOS D	0.1	0.1	0.93	0.93
P2	East Full Crossing	57	34.3	LOS D	0.1	0.1	0.93	0.93
P3	North Full Crossing	53	34.3	LOS D	0.1	0.1	0.93	0.93
P4	West Full Crossing	52	34.3	LOS D	0.1	0.1	0.93	0.93
All Pedestrians		201	34.3	LOS D			0.93	0.93

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

MOVEMENT SUMMARY

Site: FA [FALCON / ALEXANDER - EXISTING PM + DEVT]

Network: N101 [FIVE WAYS Existing PM + DEVELOPMENT]

FALCON / ALEXANDER - EXISTING PM + DEVT
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: ALEXANDER STREET														
1	L2	33	12.9	33	12.9	0.816	61.9	LOS E	5.8	43.4	1.00	0.89	1.14	6.0
2	T1	317	7.3	317	7.3	0.816	56.1	LOS D	6.4	47.3	1.00	0.89	1.14	14.6
3	R2	28	0.0	28	0.0	0.816	61.4	LOS E	6.4	47.3	1.00	0.89	1.13	14.4
Approach		378	7.2	378	7.2	0.816	57.0	LOS E	6.4	47.3	1.00	0.89	1.14	14.0
East: FALCON STREET														
4	L2	404	2.1	404	2.1	0.829	19.9	LOS B	18.0	128.3	0.73	0.80	0.79	25.9
5	T1	975	2.2	975	2.2	0.829	16.9	LOS B	18.0	128.3	0.73	0.78	0.82	25.1
Approach		1379	2.1	1379	2.1	0.829	17.8	LOS B	18.0	128.3	0.73	0.79	0.81	25.3
North: ALEXANDER STREET														
7	L2	16	6.7	16	6.7	0.168	47.4	LOS D	1.2	8.7	0.92	0.70	0.92	21.0
8	T1	73	5.8	73	5.8	0.168	41.7	LOS C	1.2	8.8	0.92	0.69	0.92	14.1
Approach		88	6.0	88	6.0	0.168	42.7	LOS D	1.2	8.8	0.92	0.69	0.92	15.6
West: FALCON STREET														
10	L2	78	1.4	78	1.4	0.277	12.5	LOS A	6.2	43.8	0.58	0.56	0.58	38.1
11	T1	701	2.0	701	2.0	0.277	9.9	LOS A	8.6	61.4	0.71	0.65	0.71	38.0
Approach		779	1.9	779	1.9	0.277	10.2	LOS A	8.6	61.4	0.70	0.64	0.70	38.0
All Vehicles		2624	2.9	2624	2.9	0.829	22.0	LOS B	18.0	128.3	0.77	0.75	0.83	24.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
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	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	11	44.2	LOS E	0.0	0.0	0.94	0.94
P2	East Full Crossing	13	44.2	LOS E	0.0	0.0	0.94	0.94
P3	North Full Crossing	14	44.2	LOS E	0.0	0.0	0.94	0.94
P4	West Full Crossing	16	44.2	LOS E	0.0	0.0	0.94	0.94
All Pedestrians		53	44.2	LOS E			0.94	0.94

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

MOVEMENT SUMMARY

Site: PA [PACIFIC / ALEXANDER - EXISTING AM + DEVT]

Network: N101 [FIVE WAYS Existing AM + DEVELOPMENT]

PACIFIC / ALEXANDER - EXISTING AM + DEVT
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 80 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: PACIFIC HIGHWAY														
2	T1	992	9.6	992	9.6	0.342	2.9	LOS A	3.6	27.3	0.33	0.29	0.33	43.8
3a	R1	325	8.7	325	8.7	0.621	31.5	LOS C	6.9	51.8	0.92	0.82	0.92	12.7
Approach		1317	9.4	1317	9.4	0.621	10.0	LOS A	6.9	51.8	0.48	0.42	0.48	26.8
NorthEast: ALEXANDER STREET														
24a	L1	343	6.4	343	6.4	0.429	24.4	LOS B	6.8	49.9	0.88	0.82	0.88	20.5
26b	R3	60	3.5	60	3.5	0.504	48.3	LOS D	1.5	11.0	1.00	0.76	1.01	7.3
Approach		403	6.0	403	6.0	0.504	28.0	LOS B	6.8	49.9	0.89	0.81	0.90	17.9
North: PACIFIC HIGHWAY														
7b	L3	43	0.0	43	0.0	0.607	11.0	LOS A	3.1	23.6	0.30	0.31	0.30	36.2
8	T1	1324	12.0	1324	12.0	0.607	9.7	LOS A	8.1	62.6	0.46	0.42	0.46	36.2
Approach		1367	11.6	1367	11.6	0.607	9.8	LOS A	8.1	62.6	0.46	0.42	0.46	36.2
All Vehicles		3087	9.9	3087	9.9	0.621	12.2	LOS A	8.1	62.6	0.52	0.47	0.52	29.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
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	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	39	34.3	LOS D	0.1	0.1	0.93	0.93
P3	North Full Crossing	18	34.3	LOS D	0.0	0.0	0.93	0.93
All Pedestrians		57	34.3	LOS D			0.93	0.93

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

MOVEMENT SUMMARY

Site: PA [PACIFIC / ALEXANDER - EXISTING PM + DEVT]

Network: N101 [FIVE WAYS Existing PM + DEVELOPMENT]

