



643 Hunter Street, Newcastle West Traffic Impact Assessment

Prepared for:
Next Level Seven Pty Ltd

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The Transport Planning Partnership

643 Hunter Street, Newcastle West

Traffic Impact Assessment

Client: Next Level Seven Pty Ltd

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1 Introduction

1.1 Background

The Transport Planning Partnership (TPPP) has been engaged by Next Level Seven Pty Ltd to undertake a traffic impact assessment (TIA) for a proposed mix-used development at 643 Hunter Street, Newcastle West. The findings of the assessment are presented in this TIA report and will accompany a Development Application (DA) to Newcastle City Council.

The development site currently has an approved DA (SA2016/00564) for a 14-storey mixed-use development comprising 120 residential apartments, ground floor commercial lots, and two levels of basement parking. This DA was modified in 2018 to provide additional car parking on-site (DA2016/00564.03). Condition 9 of the modified DA approval applies to the parking provision on-site, and states the following:

"Condition 9

On-site parking accommodation is to be provided for a maximum of 156 cars, 7 motorcycles and 125 bicycles (Class 2) out of which a minimum of 6 car spaces including a designated service vehicle space is to be allocated for the commercial premises, 1 car parking space is to be allocated as service/delivery/emergency parking bay, a minimum of 10 spaces is to be allocated and delineated as visitor car parking. This parking is to be set out generally in accordance with the minimum parking layout standards indicated in Element 7.03 'Traffic, Parking and Access' of Council's adopted Newcastle Development Control Plan 2012 and the plans submitted with the development application. Full details are to be included in documentation for a Construction Certificate application"

A new DA is proposed for this site, known as Watervue, which consists of a 20-storey tower building having 106 residential apartments, four ground floor commercial lots, and four levels of basement/ground level parking.

1.2 Purpose of this Report

This TIA has been prepared to support the new DA submission to Newcastle City Council. The purpose of the TIA is to assess the traffic and parking impacts likely to be generated by the proposed development, and propose mitigation measures were required to alleviate such impacts on the surrounding network.

1.3 Agency Response

Following submission of the DA, Transport for NSW (TfNSW) submitted a request that the TIA be updated to include details as follows:

“Current traffic counts for all relevant traffic routes and relevant intersections, including connections to the classified (State) road network.

- *The distribution on the road network of the trips generated by the proposed development. It is requested that the predicted traffic flows are shown diagrammatically to a level of detail sufficient for easy interpretation.*
- *Traffic analysis of any major / relevant intersections impacted, using SIDRA or similar traffic model, including:*
 - *Current traffic counts and 10 year traffic growth projections*
 - *With and without development scenarios*
 - *95th percentile back of queue lengths*
 - *Delays and level of service on all legs for the relevant intersections*
 - *Electronic data for TfNSW review.”*

The additional traffic modelling and analysis requirements have been addressed in Chapter 5 of this report.

2 Existing Conditions

2.1 Site Location

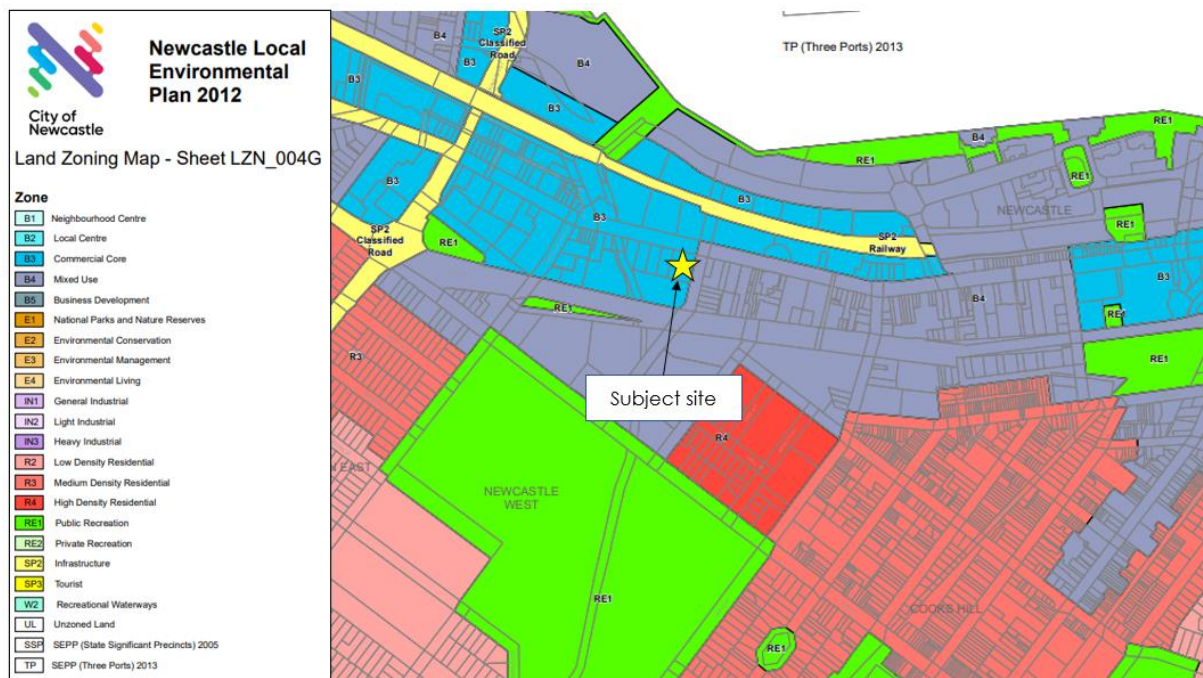
The proposed development will be located at 643 Hunter Street, Newcastle West (DP 1166015 Lot 1) which is zoned as 'B3 Commercial Core' (Figure 2.1). The surrounding land uses include commercial/ offices, restaurants, hotels, and health and tertiary education including the Newcastle Community Health Centre and TAFE NSW Hunter Street campus. Further north, about 150 m is the Honeysuckle Waterfront and Marina Precinct.

The subject site is located on the corner of Hunter Street and Steel Street. The site is currently unoccupied by permanent buildings or structures. The existing site vehicular access driveway is located off Steel Street. Along the southern and western boundaries are neighbouring sites; a Travelodge Hotel and a proposed 8-storey commercial development which has an approved DA.

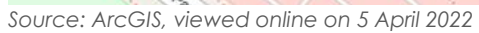
Time-restricted on-street parking is permitted along the site frontage on Hunter Street and Steel Street. On Hunter Street, the kerbside parking lanes were recently converted to a bicycle lane as part of the Hunter Street Trial Cycleway project which was opened in September 2021.

A map showing the subject site and surrounds is provided in Figure 2.2.

Figure 2.1: Land Zoning Map



Source: Planning Portal NSW



2.2 Surrounding Road Network

Recent aerial imagery of the site and the surrounding road network is presented in Figure 2.3 while a description of the local streets is provided below.

Hunter Street is a local street that runs east-west street along the northern boundary of the subject site. It is a two-way, four-lane street with restricted on-street parking, taxi zones and kerbside restricted loading zones. The marked speed limit is 40 km/h in the vicinity of the subject site. There is a bicycle lane provided on both sides of Hunter Street between the footpath and parking lane. A buffer zone is provided between the parking lane and cycle lane.

Steel Street is a two-way, two-lane local street which runs in the north-south direction alongside the eastern boundary of the subject site. Restricted 2P ticketed on-street parking is permitted provided on the west side of the street (along the site frontage). In the vicinity of the subject site, Steel Street intersects Hunter Street at traffic signals.

King Street is a two-way, four-lane local street that is located south of the subject site. The street has an east-west configuration and intersects with Steel Street at traffic signals. Opposing travel lanes are separated by a wide central median. Restricted 2P ticketed on-street parking is permitted on both sides of the street. King Street has a posted speed limit of 40 km/h.

Honeysuckle Drive has been under an ongoing urban transformation; over 50 hectares of former industrial, maritime land is now a centre for entertainment, tourism, employment, and recreation on the edge of Newcastle Harbour. Honeysuckle Drive is a two-way, two-lane local street with opposing travel lanes separated by a wide central median. There is a bi-directional cycleway on the north side of the road. The marked speed limit on Honeysuckle Drive is 30 km/h.

Figure 2.3: Surrounding Road Network



Source: Nearmap aerial imagery, dated 1 February 2022

2.3 Public Transport

The site location is within close proximity to key public transport infrastructure, including bus stops on Hunter Street, Newcastle Interchange train station, Honeysuckle light rail stop, and Newcastle Ferry Terminal (Queens Wharf). Further detail of the nearby public transport is provided hereafter.

Bus Services

Bus stops within 400 m walking distance of the site include the following:

- King Street at Nation Park Street (Stop ID: 230253), and King Street after Nation Park Street (Stop ID: 230252).
- Hunter Street at Steel Street (Stop ID: 230214), and Hunter Street after Steel Street (Stop ID: 230222).
- Hunter Street after Bellevue Street (Stop ID: 230226).
- Steel Street opposite Marketown Shopping Centre (Stop ID: 230254).

A description of the bus routes is provided in Table 2.1.

Table 2.1: Bus Routes

Route No.	Route Description	Weekday AM Peak Frequency	Weekday PM Peak Frequency	Off-peak Frequency
10x	Newcastle Interchange to Charlestown (Express Service)	1 every 30 mins	1 every 20-30 mins	This service does not operate outside weekday peak hours
11	Newcastle to Charlestown via Jesmond	1 every 15 mins	1 every 15 mins	1 every 30 mins
12	Merewether Beach to Maryland via Wallsend and Newcastle Interchange	1 every 15 minutes between 7:10am and 7:25pm		1 every 30 mins before 8:56pm on weekdays and before 7:50pm weekends/ public holidays. 1 every hour outside of these times
13	Glendale to Newcastle via Cardiff & John Hunter Hospital	1 every 15 mins	1 every 15 mins	1 every 30 mins
22	Charlestown to Newcastle West via Merewether	1 every 25-35 mins	1 every 20-30 mins	1 every hour
23	Wallsend to Newcastle East via Lambton & Newcastle Interchange	1 every 20-30 mins	1 every 30 mins	1 every hour
24	Marketown to Wallsend via Mayfield	1 every 30-40 mins	1 every 30-35 mins	1 every hour
26	Newcastle West to Wallsend via Newcastle Interchange & Kotara	1 every 25-30 mins	1 every 30 mins	1 every hour
28	Mount Hutton to Newcastle West via Broadmeadow & Newcastle Interchange	1 every 30 mins	1 every 30-35 mins	1 every hour
47	Marketown to Jesmond via Warabrook	1 every hour	1 every hour	1 every hour
138	Lemon Tree Passage to Newcastle Interchange via Airport	Only 4 bus trips in the AM peak	Only 4 bus trips in the PM peak	This service does not operate outside weekday peak hours
55N	Stockton to Newcastle	Night-rider service operates once per night on Friday and Saturday.		

Light Rail (SR2 line)

The Newcastle light rail is constructed and began operating in 2019 with the purpose to provide public transport along the east-west corridor between Newcastle Interchange and Newcastle East. Honeysuckle light rail station is within 600 m walking distance from the site.

Light rail services typically run every 7-8 minutes during the day-time between 7:00am and 7:30pm Monday to Saturday, and every 15 minutes outside of this period. Services from Crown Street to Newcastle Interchange cease at 12:50 am on Friday and Saturday nights.

Trains

Newcastle Interchange is located within 600 m walking distance from the site. Train services available at this station are:

- Newcastle Interchange to Central via Strathfield or Gordon (CCN)
- Newcastle Interchange to Telarah/Scone or Dungog (HUN).

A description of the train services is provided in Table 2.2.

Table 2.2: Train Routes

Route No.	Route Description	Weekday AM Peak Frequency	Weekday PM Peak Frequency	Off-peak Frequency
CCN	Newcastle to Central via Strathfield or Gordon	From Newcastle Interchange: 1 every 30 mins From Central Station: 1 every 15 mins	From Newcastle Interchange: 1 every 30 mins From Central Station: 1 every 15 mins	1 every hour
HUN	Newcastle to Newcastle Interchange to Telarah	1 every 20 minutes	1 every 20 minutes	1 every hour

The Central Coast and Newcastle line runs from Central Station in Sydney and terminates at Newcastle Interchange. Standard services typically run every hour with express services provided every hour between. Services to Sydney terminate at approximately 11:30pm on Friday and Saturday nights.

The Hunter line runs from either Scone or Dungog to Newcastle Interchange. Services are typically provided every 15-60 mins with services to Telarah terminating from Newcastle Interchange at 12:18am (Saturday morning).

Ferries

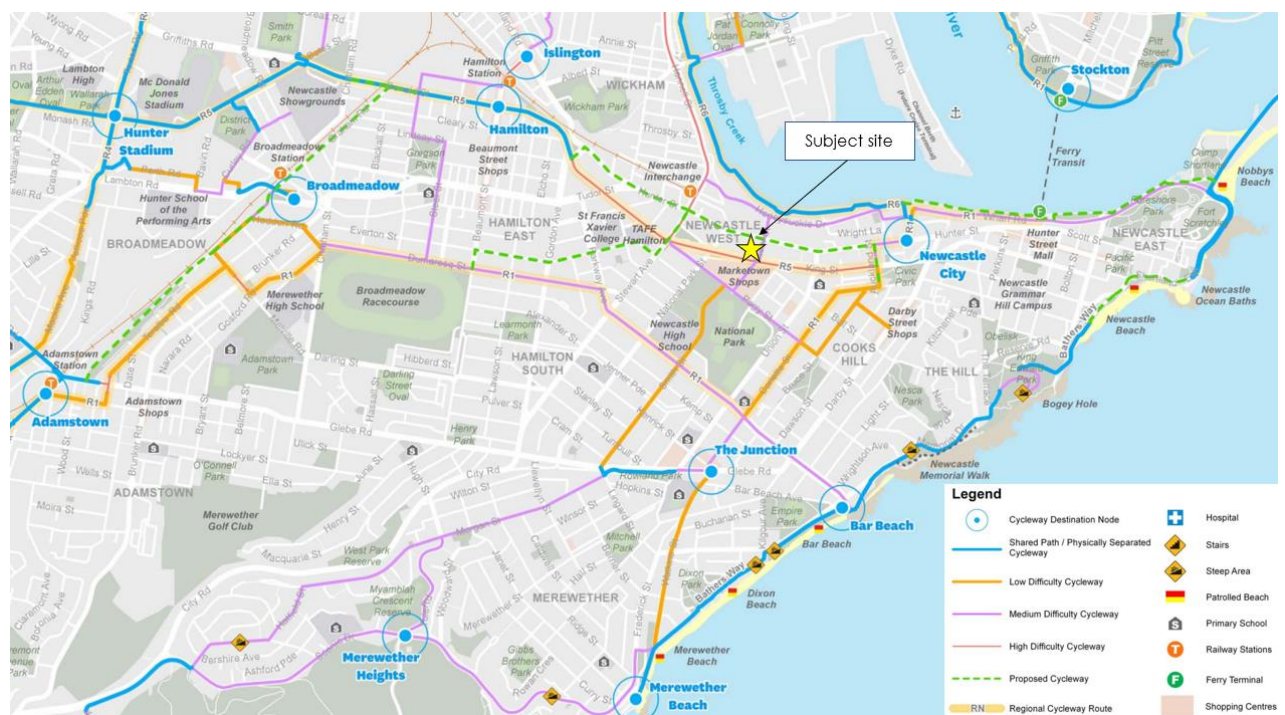
Newcastle Ferry Terminal (Queens Wharf) is located approximately 1.8 km from the site. Ferry services primarily provide a north-south connection between Newcastle (in the south) and Stockton (to the north).

2.4 Pedestrian and Cyclist Infrastructure

Transformation of the Honeysuckle precinct and surrounds has enabled greater opportunity for walking and cycling in the vicinity of the site. Within close proximity of the site and throughout the Newcastle West business district, there are wide pedestrian footpaths, kerb ramps and marked pedestrian crossings provided at signalised intersections.

In the vicinity of the site, cycling is accommodated on Hunter Street, Steel Street, and Honeysuckle Drive. Separated cycleways are provided on Hunter Street and Honeysuckle Drive. A map of the surrounding cycleway infrastructure (existing and proposed) is shown in Figure 2.4. Although Hunter Street cycleway is denoted as a 'proposed cycleway', the 12-month cycleway trial begun in September 2021. In the future, the Hunter Street cycleway is proposed to extend further west towards Hamilton.

Figure 2.4: Cycleway Map



Source: Newcastle City Council, viewed online on 5 April 2022

2.5 Public Parking

On-street parking is permitted on surrounding Streets including Hunter Street, Steel Street, and King Street. On-street parking is restricted to 2P (ticket) between 9:00am - 5:00pm on weekdays and 9:00am - 12:00pm on Saturday.

Multiple off-street parking facilities are provided within the walking distance of the site. An extract of the Newcastle City Council car parking map showing car parks located within a 10-minute walk of the site is presented in Figure 2.5.

Figure 2.5: Newcastle Off-Street Parking Map



Source: Newcastle City Council, viewed online on 5 April 2022

3 Proposed Development

3.1 Development Yield

The current approved DA on the site is for a mixed-use development containing:

- 120 residential apartments as follows:
 - 33 one-bedroom apartments
 - 77 two-bedroom apartments
 - 10 three-bedroom apartments.
- 358.5 sqm of commercial floor space
- 156 car parking spaces, including 3 accessible spaces, plus 7 motorcycle spaces and 125 bicycle spaces.

The proposed development will contain the following:

- 106 residential apartments as follows:
 - 29 one-bedroom apartments
 - 45 two-bedroom apartments
 - 32 three-bedroom apartments.
- Four ground-floor commercial lots having a total gross floor area of 708.5 sqm.
- 172 car parking spaces, including one accessible space, plus 9 motorcycle spaces and 121 bicycle spaces.

Overall, there has been reductions in the number of one-bedroom and two-bedroom apartments, and an increase in the number of three-bedroom apartments and commercial floor area (350 sqm).

3.2 Access and Layout

The vehicular access driveway would be located off Steel Street, roughly in the same location as the existing site driveway. The driveway would accommodate two-way flow separated by a raised median with an intercom.

There would be four level of parking in beneath the building. There would also be residential storage cages and waste rooms provided in the basement levels.

3.3 Waste Collection

As consulted between the project architect, Stewart Architecture, and City of Newcastle's Regulatory, Planning & Assessment team, Council would not support a large number of bins being located kerbside "waiting for collection". An appropriate alternative would be to provide an on-site bin presentation point near the development boundary from which a wheel-out / wheel-back service can be conducted. The collection vehicle parks in a suitable location on-street, collection operators move the bins from the bin presentation point, empty the bins and return the bins to the bin presentation point.

The bin presentation point within the proposed development would be closest to the egress driveway which is accessed via Steel Street.

The Waste Management Plan for the development contains the full details of the waste storage and collection operation.

4 Parking Assessment

4.1 Parking Rates

The on-site car parking requirements for the proposed development are defined in the Newcastle Development Control Plan (DCP) 2012, and are as follows:

Car Parking

Except for residential development, car parking for development in the City Centre is provided at the rate of one space per 60 m2 gross floor area.

For residential development:

- *Small (<75 m2 or 1 bedroom) average 0.6 spaces per dwelling*
- *Medium (75 m2 – 100 m2 or 2 bedrooms) average 0.9 spaces per dwelling*
- *Large (>100 m2 or 3 bedrooms) average 1.4 spaces per dwelling*
- *1 space for the first 3 dwellings plus 1 space for every 5 thereafter or part thereof for visitors.*

For commercial:

- *1 space per 60 m2 GFA.*

Bicycle and Motorcycle Parking

Residential:

- *1 motorbike space per 20 car spaces.*
- *Bike parking of 1 space per dwelling is required unless separate storage is provided (Council determine the required class of security) plus 1 space per 10 dwellings (Class 3) for visitors.*

Non-residential:

- *Motorcycle Parking – 1 space per 20 car spaces.*
- *Bicycle Parking - 1 space per 200 m2 GFA (Class 2).*

For accessible parking, the DCP specifies that it should be provided in accordance with the Building Code of Australia (BCA). For non-residential uses (specifically a Class 5 building), the BCA accessible parking rate stipulates a rate of “one space for every 100 carparking spaces or part thereof”.

Based on the above, the parking requirements for the proposed development is calculated as presented in the following sections.

4.2 Parking Requirements

Using the parking rate for “small, medium, and large” apartments based on areas as per the DCP, the car parking requirement is calculated shown in Table 4.1.

It is noted that the number of small, medium, and large units does not directly correlate with the number of one-, two-, and three-bedroom apartments as the apartments have been designed to be generously sized. The number of apartments in each classification is presented in Table 4.1.

In total, it is required to provide 145 car parking spaces for the residential component of the development (123 spaces for residents and 22 spaces for visitors), and 12 car parking spaces for the commercial use.

Table 4.1: Car Parking Requirement

Unit Size	Rate	No. of Units or GFA	No. of Parking Spaces Required
Residential			
Small (<75m ²)	0.6 spaces per dwelling	14	8.4 spaces
Medium (75m ²)	0.9 spaces per dwelling	29	26.1 spaces
Large (>100m ²)	1.4 spaces per dwelling	63	88.2 spaces
Visitor	1 space for the first 3 dwellings plus 1 space for every 5 thereafter or part thereof	106 (total no. of units)	22 spaces
Non-Residential			
Commercial	1 space per 60 m ² GFA.	708.5 sqm	12 spaces
Total			157 spaces

For non-residential uses, there would be a requirement to provide one accessible space on the ground floor of the proposed development car park. It is understood that there are no adaptable living units as part of the proposed development. Therefore, accessible parking for residential units would not be required.

For motorcycles, it would be required to provide parking in-line with Table 4.2 for the proposed development. Namely, 7 resident/ visitor spaces, and 1 commercial space.

Table 4.2: Motorcycle Parking Requirement

Class	Rate	No. of Car Spaces (from Table 4.1)	No. of Parking Spaces Required
Residential			
Residents and visitors	1 space per 20 car spaces	145 car spaces	7.3, rounded to 7 spaces
Non-Residential			
Commercial	1 space per 20 car spaces	11.8 car spaces	0.6, rounded to 1 space

For bicycle parking, it would be required to provide parking in-line with Table 4.3; that is, a total of 110 spaces as Class 2 for residents and commercial use, and 11 spaces as Class 3 for visitors.

Table 4.3: Bicycle Parking Requirement

Class	Rate	No. of Units or GFA	No. of Parking Spaces Required
Residential			
Residents (Class 2)	1 space per dwelling	1 space per dwelling	106 spaces
Visitor (Class 3)	1 space per 10 dwellings	1 space per 10 dwellings	10.6, rounded to 11 spaces
Non-Residential			
Commercial (Office) (Class 2)	1 space per 200 m2 GFA.	708.5 sqm	3.5, rounded to 4 spaces

According to the Newcastle DCP 2012 the proposed development would be required to provide parking on-site as follows:

- 157 car parking spaces i.e. 123 resident spaces, 22 visitor spaces, and 12 commercial spaces,
- 8 motorcycle parking spaces, and
- 121 bicycle parking spaces.

4.3 Development Parking Provision

It is intended to provide parking for the proposed development as follows:

- 172 car parking spaces i.e. 152 resident spaces, 8 visitor spaces, and 12 commercial spaces.
- 9 motorcycle parking spaces, and
- 121 bicycle parking spaces.

It is noted that the DCP rates for the Newcastle City Centre are neither minimum nor maximum rates, but rather recommended rates. It is considered that deviations from the recommended rates need to consider the objectives of the DCP and justify the reasons for deviations.

It is concluded that the proposed car parking provisions are generally consistent with the DCP while there are deviations from DCP rates. However, in considering the parking provision for the proposed development, and DA and Modification Application for the site previously, it is important to consider further factors which would result in a variable parking provision. Such factors include the following:

1. Whilst reducing on-site car parking for developments located in the Newcastle City Centre area can be a strategy to increase public transport usage, it does not necessarily reduce resident car ownership. As previously accepted by Council, car ownership in Newcastle is at a rate of 2.5 cars per household. Therefore, restricting on-site car parking within residential developments results in an increased off-site parking demand, such as on surround streets and within nearby public car parks.

According to Newcastle Council's *2021-2030 On the street A plan to better manage parking in the Newcastle LGA* publication, the car driver mode share comprised 57.2% of all trips made in 2018/2019. Specifically for journey to work, 72.3% of trips were made by car, either as the driver or passenger. Despite there being greater public transport options available, the demand for car transportation is still relatively high.

2. Further to the above, on-street parking in the vicinity is time-restricted during the day. Whilst residents may use public transport to travel to/from work, studies etc. on a daily basis, residents will still own a car which will need to be parked somewhere during the day. Generally, this is observed in the residential areas of Cooks Hill which already has a significant on-street parking demand due to many residencies in the area being older residences providing no on-site parking. Therefore, limiting on-site car parking for residential developments in the Newcastle City Centre area would result in greater on-street parking demand.

As mentioned above, the availability of unrestricted on-street parking within the site's vicinity is limited. Surrounding on-street parking offers 2-hour ticketed (paid) parking between 9am-5pm Monday to Friday and 9am-12pm on Saturday. The proposed development provides sufficient parking provisions for the future demands generated by the development whilst promoting green travel with provision of bicycle spaces.

3. The alternative to on-street parking would be to utilise long-term public car parks which offer free parking that is not time-restricted. Whilst there are several car parks within appropriate walking distance of the site, these car parks provide time-restricted and ticketed parking which would not be practical for residents to use on a daily basis and for extended periods of time.
4. Notwithstanding the above, restricting of visitor parking on-site would be a valid strategy to reduce vehicle trips to the site and encourage public transport usage as visitors can plan their journey and travel mode if it is known that on-site visitor parking is limited. The current approved DA was accepted at a rate of 10 visitor car parking spaces when the DCP requirement for development (comprising 120 units) would have been for 25 visitor spaces. This generates a discounted visitor parking rate of 0.4 spaces per DCP visitor parking space. Applying this rate to the proposed development, the visitor parking provision would be discounted from 22 spaces to 9 spaces. It is proposed to provide 8 visitor parking spaces on ground floor. This is one space less than the discounted visitor parking provision, notwithstanding, it would not be expected to cause an adverse impact of the visitor parking needs of the proposed development.

On the above basis, it is deemed suitable to limit visitor parking rather than limit resident parking within the proposed development. As part of the current approved DA, an amendment to the DCP parking rates was justified; namely, the recommended amended rates were 2 car parking spaces per equivalent "large" sized unit, and 1 car space per equivalent "small" and "medium" sized units. Applying these rates to the proposed development would generate a parking provisions for 43 spaces (for small and medium sized units) plus 126 spaces (for large sized units), giving a total of 169 resident parking spaces. It is proposed to provide 152 resident parking spaces, therefore, it is proposed to provide parking at a rate between the DCP rates and former-approved amended rates.

As per Section 7.03.02 of the Newcastle DCP 2012, car parking rates can be varied subject to merit assessment of the proposal. In this case, the parking provision has been assessed to adequately accommodate the future car parking demands of proposed development whilst aligning with the controls of the DCP, namely:

"(h) availability and accessibility of public parking facilities in the vicinity of the proposed development

(i) the availability of kerb-side parking opportunities in the vicinity of the proposed development."

As a justified variation to the Newcastle DCP 2012 car parking rates, which would require a parking provision of 152 car parking spaces, the proposed development would provide 172 parking spaces which would sufficiently accommodate the parking demand of the future development of the site.

5 Traffic Impact Assessment

5.1 Trip Generation

TfNSW's Guide to Traffic Generating Developments and Technical Directions (TDT 2013/04a) have been used to estimate the traffic impacts of the proposed development.

For high density residential flat dwellings in regional areas (outside of Sydney), the average peak hourly and daily trip generation rates are:

- AM peak hour: 0.53 trips per unit
- PM peak hour: 0.32 trips per unit.
- Daily: 4.58 trips per unit.

For office and commercial premises, the peak hourly and daily trip generation rates are:

- Peak hourly: 2 trips per 100 m² GFA
- Daily: 10 trips per 100 m² GFA.

The current approved DA was for 120 residential units and 358.5 m² of commercial space while the proposed development is for 106 residential units and 708.5 m² of commercial space. The number of trips estimated to be generated in each case is presented in Table 5.1.

Table 5.1: Trip Generation – Approved DA

Use	AM Peak Hour Trips	PM Peak Hour Trips	Daily Trips
Approved DA			
Residential: 120 units	$120 * 0.53 = 64$ trips	$120 * 0.32 = 38$ trips	$120 * 4.58 = 550$ trips
Office/ Commercial: 358.5 m ² GFA	$(358.5 / 100) * 2 = 7$ trips	$(358.5 / 100) * 2 = 7$ trips	$(358.5 / 100) * 10 = 36$ trips
Whole Development	71 trips	45 trips	586 trips
Proposed Development			
Residential: 106 units	$106 * 0.53 = 56$ trips	$106 * 0.32 = 34$ trips	$106 * 4.58 = 485$ trips
Office/ Commercial: 708.5 m ² GFA	$(708.5 / 100) * 2 = 14$ trips	$(708.5 / 100) * 2 = 14$ trips	$(708.5 / 100) * 10 = 71$ trips
Whole Development	70 trips	48 trips	556 trips

Compared to the development under the approved DA, the proposal would generate relatively the same number of trips in the respective peak hours, however, considerably fewer daily trips i.e. a reduction of 30 trips per day. Therefore, the proposed development provides an improved traffic situation compared to the approved DA for the site.

5.2 Intersection Modelling

As mentioned in Section 1.3, TfNSW requires SIDRA modelling to assess the impacts of the proposed development on nearby intersections. Modelling has been undertaken for the nearby signalised intersections of Hunter Street – Steel Street and King Street – Steel Street. These intersections have been assessed on the basis that they are nearest to the subject site and, as such, would experience the greatest traffic impacts resulting from the proposed development.

Intersection modelling has been undertaken using the latest SIDRA Intersection software, version 9.0.

For the purpose of this assessment, the development opening year is assumed to be two years after the DA submission i.e. 2024. SIDRA modelling scenarios are as follows:

- S0 - Existing base case conditions (2022).
- S1 - Future conditions with background traffic growth only (no development) (2024).
- S2 - Future conditions with background traffic growth with proposed development (2024).
- S3 - Future conditions with background traffic growth only (no development) plus 10 years (2034).
- S4 - Future conditions with background traffic growth with proposed development plus 10 years (2034).

Typically, SIDRA modelling would be undertaken for the **approved development** and the **proposed development** for a like-for-like comparison of traffic impacts. However, given that the approved development and proposed development are estimated to generate approximately the same volume of peak hourly vehicle trips (Table 5.1), SIDRA modelling of the proposed development only has been undertaken as part of the assessment.

5.2.1 Establishing Existing Base Case Conditions

Turning movement surveys were carried out on a typical weekday, Tuesday 19th July 2022 during the periods of 7.00am – 10.00am and 4.00pm – 7.00pm. Modelling has been carried out for the morning and evening road network peak periods which have been identified by the traffic surveys as 8.15am – 9.15am and 4.45pm – 5.15pm, respectively. The raw turning count survey data is contained in Appendix C.