PACIFIC / ALEXANDER - EXISTING PM + DEVT
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: PACIFIC HIGHWAY														
2	T1	1173	6.6	1173	6.6	0.711	8.4	LOS A	9.7	71.9	0.57	0.52	0.57	29.0
3a	R1	339	8.1	339	8.1	0.562	34.2	LOS C	8.4	62.7	0.88	0.81	0.88	11.9
Approach		1512	7.0	1512	7.0	0.711	14.2	LOS A	9.7	71.9	0.64	0.58	0.64	21.7
NorthEast: ALEXANDER STREET														
24a	L1	318	4.0	318	4.0	0.683	46.2	LOS D	6.8	49.5	0.98	0.85	1.03	13.2
26b	R3	122	0.0	122	0.0	0.683	44.8	LOS D	5.9	41.8	0.94	0.83	0.98	7.8
Approach		440	2.9	440	2.9	0.683	45.8	LOS D	6.8	49.5	0.97	0.84	1.01	11.9
North: PACIFIC HIGHWAY														
7b	L3	55	0.0	55	0.0	0.536	11.9	LOS A	2.1	15.4	0.24	0.30	0.24	32.8
8	T1	884	5.5	884	5.5	0.536	8.9	LOS A	5.2	38.1	0.35	0.33	0.35	37.2
Approach		939	5.2	939	5.2	0.536	9.1	LOS A	5.2	38.1	0.35	0.33	0.35	37.0
All Vehicles		2891	5.8	2891	5.8	0.711	17.4	LOS B	9.7	71.9	0.59	0.54	0.60	22.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	14	44.2	LOS E	0.0	0.0	0.94	0.94
All Pedestrians		66	44.3	LOS E			0.94	0.94

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

MOVEMENT SUMMARY

Site: PFS [PACIFIC / FALCON / SHIRLEY - EXISTING AM + DEVT]

Network: N101 [FIVE WAYS Existing AM + DEVELOPMENT]

PACIFIC / FALCON / SHIRLEY - EXISTING AM + DEVT
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 80 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: PACIFIC HIGHWAY														
1	L2	187	11.2	187	11.2	0.185	14.3	LOS A	2.1	16.2	0.50	0.71	0.50	32.3
2	T1	712	9.5	712	9.5	0.807	30.1	LOS C	8.3	62.9	0.95	0.87	1.05	24.1
Approach		899	9.8	899	9.8	0.807	26.8	LOS B	8.3	62.9	0.86	0.84	0.93	25.4
East: FALCON STREET														
4	L2	14	38.5	14	38.5	0.864	34.0	LOS C	10.8	80.0	0.97	0.94	1.12	10.2
5	T1	307	4.1	307	4.1	0.864	28.8	LOS C	10.8	80.0	0.97	0.94	1.12	22.5
6	R2	536	10.0	536	10.0	0.864	31.2	LOS C	10.8	80.0	0.94	0.92	1.09	21.2
Approach		857	8.4	857	8.4	0.864	30.4	LOS C	10.8	80.0	0.95	0.93	1.10	21.5
North: PACIFIC HIGHWAY														
7	L2	414	9.7	414	9.7	0.458	15.7	LOS B	5.6	42.4	0.61	0.76	0.61	27.2
8	T1	839	4.5	839	4.5	0.923	49.3	LOS D	12.8	93.3	1.00	1.15	1.47	12.5
Approach		1253	6.2	1253	6.2	0.923	38.2	LOS C	12.8	93.3	0.87	1.02	1.19	15.2
West: SHIRLEY ROAD														
10	L2	46	13.6	46	13.6	0.881	48.0	LOS D	11.0	80.9	1.00	1.08	1.35	21.3
11	T1	492	4.5	492	4.5	0.881	42.5	LOS C	11.0	80.9	1.00	1.08	1.36	14.0
12	R2	212	1.5	212	1.5	0.881	48.6	LOS D	10.4	74.4	1.00	1.08	1.37	13.4
Approach		749	4.2	749	4.2	0.881	44.5	LOS D	11.0	80.9	1.00	1.08	1.36	14.4
All Vehicles		3758	7.2	3758	7.2	0.923	35.0	LOS C	12.8	93.3	0.91	0.97	1.14	18.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
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	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	124	34.4	LOS D	0.3	0.3	0.93	0.93
P2	East Full Crossing	39	34.3	LOS D	0.1	0.1	0.93	0.93
P3	North Full Crossing	64	34.3	LOS D	0.1	0.1	0.93	0.93
P4	West Full Crossing	95	34.4	LOS D	0.2	0.2	0.93	0.93
All Pedestrians		322	34.4	LOS D			0.93	0.93

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.

MOVEMENT SUMMARY

Site: PFS [PACIFIC / FALCON / SHIRLEY - EXISTING PM + DEVT]

Network: N101 [FIVE WAYS Existing PM + DEVELOPMENT]

PACIFIC / FALCON / SHIRLEY - EXISTING PM + DEVT
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: PACIFIC HIGHWAY														
1	L2	559	0.6	559	0.6	0.950	48.5	LOS D	17.1	120.0	1.00	0.99	1.26	17.2
2	T1	618	1.0	618	1.0	0.509	26.9	LOS B	7.6	53.7	0.80	0.69	0.80	25.7
Approach		1177	0.8	1177	0.8	0.950	37.2	LOS C	17.1	120.0	0.90	0.83	1.02	20.8
East: FALCON STREET														
4	L2	14	0.0	14	0.0	0.966	72.8	LOS F	11.3	80.0	1.00	1.25	1.48	5.1
5	T1	561	1.1	561	1.1	0.966	67.7	LOS E	11.3	80.0	1.00	1.25	1.48	12.7
6	R2	437	4.3	437	4.3	0.813	44.9	LOS D	11.0	80.0	0.98	0.92	1.10	16.6
Approach		1012	2.5	1012	2.5	0.966	57.9	LOS E	11.3	80.0	0.99	1.10	1.32	14.1
North: PACIFIC HIGHWAY														
7	L2	325	3.6	325	3.6	0.573	37.0	LOS C	8.2	59.3	0.89	0.83	0.89	15.6
8	T1	834	8.2	834	8.2	0.719	33.7	LOS C	11.3	84.5	0.95	0.84	0.96	16.7
Approach		1159	6.9	1159	6.9	0.719	34.6	LOS C	11.3	84.5	0.93	0.83	0.94	16.4
West: SHIRLEY ROAD														
10	L2	47	2.2	47	2.2	0.841	53.5	LOS D	10.9	77.0	1.00	0.98	1.21	20.0
11	T1	456	1.2	456	1.2	0.841	48.5	LOS D	10.9	77.0	1.00	0.99	1.22	12.7
12	R2	108	0.0	108	0.0	0.841	55.1	LOS D	9.0	63.6	1.00	1.00	1.25	12.3
Approach		612	1.0	612	1.0	0.841	50.1	LOS D	10.9	77.0	1.00	0.99	1.23	13.3
All Vehicles		3959	3.1	3959	3.1	0.966	43.7	LOS D	17.1	120.0	0.95	0.93	1.11	16.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
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	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	166	44.5	LOS E	0.4	0.4	0.95	0.95
P2	East Full Crossing	48	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	78	44.3	LOS E	0.2	0.2	0.94	0.94
P4	West Full Crossing	143	44.4	LOS E	0.4	0.4	0.95	0.95
All Pedestrians		436	44.4	LOS E			0.95	0.95

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.

MOVEMENT SUMMARY

Site: FA [FALCON / ALEXANDER - EXISTING AM + GROWTH]

Network: N101 [FIVE WAYS Existing AM + GROWTH]

FALCON / ALEXANDER - EXISTING AM + GROWTH
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)
Design Life Analysis (Final Year): Results for 10 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: ALEXANDER STREET														
1	L2	41	5.4	41	5.4	0.313	46.1	LOS D[11]	4.5	34.0	0.73	0.65	0.73	7.9
2	T1	293	9.4	293	9.4	0.313	38.6	LOS C	5.3	40.1	0.69	0.60	0.69	19.2
3	R2	2	0.0	2	0.0	0.313	42.9	LOS D[11]	5.3	40.1	0.67	0.57	0.67	19.2
Approach		336	8.9	336	8.9	0.313	39.5	LOS C	5.3	40.1	0.70	0.60	0.70	18.0
East: FALCON STREET														
4	L2	326	5.8	326	5.8	0.954	74.5	LOS F[11]	36.5	271.0	1.00	1.11	1.32	9.2
5	T1	833	8.6	833	8.6	0.954	73.7	LOS F[11]	36.5	271.0	1.00	1.16	1.33	8.9
Approach		1159	7.8	1159	7.8	0.954	73.9	LOS F[11]	36.5	271.0	1.00	1.15	1.33	9.0
North: ALEXANDER STREET														
7	L2	14	15.4	14	15.4	0.082	42.8	LOS D[11]	1.2	9.1	0.72	0.62	0.72	22.2
8	T1	74	9.0	74	9.0	0.082	37.0	LOS C	1.5	11.4	0.72	0.58	0.72	15.4
Approach		88	10.0	88	10.0	0.082	37.9	LOS C	1.5	11.4	0.72	0.58	0.72	16.8
West: FALCON STREET														
10	L2	85	5.2	85	5.2	0.436	22.7	LOS B	10.8	80.0	0.59	0.57	0.59	27.6
11	T1	865	7.0	865	7.0	0.436	21.8	LOS B	10.8	80.0	0.71	0.65	0.71	26.7
Approach		951	6.9	951	6.9	0.436	21.8	LOS B	10.8	80.0	0.70	0.65	0.70	26.8
All Vehicles		2534	7.7	2534	7.7	0.954	48.6	LOS D[11]	36.5	271.0	0.84	0.87	0.99	14.4

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

11 Level of Service is worse than the Level of Service Target specified in the Parameter Settings dialog.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	48	69.3	LOS F[12]	0.2	0.2	0.96	0.96
P2	East Full Crossing	68	69.3	LOS F[12]	0.3	0.3	0.96	0.96
P3	North Full Crossing	63	69.3	LOS F[12]	0.3	0.3	0.96	0.96
P4	West Full Crossing	62	69.3	LOS F[12]	0.3	0.3	0.96	0.96
All Pedestrians		241	69.3	LOS F[12]			0.96	0.96

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

MOVEMENT SUMMARY

Site: FA [FALCON / ALEXANDER - EXISTING PM + GROWTH]

Network: N101 [FIVE WAYS Existing PM + GROWTH]

FALCON / ALEXANDER - EXISTING PM + GROWTH
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 130 seconds (Network Practical Cycle Time)
Design Life Analysis (Final Year): Results for 10 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: ALEXANDER STREET														
1	L2	19	23.5	19	23.5	0.815	77.4	LOS F[11]	6.9	51.9	1.00	0.88	1.12	4.9
2	T1	333	7.3	333	7.3	0.815	71.5	LOS F[11]	7.7	57.1	1.00	0.88	1.11	12.2
3	R2	2	0.0	2	0.0	0.815	76.8	LOS F[11]	7.7	57.1	1.00	0.88	1.10	12.1
Approach		354	8.1	354	8.1	0.815	71.9	LOS F[11]	7.7	57.1	1.00	0.88	1.11	11.9
East: FALCON STREET														
4	L2	370	2.4	370	2.4	0.831	17.5	LOS B	19.5	139.2	0.68	0.74	0.70	28.3
5	T1	1023	2.2	1023	2.2	0.831	14.4	LOS A	19.5	139.2	0.67	0.70	0.72	27.5
Approach		1394	2.2	1394	2.2	0.831	15.2	LOS B	19.5	139.2	0.67	0.71	0.71	27.7
North: ALEXANDER STREET														
7	L2	17	6.7	17	6.7	0.215	62.3	LOS E[11]	1.5	11.4	0.94	0.72	0.94	17.4
8	T1	76	5.8	76	5.8	0.215	56.4	LOS D[11]	1.8	13.1	0.94	0.71	0.94	11.1
Approach		93	6.0	93	6.0	0.215	57.4	LOS E[11]	1.8	13.1	0.94	0.71	0.94	12.4
West: FALCON STREET														
10	L2	82	1.4	82	1.4	0.275	12.6	LOS A	7.8	55.8	0.55	0.54	0.55	38.0
11	T1	736	2.0	736	2.0	0.275	9.9	LOS A	10.9	77.9	0.67	0.62	0.67	37.9
Approach		818	1.9	818	1.9	0.275	10.2	LOS A	10.9	77.9	0.65	0.61	0.65	37.9
All Vehicles		2658	3.0	2658	3.0	0.831	22.7	LOS B	19.5	139.2	0.72	0.70	0.76	24.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