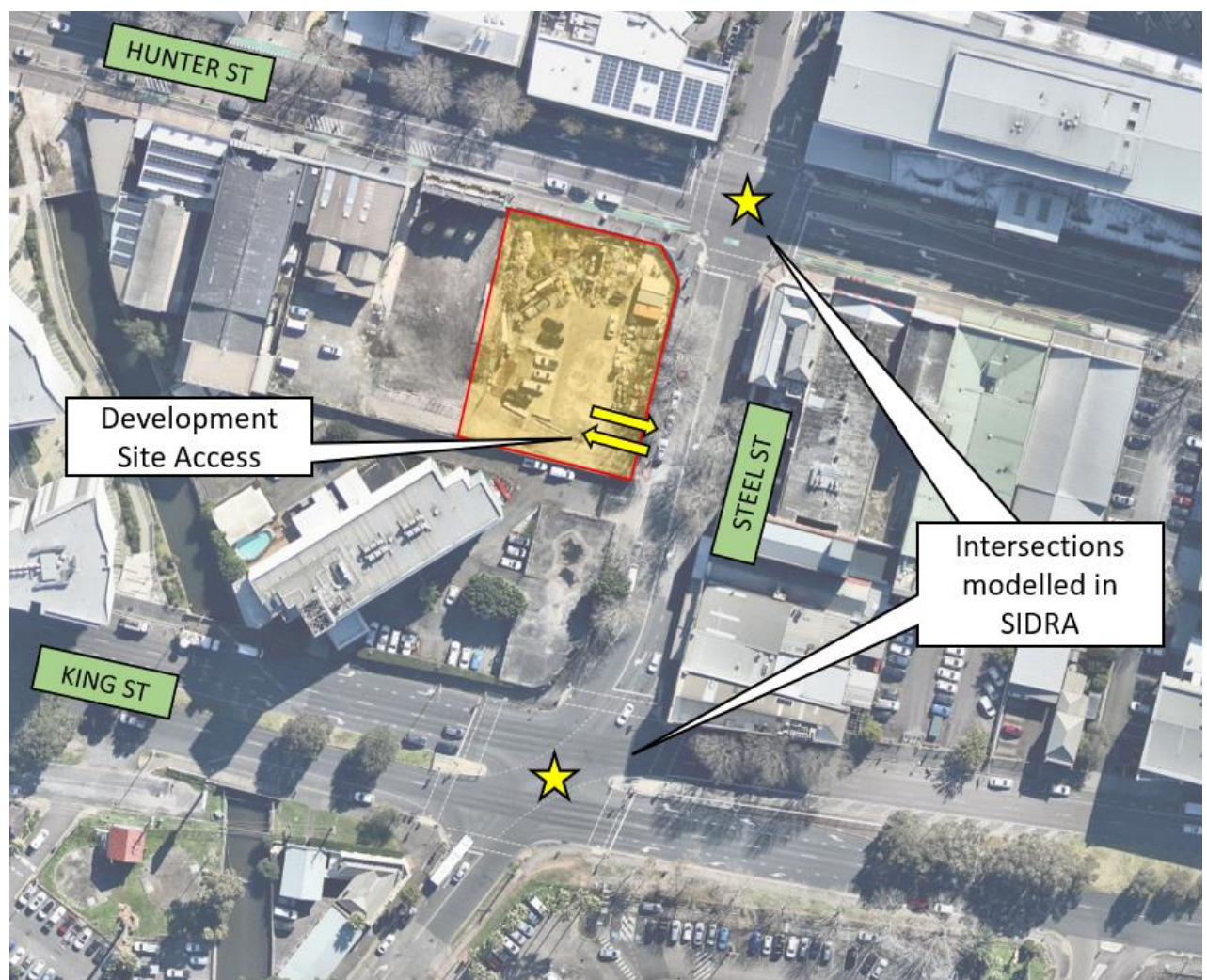
A queue length survey was also undertaken at the time of the turning movement surveys to record the back of queue across each travel lane for every intersection approach. This data has been used to validate the SIDRA base case model with existing traffic conditions. The queue length survey data is contained in Appendix D.

The layout of each intersection has been set up in SIDRA based on the current Traffic Control Signal (TCS) plan and the latest Nearmap aerial imagery dated August 2022. TCS plans are contained in Appendix E while the aerial imagery showing the intersection is presented in Figure 5.1.

SCATS Interpreted History data for the traffic signals have been obtained from TfNSW to input the traffic signal phasing arrangement and cycle times into SIDRA. This data has been included in Appendix F.

The turning movement survey included pedestrian movements which were input into the SIDRA models. SCATS Interpreted History data provide the number of times each pedestrian phase runs during a period. This information has been used to determine the proportion of pedestrian calls during the peak periods in order to reflect on-site conditions. A summary of the peak hourly proportion of pedestrian calls is presented in Appendix G.

Figure 5.1: Modelled Intersections



Source: Nearmap, aerial imagery dated 16 August 2022

5.2.2 Background Growth

Background traffic growth has been estimated based on population growth and employment growth in nearby areas as presented by Strategic Transport Forecast Model (STFM) data obtained from TfNSW. These areas include the travel zone in which the subject site is located as well as the surrounding travel zones as shown in Appendix H. The background traffic annual growth rate has been estimated based on an average of population growth and employment growth. The growth rates are presented in Table 5.2.

Table 5.2: Growth Rates

Period	Annual Population Growth	Annual Employment Growth	Annual Background Traffic Growth Adopted in SIDRA Modelling
2022 to 2026	1.78 % p.a.	1.93 % p.a.	1.87 % p.a.
2026 to 2034	1.61 % p.a.	1.34 % p.a.	1.44 % p.a.

5.2.3 Directional Split

The directional split of site-generated trips has been adopted in accordance with industry standards for residential and commercial land uses. The directional splits adopted for each component of the proposed development are presented in Table 5.3.

Table 5.3: Directional Split

Land use	AM peak	PM Peak
Residential	20 % inbound: 80 % outbound	80 % inbound: 20 % outbound
Commercial	80 % inbound: 20 % outbound	20 % inbound: 80 % outbound

5.2.4 Trip Distribution

Site-generated trips have been apportioned at Hunter Street – Steel Street and King Street – Steel Street intersections based on existing traffic flow proportions at these junctions.

Traffic flow diagrams for each modelled scenario (S0 to S4) have been prepared, and are presented in Appendix I.

5.2.5 Levels of Service Criteria

TfNSW uses level of service as a performance measure to indicate the operating efficiency of a given intersection. The level of service ranges from A to F. Level of service between A and D indicate the intersection is operating within capacity. With LoS A providing exceptionally good performance to LoS D indicating satisfactory performance, LoS E and F indicate the intersection is operating at or near capacity and generally would require intersection improvement works to maintain reasonable performance.

The level of service is directly related to the average delay experienced by vehicles travelling through the intersection. At signalised intersections, the average delay is the volume of weighted average delay over all movements. For roundabouts and priority (give way and stop sign) controlled intersections, the average delay relates to the movement with the highest average delay per vehicle.

Table 5.4 shows the criteria that TfNSW adopt in assessing the level of service at intersections.

Table 5.4: Intersection Level of Service Criteria

Level of Service (LoS)	Average Delay per vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way & Stop Sign
A	Less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Near capacity	Near capacity, accident study required
E	57 to 70	At capacity; at signals incidents would cause excessive delays. Roundabouts require other control mode	At capacity, requires other control mode.
F	Greater than 70	Unsatisfactory, requires additional capacity	Unsatisfactory, requires other control mode or major treatment

5.3 SIDRA Modelling Results

At signalised intersections, the results of the intersection performance are reported for the intersection overall. As such, the SIDRA modelling results at the Hunter Street – Steel Street and King Street – Steel Street traffic signals are presented in Table 5.5 for the overall intersection. The detailed SIDRA Movement Summary outputs are contained in Appendix J which provide the results for each movement.

Table 5.5: SIDRA Modelling Results

Scenario	Parameter	Hunter Street – Steel Street		King Street – Steel Street	
		AM Peak	PM Peak	AM Peak	PM Peak
S0 - Existing Conditions	Average Delay (s)	13	17	32	36
	Average Queue (m)	47	56	88	88
	95 th %tile Queue (m)	77	91	143	144
	LoS	A	B	C	C
S1 - Future Conditions, no dev (2024)	Average Delay (s)	13	17	32	36
	Average Queue (m)	50	59	92	95
	95 th %tile Queue (m)	82	96	150	154
	LoS	A	B	C	C
S2 - Future Conditions with dev (2024)	Average Delay (s)	13	17	33	37
	Average Queue (m)	52	59	92	95
	95 th %tile Queue (m)	85	96	151	154
	LoS	A	B	C	C
S3 - Future Conditions, no dev (2034)	Average Delay (s)	13	20	32	40
	Average Queue (m)	62	73	106	125
	95 th %tile Queue (m)	102	119	174	204
	LoS	A	B	C	C
S4 - Future Conditions with dev (2034)	Average Delay (s)	14	18	34	41
	Average Queue (m)	65	73	109	125
	95 th %tile Queue (m)	106	119	179	204
	LoS	A	B	C	C

The SIDRA modelling results indicate that key nearby intersections currently operate at an acceptable level of service (LoS) C or better during the road network peak periods. A discussion of the SIDRA results is presented hereafter.

S0 – Existing base case conditions (2022)

The signalised intersection of Hunter Street - Steel Street currently operates at a very good LoS A in the AM peak period and LoS B in the PM peak period.

The signalised intersection of King Street - Steel Street currently operates at a good LoS C during both AM peak and PM peak periods.

S1 – Future conditions with background traffic growth only (no development) (2024)

Having consideration for background traffic in the opening year for the development (2024), the intersections' level of service remains as per existing conditions. There would be no change to the average delay per vehicle (average delay) between Scenario 0 and Scenario 1 at the intersections.

The average queue length at the intersections would increase marginally between 3m and 7m. Similarly, the 95th percentile queue would increase marginally between 5m and 10m. Equivalently, the average queue and 95th percentile queue would increase by approximately one car length would have a negligible impact to the intersection operation.

S2 – Future conditions with background traffic growth with proposed development (2024)

Once the development traffic is considered in the network, the intersections' level of service and average delay would remain as per Scenario 0 and Scenario 1.

The average queue would increase marginally by 2m in the AM peak period at the intersection of Hunter Street – Steel Street. The 95th percentile queue would increase marginally by 3m in the AM peak at Hunter Street – Steel Street and by 1m in the AM peak at King Street – Steel Street.

Overall, the intersections would operate satisfactorily having consideration for background traffic growth as well as the development traffic.

S3 – Future conditions with background traffic growth only (no development) plus 10 years (2034)

Having consideration for background traffic 10 years post opening of the development (2034), the intersections' level of service remains as per existing conditions and 2024 conditions. There would be minimal change to the average delay, namely, an additional three seconds at each intersection in the PM peak period.

At King Street – Steel Street, average delay in the AM peak period would reduce marginally by one second which can occur when there is an increased number of vehicles on certain movements which have a lower degree of saturation (i.e. a lower level of utilisation). This means that more vehicles are able to pass through the intersection during the effective green time, and therefore, reduce the average delay across all movements at the intersection.

The average queue would increase by between 10m and 30m, or equivalently approximately 4 car lengths. The 95th percentile queue would increase by between 17m and 50m or roughly 6 car lengths.

S4 – Future conditions with background traffic growth with proposed development plus 10 years (2034)

Once the development traffic is considered in the network in the year 2034, the intersections' level of service would remain the same as previous scenarios including 2022 existing conditions. In comparison to Scenario 3, there would be marginal fluctuations in the average delay of around 1-2 seconds in the peak periods which would have negligible impacts to the intersection operation.

Any increase in the average queue and 95th percentile queue as a result of the development traffic would be equivalent to less than one car length. As such, the traffic impacts due to the proposed development in the 10 years post opening of the development would be minimal.

Overall, the proposed development would not result in any adverse traffic impacts on the surrounding road network.

6 Car Park Review

The basement car park has generally been designed in compliance with AS2890.1: 2004 *Off-street car parking*. Key design elements include:

Vehicle access and ramps

- Access to the basement car park is via a two-way driveway with ingress and egress movements separated by a 400 mm central island with intercom. Each travel lane is 3.0 m in width (kerb to kerb).
- The proposed site access driveway complies with the design requirements in AS2890.1, which specifies a ramp grade of 1:20 for the first 6 m within the site boundary.
- The proposed internal ramps comply with the design requirements in AS2890.1, which specifies a ramp grade of 1:4 (25%) up to 20 m long (maximum).
- Internal ramps and circulation aisles have been designed with a minimum width of 5.5 m in accordance with parking in residential and domestic car parks of User Class 1A developments.

Parking modules and aisle width

- Car parking spaces have been designed with a minimum width of 2.4 m and length of 5.4 m in accordance with User Class 1A residential, domestic and employee parking.
- The parking aisle width has been designed at 5.8 m (minimum) as required for User Class 1A parking.
- The accessible parking space have been designed in accordance with AS2890.6:2009 *Off-street parking for people with disabilities*. The minimum requirements for parking spaces are 2.4 m width and 5.4 m length, and adjacent shared area of the same dimensions to enable side access. A bollard would be placed in the shared areas as per AS2890.6.

Headroom clearance

- A minimum clear head height of 2.2 m is to be provided for all circulation areas within the basement car park as required by AS2890.1.
- A clear head height of 2.5 m is to be provided above all the accessible parking spaces as required by AS2890.6.

Other Considerations

- All columns are to be located outside of the parking space design envelope as specified in Figure 5.2 of AS2890.1.
- Dead-end aisles are to provide the required 1.0 m aisle extension in accordance with Figure 2.3 of AS2890.1, except for those aisles where accessible parking spaces are located at the end where a 1.0 m extension is not required.
- A pedestrian sight triangle is provided at the egress driveway location to the frontage road in accordance with Figure 3.3 of AS2890.1.
- Tandem car parking spaces are proposed as part of the commercial lots. There are 12 commercial parking spaces, and 6 spaces would be tandem spaces.
- Tandem parking is also proposed for the residential apartments. A pair of tandem parking spaces would be allocated to the same apartment.

7 Summary and Conclusion

This report assesses the traffic and parking implications of a proposed mixed-used building at 643 Hunter Street, Newcastle West. The proposed site is a 20-storey residential development with commercial ground floor lots. The key findings of the assessment are as follows:

- The proposed development involves the construction of a residential flat building, comprising 106 residential units and 708.5 m² commercial GFA. This is reduced from the current approved DA which pertains to 120 residential units, however, there has been an increase to the commercial floor area from 358.5 m² previously.
- A total of 172 car parking spaces, including 1 accessible space, are proposed as part of the future development. In addition to this, there would be 121 bicycle parking spaces and 9 motorcycle spaces provided within the basement car park. It is concluded that the proposed car parking provisions are generally consistent with the DCP while there are deviations from DCP rates. However, in considering the parking provision for the proposed development, and DA and Modification Application for the site previously, it is important to consider further factors which would result in a variable parking provision as assessed in this report.
- Compared to the development under the approved DA, the proposal would generate relatively the same number of trips in the respective peak hours, however, considerably fewer daily trips i.e. a reduction of 30 trips per day. Therefore, the proposed development provides an improved traffic situation compared to the approved DA for the site.
- SIDRA intersection modelling has been carried out at key nearby intersections to examine operating conditions under existing and future scenarios (study years 2024 and 2034). The modelling results indicate that, overall, the proposed development would not result in any adverse traffic impacts on the surrounding road network.

To conclude, the proposed development would result in minimal traffic and parking impacts on the local road network.

Appendix A

Site Plans

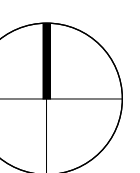


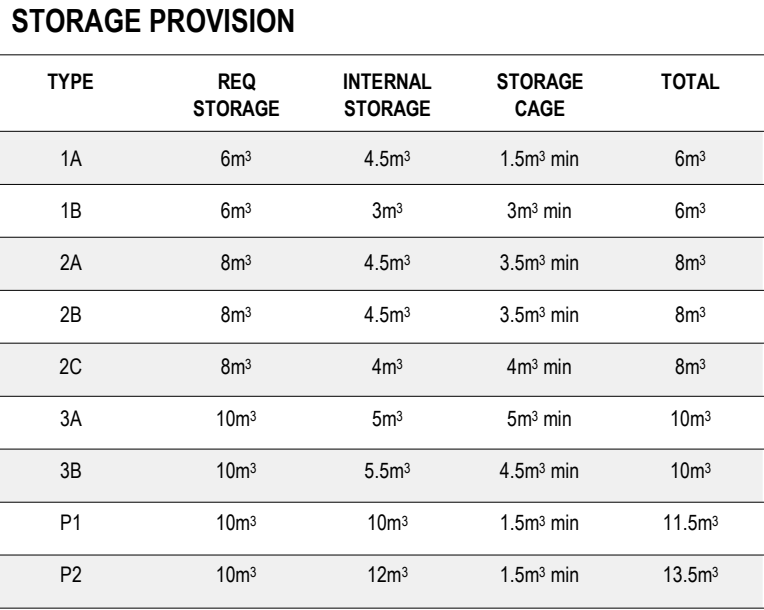
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B	ISSUE FOR DA	27.04.2022

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DRAWING TITLE **SITE PLAN**
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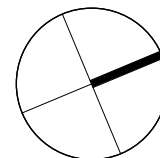
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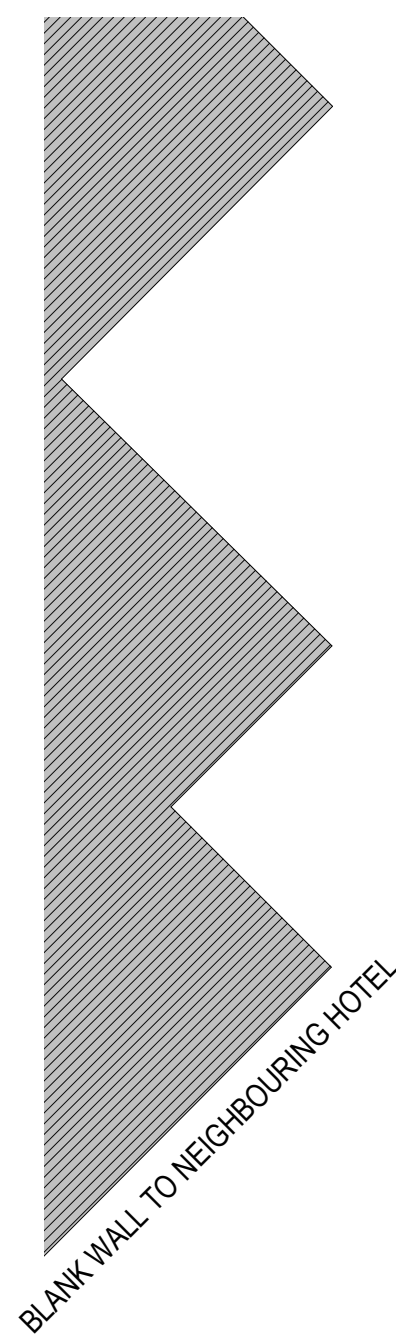
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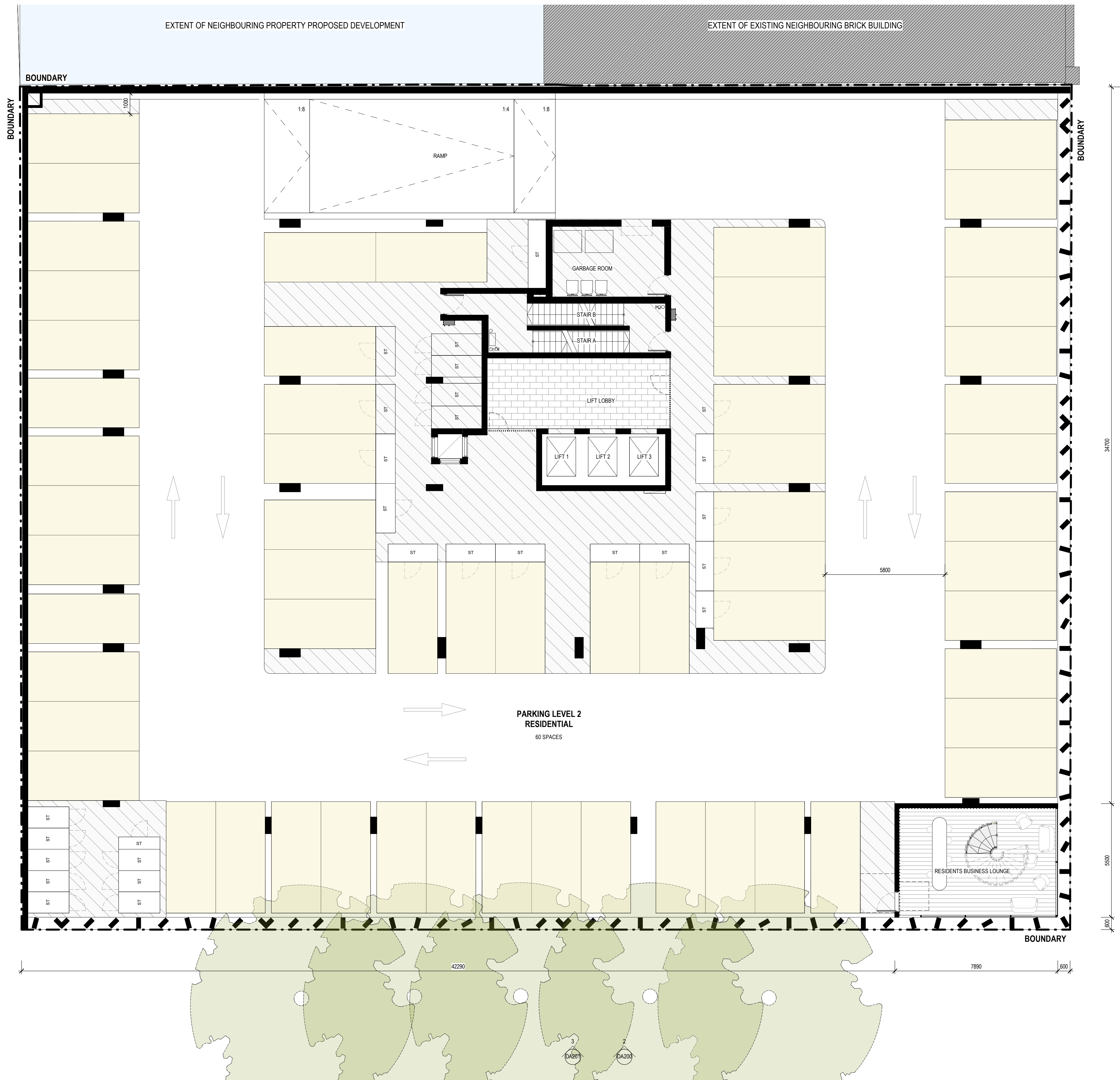
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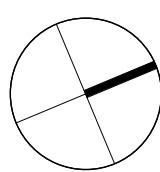
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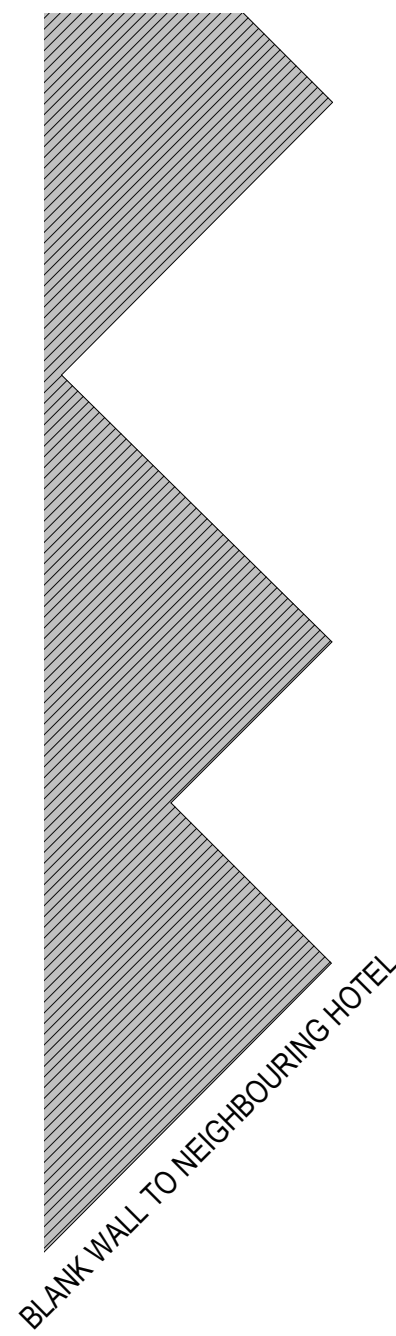
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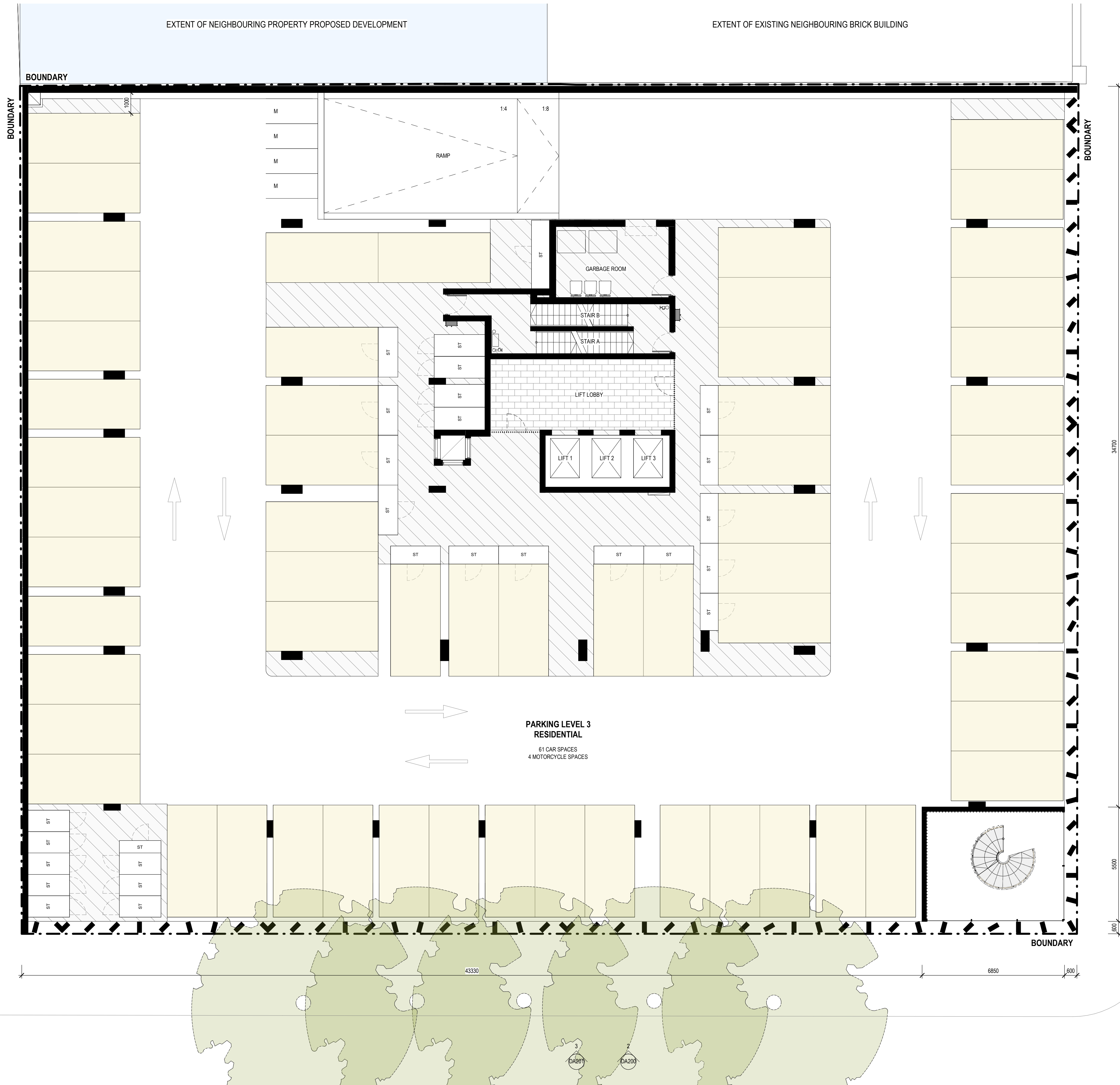
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DATE **2022**





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1 DA201

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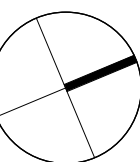
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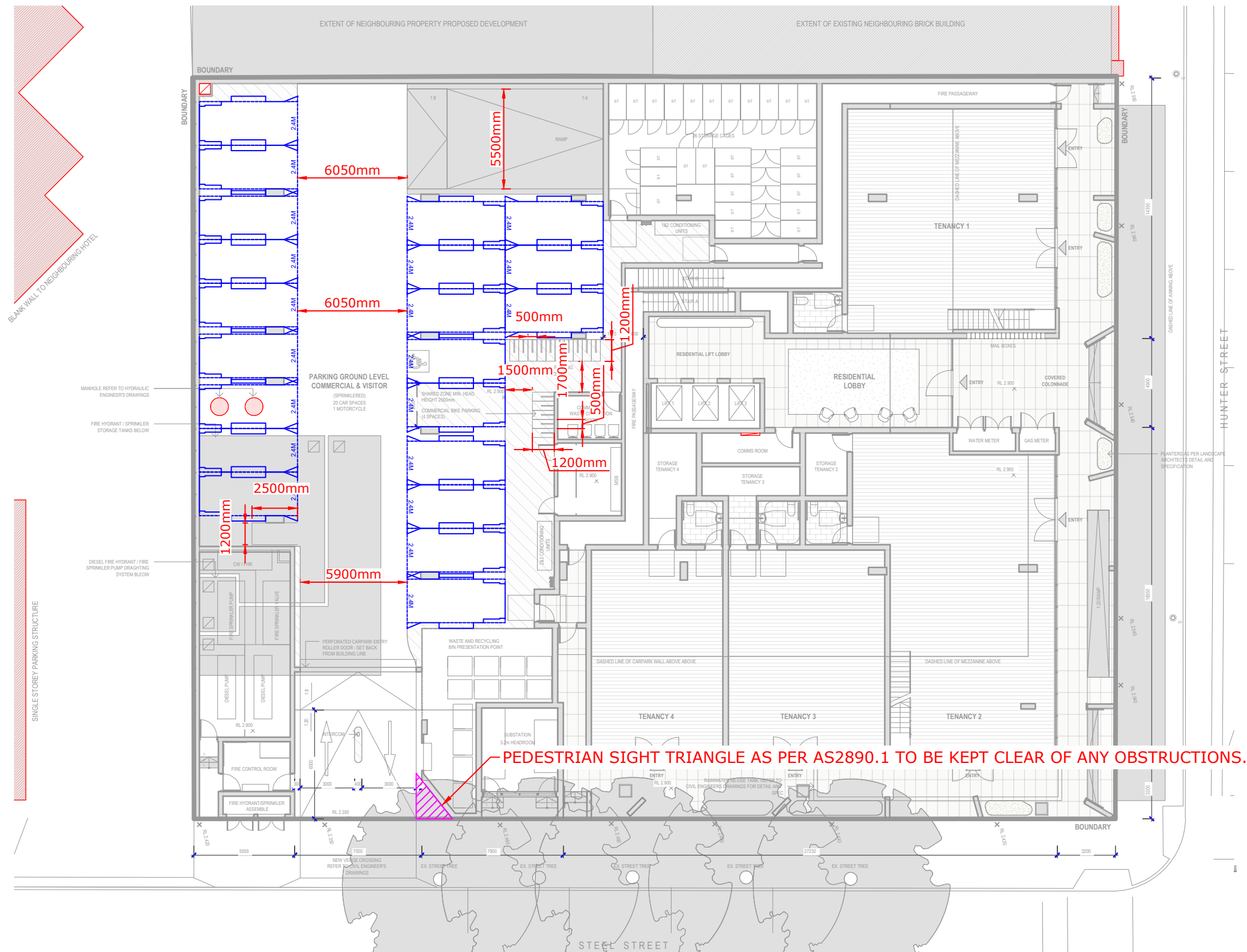
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DRAWING No. **DA104**
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DATE **2022**