11 Level of Service is worse than the Level of Service Target specified in the Parameter Settings dialog.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	13	59.2	LOS E[12]	0.0	0.0	0.95	0.95
P2	East Full Crossing	15	59.2	LOS E[12]	0.1	0.1	0.95	0.95
P3	North Full Crossing	16	59.2	LOS E[12]	0.1	0.1	0.95	0.95
P4	West Full Crossing	19	59.2	LOS E[12]	0.1	0.1	0.95	0.95
All Pedestrians		63	59.2	LOS E[12]			0.95	0.95

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

MOVEMENT SUMMARY

Site: PA [PACIFIC / ALEXANDER - EXISTING AM + GROWTH]

Network: N101 [FIVE WAYS Existing AM + GROWTH]

PACIFIC / ALEXANDER - EXISTING AM + GROWTH
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)
Design Life Analysis (Final Year): Results for 10 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: PACIFIC HIGHWAY														
2	T1	1041	9.6	1041	9.6	0.455	4.4	LOS A	9.0	68.2	0.32	0.30	0.32	38.7
3a	R1	315	9.5	315	9.5	0.693	33.8	LOS C	9.3	70.4	0.72	0.75	0.72	12.0
Approach		1356	9.5	1356	9.5	0.693	11.2	LOS A	9.3	70.4	0.41	0.40	0.41	25.1
NorthEast: ALEXANDER STREET														
24a	L1	337	6.9	337	6.9	0.311	23.3	LOS B	9.0	66.9	0.66	0.75	0.66	21.1
26b	R3	63	3.5	63	3.5	0.743	85.3	LOS F[11]	3.1	22.2	1.00	0.86	1.18	4.4
Approach		400	6.4	400	6.4	0.743	33.1	LOS C	9.0	66.9	0.71	0.77	0.74	15.9
North: PACIFIC HIGHWAY														
7b	L3	19	0.0	19	0.0	0.788	18.0	LOS B	9.7	74.9	0.50	0.46	0.50	24.1
8	T1	1390	12.0	1390	12.0	0.788	24.0	LOS B	15.5	120.0	0.64	0.57	0.64	23.2
Approach		1409	11.8	1409	11.8	0.788	23.9	LOS B	15.5	120.0	0.63	0.57	0.64	23.2
All Vehicles		3165	10.2	3165	10.2	0.788	19.6	LOS B	15.5	120.0	0.55	0.52	0.56	22.3

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

11 Level of Service is worse than the Level of Service Target specified in the Parameter Settings dialog.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	47	69.3	LOS F[12]	0.2	0.2	0.96	0.96
P3	North Full Crossing	21	69.2	LOS F[12]	0.1	0.1	0.96	0.96
All Pedestrians		68	69.2	LOS F[12]			0.96	0.96

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.

12 Level of Service is worse than the Pedestrian Level of Service Target specified in the Parameter Settings dialog.

MOVEMENT SUMMARY

Site: PA [PACIFIC / ALEXANDER - EXISTING PM + GROWTH]

Network: N101 [FIVE WAYS Existing PM + GROWTH]

PACIFIC / ALEXANDER - EXISTING PM + GROWTH
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 130 seconds (Network Practical Cycle Time)
Design Life Analysis (Final Year): Results for 10 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: PACIFIC HIGHWAY														
2	T1	1231	6.6	1231	6.6	0.725	9.2	LOS A	12.0	88.6	0.53	0.49	0.53	27.8
3a	R1	325	8.8	325	8.8	0.859	49.5	LOS D[11]	11.4	86.0	0.78	0.89	1.00	8.7
Approach		1556	7.1	1556	7.1	0.859	17.6	LOS B	12.0	88.6	0.59	0.57	0.63	18.8
NorthEast: ALEXANDER STREET														
24a	L1	318	4.2	318	4.2	0.713	58.1	LOS E[11]	9.0	65.6	0.98	0.85	1.02	11.1
26b	R3	128	0.0	128	0.0	0.713	53.6	LOS D[11]	7.6	53.6	0.94	0.83	0.97	6.6
Approach		447	3.0	447	3.0	0.713	56.8	LOS E[11]	9.0	65.6	0.97	0.85	1.01	10.0
North: PACIFIC HIGHWAY														
7b	L3	27	0.0	27	0.0	0.607	18.0	LOS B	4.6	33.4	0.40	0.38	0.40	23.8
8	T1	928	5.5	928	5.5	0.607	14.7	LOS B	7.3	53.5	0.47	0.41	0.47	30.3
Approach		955	5.3	955	5.3	0.607	14.8	LOS B	7.3	53.5	0.46	0.41	0.46	30.1
All Vehicles		2958	5.9	2958	5.9	0.859	22.6	LOS B	12.0	88.6	0.60	0.56	0.63	19.3

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

11 Level of Service is worse than the Level of Service Target specified in the Parameter Settings dialog.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	63	59.3	LOS E[12]	0.2	0.2	0.96	0.96
P3	North Full Crossing	16	59.2	LOS E[12]	0.1	0.1	0.95	0.95
All Pedestrians		80	59.3	LOS E[12]			0.96	0.96

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.

12 Level of Service is worse than the Pedestrian Level of Service Target specified in the Parameter Settings dialog.

MOVEMENT SUMMARY

Site: PFS [PACIFIC / FALCON / SHIRLEY - EXISTING AM + GROWTH]

Network: N101 [FIVE WAYS Existing AM + GROWTH]

PACIFIC / FALCON / SHIRLEY - EXISTING AM + GROWTH
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)
Design Life Analysis (Final Year): Results for 10 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: PACIFIC HIGHWAY														
1	L2	197	11.2	197	11.2	0.166	15.1	LOS B	3.2	24.2	0.39	0.68	0.39	31.7
2	T1	747	9.5	747	9.5	0.888	65.1	LOS E[11]	15.9	120.0	1.00	0.99	1.15	14.2
Approach		944	9.8	944	9.8	0.888	54.7	LOS D[11]	15.9	120.0	0.87	0.92	1.00	16.0
East: FALCON STREET														
4	L2	14	38.5	14	38.5	0.986	80.9	LOS F[11]	10.8	80.0	1.00	1.08	1.30	4.4
5	T1	312	4.3	312	4.3	0.986	75.8	LOS F[11]	10.8	80.0	1.00	1.08	1.30	11.4
6	R2	549	10.3	549	10.3	0.986	78.9	LOS F[11]	10.8	80.0	1.00	1.03	1.31	10.9
Approach		875	8.6	875	8.6	0.986	77.8	LOS F[11]	10.8	80.0	1.00	1.05	1.30	11.0
North: PACIFIC HIGHWAY														
7	L2	434	9.7	434	9.7	0.964	95.4	LOS F[11]	27.4	207.4	1.00	1.08	1.41	7.2
8	T1	865	4.6	865	4.6	0.998	109.8	LOS F[11]	26.6	193.3	1.00	1.25	1.48	6.4
Approach		1300	6.3	1300	6.3	0.998	105.0	LOS F[11]	27.4	207.4	1.00	1.19	1.46	6.6
West: SHIRLEY ROAD														
10	L2	49	13.6	49	13.6	0.999	120.3	LOS F[11]	27.6	202.2	1.00	1.31	1.54	10.6
11	T1	516	4.5	516	4.5	0.999	115.3	LOS F[11]	27.6	202.2	1.00	1.28	1.54	6.2
12	R2	211	1.6	211	1.6	0.999	122.3	LOS F[11]	25.6	183.6	1.00	1.23	1.55	6.0
Approach		776	4.3	776	4.3	0.999	117.5	LOS F[11]	27.6	202.2	1.00	1.27	1.54	6.4
All Vehicles		3895	7.3	3895	7.3	0.999	89.2	LOS F[11]	27.6	207.4	0.97	1.11	1.33	9.1

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

11 Level of Service is worse than the Level of Service Target specified in the Parameter Settings dialog.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	149	69.6	LOS F[12]	0.6	0.6	0.97	0.97
P2	East Full Crossing	47	69.3	LOS F[12]	0.2	0.2	0.96	0.96
P3	North Full Crossing	77	69.3	LOS F[12]	0.3	0.3	0.96	0.96
P4	West Full Crossing	114	69.4	LOS F[12]	0.5	0.5	0.96	0.96
All Pedestrians		387	69.4	LOS F[12]			0.96	0.96

MOVEMENT SUMMARY

Site: PFS [PACIFIC / FALCON / SHIRLEY - EXISTING PM + GROWTH]

Network: N101 [FIVE WAYS Existing PM + GROWTH]

PACIFIC / FALCON / SHIRLEY - EXISTING PM + GROWTH
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 130 seconds (Network Practical Cycle Time)
Design Life Analysis (Final Year): Results for 10 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: PACIFIC HIGHWAY														
1	L2	587	0.6	587	0.6	0.957	58.0	LOS E[11]	17.1	120.0	1.00	0.98	1.21	15.1
2	T1	649	1.0	649	1.0	0.513	33.5	LOS C	10.2	71.8	0.80	0.68	0.80	22.6
Approach		1236	0.8	1236	0.8	0.957	45.1	LOS D[11]	17.1	120.0	0.89	0.82	0.99	18.3
East: FALCON STREET														
4	L2	14	0.0	14	0.0	0.971	85.8	LOS F[11]	11.3	80.0	1.00	1.19	1.38	4.3
5	T1	578	1.1	578	1.1	0.971	80.6	LOS F[11]	11.3	80.0	1.00	1.19	1.38	11.1
6	R2	450	4.4	450	4.4	0.816	54.0	LOS D[11]	11.0	80.0	0.98	0.91	1.06	14.6
Approach		1042	2.5	1042	2.5	0.971	69.2	LOS E[11]	11.3	80.0	0.99	1.07	1.25	12.2
North: PACIFIC HIGHWAY														
7	L2	342	3.6	342	3.6	0.695	47.1	LOS D[11]	11.6	84.0	0.93	0.85	0.93	12.9
8	T1	858	8.4	858	8.4	0.710	41.5	LOS C	14.6	109.6	0.94	0.82	0.94	14.3
Approach		1199	7.0	1199	7.0	0.710	43.1	LOS D[11]	14.6	109.6	0.94	0.83	0.94	13.9
West: SHIRLEY ROAD														
10	L2	50	2.2	50	2.2	0.966	93.6	LOS F[11]	18.7	132.3	1.00	1.19	1.47	13.1
11	T1	479	1.2	479	1.2	0.966	89.9	LOS F[11]	18.7	132.3	1.00	1.19	1.50	7.7
12	R2	101	0.0	101	0.0	0.966	99.1	LOS F[11]	14.3	100.5	1.00	1.20	1.55	7.3
Approach		629	1.1	629	1.1	0.966	91.7	LOS F[11]	18.7	132.3	1.00	1.19	1.51	8.1
All Vehicles		4106	3.1	4106	3.1	0.971	57.8	LOS E[11]	18.7	132.3	0.95	0.95	1.12	13.3