Appendix B

Car Park Review



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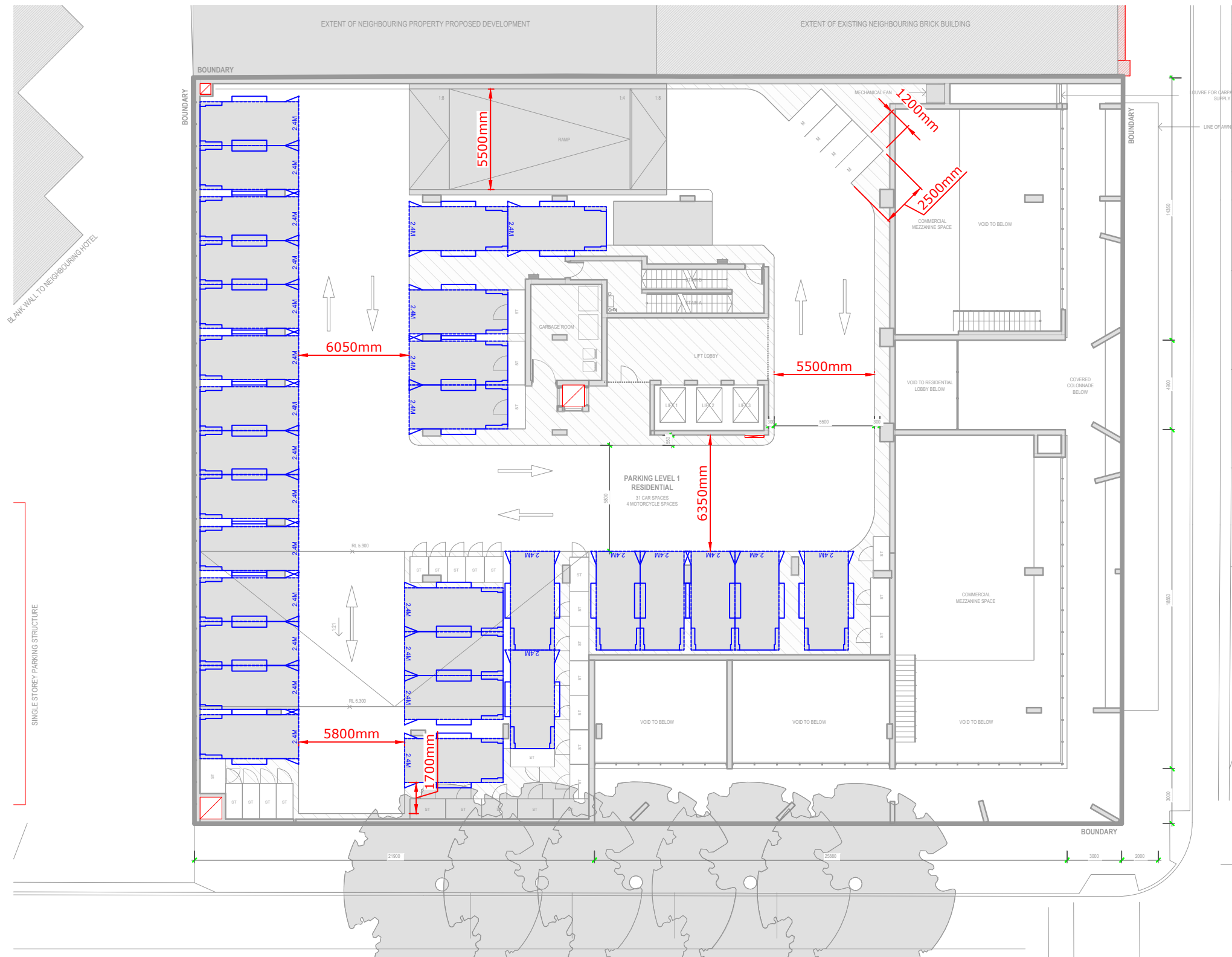
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A	ISSUE FOR DISCUSSION	KM	SB	JR	19/04/22



PROJECT	643 HUNTER STREET, NEWCASTLE WEST		
TITLE	CAR PARK COMPLIANCE REVIEW GROUND LEVEL		

DWG No. 22106CAD003 FIGURE 1	
DATE STAMP 19 APRIL 2022	
PROJECT No. 22106	SCALE 1:250 @A3
REV. A	

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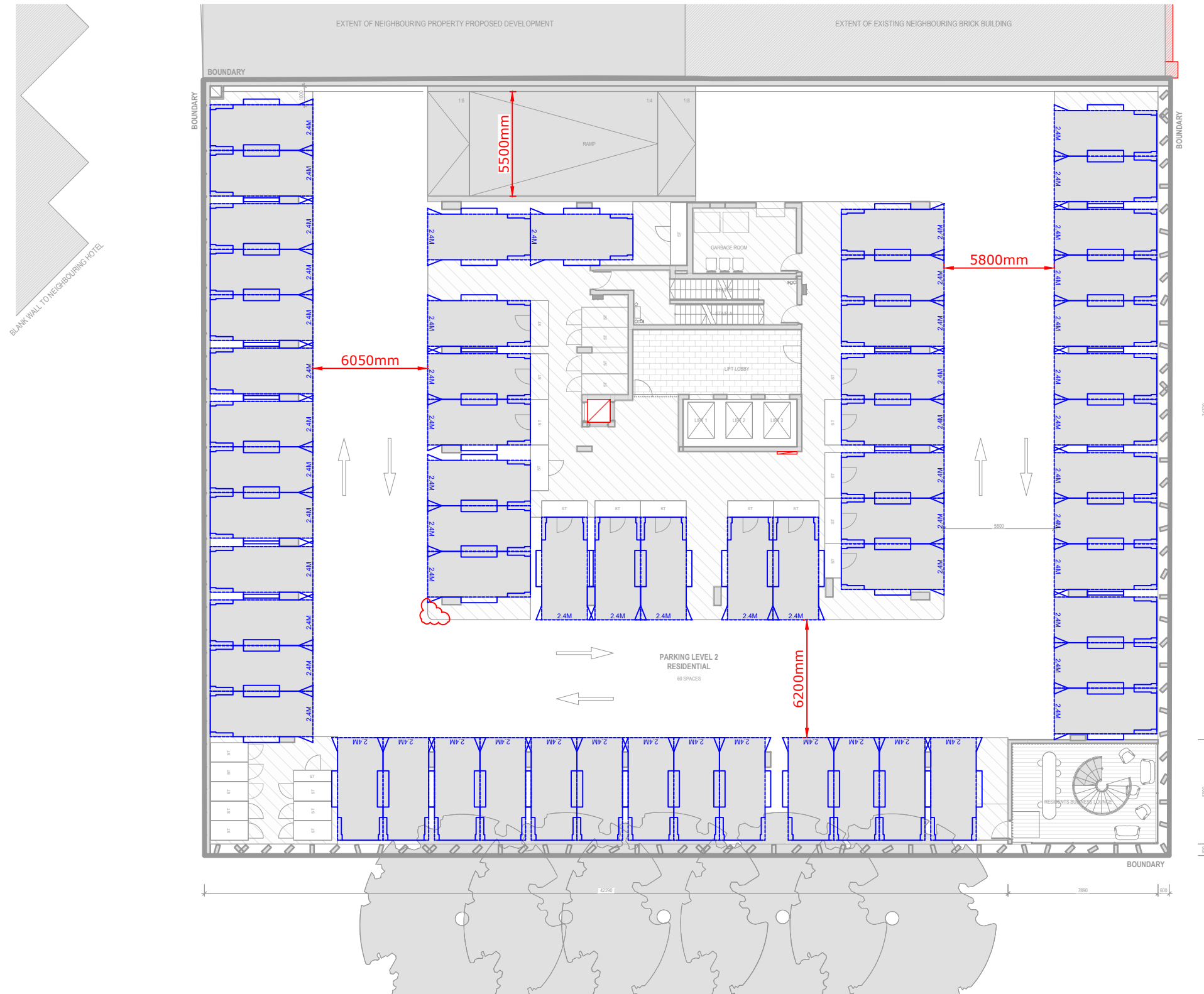
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A	ISSUE FOR DISCUSSION	KM	SB	JR	19/04/22



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TITLE	CAR PARK COMPLIANCE REVIEW LEVEL 1		

DWG No.	22106CAD003 FIGURE 2		
DATE STAMP	19 APRIL 2022		
PROJECT No.	SCALE	REV.	
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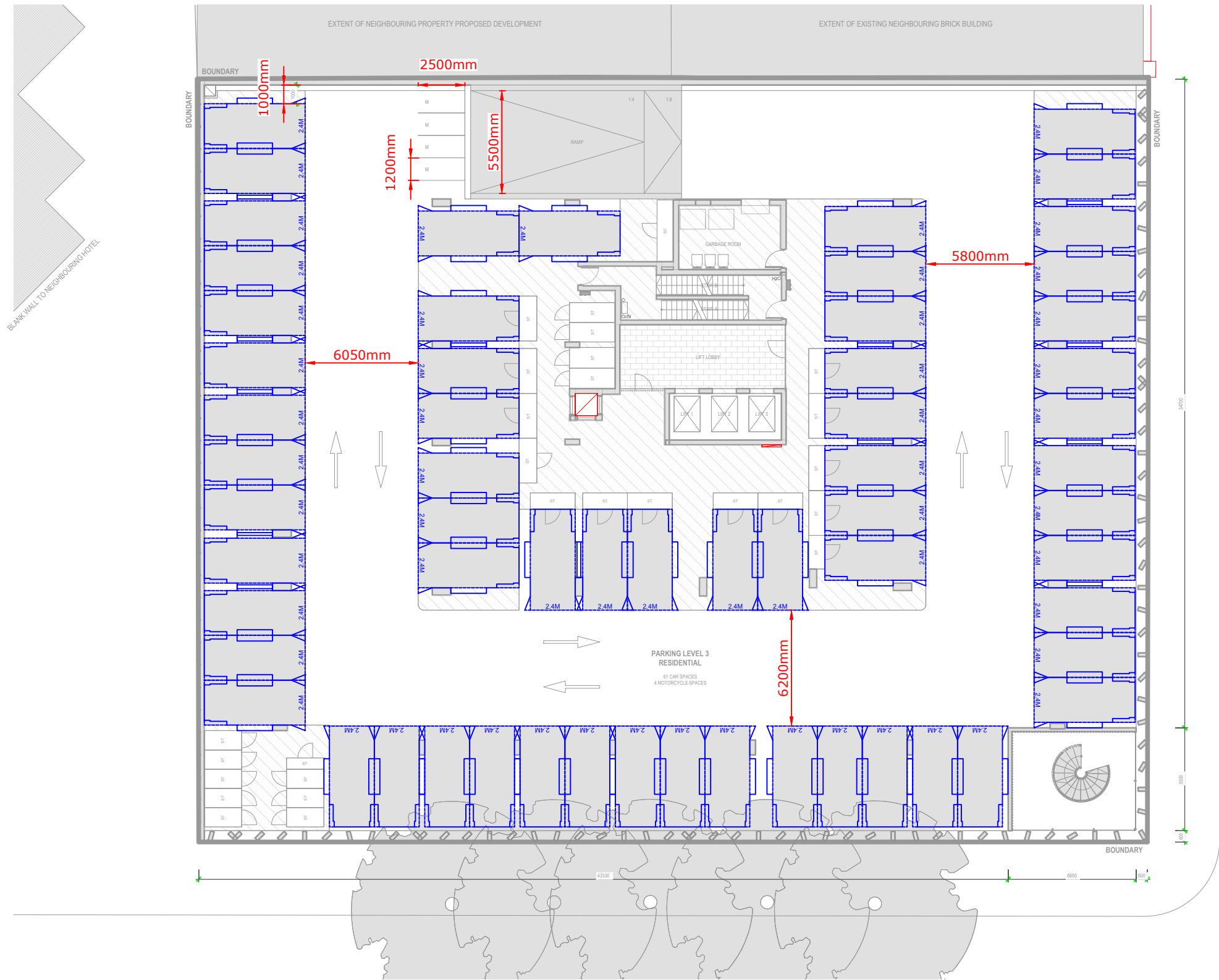
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PROJECT	643 HUNTER STREET, NEWCASTLE WEST			
TITLE	CAR PARK COMPLIANCE REVIEW LEVEL 1			

DWG No. 22106CAD003 FIGURE 3	
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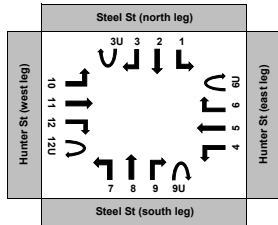
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DWG No. 22106CAD003 FIGURE 4		
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Appendix C

Traffic and Pedestrian Turning Movement Survey

Report Type:	Classified Intersection Data - 60min
Geocounts Job ID:	1654999917955
Client Job Number:	n/a
Client Name:	TTTP
Location:	Newcastle
Survey Site:	IC02 (Hunter St/Steel St)
Survey Date:	Tuesday, 19th July 2022
Site Coordinates:	-32.927859, 151.763581

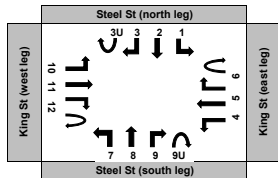


AM Peak Hour:	8:15 to 9:15
PM Peak Hour:	16:30 to 17:30
AM Peak Hour Volume:	1,548
PM Peak Hour Volume:	1,628

Approach	Steel St (north leg)												Hunter St (east leg)												Steel St (south leg)												Hunter St (west leg)																											
Movement	Movement 1 (Left Turn)				Movement 2 (Through)				Movement 3 (Right Turn)				Movement 3U (U Turn)				Movement 4 (Left Turn)				Movement 5 (Through)				Movement 6 (Right Turn)				Movement 6U (U Turn)				Movement 7 (Left Turn)				Movement 8 (Through)				Movement 9 (Right Turn)				Movement 9U (U Turn)				Movement 10 (Left Turn)				Movement 11 (Through)				Movement 12 (Right Turn)				Movement 12U (U Turn)			
Time Interval	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total																			
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17:30 to 18:30	11	0	11	74	2	76	63	0	63	0	0	0	87	0	87	350	11	361	41	1	42	0	0	0	94	6	100	65	0	65	33	0	33	0	0	0	32	0	32	350	13	363	99	16	115	0	0	0																
17:45 to 18:45	5	0	5	55	3	58	47	0	47	0	0	0	82	0	82	304	10	314	40	1	41	0	0	0	88	5	93	59	0	59	29	0	29	0	0	0	31	0	31	335	10	345	84	15	99	0	0	0																
18:00 to 19:00	9	0	9	40	2	42	34	0	34	1	0	1	69	0	69	278	11	289	39	1	40	0	0	0	69	5	74	53	0	53	26	0	26	0	0	0	21	0	21	276	12	288	72	15	87	0	0	0																

Total
1,024
1,145
1,312
1,427
1,486
1,548
1,417
1,306
1,196
1,374
1,457
1,628
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1,606
1,502
1,348
1,203
1,032

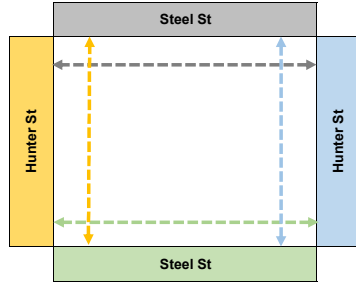
Report Type:	Classified Intersection Data - 60min
Geocounts Job ID:	1654999917955
Client Job Number:	n/a
Client Name:	TTTP
Location:	Newcastle
Survey Site:	IC01 (King St/Steel St)
Survey Date:	Tuesday, 19th July 2022
Site Coordinates:	-32.927859, 151.763581



AM Peak Hour:	8:15 to 9:15
PM Peak Hour:	16:45 to 17:45
AM Peak Hour Volume:	2,136
PM Peak Hour Volume:	2,493

Approach	Steel St (north leg)												King St (east leg)												Steel St (south leg)												King St (west leg)											
Movement	Movement 1 (Left Turn)			Movement 2 (Through)			Movement 3 (Right Turn)			Movement 3U (U Turn)			Movement 4 (Left Turn)			Movement 5 (Through)			Movement 6 (Right Turn)			Movement 6U (U Turn)			Movement 7 (Left Turn)			Movement 8 (Through)			Movement 9 (Right Turn)			Movement 9U (U Turn)			Movement 10 (Left Turn)			Movement 11 (Through)			Movement 12 (Right Turn)			Movement 12U (U Turn)		
Time Interval	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total						
7:00 to 8:00	4	2	30	59	4	63	28	11	39	0	0	0	50	1	51	431	16	447	14	3	17	0	0	0	46	7	53	24	5	29	20	2	22	0	0	0	84	2	86	619	17	636	88	0	88	0	0	0
7:15 to 8:15	30	2	32	66	5	71	35	15	50	0	0	0	49	1	50	447	18	465	15	4	19	0	0	0	56	4	60	26	7	33	22	2	24	0	0	0	93	2	95	688	20	708	99	0	99	0	0	0
7:30 to 8:30	40	1	41	82	4	86	38	15	53	0	0	0	48	1	50	480	17	497	17	4	21	0	0	0	52	3	55	23	6	29	21	1	22	0	0	0	87	3	90	774	19	793	110	0	110	0	0	0
7:45 to 8:45	50	0	50	93	4	97	44	16	60	0	0	0	53	0	53	453	22	475	23	1	24	0	0	0	54	2	56	30	7	37	23	1	24	0	0	0	90	4	94	823	18	841	120	0	120	0	0	0
8:00 to 9:00	61	2	63	94	3	97	44	15	59	0	0	0	65	0	65	466	22	488	26	1	27	0	0	0	75	4	79	34	6	40	27	0	27	0	0	0	89	4	93	877	19	896	126	1	127	0	0	0
8:15 to 9:15	59	2	61	109	2	111	49	14	63	0	0	0	66	0	66	474	23	497	27	1	28	0	0	0	79	6	85	41	6	47	34	1	35	0	0	0	90	3	93	892	16	908	141	1	142	0	0	0
8:30 to 9:30	56	2	58	105	4	109	55	15	70	0	0	0	65	1	66	450	22	472	30	1	31	0	0	0	94	7	101	49	7	56	41	1	42	0	0	0	88	4	92	834	17	851	151	2	153	0	0	0
8:45 to 9:45	51	4	55	101	4	105	57	15	72	0	0	0	78	1	79	468	16	484	28	1	29	0	0	0	102	8	110	44	6	50	37	1	38	0	0	0	80	4	84	774	11	785	158	3	161	0	0	0
9:00 to 10:00	41	2	43	96	6	102	57	13	70	0	0	0	73	1	74	427	16	443	23	2	25	0	0	0	100	7	107	43	7	50	35	2	37	0	0	0	75	4	79	686	10	696	137	2	139	0	0	0
16:00 to 17:00	53	0	53	129	5	134	69	9	78	0	0	0	93	0	93	776	11	787	51	0	51	0	0	0	152	5	157	64	6	70	53	1	54	0	0	0	57	2	59	552	7	559	158	1	159	0	0	0
16:15 to 17:15	50	0	50	138	5	143	89	11	100	0	0	0	88	0	88	787	12	799	49	0	49	0	0	0	141	6	147	59	6	65	55	1	56	0	0	0	60	2	62	568	6	574	160	1	161	0	0	0
16:30 to 17:30	59	0	59	156	4	160	115	11	126	0	0	0	83	0	83	883	9	892	53	0	53	0	0	0	122	2	124	61	6	67	54	1	55	0	0	0	66	3	69	603	4	607	160	1	161	0	0	0
16:45 to 17:45	67	0	67	144	4	148	114	10	124	0	0	0	82	0	82	874	14	888	55	0	55	0	0	0	123	2	125	68	7	75	51	0	51	0	0	0	67	2	69	620	5	634	174	1	175	0	0	0
17:00 to 18:00	81	0	81	140	3	143	107	13	120	0	0	0	88	0	88	820	13	833	53	0	53	0	0	0	115	1	116	69	5	74	43	0	43	0	0	0	76	3	79	653	7	660	179	1	180	0	0	0
17:15 to 18:15	86	0	86	128	3	131	87	15	102	0	0	0	95	0	95	764	10	774	52	0	52	0	0	0	121	1	122	77	6	83	36	0	36	0	0	0	74	2	76	657	9	666	162	1	163	0	0	0
17:30 to 18:30	90	0	90	111	3	114	59	15	74	0	0	0	96	0	96	601	11	612	49	0	49	0	0	0	122	3	125	76	4	80	31	0	31	0	0	0	69	2	71	636	10	646	149	1	150	0	0	0
17:45 to 18:45	90	0	90	100	3	103	42	15	57	0	0	0	89	0	89	480	4	484	38	0	38	0	0	0	116	6	122	70	4	74	33	0	33	0	0	0	62	2	64	613	10	623	128	1	129	0	0	0
18:00 to 19:00	73	0	73	78	4	82	37	13	50	0	0	0	83	0	83	430	5	435	34	0	34	0	0	0	98	8	106	60	4	64	38	0	38	0	0	0	55	1	56	579	7	586	100	0	100	0	0	0

Report Type:	Pedestrian Data
Geocounts Job ID:	1654999917955
Client Job Number:	n/a
Client Name:	TTPP
Location:	Newcastle
Survey Site:	IC02 (Hunter St/Steel St)
Survey Date:	Tuesday, 19th July 2022
Site Coordinates:	-32.927859, 151.763581



Leg:	North	East	South	West	Total
Peds Crossing AM:	161	222	63	70	516
Peds Crossing PM:	124	189	135	104	552
Road Network AM Peak:	8:15 to 9:15				
Road Network PM Peak:	16:45 to 17:45				

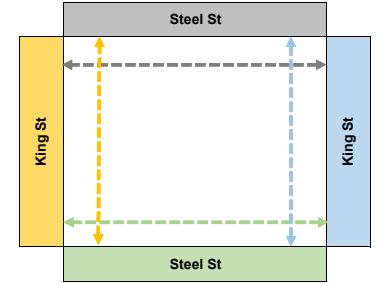
15min

Leg	North	East	South	West	Total
7:00 to 7:15	2	2	2	1	7
7:15 to 7:30	8	5	2	0	15
7:30 to 7:45	9	14	6	4	33
7:45 to 8:00	18	32	3	2	55
8:00 to 8:15	18	24	1	3	46
8:15 to 8:30	19	28	9	16	72
8:30 to 8:45	13	30	7	10	60
8:45 to 9:00	17	20	1	11	49
9:00 to 9:15	19	17	7	9	52
9:15 to 9:30	14	21	4	4	43
9:30 to 9:45	15	15	14	1	45
9:45 to 10:00	9	14	7	9	39
16:00 to 16:15	13	29	8	8	58
16:15 to 16:30	8	16	14	14	52
16:30 to 16:45	15	30	11	6	62
16:45 to 17:00	10	18	7	12	47
17:00 to 17:15	8	20	15	9	52
17:15 to 17:30	18	19	9	13	59
17:30 to 17:45	17	12	9	12	50
17:45 to 18:00	12	7	8	6	33
18:00 to 18:15	5	15	9	3	32
18:15 to 18:30	6	12	19	3	40
18:30 to 18:45	5	6	17	13	41
18:45 to 19:00	7	5	9	5	26

60min

Leg	North	East	South	West	Total
7:00 to 8:00	37	53	13	7	110
7:15 to 8:15	53	75	18	9	155
7:30 to 8:30	64	98	25	25	212
7:45 to 8:45	68	114	26	31	239
8:00 to 9:00	67	102	31	40	240
8:15 to 9:15	68	95	31	46	240
8:30 to 9:30	63	88	26	34	211
8:45 to 9:45	65	73	33	25	196
9:00 to 10:00	57	67	32	23	179
16:00 to 17:00	46	93	40	40	219
16:15 to 17:15	41	84	47	41	213
16:30 to 17:30	51	87	42	40	220
16:45 to 17:45	53	69	40	46	208
17:00 to 18:00	55	58	41	40	194
17:15 to 18:15	52	53	35	34	174
17:30 to 18:30	40	46	45	24	155
17:45 to 18:45	28	40	53	25	146
18:00 to 19:00	23	38	54	24	139

Report Type:	Pedestrian Data
Geocounts Job ID:	1654999917955
Client Job Number:	n/a
Client Name:	TTPP
Location:	Newcastle
Survey Site:	IC01 (King St/Steel St)
Survey Date:	Tuesday, 19th July 2022
Site Coordinates:	-32.927859, 151.763581



Leg:	North	East	South	West	Total
Peds Crossing AM:	29	274	35	62	400
Peds Crossing PM:	48	316	49	101	514
Road Network AM Peak:	8:15 to 9:15				
Road Network PM Peak:	16:45 to 17:45				

15min

Leg	North	East	South	West	Total
7:00 to 7:15	0	1	2	0	3
7:15 to 7:30	3	10	2	0	15
7:30 to 7:45	1	15	0	3	19
7:45 to 8:00	3	42	4	4	53
8:00 to 8:15	1	22	1	4	28
8:15 to 8:30	5	25	9	7	46
8:30 to 8:45	1	28	6	8	43
8:45 to 9:00	4	39	1	9	53
9:00 to 9:15	2	33	5	13	53
9:15 to 9:30	0	22	0	5	27
9:30 to 9:45	1	21	1	2	25
9:45 to 10:00	8	16	4	7	35
16:00 to 16:15	1	38	6	5	50
16:15 to 16:30	1	27	0	6	34
16:30 to 16:45	2	37	3	12	54
16:45 to 17:00	4	26	0	18	48
17:00 to 17:15	4	29	6	8	47
17:15 to 17:30	8	27	3	9	47
17:30 to 17:45	2	16	5	16	39
17:45 to 18:00	8	15	2	5	30
18:00 to 18:15	7	32	4	6	49
18:15 to 18:30	5	20	5	5	35
18:30 to 18:45	1	24	4	2	31
18:45 to 19:00	5	25	11	9	50

60min

Leg	North	East	South	West	Total
7:00 to 8:00	7	68	8	7	90
7:15 to 8:15	8	89	9	11	117
7:30 to 8:30	10	104	16	18	148
7:45 to 8:45	10	117	22	23	172
8:00 to 9:00	11	114	25	28	178
8:15 to 9:15	12	125	27	37	201
8:30 to 9:30	7	122	18	35	182
8:45 to 9:45	7	115	13	29	164
9:00 to 10:00	11	92	10	27	140
16:00 to 17:00	8	128	9	41	186
16:15 to 17:15	11	119	9	44	183
16:30 to 17:30	18	119	12	47	196
16:45 to 17:45	18	98	14	51	181
17:00 to 18:00	22	87	16	38	163
17:15 to 18:15	25	90	14	36	165
17:30 to 18:30	22	83	16	32	153
17:45 to 18:45	21	91	15	18	145
18:00 to 19:00	18	101	24	22	165

Appendix D

Queue Length Survey

Report Type:	Queue Length
Geocounts Job ID:	1654999917955
Client Name:	TTPP
Location:	Newcastle
Survey Site:	IC01 (King St/Steel St)
Coordinates:	-32.927859, 151.763581
Survey Date:	Tuesday, 19th July 2022
Survey Time(s):	07:00-10:00
Peak Period:	08:15-09:15



Queue (number of vehicles) recorded at start of green light phase for each lane

AM	Steel St (north)				King St (east)					Steel St (south)				King St (west)					
Time	Lane 1 (left/thru)	Time	Lane 2 (right)	Time	Lane 1 (left)	Lane 2 (thru)	Lane 3 (thru)	Time	Lane 4 (right)	Time	Lane 1 (left/thru)	Time	Lane 2 (right)	Time	Lane 1 (left)	Lane 2 (thru)	Lane 3 (thru)	Time	Lane 4 (right)
7:03:13	2	7:07:34	3	7:00:41	0	1	2	7:09:58	3	7:02:57	1	7:03:59	1	7:02:12	0	1	4	7:02:12	2
7:05:01	6	7:14:43	2	7:02:41	0	1	1	7:17:06	1	7:05:48	2	7:05:48	2	7:03:19	1	1	2	7:03:19	1
7:05:49	3	7:17:23	2	7:03:37	1	1	7	7:23:09	1	7:08:16	5	7:25:18	1	7:06:16	1	0	0	7:06:16	1
7:06:57	1	7:20:02	2	7:04:58	1	2	3	7:26:22	1	7:09:41	3	7:29:37	1	7:07:14	1	1	1	7:07:14	1
7:08:39	6	7:21:10	3	7:06:21	0	4	5	7:35:45	1	7:11:18	1	7:32:29	3	7:08:32	0	1	4	7:08:32	2
7:10:16	1	7:23:32	1	7:07:58	0	1	1	7:43:55	1	7:12:25	3	7:35:08	1	7:10:10	0	0	1	7:11:33	1
7:14:06	3	7:24:54	3	7:09:12	1	3	6	7:50:48	1	7:16:29	2	7:36:25	1	7:12:45	0	2	0	7:12:45	2
7:15:25	1	7:27:29	1	7:12:00	2	3	2	7:53:22	1	7:18:03	3	7:39:08	1	7:14:06	0	1	1	7:15:31	2
7:19:25	1	7:29:12	2	7:13:13	0	1	0	7:57:22	2	7:19:09	4	7:41:49	1	7:15:31	0	0	2	7:16:49	1
7:21:49	3	7:34:42	4	7:14:40	0	1	1	8:00:06	1	7:20:42	2	7:45:49	2	7:18:16	0	1	0	7:18:16	3
7:22:55	1	7:35:59	2	7:15:40	0	1	1	8:01:14	1	7:21:49	3	7:47:12	1	7:19:38	3	0	0	7:20:56	2
7:24:29	2	7:38:43	2	7:17:19	0	1	3	8:08:12	1	7:22:47	2	7:48:36	1	7:21:10	0	1	1	7:24:25	1
7:25:35	1	7:41:23	2	7:18:14	1	0	4	8:10:53	1	7:24:12	5	7:52:41	2	7:23:13	0	10	7	7:25:46	1
7:28:52	5	7:44:03	1	7:20:48	0	5	4	8:17:48	2	7:25:31	3	7:54:05	2	7:24:25	2	4	8	7:27:02	3
7:30:05	2	7:45:25	1	7:22:10	1	0	0	8:19:23	1	7:28:08	2	7:55:26	1	7:25:46	0	0	4	7:28:26	3
7:31:40	4	7:50:53	2	7:23:29	0	3	1	8:25:40	1	7:29:53	3	8:00:45	3	7:27:14	1	3	5	7:31:25	2
7:32:45	4	7:53:43	5	7:24:56	1	0	1	8:29:29	2	7:31:07	2	8:02:05	1	7:28:26	3	4	10	7:32:55	2
7:34:18	2	7:55:00	3	7:26:22	0	2	2	8:31:30	1	7:32:29	5	8:10:02	1	7:30:28	0	0	3	7:34:10	1
7:35:34	2	7:56:20	3	7:27:53	0	4	6	8:33:25	2	7:33:48	1	8:13:00	2	7:34:28	1	2	1	7:36:53	2
7:36:16	2	7:57:43	3	7:29:20	0	1	7	8:35:17	1	7:35:21	3	8:21:14	1	7:35:35	0	0	1	7:38:07	3
7:39:25	4	7:59:00	2	7:30:37	2	5	6	8:39:25	1	7:36:39	1	8:27:14	1	7:37:09	2	0	3	7:39:37	1
7:41:00	4	8:00:20	1	7:32:01	1	0	7	8:43:31	1	7:39:21	4	8:28:51	1	7:38:25	1	0	1	7:40:50	1
7:42:06	1	8:02:56	3	7:33:20	0	1	4	8:47:21	2	7:42:01	2	8:32:31	2	7:39:51	0	2	1	7:42:15	2
7:45:00	1	8:05:36	1	7:34:35	0	4	5	8:51:29	2	7:43:07	1	8:34:30	2	7:41:08	0	1	1	7:43:30	4
7:46:22	3	8:07:01	3	7:36:01	0	3	4	8:55:17	1	7:44:42	2	8:42:36	3	7:42:32	2	0	1	7:46:17	8
7:47:47	4	8:08:20	2	7:37:17	1	5	4	8:59:21	2	7:46:01	1	8:46:36	3	7:43:49	0	2	0	7:47:46	7
7:48:58	2	8:11:06	2	7:38:41	1	6	10	9:07:18	1	7:47:12	1	8:48:31	1	7:45:12	2	4	6	7:49:08	7
7:51:52	3	8:12:36	1	7:39:59	0	5	5	9:11:22	3	7:48:36	2	8:50:31	3	7:46:33	0	2	1	7:50:21	5
7:53:14	4	8:15:24	5	7:41:22	1	4	5	9:13:23	1	7:52:41	1	8:52:26	1	7:48:02	0	5	8	7:51:41	2
7:54:37	1	8:16:44	2	7:42:42	1	5	6	9:17:04	1	7:55:41	3	8:54:30	1	7:49:23	2	7	10	7:53:09	3
7:55:44	3	8:18:05	3	7:44:12	1	3	4	9:18:32	1	7:56:56	2	8:56:24	2	7:51:59	0	8	4	7:54:39	4
7:57:06	1	8:19:25	4	7:45:31	0	7	4	9:20:01	1	7:59:40	1	9:00:22	2	7:53:34	3	0	0	7:55:54	1
7:58:23	5	8:20:44	1	7:46:53	0	6	6	9:24:18	2	8:02:20	3	9:04:26	4	7:54:54	2	9	12	7:57:12	1
7:59:54	1	8:23:46	5	7:48:07	4	5	5	9:26:58	1	8:03:36	4	9:06:26	1	7:56:09	0	3	3	7:58:27	1
8:01:16	1	8:30:09	2	7:49:36	2	5	9	9:28:15	1	8:04:42	1	9:08:21	3	7:57:30	1	5	7	7:59:57	2
8:02:35	5	8:32:07	6	7:51:04	1	3	7	9:30:48	2	8:06:15	2	9:10:23	2	7:58:46	0	9	10	8:01:13	3
8:03:39	1	8:34:06	3	7:52:20	0	5	12	9:38:51	1	8:07:40	4	9:14:33	1	8:00:10	0	1	0	8:02:36	3
8:04:59	4	8:36:07	1	7:53:38	1	5	3	9:43:04	1	8:10:02	3	9:16:33	1	8:01:29	2	0	1	8:03:56	2
8:06:24	5	8:38:08	3	7:55:00	0	4	7	9:47:04	2	8:11:43	2	9:18:34	3	8:02:52	1	2	5	8:07:57	2
8:09:15	4	8:40:06	3	7:56:21	1	3	8	9:48:15	1	8:13:13	2	9:20:14	1	8:04:11	1	2	4	8:09:05	1
8:10:29	3	8:44:13	1	7:57:38	1	2	2	9:49:41	2	8:14:25	1	9:21:43	2	8:05:20	0	0	1	8:10:34	8
8:12:12	1	8:48:05	2	7:59:01	1	4	4	9:51:07	1	8:16:02	2	9:23:16	2	8:06:50	1	3	6	8:12:04	5
8:13:22	2	8:50:09	3	8:00:20	0	4	4			8:17:24	3	9:24:46	1	8:10:34	0	1	1	8:16:18	3
8:14:47	3	8:52:01	1	8:01:14	1	3	3			8:18:42	1	9:26:11	2	8:12:18	0	2	8	8:19:00	1
8:16:07	4	8:54:07	3	8:02:59	1	3	4			8:22:51	1	9:38:11	1	8:13:45	1	2	3	8:20:24	3
8:17:28	4	8:57:51	4	8:04:22	2	3	6			8:24:25	1	9:40:54	1	8:14:57	2	3	5	8:21:37	1
8:18:48	3	8:59:57	4	8:05:31	1	2	7			8:27:14	5	9:43:35	1	8:16:33	1	1	0	8:23:14	4
8:20:20	1	9:01:56	2	8:06:59	0	5	5			8:28:51	2	9:44:55	1	8:17:54	0	1	3	8:24:41	3
8:21:40	2	9:04:01	4	8:08:29	3	4	3			8:31:01	1	9:46:17	1	8:19:12	0	13	10	8:26:03	2
8:23:09	2	9:06:00	6	8:09:55	1	3	5			8:32:49	4	9:47:44	1	8:20:39	1	9	9	8:27:47	2
8:24:40	1	9:10:00	1	8:10:53	0	1	4			8:34:50	3	9:50:26	3	8:21:54	2	10	3	8:29:29	3
8:26:24	5	9:12:05	1	8:12:42	0	7	10			8:36:49	4	9:53:04	2	8:23:29	2	7	5	8:31:17	5
8:28:03	4	9:14:12	1	8:14:04	0	10	3			8:38:51	1	9:55:46	3	8:24:59	0	8	10	8:33:17	4
8:29:32	5	9:16:08	2	8:15:23	0	4	7			8:40:49	4	10:00:56	1	8:28:01	0	3	5	8:35:18	5
8:31:48	6	9:18:03	3	8:16:49	1	4	5			8:42:36	3			8:29:46	4	2	5	8:37:15	4
8:33:47	4	9:19:51	2	8:18:04	3	2	4			8:44:50	6			8:31:47	3	0	0	8:39:07	6
8:35:30	3	9:22:53	2	8:19:39	0	2	5			8:46:36	2			8:33:37	0	3	4	8:41:12	6
8:37:31	5	9:24:23	2	8:21:09	1	3	3			8:48:45	2			8:35:34	4	2	6	8:43:16	3
8:39:29	2	9:25:46	2	8:22:30	3	4	4			8:50:47	2			8:37:33	1	6	6	8:45:16	3
8:41:53	4	9:27:07	3	8:24:13	0</														