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

11 Level of Service is worse than the Level of Service Target specified in the Parameter Settings dialog.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	200	59.6	LOS E[12]	0.7	0.7	0.96	0.96
P2	East Full Crossing	58	59.3	LOS E[12]	0.2	0.2	0.96	0.96
P3	North Full Crossing	93	59.4	LOS E[12]	0.3	0.3	0.96	0.96
P4	West Full Crossing	172	59.6	LOS E[12]	0.6	0.6	0.96	0.96
All Pedestrians		523	59.5	LOS E[12]			0.96	0.96

MOVEMENT SUMMARY

Site: FA [FALCON / ALEXANDER - EXISTING AM + GROWTH + DEVT]

Network: N101 [FIVE WAYS Existing AM + GROWTH + DEVT]

FALCON / ALEXANDER - EXISTING AM + GROWTH + DEVT
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)
Design Life Analysis (Final Year): Results for 10 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: ALEXANDER STREET														
1	L2	65	3.4	65	3.4	0.433	50.4	LOS D[11]	6.5	48.0	0.85	0.75	0.85	7.2
2	T1	293	9.4	293	9.4	0.433	44.5	LOS D[11]	7.2	53.8	0.80	0.71	0.80	17.1
3	R2	45	0.0	45	0.0	0.433	49.8	LOS D[11]	7.2	53.8	0.77	0.68	0.77	16.9
Approach		403	7.4	403	7.4	0.433	46.0	LOS D[11]	7.2	53.8	0.81	0.71	0.81	15.7
East: FALCON STREET														
4	L2	375	5.0	375	5.0	0.954	71.8	LOS F[11]	37.8	279.6	1.00	1.10	1.31	9.5
5	T1	833	8.6	833	8.6	0.954	71.8	LOS F[11]	37.8	279.6	1.00	1.16	1.32	9.1
Approach		1208	7.5	1208	7.5	0.954	71.8	LOS F[11]	37.8	279.6	1.00	1.14	1.32	9.2
North: ALEXANDER STREET														
7	L2	14	15.4	14	15.4	0.088	45.2	LOS D[11]	1.2	9.3	0.74	0.63	0.74	21.4
8	T1	74	9.0	74	9.0	0.088	39.3	LOS C	1.6	11.8	0.75	0.59	0.75	14.7
Approach		88	10.0	88	10.0	0.088	40.2	LOS C	1.6	11.8	0.75	0.60	0.75	16.1
West: FALCON STREET														
10	L2	85	5.2	85	5.2	0.421	21.3	LOS B	10.8	80.0	0.60	0.58	0.60	28.7
11	T1	865	7.0	865	7.0	0.421	19.9	LOS B	10.8	80.0	0.70	0.65	0.70	28.0
Approach		951	6.9	951	6.9	0.421	20.0	LOS B	10.8	80.0	0.69	0.64	0.69	28.1
All Vehicles		2650	7.3	2650	7.3	0.954	48.3	LOS D[11]	37.8	279.6	0.85	0.88	1.00	14.4

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

11 Level of Service is worse than the Level of Service Target specified in the Parameter Settings dialog.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	48	69.3	LOS F[12]	0.2	0.2	0.96	0.96
P2	East Full Crossing	68	69.3	LOS F[12]	0.3	0.3	0.96	0.96
P3	North Full Crossing	63	69.3	LOS F[12]	0.3	0.3	0.96	0.96
P4	West Full Crossing	62	69.3	LOS F[12]	0.3	0.3	0.96	0.96
All Pedestrians		241	69.3	LOS F[12]			0.96	0.96

MOVEMENT SUMMARY

Site: FA [FALCON / ALEXANDER - EXISTING PM + GROWTH + DEVT]

Network: N101 [FIVE WAYS Existing PM + GROWTH + DEVT]

FALCON / ALEXANDER - EXISTING PM + GROWTH + DEVT
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Practical Cycle Time)
Design Life Analysis (Final Year): Results for 10 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: ALEXANDER STREET														
1	L2	34	12.9	34	12.9	0.891	87.2	LOS F [11]	8.7	65.3	1.00	0.94	1.20	4.3
2	T1	333	7.3	333	7.3	0.891	81.3	LOS F [11]	9.5	69.8	1.00	0.94	1.19	11.0
3	R2	30	0.0	30	0.0	0.891	86.5	LOS F [11]	9.5	69.8	1.00	0.94	1.18	10.8
Approach		397	7.2	397	7.2	0.891	82.2	LOS F [11]	9.5	69.8	1.00	0.94	1.19	10.4
East: FALCON STREET														
4	L2	424	2.1	424	2.1	0.898	34.2	LOS C	30.0	213.7	0.80	0.89	0.92	17.4
5	T1	1023	2.2	1023	2.2	0.898	31.6	LOS C	30.0	213.7	0.80	0.88	0.94	17.1
Approach		1448	2.1	1448	2.1	0.898	32.4	LOS C	30.0	213.7	0.80	0.88	0.93	17.2
North: ALEXANDER STREET														
7	L2	17	6.7	17	6.7	0.226	65.1	LOS E [11]	1.7	12.3	0.93	0.72	0.93	16.8
8	T1	76	5.8	76	5.8	0.226	59.3	LOS E [11]	1.9	13.7	0.93	0.71	0.93	10.7
Approach		93	6.0	93	6.0	0.226	60.3	LOS E [11]	1.9	13.7	0.93	0.72	0.93	12.0
West: FALCON STREET														
10	L2	82	1.4	82	1.4	0.277	13.2	LOS A	8.4	59.4	0.54	0.54	0.54	37.1
11	T1	736	2.0	736	2.0	0.277	10.6	LOS A	11.2	80.0	0.65	0.60	0.65	37.0
Approach		818	1.9	818	1.9	0.277	10.9	LOS A	11.2	80.0	0.64	0.60	0.64	37.0
All Vehicles		2755	2.9	2755	2.9	0.898	34.1	LOS C	30.0	213.7	0.79	0.80	0.88	18.4