9:42:46	1			9:27:18	0	2	1			9:49:15	2			9:40:18	0	4	7	9:44:05	1
9:44:08	1			9:28:37	0	4	5			9:50:26	4			9:41:41	1	2	2	9:45:32	1
9:45:32	1			9:29:57	3	5	6			9:51:43	2			9:42:56	0	0	2	9:49:33	2
9:46:56	2			9:31:13	2	2	2			9:53:17	4			9:44:22	0	1	0	9:50:56	1
9:48:00	2			9:32:26	0	4	2			9:54:42	3			9:45:32	0	2	0	9:53:31	2
9:49:39	1			9:33:22	0	1	0			9:55:46	5			9:47:09	1	5	5	9:54:56	4
9:50:42	1			9:35:13	0	2	1			9:57:15	3			9:49:48	0	2	2	9:57:36	4
9:52:14	6			9:36:34	3	4	7			9:58:33	1			9:51:11	0	1	0	9:58:50	3
9:53:24	7			9:37:54	4	3	6			9:59:36	3			9:52:21	0	1	0	9:59:59	1
9:54:57	4			9:39:11	3	6	7			10:01:08	3			9:53:48	0	1	0	10:01:28	8
9:56:00	2			9:40:31	0	2	1							9:55:10	0	1	1		
9:57:15	1			9:41:58	3	5	6							9:57:50	0	3	5		
10:00:08	3			9:43:03	1	0	3							9:59:08	2	6	5		
				9:44:32	0	4	3							10:00:17	2	1	3		
				9:45:57	1	6	2							10:01:44	0	6	7		
				9:47:20	2	3	5												
				9:48:15	0	2	2												
				9:49:56	2	7	7												
				9:51:20	0	3	2												
				9:52:41	1	1	1												
				9:53:59	0	2	3												
				9:55:17	2	3	4												
				9:56:27	2	2	2												
				9:57:55	2	5	5												
				9:59:23	1	1	6												
AVE		4.2		2.8		1.5	5.7	6.4		1.5		3.7		1.9		1.5	4.7	5.5	4.0

Report Type:	Queue Length
Geocounts Job ID:	1654999917955
Client Name:	TTPP
Location:	Newcastle
Survey Site:	IC01 (King St/Steel St)
Coordinates:	-32.927859, 151.763581
Survey Date:	Tuesday, 19th July 2022
Survey Time(s):	16:00-19:00
Peak Period:	16:45-15:45



Queue (number of vehicles) recorded at start of green light phase for each lane

PM	Steel St (north)				King St (east)				Steel St (south)				King St (west)						
Time	Lane 1 (left/thru)	Time	Lane 2 (right)	Time	Lane 1 (left)	Lane 2 (thru)	Lane 3 (thru)	Time	Lane 4 (right)	Time	Lane 1 (left/thru)	Time	Lane 2 (right)	Time	Lane 1 (left)	Lane 2 (thru)	Lane 3 (thru)	Time	Lane 4 (right)
16:04:25	3	16:02:36	1	16:00:12	2	4	5	16:02:56	1	16:02:02	2	16:04:33	2	16:02:39	1	0	0	16:02:21	3
16:05:45	3	16:04:10	2	16:01:44	1	6	3	16:04:23	1	16:03:15	3	16:07:35	2	16:03:54	0	10	6	16:03:37	6
16:07:27	6	16:05:45	2	16:03:21	1	3	1	16:05:44	1	16:04:49	3	16:09:01	1	16:05:10	0	5	6	16:05:10	6
16:08:50	5	16:08:37	2	16:04:48	0	12	8	16:07:03	2	16:06:24	5	16:11:57	3	16:06:59	0	3	3	16:06:46	6
16:10:04	6	16:09:54	3	16:05:58	1	7	6	16:10:26	2	16:07:35	1	16:13:38	4	16:08:32	0	1	3	16:08:15	7
16:11:46	5	16:11:37	2	16:07:19	0	9	5	16:11:55	1	16:09:14	4	16:15:04	1	16:08:51	2	6	1	16:09:33	1
16:13:29	3	16:16:16	2	16:09:08	1	9	8	16:15:18	2	16:10:30	4	16:18:26	1	16:11:13	0	12	9	16:10:53	3
16:14:54	4	16:19:32	5	16:10:46	3	13	9	16:18:12	2	16:12:12	8	16:19:56	1	16:12:58	4	3	4	16:12:41	2
16:16:16	4	16:20:52	5	16:12:11	0	15	12	16:21:45	3	16:13:38	8	16:21:13	2	16:14:33	0	3	4	16:14:17	2
16:18:16	4	16:22:40	3	16:13:54	3	6	16	16:23:31	1	16:15:04	4	16:22:59	1	16:16:00	1	0	0	16:15:41	3
16:19:44	1	16:24:27	3	16:15:36	0	10	8	16:29:38	1	16:16:56	5	16:26:35	2	16:17:45	0	2	5	16:17:28	2
16:21:08	3	16:26:13	3	16:16:56	5	11	12	16:30:51	2	16:18:26	2	16:29:50	3	16:19:25	0	1	1	16:19:06	4
16:22:49	1	16:30:47	3	16:18:32	2	13	9	16:34:11	1	16:20:06	6	16:35:44	3	16:20:45	1	1	0	16:20:30	4
16:24:27	3	16:33:50	2	16:20:16	1	6	3	16:38:56	4	16:21:32	10	16:37:17	5	16:22:20	0	8	11	16:22:02	5
16:26:28	4	16:35:21	5	16:22:06	2	6	2	16:40:37	1	16:23:18	2	16:40:21	2	16:23:42	0	4	2	16:23:42	8
16:29:39	2	16:36:55	2	16:23:53	1	1	1	16:42:35	3	16:25:06	7	16:41:59	4	16:25:56	0	1	2	16:25:34	5
16:30:59	4	16:38:23	2	16:25:21	2	2	4	16:44:36	1	16:26:54	6	16:45:41	3	16:27:38	1	4	4	16:27:22	4
16:32:21	3	16:40:01	6	16:26:52	0	4	7	16:47:53	2	16:28:21	7	16:48:16	1	16:29:12	1	4	7	16:28:52	3
16:33:50	3	16:41:35	1	16:28:21	2	5	6	16:49:29	2	16:29:50	6	16:51:03	2	16:30:43	0	3	5	16:30:24	2
16:35:32	3	16:43:21	3	16:29:53	2	3	6	16:51:14	2	16:31:27	1	16:52:41	4	16:32:11	2	7	9	16:31:57	2
16:37:10	2	16:45:17	6	16:31:20	1	7	4	16:52:54	2	16:32:45	7	16:54:22	2	16:33:43	5	3	2	16:33:28	5
16:38:25	7	16:47:15	3	16:32:48	3	7	9	16:54:31	2	16:34:37	1	16:56:00	1	16:34:57	0	5	6	16:34:39	5
16:40:15	5	16:49:00	3	16:34:28	1	15	14	16:57:51	2	16:37:35	5	16:57:38	1	16:36:37	0	2	1	16:36:23	1
16:41:47	5	16:50:41	3	16:35:59	0	16	14	16:59:30	1	16:39:03	2	17:00:54	4	16:38:17	1	5	6	16:38:00	1
16:43:21	3	16:53:59	3	16:37:20	3	15	14	17:02:36	2	16:40:42	4	17:04:11	1	16:39:29	1	6	8	16:39:29	7
16:45:39	7	16:55:39	4	16:39:15	1	13	12	17:05:23	1	16:42:18	4	17:05:45	2	16:41:29	1	4	10	16:41:09	4
16:47:15	6	16:57:14	6	16:40:56	2	10	8	17:06:56	2	16:44:02	1	17:08:35	1	16:43:05	0	5	4	16:42:45	4
16:49:14	6	16:58:52	2	16:42:54	0	3	3	17:08:32	1	16:46:02	6	17:10:10	2	16:46:44	0	4	3	16:44:27	2
16:49:14	6	17:00:29	2	16:44:52	1	7	8	17:10:12	2	16:47:55	8	17:11:44	2	16:48:41	0	2	1	16:46:25	4
16:50:54	5	17:01:03	2	16:46:33	1	11	8	17:11:53	1	16:48:25	2	17:13:15	3	16:50:23	1	2	5	16:48:25	11
16:52:31	3	17:02:12	1	16:48:14	0	3	6	17:13:42	1	16:49:39	5	17:14:57	2	16:52:01	0	1	3	16:50:05	9
16:54:13	2	17:03:48	3	16:49:57	2	1	3	17:15:40	3	16:51:19	2	17:16:45	3	16:53:36	1	7	4	16:51:43	12
16:55:52	3	17:05:23	1	16:51:33	0	6	6	17:17:36	4	16:52:41	8	17:20:35	2	16:55:22	0	7	7	16:53:20	10
16:58:53	3	17:06:45	2	16:53:14	1	11	3	17:19:22	1	16:54:38	5	17:22:30	2	16:57:05	0	9	10	16:55:03	3
17:00:47	7	17:08:11	2	16:54:47	0	8	8	17:22:55	2	16:56:17	7	17:25:52	1	16:58:36	0	2	2	16:56:46	6
17:02:11	7	17:09:45	5	16:56:31	1	3	4	17:24:49	1	16:57:53	5	17:27:51	1	17:00:20	0	1	1	16:58:16	2
17:03:09	1	17:11:19	5	16:58:08	1	5	4	17:32:46	2	16:59:33	8	17:31:39	3	17:01:58	3	5	3	17:00:02	1
17:04:01	1	17:14:33	7	16:59:45	2	6	5	17:35:46	2	17:01:12	3	17:33:37	2	17:03:36	0	6	6	17:01:41	3
17:05:37	6	17:16:20	6	17:01:21	0	4	7	17:36:56	4	17:02:55	3	17:35:45	1	17:04:55	2	6	10	17:03:18	2
17:08:23	2	17:18:12	6	17:02:51	2	5	2	17:38:51	2	17:04:29	6	17:37:55	2	17:06:40	0	2	4	17:04:55	2
17:09:59	5	17:20:09	5	17:04:03	0	3	5	17:40:42	2	17:06:01	5	17:39:55	3	17:07:46	2	5	4	17:06:25	8
17:11:31	7	17:22:06	3	17:05:42	0	10	7	17:42:34	3	17:08:48	5	17:47:19	1	17:09:31	0	6	4	17:07:29	5
17:13:10	4	17:23:37	6	17:07:16	2	5	3	17:44:17	3	17:10:25	5	17:49:02	1	17:11:05	0	6	6	17:09:11	8
17:14:54	3	17:25:29	6	17:08:52	0	3	6	17:46:04	1	17:10:45	1	17:52:41	1	17:12:40	0	3	4	17:10:45	4
17:16:40	4	17:27:25	6	17:10:35	4	10	11	17:47:42	1	17:12:05	3	17:56:10	3	17:14:18	1	7	6	17:12:22	3
17:18:12	6	17:29:19	2	17:12:19	1	15	16	17:49:38	2	17:13:35	5	17:59:26	1	17:15:59	0	11	7	17:14:00	9
17:20:29	6	17:31:17	2	17:14:03	1	17	22	17:51:22	1	17:15:18	2	18:01:25	1	17:17:49	5	5	0	17:15:43	7
17:22:26	2	17:33:18	3	17:15:56	2	18	25	17:52:59	1	17:17:05	6	18:02:59	2	17:19:44	1	3	5	17:17:32	4
17:25:44	6	17:35:21	6	17:17:56	0	19	21	17:58:12	1	17:18:56	5	18:05:38	1	17:21:46	1	7	8	17:19:21	6
17:27:41	6	17:37:30	2	17:19:41	4	13	14	17:59:43	1	17:20:55	7	18:08:15	2	17:23:26	0	8	5	17:21:27	6
17:29:19	6	17:39:30	5	17:21:04	1	9	24	18:02:24	2	17:22:48	5	18:09:35	1	17:24:53	1	11	9	17:23:10	2
17:31:35	7	17:41:26	6	17:23:14	1	15	18	18:05:04	1	17:24:14	2	18:12:25	1	17:26:58	1	4	5	17:24:35	3
17:33:32	6	17:43:24	4	17:25:09	0	12	11	18:09:16	1	17:26:17	4	18:15:24	1	17:28:53	1	3	3	17:26:42	5
17:33:40	5	17:45:16	3	17:27:07	2	11	12	18:10:48	1	17:28:15	6	18:16:53	1	17:30:46	1	10	12	17:28:38	5
17:37:47	6	17:46:57	2	17:29:05	2	16	22	18:12:09	3	17:30:00	4	18:25:02	1	17:32:47	2	11	12	17:30:30	9
17:39:49	7	17:48:41	3	17:31:00	2	11	12	18:13:40	3	1									

18:46:45	1			18:29:56	0	2	1			18:33:33	1			18:33:45	0	3	3	18:33:27	3
18:47:53	4			18:31:48	0	3	3			18:35:01	6			18:35:37	0	0	5	18:35:20	5
18:49:13	2			18:33:14	1	3	5			18:36:19	3			18:37:01	1	3	7	18:36:46	2
18:50:44	1			18:34:31	3	3	3			18:37:50	3			18:38:20	1	1	1	18:38:05	3
18:51:48	2			18:35:50	3	2	3			18:38:06	3			18:41:00	1	4	4	18:39:26	4
18:53:10	1			18:37:09	2	4	0			18:39:08	2			18:42:20	0	7	5	18:40:43	4
18:54:43	2			18:38:32	1	2	4			18:40:13	5			18:43:38	0	4	10	18:42:03	1
18:55:55	2			18:39:50	2	5	3			18:41:31	1			18:44:45	0	8	7	18:43:20	2
18:57:27	2			18:40:56	0	1	2			18:42:59	2			18:46:15	0	2	4	18:46:02	2
18:58:44	1			18:42:28	0	5	4			18:44:11	6			18:47:43	0	2	4	18:50:07	1
19:00:07	2			18:43:38	1	1	2			18:45:43	3			18:49:04	2	5	3	18:51:23	2
				18:44:58	0	4	4			18:47:11	4			18:50:07	0	1	0	18:53:53	4
				18:46:35	1	5	5			18:48:32	3			18:51:40	1	3	1	18:56:47	3
				18:47:51	2	1	2			18:49:50	2			18:54:10	1	3	2	18:58:12	3
				18:50:23	2	1	3			18:51:07	1			18:55:39	0	5	6	18:59:26	1
				18:51:36	0	2	2			18:52:12	2			18:57:01	0	0	2		
				18:53:13	3	3	4			18:55:09	3			18:58:28	1	1	3		
				18:54:39	2	9	5			18:56:33	5			18:59:26	0	1	0		
				18:55:51	0	3	4			18:57:40	2			19:01:01	1	2	4		
				18:56:58	0	2	1			19:00:30	1								
				18:58:31	1	6	6			19:01:20	1								
				18:59:53	0	3	2												
AVE	4.8		3.9		1.2	8.9	10.0		2.0		5.3		2.0		0.8	5.8	6.0		5.8

Report Type:	Queue Length
Geocounts Job ID:	1654999917955
Client Name:	TTPP
Location:	Newcastle
Survey Site:	IC02 (Hunter St/Steel St)
Coordinates:	-32.9267855, 151.7640363
Survey Date:	Tuesday, 19th July 2022
Survey Time(s):	07:00-10:00
Peak Period:	08:15-09:15



Queue (number of vehicles) recorded at start of green light phase for each lane

AM															
Steel St (north)				Hunter St (east)				Steel St (south)				Hunter St (west)			
Time	Lane 1 (left/thru)	Time	Lane 2 (right/thru)	Time	Lane 1 (left/thru)	Time	Lane 2 (right)	Time	Lane 1 (left/thru)	Time	Lane 2 (right/thru)	Time	Lane 1 (left/thru)	Time	Lane 2 (right)
7:01:30	1	7:02:32	3	7:03:50	2	7:05:30	1	7:05:25	1	7:07:00	1	7:10:46	1	7:06:53	2
7:05:31	1	7:15:33	1	7:05:27	2	7:09:11	1	7:07:00	1	7:08:36	1	7:11:46	1	7:07:13	1
7:09:37	1	7:18:22	2	7:06:15	1	7:10:26	1	7:11:32	1	7:10:32	1	7:14:14	4	7:08:35	1
7:10:06	1	7:19:17	1	7:07:23	6	7:14:16	1	7:13:46	3	7:11:31	1	7:15:05	1	7:10:46	1
7:16:12	1	7:28:23	1	7:08:12	3	7:17:25	1	7:16:40	1	7:12:34	1	7:17:21	5	7:12:00	3
7:17:22	2	7:29:22	1	7:09:27	2	7:23:36	1	7:17:38	2	7:13:47	1	7:18:02	3	7:12:50	3
7:19:17	2	7:35:09	1	7:11:31	1	7:29:09	1	7:17:53	1	7:14:41	1	7:18:39	1	7:14:01	1
7:20:17	1	7:36:12	1	7:14:27	4	7:34:14	1	7:20:30	4	7:17:08	1	7:20:53	2	7:17:51	1
7:23:31	1	7:40:09	1	7:15:03	4	7:40:05	1	7:21:34	1	7:18:22	3	7:21:53	2	7:19:22	2
7:24:14	1	7:44:06	1	7:16:03	2	7:48:56	1	7:23:16	2	7:20:30	1	7:22:49	1	7:22:49	2
7:25:20	1	7:53:39	1	7:17:17	1	7:49:59	1	7:23:44	1	7:21:34	1	7:26:00	2	7:27:36	2
7:28:23	1	7:54:47	1	7:19:13	1	7:54:18	1	7:25:15	1	7:25:15	2	7:26:54	8	7:32:44	1
7:29:22	1	7:56:33	1	7:19:54	1	7:55:02	1	7:27:19	1	7:26:31	1	7:29:39	7	7:33:43	1
7:31:22	1	7:57:35	1	7:21:04	2	7:56:44	1	7:28:23	4	7:27:23	1	7:30:52	1	7:34:36	2
7:35:09	2	8:00:50	1	7:21:57	2	7:57:32	2	7:29:23	1	7:28:23	1	7:31:32	3	7:36:13	2
7:39:17	1	8:01:59	2	7:22:26	1	8:02:29	3	7:30:24	1	7:29:23	1	7:32:57	2	7:37:49	2
7:41:06	1	8:04:26	2	7:23:09	5	8:05:16	1	7:31:15	2	7:32:31	3	7:33:37	2	7:38:59	4
7:43:24	1	8:05:31	1	7:23:58	1	8:06:17	4	7:32:18	1	7:33:23	1	7:34:36	3	7:41:35	1
7:46:06	4	8:06:38	1	7:25:13	1	8:06:29	3	7:35:26	1	7:34:23	3	7:35:52	2	7:42:57	2
7:47:28	2	8:09:40	2	7:26:03	1	8:07:05	1	7:40:33	1	7:35:34	1	7:36:40	1	7:43:27	3
7:49:36	1	8:10:30	1	7:27:15	4	8:09:25	1	7:41:12	1	7:36:27	1	7:38:09	4	7:44:38	2
7:50:40	3	8:12:32	1	7:27:57	4	8:16:25	1	7:43:13	3	7:38:32	1	7:38:50	11	7:46:42	1
7:51:42	3	8:13:35	1	7:29:21	2	8:17:28	1	7:46:20	1	7:39:25	1	7:39:37	1	7:48:22	1
7:52:41	3	8:15:53	3	7:30:00	2	8:18:56	2	7:52:06	1	7:42:15	1	7:40:50	11	7:49:34	2
7:53:39	3	8:17:15	2	7:32:15	8	8:19:45	1	7:53:10	1	7:43:13	1	7:42:45	9	7:51:05	1
7:54:37	1	8:21:27	4	7:33:05	1	8:23:21	1	7:57:43	2	7:44:11	3	7:44:32	6	7:51:34	1
7:56:33	1	8:22:01	1	7:34:24	4	8:28:45	1	7:58:43	1	7:45:21	4	7:47:36	2	7:52:50	4
7:58:41	3	8:23:18	2	7:35:15	4	8:29:27	1	7:59:43	3	7:46:20	1	7:49:34	1	7:54:46	2
8:00:50	2	8:26:58	2	7:37:17	3	8:35:38	1	8:01:49	1	7:48:11	1	7:50:37	6	7:56:09	7
8:01:59	3	8:27:58	1	7:37:54	1	8:37:43	1	8:02:37	1	7:49:19	1	7:52:45	1	7:57:57	1
8:03:25	1	8:29:09	2	7:39:01	5	8:38:16	1	8:03:35	1	7:51:22	1	7:53:48	12	8:00:15	1
8:05:31	2	8:31:57	1	7:40:05	2	8:39:21	1	8:05:39	2	7:52:14	1	7:54:46	10	8:01:28	3
8:06:38	1	8:33:10	3	7:40:55	2	8:40:37	1	8:06:46	2	7:55:31	1	7:55:57	6	8:02:05	1
8:07:32	3	8:35:33	1	7:44:00	3	8:42:58	1	8:07:48	4	7:58:43	2	7:57:04	1	8:03:15	1
8:10:30	2	8:39:05	2	7:44:59	6	8:43:30	1	8:11:27	1	8:00:51	1	7:58:08	3	8:04:01	4
8:11:30	2	8:40:09	1	7:46:10	2	8:45:03	1	8:13:40	1	8:05:52	1	8:00:09	13	8:06:05	2
8:12:32	1	8:41:11	1	7:47:09	4	8:50:50	1	8:13:58	2	8:06:57	2	8:01:20	5	8:09:26	1
8:13:35	5	8:43:13	1	7:48:12	1	8:53:12	1	8:16:41	2	8:09:10	2	8:02:05	10	8:10:43	2
8:14:47	2	8:47:09	1	7:48:56	1	8:56:37	2	8:18:32	2	8:11:27	2	8:03:03	5	8:11:50	4
8:15:53	4	8:49:00	1	7:49:59	4	8:57:39	1	8:19:32	1	8:12:32	1	8:04:01	8	8:13:13	1
8:17:05	1	8:50:13	2	7:51:23	2	9:00:01	1	8:20:36	1	8:13:40	1	8:04:55	3	8:13:55	2
8:18:12	1	8:51:31	2	7:52:23	3	9:03:55	1	8:24:15	1	8:16:41	1	8:06:18	1	8:16:54	1
8:19:40	2	8:52:31	1	7:53:28	3	9:04:58	1	8:26:31	2	8:17:32	1	8:07:12	2	8:17:23	1
8:22:01	4	8:55:47	4	7:56:34	2	9:05:59	1	8:28:25	1	8:18:32	1	8:08:16	15	8:20:00	1
8:24:21	3	8:56:40	1	7:57:32	4	9:07:34	1	8:31:23	3	8:20:48	1	8:09:26	9	8:21:02	3
8:25:36	1	8:57:56	2	7:58:44	5	9:11:02	1	8:33:49	5	8:24:15	1	8:10:55	2	8:21:24	4
8:26:58	2	9:00:07	1	7:59:29	4	9:13:41	1	8:37:30	2	8:26:43	1	8:11:50	13	8:22:14	1
8:27:58	2	9:02:08	2	8:00:40	6	9:14:12	1	8:38:49	1	8:28:17	3	8:13:13	2	8:23:21	2
8:29:09	2	9:03:24	2	8:01:32	6	9:15:23	1	8:39:17	1	8:31:23	1	8:13:55	10	8:25:31	2
8:30:27	2	9:04:32	3	8:02:46	8	9:09:57	1	8:41:36	2	8:32:49	4	8:14:55	2	8:26:55	1
8:31:45	4	9:08:24	2	8:03:38	5	9:25:39	1	8:43:58	1	8:33:55	1	8:15:45	7	8:29:25	1
8:33:20	2	9:09:40	1	8:06:05	2	9:31:00	1	8:45:01	3	8:36:09	2	8:17:49	2	8:31:49	2
8:34:35	1	9:10:32	1	8:08:28	2	9:34:19	1	8:46:20	1	8:37:30	1	8:18:56	1	8:33:04	4
8:35:33	1	9:11:43	1	8:09:31	3	9:36:55	1	8:47:09	1	8:38:48	2	8:20:12	9	8:33:33	2
8:36:45	1	9:16:59	1	8:10:38	2	9:43:31	2	8:48:14	1	8:40:10	2	8:21:15	11	8:34:16	2
8:38:08	1	9:21:02	1	8:11:21	5	9:45:26	1	8:49:24	1	8:42:37	3	8:22:14	7	8:35:25	2
8:39:05	1	9:23:02	3	8:13:33	2	9:50:46	1	8:50:15	1	8:43:48	3	8:23:32	14	8:36:37	3
8:41:11	1	9:24:02	3	8:15:22	6	9:56:36	1	8:51:08	1	8:45:11	1	8:24:33	1	8:39:14	1
8:42:12	2	9:26:03	1	8:16:36	7	10:00:49	1	8:51:51	1	8:46:08	1	8:25:31	8	8:40:37	3
8:45:53	1	9:30:03	1	8:17:39	6			8:52:55	2	8:49:15	1	8:27:09	10	8:42:56	1
8:46:56	1	9:34:22	1	8:18:51	4			8:54:56	1	8:50:15	2	8:28:43	7	8:43:21	1
8:48:51	3	9:35:45	1	8:20:59	2			8:56:05	1	8:51:08	1	8:29:25	9	8:44:13	4
8:50:03	2	9:39:36	1	8:22:08	2			8:57:16	3	8:51:51	1	8:30:39	1	8:47:37	4
8:53:49	4	9:40:37	1	8:23:33	6			8:58:21	1	8:52:58	1	8:31:49	14	8:48:37	1
8:55:47	2	9:43:44	2	8:25:09	6			8:59:32	1	8:54:11	2	8:33:17	14	8:49:40	3
8:56:40	1	9:48:56	2	8:26:06	4			9:02:49	2	8:54:55	1	8:34:16	13	8:50:27	3
8:57:56	2	9:50:58	1	8:27:03	3			9:04:53	1	8:57:07	1	8:35:25	10	8:50:46	1
9:01:07	1	9:53:57	1	8:28:27	8			9:07:06	2	8:59:32	1	8:36:37	6	8:52:25	4
9:02:08	7			8:29:40	6			9:07:31	1	9:04:53	1	8:38:03	11	8:53:31	1

9:04:32	1			8:30:53	6			9:09:11	1	9:06:07	1	8:39:26	18	8:54:23	2
9:07:11	1			8:32:02	3			9:11:34	1	9:07:15	2	8:40:37	9	8:55:39	3
9:08:24	3			8:33:15	4			9:12:59	1	9:08:11	1	8:42:04	8	8:56:20	2
9:09:29	5			8:34:28	2			9:15:27	2	9:09:20	1	8:44:27	4	8:58:46	1
9:10:32	1			8:35:54	8			9:17:32	1	9:10:20	1	8:45:35	9	9:00:01	2
9:11:31	1			8:37:15	2			9:18:41	1	9:11:34	1	8:46:46	9	9:00:42	3
9:12:42	1			8:38:16	4			9:19:51	3	9:14:21	1	8:47:37	15	9:01:14	2
9:14:42	1			8:39:34	5			9:20:53	3	9:15:41	1	8:48:50	7	9:03:06	1
9:16:59	1			8:40:50	3			9:21:47	3	9:16:41	3	8:49:40	7	9:03:54	4
9:17:51	1			8:42:58	5			9:23:55	1	9:17:35	1	8:50:27	1	9:05:45	2
9:18:57	1			8:44:14	3			9:24:55	1	9:18:34	1	8:52:15	9	9:06:53	1
9:21:57	4			8:45:15	2			9:26:10	3	9:19:51	2	8:53:18	8	9:07:32	6
9:23:02	2			8:46:19	2			9:28:59	1	9:22:46	1	8:54:36	8	9:08:34	4
9:24:02	1			8:47:06	1			9:32:03	3	9:24:03	3	8:55:13	13	9:09:35	1
9:25:00	1			8:47:45	3			9:33:04	3	9:26:09	1	8:56:20	12	9:10:43	4
9:26:03	1			8:48:39	3			9:36:01	2	9:27:03	2	8:57:39	18	9:12:08	2
9:31:03	3			8:49:45	4			9:38:05	2	9:28:00	1	8:58:46	11	9:13:18	2
9:32:04	1			8:51:03	6			9:39:07	2	9:28:59	1	9:00:12	4	9:14:39	1
9:33:01	1			8:51:35	2			9:40:06	2	9:32:04	1	9:01:25	2	9:15:52	2
9:34:22	1			8:52:58	6			9:42:46	1	9:33:04	1	9:03:54	1	9:16:22	1
9:35:45	5			8:54:05	7			9:43:37	1	9:34:03	3	9:05:15	1	9:16:56	2
9:40:37	1			8:55:25	7			9:46:37	2	9:35:03	1	9:06:33	9	9:18:08	2
9:41:42	2			8:56:37	6			9:49:38	1	9:37:08	2	9:07:44	8	9:19:34	1
9:42:35	1			8:58:03	6			9:54:48	1	9:38:16	2	9:08:47	10	9:21:26	3
9:45:46	2			8:59:42	6			9:56:09	2	9:40:13	1	9:09:47	8	9:22:09	3
9:46:39	2			9:00:40	6			9:58:56	1	9:42:47	1	9:10:43	10	9:22:31	1
9:48:56	1			9:01:40	8			10:00:01	2	9:46:37	1	9:11:58	8	9:24:30	2
9:50:03	3			9:03:00	5			10:01:14	2	9:51:36	1	9:13:18	9	9:25:26	3
9:50:58	1			9:04:09	4			10:02:01	1	9:52:46	1	9:14:51	4	9:29:33	4
9:51:54	3			9:05:11	6			10:03:11	2	9:54:48	1	9:15:52	5	9:30:52	1
9:52:57	2			9:06:10	4					9:56:00	2	9:16:56	1	9:32:30	1
9:53:57	3			9:07:20	4					10:01:14	1	9:18:00	6	9:33:31	1
9:55:58	1			9:08:24	1					10:03:10	1	9:19:11	12	9:34:55	2
9:57:57	2			9:09:59	6							9:20:09	3	9:40:30	2
				9:11:17	1							9:21:10	5	9:42:10	3
				9:12:31	4							9:22:09	1	9:44:38	1
				9:13:35	2							9:23:13	8	9:45:14	1
				9:14:11	6							9:24:18	6	9:46:50	1
				9:15:23	4							9:25:12	6	9:49:02	3
				9:16:32	1							9:27:28	2	9:50:27	2
				9:17:33	2							9:28:19	4	9:51:01	1
				9:18:47	2							9:29:25	4	9:52:01	1
				9:20:53	1							9:31:23	3	9:54:09	1
				9:21:38	1							9:32:30	4	9:55:44	3
				9:22:53	7							9:33:31	1	9:56:26	3
				9:23:53	6							9:34:28	6	9:56:49	2
				9:24:43	1							9:36:22	6	9:57:32	3
				9:25:39	4							9:37:20	2		
				9:26:58	2							9:38:30	1		
				9:27:50	2							9:40:43	7		
				9:28:52	1							9:43:13	1		
				9:30:52	4							9:44:03	9		
				9:31:44	1							9:44:55	3		
				9:32:47	1							9:46:01	3		
				9:34:56	4							9:46:50	4		
				9:37:06	7							9:48:03	7		
				9:39:37	5							9:49:13	3		
				9:40:29	5							9:50:02	3		
				9:41:25	2							9:51:50	3		
				9:42:24	4							9:56:26	1		
				9:45:39	2							9:57:23	5		
				9:46:27	4							9:59:14	1		
				9:47:37	4							10:00:26	5		
				9:48:13	6							10:01:25	1		
				9:50:22	3							10:03:26	1		
				9:51:27	4										
				9:53:46	4										
				9:54:42	2										
				9:56:36	2										
				9:56:49	1										
				9:57:49	1										
				9:58:37	2										
				9:59:51	3										
				10:01:04	2										

AVE

2.0

1.7

4.5

1.1

1.5

1.4

8.2

2.2

Report Type:	Queue Length
Geocounts Job ID:	1654999917955
Client Name:	TTPP
Location:	Newcastle
Survey Site:	IC02 (Hunter St/Steel St)
Coordinates:	-32.9267855, 151.7640363
Survey Date:	Tuesday, 19th July 2022
Survey Time(s):	16:00-19:00
Peak Period:	16:45-15:45



Queue (number of vehicles) recorded at start of green light phase for each lane

PM															
Steel St (north)				Hunter St (east)				Steel St (south)				Hunter St (west)			
Time	Lane 1 (left/thru)	Time	Lane 2 (right/thru)	Time	Lane 1 (left/thru)	Time	Lane 2 (right)	Time	Lane 1 (left/thru)	Time	Lane 2 (right/thru)	Time	Lane 1 (left/thru)	Time	Lane 2 (right)
16:01:37	1	16:00:41	1	16:02:24	1	16:02:41	1	16:06:41	3	16:04:52	1	16:08:07	3	16:04:07	2
16:02:52	4	16:02:52	4	16:03:31	7	16:03:39	1	16:07:42	2	16:08:43	1	16:10:07	1	16:05:06	1
16:03:38	3	16:03:38	6	16:04:31	5	16:07:31	1	16:08:52	1	16:10:41	4	16:11:06	2	16:10:33	2
16:04:39	1	16:04:39	1	16:05:34	2	16:10:48	1	16:09:49	1	16:14:05	1	16:12:07	3	16:12:07	2
16:05:48	3	16:05:48	3	16:06:32	2	16:17:13	1	16:10:41	1	16:16:07	1	16:13:16	2	16:13:16	3
16:06:54	3	16:06:54	3	16:07:31	3	16:19:01	1	16:11:54	1	16:17:07	6	16:14:33	7	16:14:46	3
16:07:59	1	16:07:59	3	16:08:34	4	16:30:41	1	16:13:02	2	16:18:10	1	16:15:27	1	16:17:33	2
16:09:06	1	16:09:06	4	16:09:54	3	16:31:30	1	16:13:57	1	16:20:06	1	16:16:33	1	16:18:34	2
16:11:07	3	16:11:07	5	16:10:48	1	16:32:37	1	16:15:01	1	16:24:27	1	16:17:33	8	16:20:30	1
16:13:04	1	16:12:05	2	16:11:45	2	16:34:36	2	16:16:07	1	16:25:37	1	16:18:34	1	16:21:41	2
16:14:06	1	16:13:04	1	16:12:58	2	16:35:28	1	16:17:21	2	16:27:56	1	16:19:32	7	16:22:35	5
16:15:15	1	16:14:06	1	16:14:11	3	16:37:10	3	16:18:09	2	16:29:00	2	16:20:30	1	16:23:47	2
16:16:19	1	16:15:15	4	16:15:13	2	16:37:21	2	16:19:11	1	16:29:58	1	16:21:41	7	16:27:03	2
16:17:25	5	16:16:19	4	16:15:58	5	16:38:06	3	16:20:15	1	16:30:56	1	16:25:55	2	16:27:38	1
16:20:48	1	16:17:25	2	16:17:10	2	16:39:04	1	16:21:18	2	16:35:39	1	16:27:03	2	16:28:14	3
16:21:49	2	16:19:48	3	16:18:14	5	16:41:26	1	16:25:30	3	16:36:48	1	16:28:14	1	16:29:10	1
16:22:53	1	16:20:48	1	16:19:15	3	16:42:46	1	16:28:53	1	16:37:38	1	16:30:23	1	16:32:09	3
16:25:43	1	16:22:53	1	16:20:25	2	16:44:08	2	16:31:08	2	16:38:38	3	16:32:09	3	16:33:58	4
16:27:37	3	16:27:37	1	16:21:20	3	16:48:39	1	16:31:58	1	16:41:23	4	16:33:58	4	16:35:23	1
16:29:36	2	16:28:40	1	16:23:42	4	16:50:06	2	16:35:52	1	16:42:14	1	16:35:16	7	16:35:52	2
16:33:18	6	16:33:18	4	16:24:53	1	16:55:53	2	16:36:48	1	16:43:36	1	16:35:52	7	16:37:31	1
16:34:12	2	16:34:12	1	16:26:47	2	16:57:18	3	16:37:38	4	16:46:05	1	16:37:06	1	16:37:51	4
16:35:11	4	16:37:32	1	16:27:50	4	17:00:39	1	16:42:14	2	16:47:18	1	16:37:51	5	16:38:21	2
16:36:27	5	16:38:52	2	16:28:51	3	17:02:35	1	16:43:19	2	16:48:49	2	16:39:17	11	16:39:03	2
16:37:32	4	16:40:16	1	16:29:25	2	17:08:07	1	16:44:45	3	16:50:31	3	16:41:03	2	16:40:43	4
16:38:52	1	16:42:00	3	16:30:41	4	17:11:20	1	16:45:52	4	16:54:35	1	16:41:52	11	16:41:42	3
16:40:16	2	16:43:39	2	16:31:30	1	17:12:37	1	16:47:18	1	16:55:57	2	16:42:49	6	16:43:14	1
16:41:47	3	16:44:38	5	16:32:35	7	17:14:03	2	16:48:01	1	16:57:29	2	16:43:44	2	16:43:44	1
16:43:17	1	16:46:27	2	16:33:33	4	17:15:53	2	16:50:31	2	16:59:09	1	16:45:12	3	16:45:00	5
16:44:38	3	16:47:32	1	16:34:33	5	17:18:43	1	16:53:23	1	17:01:56	2	16:46:42	16	16:46:20	2
16:46:08	3	16:48:57	2	16:35:44	10	17:19:46	1	16:55:57	1	17:03:19	2	16:47:58	10	16:47:11	4
16:47:32	2	16:50:36	3	16:37:20	8	17:22:55	1	16:57:29	2	17:04:30	2	16:49:20	2	16:47:42	5
16:50:36	3	16:52:01	3	16:38:19	10	17:24:13	2	16:59:01	4	17:05:47	2	16:52:26	5	16:49:20	1
16:52:01	3	16:55:10	5	16:39:04	8	17:26:13	1	17:00:39	4	17:06:59	1	16:53:57	11	16:50:49	4
16:53:23	2	16:56:17	7	16:40:21	10	17:27:18	2	17:02:08	4	17:09:25	1	16:58:01	11	16:52:13	4
16:55:00	1	16:57:28	3	16:41:46	10	17:30:03	2	17:05:47	2	17:10:18	1	16:59:41	3	16:53:43	2
16:56:17	1	16:59:59	1	16:42:59	8	17:37:23	1	17:06:59	1	17:13:18	4	17:01:11	3	16:54:59	2
16:58:43	2	17:01:12	1	16:44:38	15	17:38:48	1	17:09:25	2	17:14:41	1	17:02:22	4	16:56:17	2
16:59:59	2	17:02:19	4	16:45:58	11	17:44:45	1	17:10:18	2	17:15:58	1	17:03:46	9	16:57:58	2
17:01:09	2	17:04:24	2	16:47:33	11	17:48:12	1	17:14:30	2	17:17:09	1	17:04:55	2	16:58:55	3
17:02:16	1	17:05:14	1	16:48:58	9	17:52:07	1	17:15:58	3	17:20:07	1	17:06:22	2	16:59:28	2
17:03:17	1	17:06:18	3	16:50:27	8	17:54:43	1	17:18:32	3	17:21:27	2	17:09:42	8	17:01:28	2
17:04:24	4	17:07:29	3	16:51:41	10	17:56:50	1	17:19:56	2	17:23:10	2	17:10:43	1	17:02:22	4
17:05:14	3	17:08:04	2	16:52:56	7	17:57:54	1	17:20:22	3	17:24:32	1	17:11:54	4	17:02:51	1
17:06:18	4	17:10:07	6	16:54:41	10	18:01:29	1	17:21:27	3	17:25:48	5	17:13:43	9	17:03:46	2
17:07:29	4	17:11:37	5	16:56:09	11	18:03:57	1	17:22:53	1	17:27:33	2	17:16:22	7	17:04:55	2
17:08:04	2	17:13:04	1	16:57:18	3	18:04:43	1	17:27:21	5	17:33:16	2	17:17:54	15	17:05:27	3
17:10:07	7	17:16:10	2	16:59:07	5	18:09:55	2	17:33:22	2	17:34:52	1	17:20:19	1	17:06:10	3
17:11:28	4	17:17:19	3	17:00:32	4	18:13:15	1	17:34:40	2	17:36:17	1	17:21:52	4	17:09:42	2
17:12:53	1	17:18:46	2	17:01:38	7	18:18:26	1	17:34:52	1	17:37:35	6	17:23:32	10	17:10:43	1
17:14:22	3	17:20:19	3	17:02:55	4	18:19:18	2	17:36:18	2	17:39:03	2	17:26:22	1	17:12:34	5
17:15:52	5	17:21:52	2	17:03:43	3	18:21:17	1	17:39:03	2	17:40:37	1	17:28:06	14	17:13:43	3
17:17:19	1	17:23:27	1	17:05:01	1	18:23:59	1	17:40:26	3	17:43:09	2	17:29:22	1	17:15:34	1
17:18:46	6	17:24:52	3	17:06:25	5	18:24:45	1	17:43:46	1	17:44:21	2	17:31:06	1	17:16:12	3
17:20:19	2	17:26:07	4	17:07:22	9	18:26:05	1	17:44:21	2	17:45:34	1	17:32:13	3	17:18:55	7
17:21:52	8	17:27:48	4	17:08:08	9	18:29:17	1	17:45:41	1	17:46:46	2	17:33:52	5	17:20:19	7
17:23:21	7	17:30:32	3	17:09:21	9	18:31:11	1	17:46:57	2	17:49:31	2	17:35:18	1	17:21:19	2
17:24:41	2	17:33:35	3	17:10:31	10	18:32:37	1	17:48:02	2	17:50:25	2	17:36:37	2	17:21:52	4
17:26:07	4	17:35:06	2	17:11:20	18	18:33:22	1	17:49:10	1	17:51:31	1	17:38:01	3	17:23:21	4
17:27:37	5	17:36:17	1	17:12:55	17	18:35:08	1	17:50:16	2	17:53:45	3	17:39:22	1	17:24:16	1
17:29:07	4	17:38:39	1	17:14:05	17	18:37:39	1	17:52:31	4	17:55:04	1	17:41:02	3	17:25:38	1
17:30:32	3	17:40:57	3	17:15:49	9	18:42:06	1	17:53:45	3	17:58:50	2	17:42:34	4	17:28:36	5
17:31:59	2	17:42:18	2	17:17:11	15	18:44:36	1	17:55:04	1	17:59:43	1	17:43:33	5	17:29:22	4
17:33:24	3	17:44:33	1	17:18:38	16	18:48:24	1	17:56:17	1	18:03:17	1	17:44:54	3	17:30:51	4
17:34:52	5	17:46:50	3	17:20:08	14	18:51:23	1	17:57:32	6	18:04:21	2	17:45:56	4	17:32:59	4
17:36:08	3	17:48:02	2	17:21:13	23	18:59:02	2	17:58:52	3	18:06:47	2	17:47:14	8	17:33:36	4
17:37:17	2	17:50:31	3	17:22:47	20			17:59:53	2	18:09:09	3	17:48:34	5	17:34:12	1
17:38:28	2	17:51:51	3	17:24:14	20			18:00:11	1	18:10:12	1	17:49:50	9	17:35:09	1
17:39:43	4	17:52:55	1	17:26:13	15			18:00:46	1	18:11:22	2	17:50:41	1	17:36:02	3

17:40:57	4	17:54:49	2	17:26:38	13			18:01:51	1	18:13:14	1	17:52:00	6	17:36:37	2
17:42:18	4	17:56:07	1	17:28:38	20			18:03:09	3	18:14:28	1	17:52:52	2	17:37:04	1
17:44:20	3	17:57:19	1	17:30:15	17			18:04:21	2	18:15:20	1	17:54:10	8	17:38:01	3
17:45:28	3	17:58:34	2	17:31:54	17			18:05:36	1	18:16:22	2	17:55:25	2	17:38:50	1
17:48:02	2	17:59:47	1	17:33:18	13			18:09:09	1	18:17:34	1	17:58:22	7	17:39:44	2
17:50:31	2	18:01:03	1	17:34:43	15			18:10:12	2	18:20:27	1	17:59:16	2	17:41:25	1
17:51:39	1	18:02:15	1	17:35:48	3			18:11:10	3	18:21:28	1	18:00:08	5	17:42:21	4
17:56:07	2	18:03:13	1	17:37:39	3			18:12:24	2	18:22:37	1	18:00:59	1	17:43:05	4
17:57:19	2	18:06:15	1	17:39:06	7			18:13:14	1	18:23:31	1	18:02:15	3	17:43:33	5
17:58:34	2	18:09:22	4	17:40:20	4			18:15:20	3	18:24:27	1	18:03:31	4	17:44:46	1
18:01:03	2	18:11:19	1	17:41:23	5			18:18:22	2	18:25:43	1	18:04:42	4	17:45:14	1
18:02:06	1	18:12:20	1	17:42:23	4			18:21:28	2	18:26:40	1	18:06:00	5	17:46:07	3
18:05:08	1	18:15:26	1	17:43:39	7			18:22:29	1	18:28:03	1	18:07:13	1	17:47:37	1
18:11:19	3	18:17:34	2	17:44:45	7			18:24:35	3	18:30:15	1	18:09:34	3	17:48:46	1
AVE	3.2		2.6		10.3			1.5		2.3		1.8		5.2	2.9

Appendix E

Traffic Control Signal (TCS) Plans

TCS 923



Transport
Roads & Maritime
Services

1. This site is SCATS linked.
2. Audio tactile push buttons are provided on posts 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12.
3. Operation in accordance with Double Diamond Overlap standard TS-TN-027.
4. Special Stop Signs (R1-4) are on posts 2 and 8.
5. Kerb ramps in accordance with model drawing MD.R173.B01.A.1.
6. Pedestrian fence in accordance with RMS standard (Road) drawing R0800-16.
7. P3-P4 and P4-P3 Push buttons place an advance call for P4 and P3 pedestrians respectively.
8. P5-P6 and P6-P5 Push buttons place an advance call for P6 and P5 pedestrians respectively.
9. CCTV provided on post 5. CCTV equipment located in TCS controller.
10. Trees on approach to the intersection to be regularly inspected and trimmed by Council to maintain lantern visibility.
11. Post 10 has "Illegal to do U-turns at traffic lights" sign for eastbound approach.
12. Vertical louvers are placed in both aspects of the pedestrian lanterns on posts 3, 6, 9 and 12.

POST	TYPE	LENGTH	OFFSET	REMARKS
1	2	4.1	1.0	Existing
2	5S	-	1.0	Existing
3	2	4.1	1.0	Existing (0.35m offset plate)
4	2	4.1	1.0	Existing
5	2	4.1	1.0	Existing
6	2	4.1	0.6	Existing
7	2	4.1	1.2	Existing
8	4	-	1.0	Existing
9	2	4.1	1.0	Existing
10	2	4.1	1.0	Existing
11	2	4.1	1.0	Existing
12	2	4.1	1.0	Existing

SIGNAL GROUP 1 PHASE CHART														
SIGNAL GROUP	A	B	C	D	D1	D2	E	F1	F2	G	G1	G2	TABLE TYPE	REMARKS
V1	X	X									X		-	Use TS-TN-027.
V2	X		X									X	-	Use TS-TN-027.
V3		X								X	X		-	Use TS-TN-027.
V4			X							X		X	-	Use TS-TN-027.
V5					X		X	X					-	Use TS-TN-027.
V6						X	X		X				-	Use TS-TN-027.
V7				X	X			X					-	Use TS-TN-027.
V8				X		X			X				-	Use TS-TN-027.
V9	C	C		C	C			X			C		Similar to 157	Timed RA protection for P1 pedestrians. Push button on post 8 extends the RA subject to timer. Full protection for P6 pedestrians.
V10	C		C	C		C			X			C	Similar to 157	Timed RA protection for P2 pedestrians. Push button on post 2 extends the RA subject to timer. Full protection for P4 pedestrians.
V11			C							C		C	176	
V12		C								C	C		176	
P1	X	X									X		108	
P2	X			X								X	108	
P3				X						X		X	115	
P4				X	X	X	X	X					-	Conditional in D/D2 with XSF 11.
P5		X								X	X		115	
P6						X	X		X				-	Conditional in D/D1 with XSF 12.

A ORIGINAL ISSUE 1 st ISSUE Reconstruction of existing site WAE. C ISSUE COMPLETE TS 08/02/2019 J11 HR 540 WAE. L10mm added 27/5/20 6, 5, 12 11 DRT	PUBLIC UTILITY LEGEND		REFERENCE PLANS		U.B.D. Ref. Map 145 KS		DESIGN APPROVAL		RMS RECOMMENDATION		RMS ACCEPTANCE		ROADS AND MARITIME SERVICES				EXISTING ☒ PROPOSED ☐			
	HYDRANT ☐		SYMBOLS/ABRVS VDD003-6		I.S.G. E: 371 307		APPROVED		ROAD DESIGN ENGINEERING		ACCEPTED		NEWCASTLE COUNCIL AREA TRAFFIC SIGNALS AT KING STREET AND STEEL STREET NEWCASTLE				CADD FILE: VV0923_9C_DES.dgn			
	STOP VALVE ☒		STD POSN CMPT VDD01-5		CO-ORDS N: 1 355 023		DESIGNED: A.SALMA		NAME Michael Manning		NAME Glenn Wynn						SCALE 5 0 (1:200) 5 10		ISSUE	
	GAS VALVE ☒		INSTL STOP DET VCO05-17		CHECKED: M.HENAWAY		POSITION M.HENAWAY		POSITION Sr Road Design Mgr		POSITION A Regional Director						FILE SF2012/014345		SUPERSEDES SHEET/ISSUE 9/A	
SEWER MANHOLE ☒		15M GROUP GP TS-TN-019		M.HENAWAY		DATE 19.06.2018		DATE 08-10-2018		DATE 9 Oct 2018		NETWORK OPERATIONS		C						
COMMS PIT ☒		DET LOGIC CP TS-TN-020		SITE CHECKED										SHEET						
ELECT LIGHT POLE ☒		PED MVT GP TS-TN-021		M.HENAWAY										9						
POWER POLE ☒		CABLE INSTALL SHEET 10		RECOMMENDED																
STAY POLE ☒		CABLE CHART SHEET 11																		
TELEPHONE BOX ☒		SURVEYOR: RMS																		
COMMS PILLAR ☒		DATE: 2014																		

Appendix F

SCATS Interpreted History Data

TCS 923

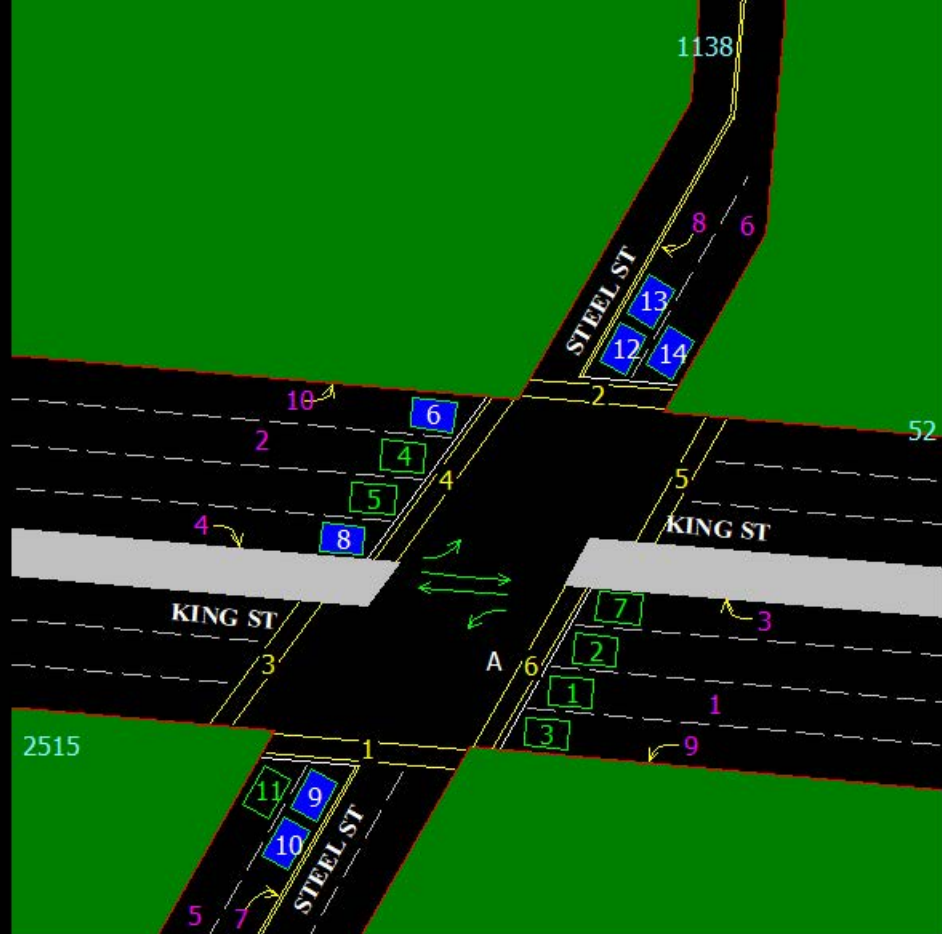
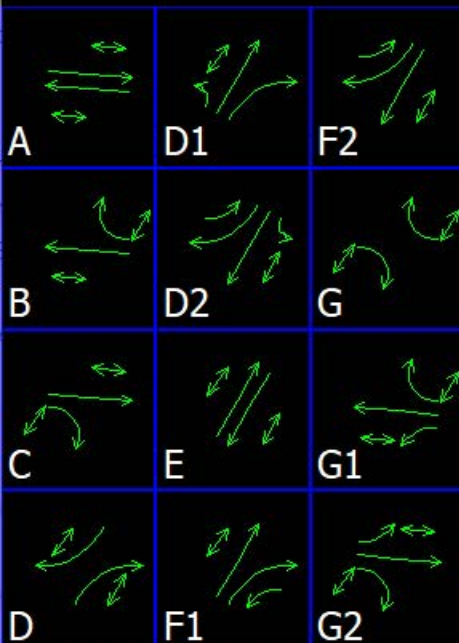
NEWCASTLE WEST

HAM

2E9

SS=65

12 PHASES



Report: Periodic statistics for site 923

15 minute intervals

From: Tuesday, 19 July 2022, 12:00:00 AM AEST

To: Tuesday, 19 July 2022, 11:59:59 PM AEST

Tuesday, 19 July 2022, 12:00:00 AM AEST to Tuesday, 19 July 2022, 12:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
Unknown phase	1	15	15	15	15
A phase	9	27	241	74	667
D phase	9	13	19	13	123
E phase	4	13	14	13	53
G phase	3	13	13	13	39
Actual cycle	9	15	268	93	843
Signal group 1	8	20	234	71	568
Signal group 2	8	20	234	75	607
Signal group 4	3	6	6	6	18
Signal group 5	4	6	7	6	25
Signal group 6	4	6	7	6	25
Signal group 7	9	5	12	6	58
Signal group 8	9	5	12	6	58
Signal group 9	8	31	247	82	657
Signal group 10	4	46	247	148	595
Signal group 11	3	6	6	6	18
Signal group 18	1	6	6	6	6
Pedestrian movement 6	1	6	6	6	6

Tuesday, 19 July 2022, 12:15:00 AM AEST to Tuesday, 19 July 2022, 12:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	7	17	241	94	663
D phase	7	13	13	13	91
E phase	4	13	14	13	54
G phase	3	13	14	13	40
Actual cycle	7	43	267	119	834
Signal group 1	7	10	234	87	614
Signal group 2	7	10	234	93	654
Signal group 4	3	6	7	6	19
Signal group 5	4	6	7	6	26
Signal group 6	5	6	7	6	32
Signal group 7	6	5	6	5	33
Signal group 8	7	5	6	5	39
Signal group 9	7	22	246	98	689
Signal group 10	4	37	422	191	765
Signal group 11	3	6	6	6	18

Tuesday, 19 July 2022, 12:30:00 AM AEST to Tuesday, 19 July 2022, 12:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	4	75	253	166	667
D phase	5	13	13	13	65
E phase	2	13	13	13	26
G phase	2	13	13	13	26

Actual cycle	4	101	266	189	758
Signal group 1	4	68	246	159	639
Signal group 2	4	81	259	166	665
Signal group 4	2	6	6	6	12
Signal group 5	3	6	6	6	18
Signal group 6	2	6	6	6	12
Signal group 7	5	6	6	6	30
Signal group 8	4	6	6	6	24
Signal group 9	3	81	177	144	432
Signal group 10	2	177	440	308	617
Signal group 11	2	6	6	6	12

Tuesday, 19 July 2022, 12:45:00 AM AEST to Tuesday, 19 July 2022, 1:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	6	16	408	102	614
D phase	6	13	13	13	78
E phase	3	13	16	14	43
G phase	4	13	13	13	52
Actual cycle	6	45	421	126	761
Signal group 1	6	8	401	95	571
Signal group 2	6	21	401	101	610
Signal group 4	4	6	6	6	24
Signal group 5	4	6	8	6	27
Signal group 6	3	6	8	7	21
Signal group 7	6	6	6	6	36
Signal group 8	5	6	6	6	30
Signal group 9	5	8	458	128	643
Signal group 10	3	77	401	211	635
Signal group 11	4	5	6	5	23

Tuesday, 19 July 2022, 1:00:00 AM AEST to Tuesday, 19 July 2022, 1:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	7	16	226	97	685
D phase	6	13	13	13	78
E phase	5	13	19	14	71
G phase	2	15	16	15	31
Actual cycle	6	35	255	124	744
Signal group 1	7	8	219	90	634
Signal group 2	6	8	233	112	672
Signal group 4	2	7	8	7	15
Signal group 5	6	6	11	7	42
Signal group 6	6	6	11	7	42
Signal group 7	6	5	6	5	34
Signal group 8	6	5	6	5	34
Signal group 9	7	8	232	99	698
Signal group 10	5	21	263	148	743
Signal group 11	1	7	7	7	7
Signal group 15	1	6	6	6	6
Signal group 16	1	6	6	6	6
Pedestrian movement 3	1	6	6	6	6
Pedestrian movement 4	1	6	6	6	6

Tuesday, 19 July 2022, 1:15:00 AM AEST to Tuesday, 19 July 2022, 1:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	5	16	301	126	634
D phase	3	13	13	13	39
E phase	3	13	14	13	41
Actual cycle	5	30	327	142	714
Signal group 1	5	9	294	119	599
Signal group 2	5	9	294	119	599
Signal group 5	5	5	6	5	29
Signal group 6	3	5	6	5	17
Signal group 7	3	6	6	6	18
Signal group 8	1	6	6	6	6
Signal group 9	3	13	497	217	652
Signal group 10	5	9	307	122	612

Tuesday, 19 July 2022, 1:30:00 AM AEST to Tuesday, 19 July 2022, 1:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
D phase	1	13	13	13	13
E phase	1	13	13	13	13
Signal group 5	1	6	6	6	6
Signal group 6	1	6	6	6	6
Signal group 7	1	5	5	5	5
Signal group 8	1	5	5	5	5

Tuesday, 19 July 2022, 1:45:00 AM AEST to Tuesday, 19 July 2022, 2:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	4	15	174	62	250
D phase	5	13	15	13	68
E phase	1	13	13	13	13
G phase	1	13	13	13	13
Actual cycle	4	28	200	79	318
Signal group 1	4	8	167	55	222
Signal group 2	4	8	167	58	235
Signal group 4	1	6	6	6	6
Signal group 5	2	6	8	7	14
Signal group 6	3	6	6	6	18
Signal group 7	3	6	8	6	20
Signal group 8	4	6	6	6	24
Signal group 9	3	8	180	65	197
Signal group 10	1	38	38	38	38
Signal group 11	1	6	6	6	6

Tuesday, 19 July 2022, 2:00:00 AM AEST to Tuesday, 19 July 2022, 2:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	4	16	107	73	292
D phase	3	13	13	13	39
E phase	1	20	20	20	20
G phase	3	13	13	13	39
Actual cycle	3	36	130	85	257
Signal group 1	4	9	100	66	264
Signal group 2	4	22	113	75	303

Signal group 4	3	6	6	6	18
Signal group 5	1	13	13	13	13
Signal group 6	1	13	13	13	13
Signal group 7	4	5	6	5	23
Signal group 8	4	5	6	5	23
Signal group 9	4	9	113	75	303
Signal group 10	1	243	243	243	243
Signal group 11	3	6	6	6	18

Tuesday, 19 July 2022, 2:15:00 AM AEST to Tuesday, 19 July 2022, 2:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	7	16	129	73	512
D phase	7	13	13	13	91
E phase	5	13	13	13	65
G phase	4	13	14	13	54
Actual cycle	7	56	156	101	709
Signal group 1	7	8	122	66	462
Signal group 2	7	21	136	73	516
Signal group 4	4	6	6	6	24
Signal group 5	6	6	6	6	36
Signal group 6	5	6	6	6	30
Signal group 7	7	5	6	5	41
Signal group 8	6	5	6	5	34
Signal group 9	6	22	200	93	560
Signal group 10	5	51	151	121	607
Signal group 11	4	5	6	5	22

Tuesday, 19 July 2022, 2:30:00 AM AEST to Tuesday, 19 July 2022, 2:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	7	20	139	78	549
D phase	7	12	14	13	91
E phase	1	13	13	13	13
G phase	5	13	15	14	70
Actual cycle	7	33	180	99	697
Signal group 1	8	13	132	72	577
Signal group 2	7	13	208	93	654
Signal group 4	5	6	8	6	33
Signal group 5	4	5	6	5	23
Signal group 6	1	6	6	6	6
Signal group 7	7	5	6	5	39
Signal group 8	4	5	6	5	22
Signal group 9	4	40	186	103	414
Signal group 10	3	13	273	144	432
Signal group 11	5	6	8	6	32