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

11 Level of Service is worse than the Level of Service Target specified in the Parameter Settings dialog.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	13	64.2	LOS F [12]	0.0	0.0	0.96	0.96
P2	East Full Crossing	15	64.2	LOS F [12]	0.1	0.1	0.96	0.96
P3	North Full Crossing	16	64.2	LOS F [12]	0.1	0.1	0.96	0.96
P4	West Full Crossing	19	64.2	LOS F [12]	0.1	0.1	0.96	0.96
All Pedestrians		63	64.2	LOS F [12]			0.96	0.96

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

MOVEMENT SUMMARY

Site: PA [PACIFIC / ALEXANDER - EXISTING AM + GROWTH + DEVT]

Network: N101 [FIVE WAYS Existing AM + GROWTH + DEVT]

PACIFIC / ALEXANDER - EXISTING AM + GROWTH + DEVT
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)
Design Life Analysis (Final Year): Results for 10 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: PACIFIC HIGHWAY														
2	T1	1041	9.6	1041	9.6	0.452	4.1	LOS A	8.7	65.8	0.31	0.28	0.31	39.7
3a	R1	342	8.7	342	8.7	0.799	39.0	LOS C	11.1	83.6	0.71	0.79	0.79	10.7
Approach		1383	9.4	1383	9.4	0.799	12.7	LOS A	11.1	83.6	0.41	0.41	0.43	23.3
NorthEast: ALEXANDER STREET														
24a	L1	360	6.4	360	6.4	0.328	22.4	LOS B	9.3	69.1	0.64	0.74	0.64	21.7
26b	R3	63	3.5	63	3.5	0.793	88.5	LOS F[11]	3.2	22.7	1.00	0.89	1.25	4.2
Approach		423	6.0	423	6.0	0.793	32.2	LOS C	9.3	69.1	0.69	0.77	0.73	16.3
North: PACIFIC HIGHWAY														
7b	L3	45	0.0	45	0.0	0.821	18.6	LOS B	10.8	82.9	0.54	0.52	0.55	23.0
8	T1	1390	12.0	1390	12.0	0.821	25.3	LOS B	15.5	120.0	0.67	0.62	0.69	22.3
Approach		1436	11.6	1436	11.6	0.821	25.1	LOS B	15.5	120.0	0.67	0.61	0.68	22.3
All Vehicles		3242	9.9	3242	9.9	0.821	20.7	LOS B	15.5	120.0	0.56	0.55	0.58	21.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

11 Level of Service is worse than the Level of Service Target specified in the Parameter Settings dialog.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	47	69.3	LOS F[12]	0.2	0.2	0.96	0.96
P3	North Full Crossing	21	69.2	LOS F[12]	0.1	0.1	0.96	0.96
All Pedestrians		68	69.2	LOS F[12]			0.96	0.96

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.

12 Level of Service is worse than the Pedestrian Level of Service Target specified in the Parameter Settings dialog.

MOVEMENT SUMMARY

Site: PA [PACIFIC / ALEXANDER - EXISTING PM + GROWTH + DEVT]

Network: N101 [FIVE WAYS Existing PM + GROWTH + DEVT]

PACIFIC / ALEXANDER - EXISTING PM + GROWTH + DEVT
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Practical Cycle Time)
Design Life Analysis (Final Year): Results for 10 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: PACIFIC HIGHWAY														
2	T1	1231	6.6	1231	6.6	0.708	8.0	LOS A	11.5	84.7	0.49	0.45	0.49	29.7
3a	R1	356	8.1	356	8.1	0.818	37.8	LOS C	11.4	84.9	0.70	0.82	0.82	10.9
Approach		1587	7.0	1587	7.0	0.818	14.7	LOS B	11.5	84.9	0.53	0.53	0.56	21.2
NorthEast: ALEXANDER STREET														
24a	L1	334	4.0	334	4.0	0.842	70.3	LOS E[11]	10.9	78.9	1.00	0.91	1.14	9.5
26b	R3	128	0.0	128	0.0	0.842	66.1	LOS E[11]	9.2	65.4	1.00	0.89	1.13	5.5
Approach		462	2.9	462	2.9	0.842	69.2	LOS E[11]	10.9	78.9	1.00	0.90	1.14	8.5
North: PACIFIC HIGHWAY														
7b	L3	40	0.0	40	0.0	0.831	41.9	LOS C	11.3	82.5	0.89	0.80	0.93	10.8
8	T1	928	5.5	928	5.5	0.831	37.5	LOS C	12.5	91.3	0.91	0.80	0.94	17.2
Approach		968	5.3	968	5.3	0.831	37.7	LOS C	12.5	91.3	0.91	0.80	0.94	17.0
All Vehicles		3017	5.8	3017	5.8	0.842	30.4	LOS C	12.5	91.3	0.72	0.67	0.77	15.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

11 Level of Service is worse than the Level of Service Target specified in the Parameter Settings dialog.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P6	NorthEast Full Crossing	63	64.3	LOS F[12]	0.2	0.2	0.96	0.96
P3	North Full Crossing	16	64.2	LOS F[12]	0.1	0.1	0.96	0.96
All Pedestrians		80	64.3	LOS F[12]			0.96	0.96

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.