Tuesday, 19 July 2022, 2:45:00 AM AEST to Tuesday, 19 July 2022, 3:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	4	45	361	199	796
D phase	3	13	13	13	39
E phase	3	13	13	13	39
G phase	1	16	16	16	16
Actual cycle	3	61	241	167	503

Signal group 1	4	38	354	192	768
Signal group 2	3	168	354	263	791
Signal group 4	1	8	8	8	8
Signal group 5	3	6	6	6	18
Signal group 6	3	6	6	6	18
Signal group 7	3	6	6	6	18
Signal group 8	3	6	6	6	18
Signal group 9	3	38	221	146	440
Signal group 10	3	181	354	272	817
Signal group 11	1	8	8	8	8

Tuesday, 19 July 2022, 3:00:00 AM AEST to Tuesday, 19 July 2022, 3:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	3	16	575	202	607
D phase	2	13	13	13	26
E phase	2	13	13	13	26
G phase	1	15	15	15	15
Actual cycle	3	31	601	224	674
Signal group 1	3	8	568	195	585
Signal group 2	2	9	599	304	608
Signal group 4	1	8	8	8	8
Signal group 5	2	6	6	6	12
Signal group 6	2	6	6	6	12
Signal group 7	2	5	6	5	11
Signal group 8	2	5	6	5	11
Signal group 9	2	21	581	301	602
Signal group 10	2	21	612	316	633
Signal group 11	1	8	8	8	8

Tuesday, 19 July 2022, 3:15:00 AM AEST to Tuesday, 19 July 2022, 3:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	2	186	190	188	376
D phase	3	13	13	13	39
E phase	2	13	13	13	26
G phase	1	13	13	13	13
Actual cycle	2	212	216	214	428
Signal group 1	2	179	183	181	362
Signal group 2	2	179	196	187	375
Signal group 4	1	6	6	6	6
Signal group 5	2	6	6	6	12
Signal group 6	2	6	6	6	12
Signal group 7	3	6	6	6	18
Signal group 8	3	6	6	6	18
Signal group 9	2	192	196	194	388
Signal group 10	1	408	408	408	408
Signal group 11	1	6	6	6	6

Tuesday, 19 July 2022, 3:30:00 AM AEST to Tuesday, 19 July 2022, 3:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	2	134	153	143	287
D phase	3	13	14	13	40
G phase	1	13	13	13	13

Actual cycle	2	160	167	163	327
Signal group 1	2	127	146	136	273
Signal group 2	2	127	159	143	286
Signal group 4	1	6	6	6	6
Signal group 5	1	7	7	7	7
Signal group 6	1	6	6	6	6
Signal group 7	2	6	7	6	13
Signal group 8	2	6	6	6	12
Signal group 9	1	140	140	140	140
Signal group 11	1	6	6	6	6

Tuesday, 19 July 2022, 3:45:00 AM AEST to Tuesday, 19 July 2022, 4:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	3	120	279	219	658
D phase	4	13	13	13	52
E phase	1	13	13	13	13
G phase	1	13	13	13	13
Actual cycle	3	146	292	241	723
Signal group 1	3	113	272	212	637
Signal group 2	3	113	285	216	650
Signal group 4	1	6	6	6	6
Signal group 5	2	6	6	6	12
Signal group 6	2	6	6	6	12
Signal group 7	3	6	6	6	18
Signal group 8	3	6	6	6	18
Signal group 9	2	265	272	268	537
Signal group 10	1	703	703	703	703
Signal group 11	1	6	6	6	6

Tuesday, 19 July 2022, 4:00:00 AM AEST to Tuesday, 19 July 2022, 4:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	7	15	238	82	575
D phase	7	11	14	12	90
E phase	2	13	14	13	27
G phase	5	13	16	13	69
Actual cycle	7	31	264	106	747
Signal group 1	7	8	231	74	524
Signal group 2	6	27	244	97	587
Signal group 4	5	5	8	6	32
Signal group 5	3	5	7	6	18
Signal group 6	2	5	7	6	12
Signal group 7	7	5	6	5	38
Signal group 8	6	5	6	5	32
Signal group 9	6	26	244	98	592
Signal group 10	2	130	174	152	304
Signal group 11	5	5	8	6	32

Tuesday, 19 July 2022, 4:15:00 AM AEST to Tuesday, 19 July 2022, 4:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	4	19	262	113	453
D phase	5	13	13	13	65
E phase	4	13	18	14	57

G phase	1	13	13	13	13
Actual cycle	4	45	288	140	562
Signal group 1	4	12	255	106	424
Signal group 2	4	25	255	109	437
Signal group 4	1	7	7	7	7
Signal group 5	4	5	11	7	29
Signal group 6	4	5	24	10	42
Signal group 7	4	5	6	5	23
Signal group 8	5	5	6	5	28
Signal group 9	4	24	268	115	462
Signal group 10	3	87	312	165	495
Signal group 11	1	7	7	7	7

Tuesday, 19 July 2022, 4:30:00 AM AEST to Tuesday, 19 July 2022, 4:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	6	16	208	82	493
D phase	5	12	13	12	64
E phase	2	15	19	17	34
G phase	3	13	16	14	43
Actual cycle	6	35	221	100	605
Signal group 1	6	24	201	77	465
Signal group 2	6	8	201	79	476
Signal group 3	1	8	8	8	8
Signal group 4	2	6	6	6	12
Signal group 5	4	6	11	7	30
Signal group 6	2	7	11	9	18
Signal group 7	5	5	6	5	28
Signal group 8	3	5	6	5	16
Signal group 9	3	37	309	151	454
Signal group 10	4	8	274	129	516
Signal group 11	2	6	6	6	12
Signal group 17	1	6	6	6	6
Signal group 18	1	6	6	6	6
Pedestrian movement 5	1	6	6	6	6
Pedestrian movement 6	1	6	6	6	6

Tuesday, 19 July 2022, 4:45:00 AM AEST to Tuesday, 19 July 2022, 5:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	16	185	57	579
D phase	6	12	13	12	77
E phase	6	13	18	14	87
G phase	5	13	16	13	69
Actual cycle	10	29	199	78	786
Signal group 1	9	9	208	60	541
Signal group 2	8	9	253	70	564
Signal group 3	2	6	7	6	13
Signal group 4	3	6	9	7	21
Signal group 5	6	6	11	7	44
Signal group 6	6	6	11	7	44
Signal group 7	6	5	6	5	33
Signal group 8	6	5	6	5	33
Signal group 9	8	9	208	76	611
Signal group 10	7	9	300	90	634

Signal group 11	3	6	9	7	21
Signal group 12	2	6	7	6	13

Tuesday, 19 July 2022, 5:00:00 AM AEST to Tuesday, 19 July 2022, 5:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	9	16	163	57	520
D phase	8	12	14	13	104
E phase	7	13	16	14	100
G phase	4	12	14	13	52
Actual cycle	9	30	203	83	750
Signal group 1	9	8	155	50	452
Signal group 2	8	9	155	64	512
Signal group 4	4	5	6	5	23
Signal group 5	7	6	8	7	50
Signal group 6	7	6	8	7	50
Signal group 7	8	5	7	5	44
Signal group 8	8	5	7	5	44
Signal group 9	9	8	168	60	542
Signal group 10	6	51	168	102	616
Signal group 11	4	5	6	5	23

Tuesday, 19 July 2022, 5:15:00 AM AEST to Tuesday, 19 July 2022, 5:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	8	16	112	51	415
D phase	7	13	14	13	94
E phase	3	13	13	13	39
G phase	3	14	16	14	44
Actual cycle	8	29	125	70	566
Signal group 1	8	8	105	46	370
Signal group 2	7	22	105	56	394
Signal group 3	1	7	7	7	7
Signal group 4	2	6	8	7	14
Signal group 5	6	6	7	6	38
Signal group 6	4	6	6	6	24
Signal group 7	6	6	7	6	39
Signal group 8	4	6	7	6	25
Signal group 9	5	8	191	81	406
Signal group 10	5	32	191	89	449
Signal group 11	2	6	8	7	14
Signal group 12	1	6	6	6	6

Tuesday, 19 July 2022, 5:30:00 AM AEST to Tuesday, 19 July 2022, 5:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	16	15	67	23	371
D phase	9	13	14	13	118
E phase	6	13	19	14	87
G phase	10	13	17	14	143
Actual cycle	16	29	94	43	691
Signal group 1	15	8	60	18	276
Signal group 2	13	8	76	31	404
Signal group 3	1	6	6	6	6
Signal group 4	9	6	10	7	64

Signal group 5	8	5	11	6	53
Signal group 6	7	6	11	6	48
Signal group 7	8	5	7	5	45
Signal group 8	7	5	7	5	40
Signal group 9	12	8	73	30	362
Signal group 10	8	8	102	47	376
Signal group 11	8	5	9	6	52
Signal group 12	1	6	6	6	6
Signal group 13	1	8	8	8	8
Signal group 15	1	8	8	8	8
Pedestrian movement 1	1	8	8	8	8
Pedestrian movement 3	1	8	8	8	8

Tuesday, 19 July 2022, 5:45:00 AM AEST to Tuesday, 19 July 2022, 6:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	15	16	74	35	526
D phase	10	13	15	13	134
E phase	7	13	19	15	107
G phase	7	13	16	14	101
Nominal cycle length	3	35	80	65	195
Active cycle length	3	35	80	65	195
Actual cycle	14	29	100	57	804
Signal group 1	14	9	67	31	441
Signal group 2	14	9	97	36	512
Signal group 3	1	8	8	8	8
Signal group 4	6	6	8	7	43
Signal group 5	10	5	11	7	73
Signal group 6	11	6	11	7	82
Signal group 7	7	5	6	5	40
Signal group 8	8	5	7	6	49
Signal group 9	13	9	87	40	525
Signal group 10	10	9	140	63	634
Signal group 11	5	6	7	6	32
Signal group 12	1	8	8	8	8
Signal group 15	1	6	6	6	6
Signal group 16	1	6	6	6	6
Pedestrian movement 3	1	6	6	6	6
Pedestrian movement 4	1	6	6	6	6

Tuesday, 19 July 2022, 6:00:00 AM AEST to Tuesday, 19 July 2022, 6:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	18	16	50	23	427
D phase	13	13	13	13	169
E phase	9	13	16	13	121
G phase	9	13	14	13	123
Nominal cycle length	1	35	35	35	35
Active cycle length	1	35	35	35	35
Actual cycle	18	29	76	46	840
Signal group 1	19	8	50	20	389
Signal group 2	17	8	64	26	445
Signal group 3	3	6	7	6	19
Signal group 4	6	5	7	6	37
Signal group 5	9	6	20	7	71

Signal group 6	11	6	8	6	70
Signal group 7	11	5	6	5	62
Signal group 8	12	5	6	5	69
Signal group 9	17	8	85	28	485
Signal group 10	10	8	114	51	515
Signal group 11	6	5	7	6	37
Signal group 12	3	5	6	5	17

Tuesday, 19 July 2022, 6:15:00 AM AEST to Tuesday, 19 July 2022, 6:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	20	16	42	20	402
D phase	14	13	14	13	183
E phase	12	13	20	14	175
G phase	8	14	18	15	123
Nominal cycle length	2	35	80	57	115
Active cycle length	2	35	80	57	115
Actual cycle	19	29	68	43	827
Signal group 1	20	8	35	14	290
Signal group 2	17	8	63	21	368
Signal group 3	2	8	10	9	18
Signal group 4	7	6	10	7	52
Signal group 5	14	6	13	7	100
Signal group 6	16	6	22	8	138
Signal group 7	8	6	6	6	48
Signal group 8	12	5	6	5	71
Signal group 9	19	6	48	19	365
Signal group 10	13	8	92	39	518
Signal group 11	6	6	10	6	41
Signal group 13	1	8	8	8	8
Signal group 14	1	6	6	6	6
Signal group 15	1	6	6	6	6
Signal group 16	1	6	6	6	6
Signal group 17	2	6	8	7	14
Signal group 18	2	6	8	7	14
Pedestrian movement 1	1	8	8	8	8
Pedestrian movement 2	1	6	6	6	6
Pedestrian movement 3	1	6	6	6	6
Pedestrian movement 4	1	6	6	6	6
Pedestrian movement 5	2	6	8	7	14
Pedestrian movement 6	2	6	8	7	14

Tuesday, 19 July 2022, 6:30:00 AM AEST to Tuesday, 19 July 2022, 6:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	19	16	49	23	451
D phase	13	13	14	13	170
E phase	11	13	16	13	152
G phase	8	13	16	14	117
Nominal cycle length	3	35	80	65	195
Active cycle length	3	35	80	65	195
Actual cycle	19	29	76	46	890
Signal group 1	19	9	42	17	328
Signal group 2	16	9	65	25	405
Signal group 3	2	7	9	8	16

Signal group 4	7	6	9	7	54
Signal group 5	12	6	8	6	80
Signal group 6	15	5	20	9	136
Signal group 7	6	5	6	5	35
Signal group 8	12	5	6	5	68
Signal group 9	16	9	61	24	392
Signal group 10	11	21	129	47	527
Signal group 11	7	6	9	7	49
Signal group 12	1	6	6	6	6
Signal group 13	1	8	8	8	8
Signal group 17	1	7	7	7	7
Signal group 18	1	6	6	6	6
Pedestrian movement 1	1	8	8	8	8
Pedestrian movement 5	1	7	7	7	7
Pedestrian movement 6	1	6	6	6	6

Tuesday, 19 July 2022, 6:45:00 AM AEST to Tuesday, 19 July 2022, 7:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	15	16	67	24	363
D phase	10	13	19	14	141
E phase	10	13	23	17	174
G phase	12	13	19	15	190
Nominal cycle length	4	35	80	57	230
Active cycle length	4	35	80	57	230
Actual cycle	14	29	107	56	796
Signal group 1	15	8	60	17	269
Signal group 2	14	8	60	28	400
Signal group 3	3	6	10	8	26
Signal group 4	11	6	12	8	94
Signal group 5	12	6	25	13	163
Signal group 6	13	6	26	11	143
Signal group 7	7	6	11	6	47
Signal group 8	6	6	10	6	41
Signal group 9	15	7	73	23	345
Signal group 10	13	9	116	35	466
Signal group 11	9	6	11	7	66
Signal group 12	2	6	10	8	16
Signal group 13	1	8	8	8	8
Signal group 14	1	9	9	9	9
Signal group 15	2	8	8	8	16
Signal group 16	2	6	8	7	14
Signal group 17	1	8	8	8	8
Signal group 18	1	8	8	8	8
Pedestrian movement 1	1	8	8	8	8
Pedestrian movement 2	1	9	9	9	9
Pedestrian movement 3	2	8	8	8	16
Pedestrian movement 4	2	6	8	7	14
Pedestrian movement 5	1	8	8	8	8
Pedestrian movement 6	1	8	8	8	8

Tuesday, 19 July 2022, 7:00:00 AM AEST to Tuesday, 19 July 2022, 7:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	22	78	47	524

D phase	4	13	21	15	63
E phase	8	13	31	18	150
G phase	9	14	19	15	141
Active cycle length	5	57	98	79	397
Actual cycle	10	58	119	83	839
Signal group 1	10	14	120	47	472
Signal group 2	11	28	71	51	568
Signal group 3	1	11	11	11	11
Signal group 4	8	6	12	7	63
Signal group 5	9	6	23	13	118
Signal group 6	9	6	25	14	131
Signal group 7	2	7	14	10	21
Signal group 8	3	6	13	9	27
Signal group 9	8	25	120	55	440
Signal group 10	10	28	137	62	624
Signal group 11	8	5	12	7	56
Signal group 12	1	11	11	11	11
Signal group 13	1	6	6	6	6
Pedestrian movement 1	1	6	6	6	6

Tuesday, 19 July 2022, 7:15:00 AM AEST to Tuesday, 19 July 2022, 7:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	16	59	40	444
D phase	8	13	15	13	108
E phase	11	13	24	16	180
G phase	9	14	21	16	147
Active cycle length	5	58	98	79	397
Actual cycle	10	53	103	81	819
Signal group 1	11	21	52	36	400
Signal group 2	11	9	66	40	450
Signal group 3	5	6	10	9	45
Signal group 4	8	6	14	9	76
Signal group 5	11	6	19	10	116
Signal group 6	11	6	24	14	157
Signal group 7	4	5	6	5	23
Signal group 8	7	6	8	6	45
Signal group 9	10	21	52	35	350
Signal group 10	11	22	60	44	493
Signal group 11	8	5	13	8	68
Signal group 12	1	5	5	5	5
Signal group 13	1	9	9	9	9
Signal group 14	2	8	9	8	17
Signal group 17	4	6	8	7	30
Signal group 18	5	6	8	6	34
Pedestrian movement 1	1	9	9	9	9
Pedestrian movement 2	2	8	9	8	17
Pedestrian movement 5	4	6	8	7	30
Pedestrian movement 6	5	6	8	6	34

Tuesday, 19 July 2022, 7:30:00 AM AEST to Tuesday, 19 July 2022, 7:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	34	43	38	427
D phase	8	13	13	13	104

E phase	11	13	21	16	178
G phase	11	16	20	16	185
Nominal cycle length	3	84	88	86	258
Active cycle length	2	85	86	85	171
Actual cycle	11	76	89	81	894
Signal group 1	11	27	36	31	350
Signal group 2	11	29	43	33	366
Signal group 3	10	8	10	9	90
Signal group 4	11	8	12	9	101
Signal group 5	11	6	25	11	126
Signal group 6	11	6	20	10	113
Signal group 7	7	6	6	6	42
Signal group 8	6	6	6	6	36
Signal group 9	10	29	49	37	373
Signal group 10	10	29	49	37	374
Signal group 11	7	7	11	8	60
Signal group 13	1	8	8	8	8
Signal group 14	1	8	8	8	8
Signal group 15	4	6	8	6	26
Signal group 16	4	6	6	6	24
Signal group 17	10	6	8	6	69
Signal group 18	8	6	8	6	54
Pedestrian movement 1	1	8	8	8	8
Pedestrian movement 2	1	8	8	8	8
Pedestrian movement 3	4	6	8	6	26
Pedestrian movement 4	4	6	6	6	24
Pedestrian movement 5	10	6	8	6	69
Pedestrian movement 6	8	6	8	6	54

Tuesday, 19 July 2022, 7:45:00 AM AEST to Tuesday, 19 July 2022, 8:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	32	44	36	367
D phase	10	13	21	15	150
E phase	9	13	21	15	140
G phase	11	16	24	17	195
Nominal cycle length	2	80	82	81	162
Active cycle length	3	80	82	81	243
Actual cycle	10	74	88	80	807
Signal group 1	10	25	37	29	298
Signal group 2	10	25	37	30	309
Signal group 3	11	8	10	9	100
Signal group 4	11	8	16	10	113
Signal group 5	9	6	19	9	89
Signal group 6	11	6	21	11	130
Signal group 7	6	5	6	5	35
Signal group 8	9	5	13	7	71
Signal group 9	10	14	46	28	288
Signal group 10	10	12	55	34	342
Signal group 11	10	7	15	9	95
Signal group 13	1	8	8	8	8
Signal group 14	3	8	9	8	25
Signal group 15	1	7	7	7	7
Signal group 16	1	9	9	9	9

Signal group 17	11	6	8	7	79
Signal group 18	10	5	9	6	64
Pedestrian movement 1	1	8	8	8	8
Pedestrian movement 2	3	8	9	8	25
Pedestrian movement 3	1	7	7	7	7
Pedestrian movement 4	1	7	7	7	7
Pedestrian movement 5	11	6	8	7	79
Pedestrian movement 6	10	4	8	6	61

Tuesday, 19 July 2022, 8:00:00 AM AEST to Tuesday, 19 July 2022, 8:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	33	55	41	417
D phase	9	13	20	13	124
E phase	10	13	20	15	156
G phase	11	14	17	15	174
Nominal cycle length	4	80	89	85	341
Active cycle length	4	80	87	83	334
Actual cycle	10	70	97	83	834
Signal group 1	10	26	62	37	378
Signal group 2	10	26	51	36	361
Signal group 3	10	7	10	8	83
Signal group 4	9	7	10	8	75
Signal group 5	10	6	22	9	98
Signal group 6	11	8	24	16	176
Signal group 7	2	6	6	6	12
Signal group 8	8	6	13	6	55
Signal group 9	10	26	62	39	391
Signal group 10	9	12	64	41	377
Signal group 11	6	6	8	7	42
Signal group 12	1	6	6	6	6
Signal group 14	3	8	8	8	24
Signal group 15	3	6	8	6	20
Signal group 16	4	6	9	7	30
Signal group 17	9	6	8	6	58
Signal group 18	6	6	9	7	45
Pedestrian movement 2	3	8	8	8	24
Pedestrian movement 3	3	6	8	6	20
Pedestrian movement 4	4	6	7	6	26
Pedestrian movement 5	9	6	8	6	58
Pedestrian movement 6	6	5	7	6	38

Tuesday, 19 July 2022, 8:15:00 AM AEST to Tuesday, 19 July 2022, 8:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	8	30	54	45	365
D phase	8	13	25	16	128
E phase	9	14	26	19	173
G phase	9	16	23	17	160
Nominal cycle length	5	87	120	96	484
Active cycle length	8	85	124	103	826
Actual cycle	8	75	118	97	777
Signal group 1	9	23	48	39	357
Signal group 2	9	23	52	40	363
Signal group 3	9	8	10	9	85

Signal group 4	9	7	16	10	93
Signal group 5	9	7	31	14	134
Signal group 6	9	7	32	19	175
Signal group 7	4	6	9	7	28
Signal group 8	6	7	18	9	59
Signal group 9	9	12	48	29	266
Signal group 10	10	12	51	30	306
Signal group 11	4	6	10	8	34
Signal group 13	4	8	8	8	32
Signal group 14	4	8	14	9	38
Signal group 15	5	6	8	7	35
Signal group 16	6	6	9	6	40
Signal group 17	9	6	8	7	67
Signal group 18	8	6	9	7	60
Pedestrian movement 1	4	8	8	8	32
Pedestrian movement 2	4	8	14	9	38
Pedestrian movement 3	5	6	8	7	35
Pedestrian movement 4	6	6	9	6	39
Pedestrian movement 5	9	6	8	7	67
Pedestrian movement 6	8	6	9	7	58

Tuesday, 19 July 2022, 8:30:00 AM AEST to Tuesday, 19 July 2022, 8:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	7	49	63	57	402
D phase	8	15	20	17	143
E phase	8	14	27	21	172
G phase	7	20	26	22	158
Nominal cycle length	2	118	120	119	238
Active cycle length	5	116	125	119	597
Actual cycle	6	112	125	119	718
Signal group 1	7	42	56	50	353
Signal group 2	7	48	65	55	389
Signal group 3	8	6	13	9	76
Signal group 4	8	12	19	14	118
Signal group 5	8	6	35	18	149
Signal group 6	8	12	35	23	184
Signal group 7	4	7	11	9	37
Signal group 8	6	7	12	10	63
Signal group 9	7	20	56	37	262
Signal group 10	7	34	73	54	383
Signal group 11	2	11	12	11	23
Signal group 12	2	5	7	6	12
Signal group 13	4	8	8	8	32
Signal group 14	2	8	13	10	21
Signal group 15	6	8	8	8	48
Signal group 16	5	9	9	9	45
Signal group 17	6	8	8	8	48
Signal group 18	8	9	9	9	72
Pedestrian movement 1	4	8	8	8	32
Pedestrian movement 2	2	8	13	10	21
Pedestrian movement 3	6	8	8	8	48
Pedestrian movement 4	5	9	9	9	45
Pedestrian movement 5	6	8	8	8	48

Pedestrian movement 6	8	9	9	9	72
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Tuesday, 19 July 2022, 8:45:00 AM AEST to Tuesday, 19 July 2022, 9:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	7	44	65	55	390
D phase	7	16	19	17	123
E phase	7	17	32	26	186
G phase	7	19	26	21	150
Active cycle length	8	114	126	120	963
Actual cycle	7	99	130	121	849
Signal group 1	8	37	58	48	386
Signal group 2	7	41	73	53	371
Signal group 3	6	9	10	9	59
Signal group 4	7	12	19	14	101
Signal group 5	7	15	26	21	151
Signal group 6	7	9	42	25	175
Signal group 7	5	6	10	8	44
Signal group 8	6	6	12	10	61
Signal group 9	7	25	52	41	289
Signal group 10	7	13	73	44	314
Signal group 11	3	13	14	13	40
Signal group 13	4	8	8	8	32
Signal group 14	2	12	12	12	24
Signal group 15	4	8	8	8	32
Signal group 16	5	9	9	9	45
Signal group 17	6	8	9	8	49
Signal group 18	6	9	9	9	54
Pedestrian movement 1	4	8	8	8	32
Pedestrian movement 2	2	12	12	12	24
Pedestrian movement 3	4	8	8	8	32
Pedestrian movement 4	5	9	9	9	45
Pedestrian movement 5	6	8	9	8	49
Pedestrian movement 6	6	9	9	9	54

Tuesday, 19 July 2022, 9:00:00 AM AEST to Tuesday, 19 July 2022, 9:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	7	43	70	57	404
D phase	8	13	19	17	136
E phase	8	20	29	23	190
G phase	7	18	30	21	152
Nominal cycle length	4	112	119	115	461
Active cycle length	7	109	122	117	821
Actual cycle	6	109	126	118	712
Signal group 1	7	36	63	50	355
Signal group 2	7	47	68	54	380
Signal group 3	8	10	12	10	82
Signal group 4	8	10	22	13	111
Signal group 5	8	12	39	18	148
Signal group 6	8	14	25	19	153
Signal group 7	7	5	12	8	61
Signal group 8	7	6	12	9	67
Signal group 9	7	36	63	50	355
Signal group 10	7	34	74	53	373

Signal group 11	3	9	11	10	31
Signal group 14	1	8	8	8	8
Signal group 15	5	8	8	8	40
Signal group 16	7	9	9	9	63
Signal group 17	8	8	8	8	64
Signal group 18	7	9	9	9	63
Pedestrian movement 2	1	8	8	8	8
Pedestrian movement 3	5	8	8	8	40
Pedestrian movement 4	7	7	9	8	61
Pedestrian movement 5	8	8	8	8	64
Pedestrian movement 6	7	7	9	8	61

Tuesday, 19 July 2022, 9:15:00 AM AEST to Tuesday, 19 July 2022, 9:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	22	47	32	358
D phase	11	13	17	14	155
E phase	10	19	22	20	201
G phase	10	14	22	18	182
Nominal cycle length	7	80	98	87	609
Active cycle length	9	80	101	87	783
Actual cycle	10	80	103	85	859
Signal group 1	11	15	40	25	281
Signal group 2	11	19	41	28	308
Signal group 3	9	6	10	9	84
Signal group 4	10	7	15	10	107
Signal group 5	10	12	31	14	147
Signal group 6	10	12	28	19	199
Signal group 7	5	6	9	6	33
Signal group 8	10	6	10	6	69
Signal group 9	11	15	41	28	310
Signal group 10	10	15	55	34	341
Signal group 11	7	6	14	9	66
Signal group 12	1	5	5	5	5
Signal group 14	2	8	8	8	16
Signal group 15	3	8	8	8	24
Signal group 16	4	6	9	7	30
Signal group 17	8	8	8	8	64
Signal group 18	9	6	9	8	72
Pedestrian movement 2	2	8	8	8	16
Pedestrian movement 3	3	8	8	8	24
Pedestrian movement 4	4	6	9	7	28
Pedestrian movement 5	8	8	8	8	64
Pedestrian movement 6	9	6	9	7	65

Tuesday, 19 July 2022, 9:30:00 AM AEST to Tuesday, 19 July 2022, 9:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	27	60	35	388
D phase	9	13	15	13	122
E phase	9	13	25	18	162
G phase	10	16	25	20	206
Actual cycle	10	57	110	79	798
Signal group 1	11	20	53	29	326
Signal group 2	10	26	115	39	392

Signal group 3	8	6	10	9	75
Signal group 4	9	10	19	13	123
Signal group 5	10	6	18	10	105
Signal group 6	10	6	20	14	144
Signal group 7	6	6	8	6	39
Signal group 8	9	6	7	6	57
Signal group 9	10	12	53	28	289
Signal group 10	10	10	129	40	403
Signal group 11	7	9	17	12	90
Signal group 12	1	4	4	4	4
Signal group 13	2	8	8	8	16
Signal group 14	2	9	13	11	22
Signal group 15	2	8	8	8	16
Signal group 16	4	6	9	6	27
Signal group 17	7	7	8	7	55
Signal group 18	9	6	9	7	67
Pedestrian movement 1	2	8	8	8	16
Pedestrian movement 2	2	9	13	11	22
Pedestrian movement 3	2	8	8	8	16
Pedestrian movement 4	4	6	7	6	25
Pedestrian movement 5	7	7	8	7	55
Pedestrian movement 6	9	6	8	6	60

Tuesday, 19 July 2022, 9:45:00 AM AEST to Tuesday, 19 July 2022, 10:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	30	43	36	404
D phase	9	13	15	13	120
E phase	11	14	22	16	179
G phase	11	14	19	16	181
Nominal cycle length	1	88	88	88	88
Active cycle length	1	86	86	86	86
Actual cycle	10	69	89	80	807
Signal group 1	11	23	53	31	344
Signal group 2	11	23	43	31	343
Signal group 3	11	6	10	8	95
Signal group 4	11	7	12	8	98
Signal group 5	11	7	21	11	127
Signal group 6	11	7	23	14	155
Signal group 7	5	6	7	6	31
Signal group 8	7	6	8	6	45
Signal group 9	11	12	66	30	335
Signal group 10	9	9	49	28	256
Signal group 11	4	6	9	7	29
Signal group 12	2	5	7	6	12
Signal group 13	1	8	8	8	8
Signal group 14	5	8	8	8	40
Signal group 15	7	6	8	6	46
Signal group 16	7	5	9	7	49
Signal group 17	9	6	8	6	62
Signal group 18	9	6	9	7	64
Pedestrian movement 1	1	8	8	8	8
Pedestrian movement 2	5	8	8	8	40
Pedestrian movement 3	7	6	8	6	46

Pedestrian movement 4	7	4	8	6	44
Pedestrian movement 5	9	6	8	6	62
Pedestrian movement 6	9	6	7	6	57

Tuesday, 19 July 2022, 10:00:00 AM AEST to Tuesday, 19 July 2022, 10:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	24	49	34	381
D phase	9	13	17	15	136
E phase	10	16	27	18	183
G phase	10	16	23	18	188
Nominal cycle length	5	80	100	91	455
Active cycle length	5	80	99	91	457
Actual cycle	10	71	99	86	860
Signal group 1	11	16	42	27	303
Signal group 2	11	16	42	30	337
Signal group 3	9	6	10	9	84
Signal group 4	10	8	16	11	116
Signal group 5	10	8	19	11	110
Signal group 6	10	8	28	15	154
Signal group 7	6	6	10	7	45
Signal group 8	9	6	10	7	71
Signal group 9	10	12	48	28	280
Signal group 10	10	22	47	39	394
Signal group 11	5	9	15	10	54
Signal group 12	4	6	10	8	32
Signal group 13	3	8	8	8	24
Signal group 14	1	6	6	6	6
Signal group 15	5	6	8	7	38
Signal group 16	6	6	9	7	45
Signal group 17	5	8	8	8	40
Signal group 18	6	6	9	7	43
Pedestrian movement 1	3	8	8	8	24
Pedestrian movement 2	1	6	6	6	6
Pedestrian movement 3	5	6	8	7	38
Pedestrian movement 4	6	6	9	7	43
Pedestrian movement 5	5	8	8	8	40
Pedestrian movement 6	6	6	9	6	41

Tuesday, 19 July 2022, 10:15:00 AM AEST to Tuesday, 19 July 2022, 10:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	27	41	32	361
D phase	9	13	29	15	138
E phase	9	16	31	20	185
G phase	10	16	22	18	183
Actual cycle	10	67	92	79	798
Signal group 1	11	20	47	27	303
Signal group 2	11	23	46	31	349
Signal group 3	7	6	12	9	68
Signal group 4	9	8	15	11	99
Signal group 5	10	9	27	16	169
Signal group 6	9	11	24	16	147
Signal group 7	6	6	21	8	52
Signal group 8	6	6	10	6	40

Signal group 9	11	21	48	30	331
Signal group 10	11	17	59	34	379
Signal group 11	5	9	11	9	47
Signal group 12	2	5	11	8	16
Signal group 14	1	9	9	9	9
Signal group 15	4	6	8	7	30
Signal group 16	4	6	8	6	26
Signal group 17	5	8	8	8	40
Signal group 18	7	6	9	7	50
Pedestrian movement 2	1	9	9	9	9
Pedestrian movement 3	4	6	8	7	30
Pedestrian movement 4	4	6	8	6	26
Pedestrian movement 5	5	8	8	8	40
Pedestrian movement 6	7	6	9	7	50