12 Level of Service is worse than the Pedestrian Level of Service Target specified in the Parameter Settings dialog.

MOVEMENT SUMMARY

Site: PFS [PACIFIC / FALCON / SHIRLEY - EXISTING AM + GROWTH+ DEVT]

Network: N101 [FIVE WAYS Existing AM + GROWTH + DEVT]

PACIFIC / FALCON / SHIRLEY - EXISTING AM + GROWTH + DEVT
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)
Design Life Analysis (Final Year): Results for 10 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: PACIFIC HIGHWAY														
1	L2	197	11.2	197	11.2	0.166	15.1	LOS B	3.2	24.2	0.39	0.68	0.39	31.7
2	T1	747	9.5	747	9.5	0.863	65.3	LOS E[11]	15.9	120.0	1.00	0.96	1.11	14.2
Approach		944	9.8	944	9.8	0.863	54.8	LOS D[11]	15.9	120.0	0.87	0.90	0.96	16.0
East: FALCON STREET														
4	L2	14	38.5	14	38.5	1.013	97.4	LOS F[11]	10.8	80.0	1.00	1.14	1.38	3.7
5	T1	323	4.1	323	4.1	1.013	92.2	LOS F[11]	10.8	80.0	1.00	1.14	1.38	9.7
6	R2	563	10.0	563	10.0	1.013	94.1	LOS F[11]	10.8	80.0	1.00	1.07	1.39	9.4
Approach		900	8.4	900	8.4	1.013	93.5	LOS F[11]	10.8	80.0	1.00	1.10	1.39	9.4
North: PACIFIC HIGHWAY														
7	L2	434	9.7	434	9.7	0.952	88.4	LOS F[11]	26.4	199.8	1.00	1.06	1.37	7.7
8	T1	881	4.5	881	4.5	1.028	126.7	LOS F[11]	29.6	215.6	1.00	1.34	1.59	5.5
Approach		1315	6.2	1315	6.2	1.028	114.0	LOS F[11]	29.6	215.6	1.00	1.25	1.52	6.1
West: SHIRLEY ROAD														
10	L2	49	13.6	49	13.6	1.031	139.5	LOS F[11]	30.0	219.8	1.00	1.39	1.65	9.3
11	T1	516	4.5	516	4.5	1.031	134.4	LOS F[11]	30.0	219.8	1.00	1.36	1.66	5.3
12	R2	222	1.5	222	1.5	1.031	141.3	LOS F[11]	27.8	199.3	1.00	1.29	1.67	5.2
Approach		787	4.2	787	4.2	1.031	136.7	LOS F[11]	30.0	219.8	1.00	1.35	1.66	5.5
All Vehicles		3946	7.2	3946	7.2	1.031	99.7	LOS F[11]	30.0	219.8	0.97	1.15	1.38	8.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

11 Level of Service is worse than the Level of Service Target specified in the Parameter Settings dialog.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	149	69.6	LOS F[12]	0.6	0.6	0.97	0.97
P2	East Full Crossing	47	69.3	LOS F[12]	0.2	0.2	0.96	0.96
P3	North Full Crossing	77	69.3	LOS F[12]	0.3	0.3	0.96	0.96
P4	West Full Crossing	114	69.4	LOS F[12]	0.5	0.5	0.96	0.96
All Pedestrians		387	69.4	LOS F[12]			0.96	0.96

MOVEMENT SUMMARY

Site: PFS [PACIFIC / FALCON / SHIRLEY - EXISTING PM + GROWTH + DEVT]

Network: N101 [FIVE WAYS Existing PM + GROWTH + DEVT]

PACIFIC / FALCON / SHIRLEY - EXISTING PM + GROWTH + DEVT
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Practical Cycle Time)
Design Life Analysis (Final Year): Results for 10 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: PACIFIC HIGHWAY														
1	L2	587	0.6	587	0.6	0.984	71.5	LOS F [11]	17.1	120.0	1.00	1.01	1.28	12.9
2	T1	649	1.0	649	1.0	0.527	37.0	LOS C	10.7	75.7	0.79	0.68	0.79	21.2
Approach		1236	0.8	1236	0.8	0.984	53.4	LOS D [11]	17.1	120.0	0.89	0.84	1.02	16.3
East: FALCON STREET														
4	L2	14	0.0	14	0.0	0.993	95.6	LOS F [11]	11.3	80.0	1.00	1.19	1.37	3.9
5	T1	589	1.1	589	1.1	0.993	90.4	LOS F [11]	11.3	80.0	1.00	1.19	1.37	10.1
6	R2	459	4.3	459	4.3	0.833	57.6	LOS E [11]	11.0	80.0	0.98	0.90	1.04	13.9
Approach		1062	2.5	1062	2.5	0.993	76.3	LOS F [11]	11.3	80.0	0.99	1.06	1.23	11.3
North: PACIFIC HIGHWAY														
7	L2	342	3.6	342	3.6	0.769	55.0	LOS D [11]	13.5	97.1	0.97	0.89	1.02	11.4
8	T1	874	8.2	874	8.2	0.848	55.6	LOS D [11]	19.0	142.4	1.00	0.98	1.12	11.4
Approach		1216	6.9	1216	6.9	0.848	55.4	LOS D [11]	19.0	142.4	0.99	0.95	1.09	11.4
West: SHIRLEY ROAD														
10	L2	50	2.2	50	2.2	0.977	103.4	LOS F [11]	21.2	149.7	1.00	1.22	1.48	12.1
11	T1	479	1.2	479	1.2	0.977	99.9	LOS F [11]	21.2	149.7	1.00	1.22	1.51	7.0
12	R2	114	0.0	114	0.0	0.977	109.8	LOS F [11]	15.9	112.3	1.00	1.22	1.56	6.7
Approach		642	1.0	642	1.0	0.977	102.0	LOS F [11]	21.2	149.7	1.00	1.22	1.51	7.4
All Vehicles		4156	3.1	4156	3.1	0.993	67.3	LOS E [11]	21.2	149.7	0.96	0.99	1.17	11.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

11 Level of Service is worse than the Level of Service Target specified in the Parameter Settings dialog.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	200	64.7	LOS F [12]	0.8	0.8	0.97	0.97
P2	East Full Crossing	58	64.3	LOS F [12]	0.2	0.2	0.96	0.96
P3	North Full Crossing	93	64.4	LOS F [12]	0.4	0.4	0.96	0.96
P4	West Full Crossing	172	64.6	LOS F [12]	0.7	0.7	0.96	0.96
All Pedestrians		523	64.5	LOS F [12]			0.96	0.96