Tuesday, 19 July 2022, 10:30:00 AM AEST to Tuesday, 19 July 2022, 10:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	27	40	32	352
D phase	8	13	14	13	105
E phase	11	14	28	19	214
G phase	11	16	24	18	203
Actual cycle	11	67	88	79	874
Signal group 1	11	20	33	25	275
Signal group 2	11	21	39	28	308
Signal group 3	10	8	10	9	94
Signal group 4	11	8	17	11	123
Signal group 5	11	9	25	14	162
Signal group 6	11	6	22	13	148
Signal group 7	7	6	6	6	42
Signal group 8	6	6	6	6	36
Signal group 9	8	9	39	24	195
Signal group 10	8	10	39	28	229
Signal group 11	6	7	14	10	63
Signal group 12	1	7	7	7	7
Signal group 13	5	8	8	8	40
Signal group 14	5	8	8	8	40
Signal group 15	5	6	8	7	36
Signal group 16	4	6	6	6	24
Signal group 17	9	6	8	7	68
Signal group 18	9	6	8	6	61
Pedestrian movement 1	5	8	8	8	40
Pedestrian movement 2	5	8	8	8	40
Pedestrian movement 3	5	6	8	7	36
Pedestrian movement 4	4	6	6	6	24
Pedestrian movement 5	9	6	8	7	68
Pedestrian movement 6	9	6	8	6	61

Tuesday, 19 July 2022, 10:45:00 AM AEST to Tuesday, 19 July 2022, 11:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	30	44	36	369
D phase	10	13	19	13	136
E phase	10	13	27	16	166
G phase	11	16	18	16	183

Actual cycle	10	77	89	81	817
Signal group 1	10	23	37	29	299
Signal group 2	10	23	37	29	299
Signal group 3	11	8	10	9	100
Signal group 4	11	8	11	9	101
Signal group 5	10	6	22	11	119
Signal group 6	11	6	22	13	144
Signal group 7	6	6	6	6	36
Signal group 8	8	6	12	6	54
Signal group 9	9	9	39	24	218
Signal group 10	9	12	45	33	297
Signal group 11	6	7	11	8	51
Signal group 12	1	8	8	8	8
Signal group 13	4	8	8	8	32
Signal group 14	2	8	8	8	16
Signal group 15	5	6	8	7	36
Signal group 16	5	6	6	6	30
Signal group 17	10	6	8	7	71
Signal group 18	10	6	8	6	63
Pedestrian movement 1	4	8	8	8	32
Pedestrian movement 2	2	8	8	8	16
Pedestrian movement 3	5	6	8	7	36
Pedestrian movement 4	5	6	6	6	30
Pedestrian movement 5	10	6	8	7	71
Pedestrian movement 6	10	6	8	6	63

Tuesday, 19 July 2022, 11:00:00 AM AEST to Tuesday, 19 July 2022, 11:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	19	33	27	298
D phase	11	13	15	13	147
E phase	11	14	26	21	233
G phase	11	14	23	17	190
Nominal cycle length	6	82	90	86	519
Active cycle length	6	61	90	82	497
Actual cycle	10	62	90	80	800
Signal group 1	11	12	40	21	235
Signal group 2	11	12	45	23	260
Signal group 3	9	6	10	8	75
Signal group 4	10	8	16	10	102
Signal group 5	11	7	18	14	155
Signal group 6	11	7	30	17	194
Signal group 7	9	6	8	6	59
Signal group 8	12	5	8	6	75
Signal group 9	10	9	40	22	223
Signal group 10	11	10	59	32	356
Signal group 11	6	7	12	9	56
Signal group 12	1	5	5	5	5
Signal group 13	2	6	8	7	14
Signal group 14	1	8	8	8	8
Signal group 15	4	6	8	6	27
Signal group 16	4	6	8	6	26
Signal group 17	8	6	8	6	55
Signal group 18	10	6	8	6	63

Pedestrian movement 1	2	6	8	7	14
Pedestrian movement 2	1	8	8	8	8
Pedestrian movement 3	4	6	8	6	27
Pedestrian movement 4	4	6	8	6	26
Pedestrian movement 5	8	6	8	6	55
Pedestrian movement 6	10	6	8	6	63

Tuesday, 19 July 2022, 11:15:00 AM AEST to Tuesday, 19 July 2022, 11:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	25	54	34	349
D phase	8	13	15	14	115
E phase	10	19	30	24	247
G phase	10	16	22	18	181
Nominal cycle length	10	82	102	90	901
Active cycle length	10	80	102	90	901
Actual cycle	9	80	113	90	814
Signal group 1	10	18	47	27	279
Signal group 2	10	18	47	30	307
Signal group 3	9	7	10	9	83
Signal group 4	10	8	14	10	107
Signal group 5	10	15	35	21	215
Signal group 6	10	11	37	18	186
Signal group 7	7	6	8	7	49
Signal group 8	5	6	8	7	36
Signal group 9	8	18	47	29	237
Signal group 10	9	18	57	34	311
Signal group 11	7	7	13	10	70
Signal group 12	1	6	6	6	6
Signal group 13	2	8	8	8	16
Signal group 14	1	8	8	8	8
Signal group 15	3	6	8	7	22
Signal group 16	3	6	9	8	24
Signal group 17	8	6	8	7	60
Signal group 18	9	6	9	6	62
Pedestrian movement 1	2	8	8	8	16
Pedestrian movement 2	1	8	8	8	8
Pedestrian movement 3	3	6	8	7	22
Pedestrian movement 4	3	6	9	8	24
Pedestrian movement 5	8	6	8	7	60
Pedestrian movement 6	9	6	9	6	62

Tuesday, 19 July 2022, 11:30:00 AM AEST to Tuesday, 19 July 2022, 11:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	23	64	32	328
D phase	9	13	17	14	130
E phase	11	18	25	21	236
G phase	10	16	20	17	178
Nominal cycle length	4	80	89	85	342
Active cycle length	6	80	98	86	520
Actual cycle	9	72	93	81	731
Signal group 1	10	16	57	25	258
Signal group 2	10	16	57	31	311
Signal group 3	8	10	10	10	80

Signal group 4	11	8	13	10	118
Signal group 5	11	10	34	17	187
Signal group 6	10	10	33	20	202
Signal group 7	5	6	10	7	36
Signal group 8	7	5	9	6	46
Signal group 9	9	10	57	25	227
Signal group 10	9	16	72	36	328
Signal group 11	4	9	12	10	42
Signal group 13	2	8	8	8	16
Signal group 14	1	8	8	8	8
Signal group 15	7	6	8	7	54
Signal group 16	7	6	9	7	49
Signal group 17	8	8	8	8	64
Signal group 18	10	6	9	7	74
Pedestrian movement 1	2	8	8	8	16
Pedestrian movement 2	1	8	8	8	8
Pedestrian movement 3	7	6	8	7	54
Pedestrian movement 4	7	6	8	6	48
Pedestrian movement 5	8	8	8	8	64
Pedestrian movement 6	10	6	9	7	74

Tuesday, 19 July 2022, 11:45:00 AM AEST to Tuesday, 19 July 2022, 12:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	25	39	31	351
D phase	11	13	15	13	146
E phase	11	15	25	19	212
G phase	11	16	17	16	178
Active cycle length	2	80	81	80	161
Actual cycle	11	71	90	80	887
Signal group 1	11	18	44	27	306
Signal group 2	11	18	32	24	274
Signal group 3	11	7	10	8	92
Signal group 4	9	8	10	8	79
Signal group 5	11	8	33	13	147
Signal group 6	11	8	28	19	210
Signal group 7	5	6	7	6	32
Signal group 8	10	5	7	6	60
Signal group 9	8	22	44	30	242
Signal group 10	10	9	45	26	268
Signal group 11	4	7	8	7	29
Signal group 12	1	6	6	6	6
Signal group 13	3	8	8	8	24
Signal group 14	4	8	8	8	32
Signal group 15	5	6	8	6	34
Signal group 16	5	6	9	7	35
Signal group 17	10	6	8	6	66
Signal group 18	11	6	9	6	69
Pedestrian movement 1	3	8	8	8	24
Pedestrian movement 2	4	8	8	8	32
Pedestrian movement 3	5	6	8	6	34
Pedestrian movement 4	5	6	8	6	33
Pedestrian movement 5	10	6	8	6	66
Pedestrian movement 6	11	6	7	6	67

Tuesday, 19 July 2022, 12:00:00 PM AEST to Tuesday, 19 July 2022, 12:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	27	42	32	324
D phase	8	13	16	13	111
E phase	11	15	34	21	238
G phase	11	14	24	17	197
Nominal cycle length	4	87	92	89	356
Active cycle length	3	85	91	87	263
Actual cycle	10	75	93	82	820
Signal group 1	10	20	35	25	254
Signal group 2	10	20	40	26	264
Signal group 3	11	7	12	9	100
Signal group 4	11	7	17	10	117
Signal group 5	11	12	26	16	186
Signal group 6	11	7	27	16	183
Signal group 7	6	6	8	6	40
Signal group 8	6	6	7	6	38
Signal group 9	7	12	28	22	155
Signal group 10	8	20	40	29	239
Signal group 11	5	6	16	10	50
Signal group 12	1	6	6	6	6
Signal group 13	5	8	8	8	40
Signal group 14	2	8	8	8	16
Signal group 15	6	6	8	7	45
Signal group 16	6	6	9	7	43
Signal group 17	10	6	8	7	73
Signal group 18	11	6	9	7	78
Pedestrian movement 1	5	8	8	8	40
Pedestrian movement 2	2	8	8	8	16
Pedestrian movement 3	6	6	8	7	45
Pedestrian movement 4	6	6	9	7	43
Pedestrian movement 5	10	6	8	7	73
Pedestrian movement 6	11	6	9	7	78

Tuesday, 19 July 2022, 12:15:00 PM AEST to Tuesday, 19 July 2022, 12:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	25	31	28	282
D phase	10	13	15	13	133
E phase	11	17	27	22	243
G phase	11	16	21	18	200
Nominal cycle length	3	80	89	85	256
Active cycle length	4	80	89	84	336
Actual cycle	10	76	85	80	807
Signal group 1	10	18	24	21	212
Signal group 2	10	18	35	23	234
Signal group 3	10	8	11	9	97
Signal group 4	11	9	14	11	121
Signal group 5	11	10	27	17	191
Signal group 6	11	10	32	17	192
Signal group 7	8	5	8	6	49
Signal group 8	8	5	8	6	50
Signal group 9	8	8	24	17	143

Signal group 10	9	12	35	21	191
Signal group 11	3	8	12	9	28
Signal group 12	1	8	8	8	8
Signal group 13	5	8	8	8	40
Signal group 14	4	8	8	8	32
Signal group 15	8	7	8	7	63
Signal group 16	9	6	8	6	56
Signal group 17	9	6	8	7	69
Signal group 18	11	6	8	6	70
Pedestrian movement 1	5	8	8	8	40
Pedestrian movement 2	4	8	8	8	32
Pedestrian movement 3	8	7	8	7	63
Pedestrian movement 4	9	6	8	6	56
Pedestrian movement 5	9	6	8	7	69
Pedestrian movement 6	11	6	8	6	70

Tuesday, 19 July 2022, 12:30:00 PM AEST to Tuesday, 19 July 2022, 12:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	22	36	29	292
D phase	9	13	16	14	127
E phase	11	15	27	21	232
G phase	11	16	26	19	209
Nominal cycle length	6	80	89	85	515
Active cycle length	7	59	91	82	575
Actual cycle	10	67	90	80	804
Signal group 1	10	14	29	22	220
Signal group 2	10	14	34	23	238
Signal group 3	11	8	12	9	107
Signal group 4	11	8	18	11	126
Signal group 5	11	9	21	14	164
Signal group 6	11	8	25	16	181
Signal group 7	7	6	9	6	48
Signal group 8	8	5	9	6	53
Signal group 9	6	16	25	22	135
Signal group 10	7	13	34	26	185
Signal group 11	4	7	10	8	35
Signal group 13	4	6	8	7	28
Signal group 14	5	6	8	7	36
Signal group 15	7	6	9	7	55
Signal group 16	8	6	9	7	56
Signal group 17	11	6	9	7	85
Signal group 18	11	6	9	6	76
Pedestrian movement 1	4	6	8	7	28
Pedestrian movement 2	5	6	8	7	36
Pedestrian movement 3	7	6	9	7	55
Pedestrian movement 4	8	6	9	7	56
Pedestrian movement 5	11	6	9	7	85
Pedestrian movement 6	11	6	9	6	75

Tuesday, 19 July 2022, 12:45:00 PM AEST to Tuesday, 19 July 2022, 1:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	18	48	32	320
D phase	9	13	17	14	131

E phase	11	16	28	21	234
G phase	11	16	22	18	199
Nominal cycle length	2	80	89	84	169
Active cycle length	6	79	100	87	524
Actual cycle	10	66	111	83	834
Signal group 1	10	11	41	25	250
Signal group 2	10	11	46	25	255
Signal group 3	11	8	12	9	106
Signal group 4	11	8	15	10	118
Signal group 5	11	12	28	19	214
Signal group 6	11	9	38	15	172
Signal group 7	8	6	9	7	58
Signal group 8	5	6	9	7	36
Signal group 9	8	11	48	24	192
Signal group 10	10	10	48	25	257
Signal group 11	5	8	11	9	46
Signal group 13	3	8	8	8	24
Signal group 14	1	8	8	8	8
Signal group 15	6	6	8	7	44
Signal group 16	7	6	9	7	53
Signal group 17	11	6	8	7	83
Signal group 18	10	6	9	7	71
Pedestrian movement 1	3	8	8	8	24
Pedestrian movement 2	1	8	8	8	8
Pedestrian movement 3	6	6	8	7	44
Pedestrian movement 4	7	6	9	7	53
Pedestrian movement 5	11	6	8	7	81
Pedestrian movement 6	10	6	9	7	71

Tuesday, 19 July 2022, 1:00:00 PM AEST to Tuesday, 19 July 2022, 1:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	9	25	46	33	297
D phase	10	14	22	16	163
E phase	10	16	26	22	222
G phase	9	16	28	21	193
Nominal cycle length	9	85	104	94	847
Active cycle length	9	76	106	95	856
Actual cycle	8	74	106	91	732
Signal group 1	9	18	39	26	234
Signal group 2	9	20	44	32	288
Signal group 3	8	8	13	9	79
Signal group 4	9	9	21	14	128
Signal group 5	10	9	32	18	182
Signal group 6	10	14	31	20	203
Signal group 7	7	7	10	8	58
Signal group 8	8	7	15	9	76
Signal group 9	8	13	39	25	207
Signal group 10	9	13	45	33	298
Signal group 11	3	9	17	14	42
Signal group 13	2	8	8	8	16
Signal group 14	1	9	9	9	9
Signal group 15	6	6	8	7	46
Signal group 16	7	6	9	8	57

Signal group 17	8	6	8	7	62
Signal group 18	10	6	9	8	83
Pedestrian movement 1	2	8	8	8	16
Pedestrian movement 2	1	9	9	9	9
Pedestrian movement 3	6	6	8	7	46
Pedestrian movement 4	7	6	9	7	55
Pedestrian movement 5	8	6	8	7	62
Pedestrian movement 6	10	6	9	8	81

Tuesday, 19 July 2022, 1:15:00 PM AEST to Tuesday, 19 July 2022, 1:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	25	39	31	315
D phase	10	13	16	14	141
E phase	10	19	28	23	237
G phase	10	17	25	19	198
Nominal cycle length	8	80	97	89	718
Active cycle length	7	80	97	88	622
Actual cycle	9	76	100	88	795
Signal group 1	10	18	32	24	245
Signal group 2	10	21	32	26	269
Signal group 3	10	10	10	10	100
Signal group 4	10	10	18	12	121
Signal group 5	10	12	29	18	180
Signal group 6	10	12	21	16	166
Signal group 7	10	5	9	6	64
Signal group 8	9	6	9	7	63
Signal group 9	9	19	32	25	227
Signal group 10	8	7	31	21	172
Signal group 11	2	9	10	9	19
Signal group 13	1	8	8	8	8
Signal group 14	4	8	13	9	38
Signal group 15	8	8	8	8	64
Signal group 16	9	6	9	7	65
Signal group 17	10	8	8	8	80
Signal group 18	10	6	9	7	75
Pedestrian movement 1	1	8	8	8	8
Pedestrian movement 2	4	8	13	10	40
Pedestrian movement 3	8	8	8	8	64
Pedestrian movement 4	9	6	9	7	63
Pedestrian movement 5	10	8	8	8	80
Pedestrian movement 6	10	6	9	7	71

Tuesday, 19 July 2022, 1:30:00 PM AEST to Tuesday, 19 July 2022, 1:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	27	36	31	345
D phase	10	13	16	13	136
E phase	10	16	32	21	214
G phase	10	15	22	18	181
Nominal cycle length	8	80	89	85	685
Active cycle length	8	80	89	85	685
Actual cycle	10	73	92	82	825
Signal group 1	11	20	44	25	285
Signal group 2	11	21	40	26	296

Signal group 3	9	6	10	9	83
Signal group 4	9	8	15	11	100
Signal group 5	11	9	25	15	169
Signal group 6	11	9	32	16	182
Signal group 7	8	6	8	6	51
Signal group 8	9	5	9	6	59
Signal group 9	6	21	44	27	163
Signal group 10	10	23	54	36	366
Signal group 11	8	7	14	10	82
Signal group 12	1	5	5	5	5
Signal group 13	5	8	8	8	40
Signal group 14	1	8	8	8	8
Signal group 15	1	8	8	8	8
Signal group 16	3	6	9	7	23
Signal group 17	8	7	8	7	63
Signal group 18	10	6	9	6	68
Pedestrian movement 1	5	8	8	8	40
Pedestrian movement 2	1	8	8	8	8
Pedestrian movement 3	1	8	8	8	8
Pedestrian movement 4	3	6	9	7	23
Pedestrian movement 5	8	7	8	7	63
Pedestrian movement 6	10	6	9	6	66

Tuesday, 19 July 2022, 1:45:00 PM AEST to Tuesday, 19 July 2022, 2:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	21	43	33	334
D phase	9	13	16	14	126
E phase	10	19	26	21	214
G phase	10	16	25	19	190
Nominal cycle length	6	80	90	85	513
Active cycle length	6	79	90	84	504
Actual cycle	10	63	94	84	846
Signal group 1	11	14	36	26	293
Signal group 2	11	22	48	33	365
Signal group 3	7	8	10	9	66
Signal group 4	10	8	18	11	119
Signal group 5	10	12	18	14	143
Signal group 6	10	12	27	15	156
Signal group 7	8	5	9	6	53
Signal group 8	9	6	9	6	60
Signal group 9	10	13	31	26	262
Signal group 10	11	22	50	38	423
Signal group 11	6	7	17	12	72
Signal group 13	2	8	8	8	16
Signal group 14	1	9	9	9	9
Signal group 15	4	7	8	7	31
Signal group 16	3	6	6	6	18
Signal group 17	7	7	8	7	55
Signal group 18	9	6	9	7	63
Pedestrian movement 1	2	8	8	8	16
Pedestrian movement 2	1	9	9	9	9
Pedestrian movement 3	4	6	8	7	29
Pedestrian movement 4	3	6	6	6	18

Pedestrian movement 5	7	6	8	7	53
Pedestrian movement 6	9	6	9	7	63

Tuesday, 19 July 2022, 2:00:00 PM AEST to Tuesday, 19 July 2022, 2:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	26	42	33	335
D phase	11	13	18	13	153
E phase	11	21	25	22	248
G phase	10	14	17	15	158
Nominal cycle length	7	80	95	88	622
Active cycle length	9	79	95	86	780
Actual cycle	9	77	95	85	767
Signal group 1	10	19	35	26	265
Signal group 2	10	19	49	29	296
Signal group 3	8	6	10	8	66
Signal group 4	10	6	10	8	84
Signal group 5	11	14	32	18	201
Signal group 6	11	14	35	21	240
Signal group 7	6	6	11	6	41
Signal group 8	9	6	11	6	59
Signal group 9	7	19	48	28	197
Signal group 10	7	24	60	41	287
Signal group 11	8	5	9	7	57
Signal group 12	1	5	5	5	5
Signal group 13	4	8	8	8	32
Signal group 14	3	8	8	8	24
Signal group 15	2	6	8	7	14
Signal group 16	6	6	9	8	48
Signal group 17	7	6	8	6	46
Signal group 18	9	6	9	7	68
Pedestrian movement 1	4	8	8	8	32
Pedestrian movement 2	3	8	8	8	24
Pedestrian movement 3	2	6	8	7	14
Pedestrian movement 4	6	6	9	7	43
Pedestrian movement 5	7	6	8	6	46
Pedestrian movement 6	9	6	9	6	60

Tuesday, 19 July 2022, 2:15:00 PM AEST to Tuesday, 19 July 2022, 2:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	24	36	31	316
D phase	10	12	19	16	162
E phase	9	21	27	23	211
G phase	10	14	19	17	171
Nominal cycle length	9	83	94	89	802
Active cycle length	7	62	94	86	602
Actual cycle	10	59	94	86	860
Signal group 1	10	16	43	25	259
Signal group 2	9	16	46	26	237
Signal group 3	9	6	10	9	81
Signal group 4	9	8	12	9	89
Signal group 5	10	11	20	15	159
Signal group 6	9	14	35	21	196
Signal group 7	7	6	11	8	60

Signal group 8	9	5	12	8	76
Signal group 9	8	16	43	24	198
Signal group 10	7	6	46	34	242
Signal group 11	5	7	9	8	42
Signal group 12	1	5	5	5	5
Signal group 13	3	8	8	8	24
Signal group 14	4	6	9	7	29
Signal group 15	4	8	8	8	32
Signal group 16	3	6	9	8	24
Signal group 17	8	6	8	7	60
Signal group 18	10	6	9	7	79
Pedestrian movement 1	3	8	8	8	24
Pedestrian movement 2	4	6	9	7	29
Pedestrian movement 3	4	8	8	8	32
Pedestrian movement 4	3	6	9	7	22
Pedestrian movement 5	8	6	8	7	60
Pedestrian movement 6	10	4	9	7	72

Tuesday, 19 July 2022, 2:30:00 PM AEST to Tuesday, 19 July 2022, 2:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	25	41	32	328
D phase	8	13	15	14	112
E phase	11	18	24	20	227
G phase	11	14	18	16	182
Nominal cycle length	3	80	89	84	252
Active cycle length	4	79	89	82	330
Actual cycle	10	62	91	79	795
Signal group 1	11	18	51	28	312
Signal group 2	11	18	50	31	347
Signal group 3	8	7	10	9	72
Signal group 4	10	7	11	9	94
Signal group 5	11	11	17	13	149
Signal group 6	11	11	26	14	162
Signal group 7	7	5	8	6	48
Signal group 8	8	5	8	6	54
Signal group 9	11	8	51	24	266
Signal group 10	9	18	63	37	333
Signal group 11	6	6	10	8	49
Signal group 12	1	6	6	6	6
Signal group 13	2	8	8	8	16
Signal group 14	2	8	9	8	17
Signal group 15	4	6	8	7	29
Signal group 16	4	6	9	7	29
Signal group 17	7	6	8	7	52
Signal group 18	10	6	11	7	74
Pedestrian movement 1	2	8	8	8	16
Pedestrian movement 2	2	8	9	8	17
Pedestrian movement 3	4	6	8	7	29
Pedestrian movement 4	4	5	9	7	28
Pedestrian movement 5	7	6	8	7	52
Pedestrian movement 6	10	6	9	7	70

Tuesday, 19 July 2022, 2:45:00 PM AEST to Tuesday, 19 July 2022, 3:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	23	41	31	347
D phase	10	13	19	14	149
E phase	10	16	26	19	199
G phase	11	14	27	18	199
Nominal cycle length	3	87	89	88	264
Active cycle length	3	87	90	88	266
Actual cycle	10	72	88	80	808
Signal group 1	11	16	34	24	270
Signal group 2	11	16	56	30	333
Signal group 3	8	8	12	9	76
Signal group 4	11	7	20	10	119
Signal group 5	10	9	25	15	155
Signal group 6	11	9	25	15	169
Signal group 7	7	6	10	7	50
Signal group 8	8	6	11	7	63
Signal group 9	7	10	30	21	152
Signal group 10	9	12	53	31	283
Signal group 11	7	6	20	10	74
Signal group 13	4	8	8	8	32
Signal group 14	2	8	9	8	17
Signal group 15	4	6	8	7	28
Signal group 16	4	6	9	7	31
Signal group 17	8	6	8	7	58
Signal group 18	10	6	9	7	73
Pedestrian movement 1	4	8	8	8	32
Pedestrian movement 2	2	8	9	8	17
Pedestrian movement 3	4	6	8	7	28
Pedestrian movement 4	4	4	9	7	29
Pedestrian movement 5	8	6	8	7	58
Pedestrian movement 6	10	6	9	7	73

Tuesday, 19 July 2022, 3:00:00 PM AEST to Tuesday, 19 July 2022, 3:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	22	46	33	338
D phase	9	13	20	16	146
E phase	10	16	37	24	246
G phase	10	14	22	17	170
Nominal cycle length	8	80	100	91	729
Active cycle length	10	76	100	89	897
Actual cycle	9	81	101	90	813
Signal group 1	10	14	39	26	267
Signal group 2	10	14	49	31	319
Signal group 3	7	8	10	9	66
Signal group 4	10	7	15	9	97
Signal group 5	10	9	29	17	172
Signal group 6	10	9	33	21	214
Signal group 7	5	6	10	7	39
Signal group 8	8	6	13	9	77
Signal group 9	8	9	39	24	193
Signal group 10	10	18	49	38	383
Signal group 11	4	6	9	7	30
Signal group 13	4	6	8	7	30

Signal group 15	6	6	8	7	46
Signal group 16	8	8	9	8	68
Signal group 17	7	6	8	7	53
Signal group 18	8	6	9	7	61
Pedestrian movement 1	4	6	8	7	30
Pedestrian movement 3	6	6	8	7	46
Pedestrian movement 4	8	5	9	7	63
Pedestrian movement 5	7	6	8	7	53
Pedestrian movement 6	8	6	9	7	61

Tuesday, 19 July 2022, 3:15:00 PM AEST to Tuesday, 19 July 2022, 3:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	9	24	49	40	365
D phase	8	13	15	14	113
E phase	10	17	24	20	209
G phase	10	17	28	20	203
Nominal cycle length	8	80	98	93	748
Active cycle length	9	79	99	93	841
Actual cycle	9	78	102	94	854
Signal group 1	9	17	54	35	319
Signal group 2	9	21	52	37	338
Signal group 3	9	10	11	10	91
Signal group 4	9	10	21	13	123
Signal group 5	9	10	25	15	141
Signal group 6	9	10	31	20	183
Signal group 7	4	6	8	7	29
Signal group 8	7	6	8	7	49
Signal group 9	8	7	54	28	226
Signal group 10	9	13	56	36	324
Signal group 11	4	10	13	11	47
Signal group 13	4	8	8	8	32
Signal group 14	3	7	12	9	27
Signal group 15	5	8	8	8	40
Signal group 16	4	6	9	6	27
Signal group 17	9	8	8	8	72
Signal group 18	9	6	9	6	59
Pedestrian movement 1	4	8	8	8	32
Pedestrian movement 2	3	7	12	9	27
Pedestrian movement 3	5	8	8	8	40
Pedestrian movement 4	4	6	7	6	25
Pedestrian movement 5	9	8	8	8	72
Pedestrian movement 6	9	6	7	6	55

Tuesday, 19 July 2022, 3:30:00 PM AEST to Tuesday, 19 July 2022, 3:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	27	44	34	343
D phase	11	13	19	13	152
E phase	9	17	24	21	191
G phase	10	16	22	18	184
Nominal cycle length	7	80	94	87	613
Active cycle length	9	79	95	85	773
Actual cycle	9	69	97	86	774
Signal group 1	10	20	54	29	290

Signal group 2	10	25	38	29	296
Signal group 3	9	6	14	9	89
Signal group 4	9	9	15	11	102
Signal group 5	10	10	16	13	139
Signal group 6	11	12	30	18	204
Signal group 7	6	5	7	6	37
Signal group 8	11	6	12	6	74
Signal group 9	7	25	54	31	217
Signal group 10	11	7	45	33	363
Signal group 11	7	8	14	10	74
Signal group 12	1	5	5	5	5
Signal group 13	3	8	8	8	24
Signal group 14	2	8	9	8	17
Signal group 15	2	6	8	7	14
Signal group 16	2	6	6	6	12
Signal group 17	8	6	8	7	62
Signal group 18	9	6	9	6	60
Pedestrian movement 1	3	8	9	8	25
Pedestrian movement 2	2	8	9	8	17
Pedestrian movement 3	2	6	8	7	14
Pedestrian movement 4	2	6	6	6	12
Pedestrian movement 5	8	6	8	7	62
Pedestrian movement 6	9	6	7	6	56

Tuesday, 19 July 2022, 3:45:00 PM AEST to Tuesday, 19 July 2022, 4:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	9	23	45	32	294
D phase	9	13	18	15	138
E phase	9	18	29	23	213
G phase	10	16	29	22	227
Nominal cycle length	9	89	102	95	856
Active cycle length	9	71	116	97	873
Actual cycle	9	70	120	94	853
Signal group 1	10	16	38	25	257
Signal group 2	10	17	48	30	303
Signal group 3	10	8	12	9	99
Signal group 4	10	8	21	15	154
Signal group 5	9	11	31	18	165
Signal group 6	9	11	35	20	183
Signal group 7	7	6	10	7	55
Signal group 8	8	6	11	8	64
Signal group 9	8	11	38	22	179
Signal group 10	9	6	48	27	251
Signal group 11	8	7	20	14	112
Signal group 13	3	8	8	8	24
Signal group 14	4	7	10	8	34
Signal group 15	2	8	8	8	16
Signal group 16	2	6	9	7	15
Signal group 17	10	6	8	7	78
Signal group 18	8	6	9	7	60
Pedestrian movement 1	3	8	8	8	24
Pedestrian movement 2	4	7	10	8	34
Pedestrian movement 3	2	8	8	8	16

Pedestrian movement 4	2	6	9	7	15
Pedestrian movement 5	10	6	8	7	78
Pedestrian movement 6	8	6	9	7	60

Tuesday, 19 July 2022, 4:00:00 PM AEST to Tuesday, 19 July 2022, 4:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	9	25	47	35	323
D phase	10	13	17	14	145
E phase	10	18	28	22	222
G phase	10	17	26	20	201
Nominal cycle length	9	80	101	92	835
Active cycle length	9	78	100	90	814
Actual cycle	9	73	107	92	832
Signal group 1	9	18	40	29	263
Signal group 2	9	20	53	33	302
Signal group 3	9	8	10	9	88
Signal group 4	10	6	19	12	125
Signal group 5	10	11	30	20	205
Signal group 6	10	11	37	18	181
Signal group 7	8	6	10	7	57
Signal group 8	6	6	10	8	48
Signal group 9	6	17	37	27	164
Signal group 10	9	7	68	34	313
Signal group 11	7	5	18	12	87
Signal group 12	2	7	9	8	16
Signal group 13	4	8	11	8	35
Signal group 14	1	15	15	15	15
Signal group 15	3	8	8	8	24
Signal group 16	3	6	9	7	23
Signal group 17	7	8	8	8	56
Signal group 18	9	6	10	7	71
Pedestrian movement 1	4	8	11	8	35
Pedestrian movement 2	1	15	15	15	15
Pedestrian movement 3	3	8	8	8	24
Pedestrian movement 4	3	6	8	7	21
Pedestrian movement 5	7	8	8	8	56
Pedestrian movement 6	9	6	10	7	65

Tuesday, 19 July 2022, 4:15:00 PM AEST to Tuesday, 19 July 2022, 4:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	9	28	46	37	333
D phase	7	13	18	15	107
E phase	9	21	41	27	245
G phase	9	16	24	19	174
Nominal cycle length	8	87	107	96	769
Active cycle length	7	86	107	97	679
Actual cycle	8	89	110	97	777
Signal group 1	9	21	39	30	270
Signal group 2	9	21	63	33	298
Signal group 3	8	8	13	9	77
Signal group 4	9	8	17	11	106
Signal group 5	9	14	34	21	194
Signal group 6	9	13	34	22	201

Signal group 7	6	5	9	6	41
Signal group 8	6	6	11	8	52
Signal group 9	9	21	47	31	283
Signal group 10	8	24	79	40	325
Signal group 11	5	7	16	11	59
Signal group 15	4	6	8	7	28
Signal group 16	4	6	9	7	31
Signal group 17	8	6	8	7	58
Signal group 18	7	6	9	7	52
Pedestrian movement 3	4	6	8	7	28
Pedestrian movement 4	4	6	9	7	31
Pedestrian movement 5	8	6	8	7	58
Pedestrian movement 6	7	4	9	7	50

Tuesday, 19 July 2022, 4:30:00 PM AEST to Tuesday, 19 July 2022, 4:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	9	31	58	40	367
D phase	8	13	21	18	146
E phase	8	21	28	24	192
G phase	9	17	31	20	181
Nominal cycle length	8	92	111	102	818
Active cycle length	8	90	111	99	799
Actual cycle	8	89	120	101	812
Signal group 1	9	24	51	33	304
Signal group 2	9	24	51	37	337
Signal group 3	8	10	14	11	90
Signal group 4	9	10	23	12	115
Signal group 5	8	14	21	16	135
Signal group 6	8	14	39	25	200
Signal group 7	5	5	11	8	42
Signal group 8	8	6	14	11	88
Signal group 9	8	10	51	31	252
Signal group 10	9	24	72	43	394
Signal group 11	2	9	23	16	32
Signal group 12	2	12	13	12	25
Signal group 13	2	8	8	8	16
Signal group 15	7	8	8	8	56
Signal group 16	6	7	9	8	50
Signal group 17	6	8	9	8	49
Signal group 18	5	7	9	8	43
Pedestrian movement 1	2	8	8	8	16
Pedestrian movement 3	7	8	8	8	56
Pedestrian movement 4	6	6	9	7	45
Pedestrian movement 5	6	8	9	8	49
Pedestrian movement 6	5	7	9	8	41

Tuesday, 19 July 2022, 4:45:00 PM AEST to Tuesday, 19 July 2022, 5:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	9	35	42	38	347
D phase	8	15	20	16	131
E phase	9	20	29	24	218
G phase	9	17	27	19	177
Nominal cycle length	8	92	102	99	792

Active cycle length	7	91	102	98	690
Actual cycle	8	93	103	99	792
Signal group 1	9	28	35	31	284
Signal group 2	9	28	41	33	299
Signal group 3	9	9	12	10	93
Signal group 4	9	10	20	12	110
Signal group 5	9	13	29	18	169
Signal group 6	9	14	37	21	189
Signal group 7	7	6	12	7	55
Signal group 8	8	8	13	9	78
Signal group 9	9	28	44	33	297
Signal group 10	9	18	50	37	339
Signal group 11	1	9	9	9	9
Signal group 12	2	8	8	8	16
Signal group 14	1	8	8	8	8
Signal group 15	8	8	8	8	64
Signal group 16	7	6	9	7	55
Signal group 17	7	8	8	8	56
Signal group 18	8	6	9	8	65
Pedestrian movement 2	1	8	8	8	8
Pedestrian movement 3	8	8	8	8	64
Pedestrian movement 4	7	6	9	7	52
Pedestrian movement 5	7	8	8	8	56
Pedestrian movement 6	8	6	9	7	63

Tuesday, 19 July 2022, 5:00:00 PM AEST to Tuesday, 19 July 2022, 5:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	9	31	46	37	341
D phase	9	13	21	17	157
E phase	9	21	25	23	214
G phase	9	14	26	19	179
Nominal cycle length	9	86	111	97	881
Active cycle length	8	85	111	96	774
Actual cycle	8	73	104	95	763
Signal group 1	9	24	39	30	278
Signal group 2	9	24	45	35	319
Signal group 3	8	7	10	9	76
Signal group 4	9	7	19	12	114
Signal group 5	9	14	18	16	149
Signal group 6	8	14	37	19	152
Signal group 7	8	6	12	9	74
Signal group 8	9	6	14	10	91
Signal group 9	8	16	46	29	239
Signal group 10	9	13	59	30	276
Signal group 11	5	6	13	9	47
Signal group 12	1	6	6	6	6
Signal group 13	3	8	8	8	24
Signal group 14	4	8	15	11	44
Signal group 15	4	8	8	8	32
Signal group 16	6	6	9	8	49
Signal group 17	7	8	8	8	56
Signal group 18	7	6	9	8	56
Pedestrian movement 1	3	8	8	8	24

Pedestrian movement 2	4	8	15	11	44
Pedestrian movement 3	4	8	8	8	32
Pedestrian movement 4	6	6	9	8	49
Pedestrian movement 5	7	8	8	8	56
Pedestrian movement 6	7	6	9	8	56

Tuesday, 19 July 2022, 5:15:00 PM AEST to Tuesday, 19 July 2022, 5:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	8	36	60	47	379
D phase	8	13	26	19	157
E phase	7	19	30	24	169
G phase	7	17	26	21	149
Nominal cycle length	2	115	120	117	235
Active cycle length	6	88	126	114	684
Actual cycle	7	87	129	112	789
Signal group 1	8	29	53	40	323
Signal group 2	8	29	53	43	348
Signal group 3	7	9	14	10	72
Signal group 4	7	10	19	14	100
Signal group 5	8	12	24	17	143
Signal group 6	8	12	38	24	192
Signal group 7	6	7	11	8	51
Signal group 8	8	6	19	12	99
Signal group 9	8	7	53	29	232
Signal group 10	7	15	77	38	269
Signal group 11	3	13	18	14	44
Signal group 12	1	8	8	8	8
Signal group 13	4	8	8	8	32
Signal group 14	5	8	15	10	52
Signal group 15	4	8	8	8	32
Signal group 16	6	6	9	8	50
Signal group 17	6	8	8	8	48
Signal group 18	8	6	9	8	69
Pedestrian movement 1	4	8	8	8	32
Pedestrian movement 2	5	8	15	10	52
Pedestrian movement 3	4	8	8	8	32
Pedestrian movement 4	6	6	9	8	50
Pedestrian movement 5	6	8	8	8	48
Pedestrian movement 6	8	6	9	8	69

Tuesday, 19 July 2022, 5:30:00 PM AEST to Tuesday, 19 July 2022, 5:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	8	34	58	46	373
D phase	8	16	22	18	149
E phase	7	22	31	27	193
G phase	8	17	26	22	177
Nominal cycle length	3	104	107	105	317
Active cycle length	8	103	126	113	904
Actual cycle	7	101	131	117	820
Signal group 1	8	27	51	39	317
Signal group 2	8	30	57	43	345
Signal group 3	8	9	15	10	85
Signal group 4	8	10	19	15	121

Signal group 5	7	15	24	20	144
Signal group 6	7	21	38	28	202
Signal group 7	5	7	12	9	46
Signal group 8	8	9	15	11	92
Signal group 9	8	13	44	32	257
Signal group 10	8	18	57	40	326
Signal group 11	1	14	14	14	14
Signal group 12	1	11	11	11	11
Signal group 13	4	8	8	8	32
Signal group 14	2	8	8	8	16
Signal group 15	7	8	8	8	56
Signal group 16	6	9	9	9	54
Signal group 17	7	8	8	8	56
Signal group 18	6	9	9	9	54
Pedestrian movement 1	4	8	8	8	32
Pedestrian movement 2	2	8	8	8	16
Pedestrian movement 3	7	8	8	8	56
Pedestrian movement 4	6	9	9	9	54
Pedestrian movement 5	7	8	8	8	56
Pedestrian movement 6	6	9	9	9	54

Tuesday, 19 July 2022, 5:45:00 PM AEST to Tuesday, 19 July 2022, 6:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	9	32	54	41	372
D phase	8	13	16	15	121
E phase	8	15	30	22	181
G phase	9	16	24	21	192
Nominal cycle length	8	80	108	95	764
Active cycle length	9	81	110	99	896
Actual cycle	8	87	114	101	815
Signal group 1	9	25	47	34	308
Signal group 2	9	25	70	42	386
Signal group 3	7	6	10	8	60
Signal group 4	9	9	17	14	126
Signal group 5	8	7	23	15	121
Signal group 6	8	11	36	20	167
Signal group 7	5	5	9	6	34
Signal group 8	8	6	9	7	62
Signal group 9	9	9	47	30	278
Signal group 10	8	8	86	46	368
Signal group 11	6	8	17	13	78
Signal group 12	2	5	6	5	11
Signal group 13	2	8	8	8	16
Signal group 14	4	8	14	11	44
Signal group 15	3	8	8	8	24
Signal group 16	3	8	9	8	26
Signal group 17	5	7	8	7	39
Signal group 18	8	8	9	8	70
Pedestrian movement 1	2	8	8	8	16
Pedestrian movement 2	4	8	14	11	44
Pedestrian movement 3	3	8	8	8	24
Pedestrian movement 4	3	7	9	8	24
Pedestrian movement 5	5	7	8	7	39

Pedestrian movement 6	8	7	9	8	64
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Tuesday, 19 July 2022, 6:00:00 PM AEST to Tuesday, 19 July 2022, 6:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	27	37	31	314
D phase	10	13	17	14	145
E phase	10	19	27	22	222
G phase	11	16	19	16	185
Nominal cycle length	7	86	92	89	623
Active cycle length	6	80	91	86	520
Actual cycle	10	80	93	85	850
Signal group 1	10	20	44	26	264
Signal group 2	10	20	30	24	247
Signal group 3	11	7	11	8	97
Signal group 4	10	6	12	8	87
Signal group 5	10	12	31	16	165
Signal group 6	10	12	33	21	210
Signal group 7	6	6	8	6	40
Signal group 8	9	6	10	7	66
Signal group 9	9	20	44	29	268
Signal group 10	9	12	43	25	229
Signal group 11	6	5	10	7	44
Signal group 12	2	6	10	8	16
Signal group 13	1	8	8	8	8
Signal group 14	5	8	12	8	44
Signal group 15	4	6	8	7	28
Signal group 16	4	6	8	6	27
Signal group 17	9	6	8	6	62
Signal group 18	8	6	9	7	60
Pedestrian movement 1	1	8	8	8	8
Pedestrian movement 2	5	8	12	8	44
Pedestrian movement 3	4	6	8	6	27
Pedestrian movement 4	4	6	8	6	27
Pedestrian movement 5	9	6	8	6	61
Pedestrian movement 6	8	6	9	7	60

Tuesday, 19 July 2022, 6:15:00 PM AEST to Tuesday, 19 July 2022, 6:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	24	49	36	364
D phase	6	13	19	14	84
E phase	10	14	25	19	199
G phase	11	15	22	17	187
Nominal cycle length	2	80	89	84	169
Active cycle length	5	58	98	81	407
Actual cycle	10	56	96	79	792
Signal group 1	10	16	42	29	293
Signal group 2	10	16	55	34	346
Signal group 3	8	8	10	9	72
Signal group 4	11	8	14	9	103
Signal group 5	10	7	17	12	126
Signal group 6	10	7	26	15	152
Signal group 7	4	5	11	7	28
Signal group 8	6	5	11	6	40

Signal group 9	8	18	42	31	251
Signal group 10	9	22	55	36	330
Signal group 11	7	6	9	7	52
Signal group 12	1	8	8	8	8
Signal group 13	2	8	8	8	16
Signal group 14	2	6	8	7	14
Signal group 15	4	6	8	7	28
Signal group 16	6	6	8	6	40
Signal group 17	7	6	8	6	48
Signal group 18	7	6	9	7	49
Pedestrian movement 1	2	8	8	8	16
Pedestrian movement 2	2	6	8	7	14
Pedestrian movement 3	4	6	8	7	28
Pedestrian movement 4	6	6	8	6	40
Pedestrian movement 5	7	6	8	6	48
Pedestrian movement 6	7	6	8	6	47

Tuesday, 19 July 2022, 6:30:00 PM AEST to Tuesday, 19 July 2022, 6:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	26	46	36	363
D phase	10	13	15	13	134
E phase	11	13	29	17	197
G phase	10	14	18	16	161
Active cycle length	2	80	81	80	161
Actual cycle	10	66	91	80	806
Signal group 1	10	19	46	30	309
Signal group 2	10	19	41	30	307
Signal group 3	9	7	10	8	77
Signal group 4	8	7	11	8	70
Signal group 5	11	7	26	14	159
Signal group 6	11	6	27	15	172
Signal group 7	6	6	8	6	39
Signal group 8	7	6	8	6	45
Signal group 9	10	13	40	28	289
Signal group 10	10	11	52	34	348
Signal group 11	7	6	10	7	54
Signal group 12	2	6	7	6	13
Signal group 13	2	8	9	8	17
Signal group 14	2	8	8	8	16
Signal group 15	1	6	6	6	6
Signal group 16	2	9	9	9	18
Signal group 17	7	6	8	6	48
Signal group 18	5	6	9	7	37
Pedestrian movement 1	2	8	9	8	17
Pedestrian movement 2	2	8	8	8	16
Pedestrian movement 3	1	6	6	6	6
Pedestrian movement 4	2	7	8	7	15
Pedestrian movement 5	7	6	8	6	48
Pedestrian movement 6	5	6	7	6	33

Tuesday, 19 July 2022, 6:45:00 PM AEST to Tuesday, 19 July 2022, 7:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	22	64	38	425

D phase	11	13	19	14	155
E phase	9	13	19	15	136
G phase	10	14	20	16	164
Active cycle length	1	58	58	58	58
Actual cycle	10	51	103	80	800
Signal group 1	11	15	57	34	380
Signal group 2	11	24	57	36	402
Signal group 3	7	7	10	8	58
Signal group 4	8	7	13	9	72
Signal group 5	10	6	25	11	117
Signal group 6	11	6	22	10	116
Signal group 7	8	6	11	6	53
Signal group 8	8	6	12	7	59
Signal group 9	11	13	57	34	383
Signal group 10	11	18	57	36	402
Signal group 11	4	6	13	8	32
Signal group 12	3	6	8	7	22
Signal group 13	2	8	8	8	16
Signal group 14	2	8	9	8	17
Signal group 15	4	6	8	6	26
Signal group 16	6	6	6	6	36
Signal group 17	4	6	8	6	26
Signal group 18	6	6	7	6	37
Pedestrian movement 1	2	8	8	8	16
Pedestrian movement 2	2	8	9	8	17
Pedestrian movement 3	4	6	8	6	26
Pedestrian movement 4	6	6	6	6	36
Pedestrian movement 5	4	6	8	6	26
Pedestrian movement 6	6	6	7	6	37

Tuesday, 19 July 2022, 7:00:00 PM AEST to Tuesday, 19 July 2022, 7:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	17	63	36	397
D phase	11	13	19	13	152
E phase	10	13	21	16	169
G phase	11	14	17	16	176
Active cycle length	4	80	98	84	339
Actual cycle	10	62	112	81	815
Signal group 1	11	10	73	33	370
Signal group 2	11	10	56	30	334
Signal group 3	10	7	10	8	84
Signal group 4	8	6	9	8	64
Signal group 5	11	6	25	11	124
Signal group 6	10	6	27	15	152
Signal group 7	7	6	12	7	50
Signal group 8	9	5	7	6	54
Signal group 9	11	10	86	31	349
Signal group 10	10	10	69	36	362
Signal group 11	3	5	7	6	19
Signal group 12	3	6	8	7	21
Signal group 13	2	8	9	8	17
Signal group 14	2	8	9	8	17
Signal group 15	5	6	6	6	30

Signal group 16	4	6	9	7	29
Signal group 17	7	6	8	6	46
Signal group 18	7	6	9	6	45
Pedestrian movement 1	2	8	9	8	17
Pedestrian movement 2	2	8	9	8	17
Pedestrian movement 3	5	6	6	6	30
Pedestrian movement 4	4	6	8	6	27
Pedestrian movement 5	7	6	8	6	46
Pedestrian movement 6	7	6	7	6	43

Tuesday, 19 July 2022, 7:15:00 PM AEST to Tuesday, 19 July 2022, 7:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	18	111	43	435
D phase	10	13	14	13	131
E phase	9	13	19	14	133
G phase	10	14	18	15	156
Active cycle length	2	58	80	69	138
Actual cycle	10	49	156	85	855
Signal group 1	11	11	104	37	408
Signal group 2	10	11	104	37	378
Signal group 3	9	6	10	8	72
Signal group 4	9	6	10	8	74
Signal group 5	9	6	25	15	135
Signal group 6	10	6	22	10	102
Signal group 7	7	6	6	6	42
Signal group 8	5	6	6	6	30
Signal group 9	11	11	117	40	447
Signal group 10	8	24	104	49	398
Signal group 11	9	5	10	7	66
Signal group 12	3	5	6	5	16
Signal group 14	2	8	8	8	16
Signal group 16	1	6	6	6	6
Signal group 17	6	6	8	6	41
Signal group 18	6	6	9	6	40
Pedestrian movement 2	2	8	8	8	16
Pedestrian movement 4	1	6	6	6	6
Pedestrian movement 5	6	4	8	6	39
Pedestrian movement 6	6	6	7	6	38

Tuesday, 19 July 2022, 7:30:00 PM AEST to Tuesday, 19 July 2022, 7:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	16	71	35	424
D phase	11	13	18	14	156
E phase	9	13	23	16	152
G phase	10	14	18	16	161
Nominal cycle length	6	35	87	74	449
Active cycle length	10	35	100	76	767
Actual cycle	11	30	115	75	829
Signal group 1	12	9	64	32	386
Signal group 2	12	9	64	32	388
Signal group 3	7	5	10	8	59
Signal group 4	7	6	10	8	60
Signal group 5	10	6	25	14	141

Signal group 6	10	6	28	14	147
Signal group 7	6	5	11	7	46
Signal group 8	7	6	8	6	45
Signal group 9	12	9	64	33	400
Signal group 10	10	6	142	40	406
Signal group 11	4	6	9	7	31
Signal group 12	2	5	7	6	12
Signal group 14	2	8	8	8	16
Signal group 15	3	6	8	6	20
Signal group 16	3	6	9	7	21
Signal group 17	5	6	8	7	36
Signal group 18	6	6	7	6	37
Pedestrian movement 2	2	8	8	8	16
Pedestrian movement 3	3	6	8	6	20
Pedestrian movement 4	3	6	8	6	20
Pedestrian movement 5	5	6	8	7	36
Pedestrian movement 6	6	6	7	6	37

Tuesday, 19 July 2022, 7:45:00 PM AEST to Tuesday, 19 July 2022, 8:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	30	64	41	451
D phase	9	13	21	14	126
E phase	10	13	22	15	156
G phase	9	14	17	16	144
Nominal cycle length	1	35	35	35	35
Active cycle length	1	35	35	35	35
Actual cycle	11	50	107	79	877
Signal group 1	12	10	57	38	466
Signal group 2	12	10	57	33	398
Signal group 3	8	8	10	8	69
Signal group 4	4	6	9	7	29
Signal group 5	10	6	21	11	111
Signal group 6	11	6	20	12	138
Signal group 7	5	6	6	6	30
Signal group 8	7	5	13	7	49
Signal group 9	11	10	65	37	412
Signal group 10	11	10	110	45	504
Signal group 11	4	5	8	6	25
Signal group 13	3	8	9	8	26
Signal group 17	8	6	8	6	52
Signal group 18	9	6	8	6	57
Pedestrian movement 1	3	8	9	8	26
Pedestrian movement 5	8	6	8	6	52
Pedestrian movement 6	9	6	8	6	57

Tuesday, 19 July 2022, 8:00:00 PM AEST to Tuesday, 19 July 2022, 8:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	15	16	57	21	329
D phase	12	12	19	13	166
E phase	11	13	20	16	177
G phase	14	14	17	15	217
Nominal cycle length	2	35	80	57	115
Active cycle length	4	35	81	63	252

Actual cycle	15	33	91	56	841
Signal group 1	14	9	67	18	263
Signal group 2	15	9	50	19	294
Signal group 3	9	7	10	8	77
Signal group 4	11	6	10	7	84
Signal group 5	15	6	25	10	157
Signal group 6	11	6	19	11	123
Signal group 7	10	5	11	6	69
Signal group 8	6	5	6	5	35
Signal group 9	14	7	85	23	326
Signal group 10	15	6	59	23	349
Signal group 11	10	5	9	6	66
Signal group 12	1	6	6	6	6
Signal group 13	1	6	6	6	6
Signal group 14	1	6	6	6	6
Signal group 15	1	6	6	6	6
Signal group 16	1	6	6	6	6
Signal group 17	8	6	8	6	54
Signal group 18	7	6	8	6	47
Pedestrian movement 1	1	6	6	6	6
Pedestrian movement 2	1	6	6	6	6
Pedestrian movement 3	1	6	6	6	6
Pedestrian movement 4	1	6	6	6	6
Pedestrian movement 5	8	6	8	6	54
Pedestrian movement 6	7	6	8	6	47

Tuesday, 19 July 2022, 8:15:00 PM AEST to Tuesday, 19 July 2022, 8:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	20	16	22	17	353
D phase	12	13	14	13	157
E phase	13	13	22	15	201
G phase	11	13	17	15	166
Nominal cycle length	2	35	80	57	115
Active cycle length	2	35	80	57	115
Actual cycle	19	29	60	43	819
Signal group 1	20	8	26	12	254
Signal group 2	18	8	43	16	292
Signal group 3	6	7	10	8	49
Signal group 4	8	6	9	7	60
Signal group 5	17	6	19	8	144
Signal group 6	16	6	19	8	138
Signal group 7	9	6	7	6	55
Signal group 8	8	5	6	5	47
Signal group 9	17	7	57	20	347
Signal group 10	17	8	64	22	389
Signal group 11	7	6	9	7	49
Signal group 12	1	6	6	6	6
Signal group 13	1	7	7	7	7
Signal group 15	1	5	5	5	5
Signal group 16	1	6	6	6	6
Signal group 17	5	6	8	6	32
Signal group 18	4	6	8	6	27
Pedestrian movement 1	1	7	7	7	7

Pedestrian movement 3	1	5	5	5	5
Pedestrian movement 4	1	6	6	6	6
Pedestrian movement 5	5	6	8	6	32
Pedestrian movement 6	4	6	8	6	27

Tuesday, 19 July 2022, 8:30:00 PM AEST to Tuesday, 19 July 2022, 8:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	18	15	64	23	426
D phase	12	13	19	13	163
E phase	12	13	19	15	182
G phase	8	13	16	14	118
Nominal cycle length	2	35	80	57	115
Active cycle length	3	35	80	51	153
Actual cycle	17	29	90	51	872
Signal group 1	18	8	57	17	313
Signal group 2	18	8	70	20	371
Signal group 3	3	7	8	7	23
Signal group 4	7	6	8	7	51
Signal group 5	13	6	12	7	102
Signal group 6	13	6	20	9	128
Signal group 7	9	5	11	6	57
Signal group 8	12	5	11	6	76
Signal group 9	17	8	70	24	424
Signal group 10	15	6	161	35	530
Signal group 11	5	6	8	6	33
Signal group 12	1	6	6	6	6
Signal group 14	1	6	6	6	6
Signal group 15	2	6	6	6	12
Signal group 16	2	6	6	6	12
Signal group 17	2	6	6	6	12
Signal group 18	3	6	6	6	18
Pedestrian movement 2	1	6	6	6	6
Pedestrian movement 3	2	6	6	6	12
Pedestrian movement 4	2	6	6	6	12
Pedestrian movement 5	2	6	6	6	12
Pedestrian movement 6	3	5	6	5	16

Tuesday, 19 July 2022, 8:45:00 PM AEST to Tuesday, 19 July 2022, 9:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	17	16	70	25	441
D phase	11	13	21	15	168
E phase	8	13	20	15	121
G phase	11	13	17	14	160
Nominal cycle length	4	35	80	57	230
Active cycle length	6	35	94	67	404
Actual cycle	17	29	113	50	863
Signal group 1	17	8	63	21	361
Signal group 2	15	8	63	27	418
Signal group 3	3	6	8	6	20
Signal group 4	8	6	10	7	60
Signal group 5	12	6	19	8	104
Signal group 6	11	6	19	10	113
Signal group 7	6	6	8	6	39

Signal group 8	6	6	13	9	54
Signal group 9	13	9	80	35	461
Signal group 10	13	8	120	37	493
Signal group 11	6	5	7	6	36
Signal group 12	2	5	6	5	11
Signal group 15	2	8	8	8	16
Signal group 16	3	6	8	6	20
Signal group 17	1	6	6	6	6
Signal group 18	2	6	7	6	13
Pedestrian movement 3	2	8	8	8	16
Pedestrian movement 4	3	4	8	6	18
Pedestrian movement 5	1	6	6	6	6
Pedestrian movement 6	2	6	7	6	13

Tuesday, 19 July 2022, 9:00:00 PM AEST to Tuesday, 19 July 2022, 9:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	20	16	24	18	366
D phase	11	13	20	13	150
E phase	12	13	19	15	183
G phase	11	13	17	14	159
Nominal cycle length	1	80	80	80	80
Active cycle length	1	80	80	80	80
Actual cycle	19	29	56	40	775
Signal group 1	19	9	38	15	299
Signal group 2	18	8	49	18	324
Signal group 3	6	6	13	7	45
Signal group 4	7	6	13	8	59
Signal group 5	15	6	12	7	115
Signal group 6	14	6	12	8	115
Signal group 7	9	5	6	5	51
Signal group 8	8	5	12	6	51
Signal group 9	16	9	60	25	402
Signal group 10	17	8	67	25	427
Signal group 11	6	6	13	7	47
Signal group 12	4	5	6	5	23
Signal group 13	1	6	6	6	6
Signal group 15	1	6	6	6	6
Signal group 16	2	6	6	6	12
Signal group 17	2	6	8	7	14
Signal group 18	2	6	6	6	12
Pedestrian movement 1	1	6	6	6	6
Pedestrian movement 3	1	6	6	6	6
Pedestrian movement 4	2	5	6	5	11
Pedestrian movement 5	2	6	8	7	14
Pedestrian movement 6	2	6	6	6	12

Tuesday, 19 July 2022, 9:15:00 PM AEST to Tuesday, 19 July 2022, 9:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	21	15	51	20	436
D phase	13	13	18	13	176
E phase	13	13	18	14	186
G phase	7	13	16	14	99
Nominal cycle length	3	35	80	50	150

Active cycle length	4	26	80	44	176
Actual cycle	21	29	91	42	897
Signal group 1	21	8	44	13	281
Signal group 2	20	8	44	18	374
Signal group 3	1	6	6	6	6
Signal group 4	7	6	9	7	50
Signal group 5	16	6	19	7	120
Signal group 6	17	6	20	8	146
Signal group 7	7	6	6	6	42
Signal group 8	9	5	11	6	60
Signal group 9	19	8	57	19	366
Signal group 10	16	8	96	30	485
Signal group 11	6	6	6	6	36
Signal group 12	1	6	6	6	6
Signal group 13	1	8	8	8	8
Signal group 14	1	6	6	6	6
Signal group 15	1	6	6	6	6
Signal group 16	1	6	6	6	6
Signal group 18	1	6	6	6	6
Pedestrian movement 1	1	8	8	8	8
Pedestrian movement 2	1	6	6	6	6
Pedestrian movement 3	1	6	6	6	6
Pedestrian movement 4	1	6	6	6	6
Pedestrian movement 6	1	6	6	6	6

Tuesday, 19 July 2022, 9:30:00 PM AEST to Tuesday, 19 July 2022, 9:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	18	15	49	23	422
D phase	11	13	19	13	149
E phase	11	13	20	14	157
G phase	10	13	17	14	147
Nominal cycle length	1	80	80	80	80
Active cycle length	1	80	80	80	80
Actual cycle	17	29	75	48	819
Signal group 1	18	8	53	18	334
Signal group 2	16	8	43	25	410
Signal group 3	3	6	8	6	20
Signal group 4	7	6	9	7	51
Signal group 5	13	6	13	7	96
Signal group 6	13	5	19	7	102
Signal group 7	8	6	12	6	54
Signal group 8	8	5	6	5	47
Signal group 9	15	8	83	28	426
Signal group 10	14	8	76	37	529
Signal group 11	7	5	8	6	46
Signal group 12	2	5	6	5	11
Signal group 13	1	7	7	7	7
Signal group 17	1	6	6	6	6
Signal group 18	1	6	6	6	6
Pedestrian movement 1	1	7	7	7	7
Pedestrian movement 5	1	6	6	6	6
Pedestrian movement 6	1	6	6	6	6

Tuesday, 19 July 2022, 9:45:00 PM AEST to Tuesday, 19 July 2022, 10:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	17	15	92	28	477
D phase	14	13	15	13	185
E phase	6	13	15	13	82
G phase	10	13	17	14	140
Nominal cycle length	2	35	80	57	115
Active cycle length	2	35	80	57	115
Actual cycle	16	29	118	51	823
Signal group 1	17	7	85	21	372
Signal group 2	16	10	85	29	475
Signal group 3	2	7	8	7	15
Signal group 4	9	6	9	6	60
Signal group 5	9	6	7	6	59
Signal group 6	12	6	7	6	77
Signal group 7	9	5	7	5	52
Signal group 8	12	5	7	5	71
Signal group 9	17	7	98	28	487
Signal group 10	9	12	185	75	680
Signal group 11	9	5	9	6	56
Signal group 12	2	5	8	6	13

Tuesday, 19 July 2022, 10:00:00 PM AEST to Tuesday, 19 July 2022, 10:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	26	92	51	568
D phase	7	13	19	13	97
E phase	8	13	21	15	127
G phase	6	14	18	15	92
Nominal cycle length	4	80	88	84	338
Active cycle length	7	79	103	85	601
Actual cycle	10	57	133	83	836
Signal group 1	11	19	85	47	519
Signal group 2	10	19	123	54	545
Signal group 3	3	7	10	8	24
Signal group 4	4	7	10	8	32
Signal group 5	9	5	13	8	74
Signal group 6	8	6	26	13	108
Signal group 7	5	5	12	7	35
Signal group 8	7	5	12	6	47
Signal group 9	10	19	85	51	517
Signal group 10	10	35	136	64	641
Signal group 11	4	6	10	7	30
Signal group 12	2	6	6	6	12
Signal group 17	1	8	8	8	8
Signal group 18	2	6	6	6	12
Pedestrian movement 5	1	8	8	8	8
Pedestrian movement 6	2	6	6	6	12

Tuesday, 19 July 2022, 10:15:00 PM AEST to Tuesday, 19 July 2022, 10:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	18	16	67	28	508
D phase	11	13	19	14	155

E phase	10	13	18	14	142
G phase	6	13	14	13	82
Nominal cycle length	3	35	80	50	150
Active cycle length	3	35	80	50	150
Actual cycle	17	30	101	50	858
Signal group 1	17	8	134	23	398
Signal group 2	16	9	60	28	461
Signal group 3	1	5	5	5	5
Signal group 4	6	6	7	6	40
Signal group 5	12	5	10	6	81
Signal group 6	12	6	25	11	141
Signal group 7	5	5	7	6	30
Signal group 8	9	5	11	6	61
Signal group 9	14	8	57	24	346
Signal group 10	13	9	139	46	607
Signal group 11	6	5	7	6	37
Signal group 12	1	5	5	5	5

Tuesday, 19 July 2022, 10:30:00 PM AEST to Tuesday, 19 July 2022, 10:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	15	16	66	29	445
D phase	13	13	19	13	175
E phase	11	13	15	13	147
G phase	4	13	16	14	57
Actual cycle	15	29	92	54	824
Signal group 1	15	8	59	24	366
Signal group 2	14	9	59	25	359
Signal group 3	2	6	6	6	12
Signal group 4	2	6	8	7	14
Signal group 5	11	5	19	7	81
Signal group 6	12	5	8	6	74
Signal group 7	12	5	11	6	75
Signal group 8	12	5	11	6	75
Signal group 9	13	8	128	41	539
Signal group 10	13	12	72	38	495
Signal group 11	1	5	5	5	5
Signal group 12	2	6	6	6	12
Signal group 15	1	6	6	6	6
Signal group 16	1	7	7	7	7
Pedestrian movement 3	1	6	6	6	6
Pedestrian movement 4	1	7	7	7	7

Tuesday, 19 July 2022, 10:45:00 PM AEST to Tuesday, 19 July 2022, 11:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	16	124	62	621
D phase	10	13	13	13	130
E phase	4	13	19	14	58
G phase	3	13	16	14	42
Actual cycle	10	29	137	82	825
Signal group 1	10	8	117	54	549
Signal group 2	10	8	117	57	578
Signal group 3	1	6	6	6	6
Signal group 4	3	6	8	6	20

Signal group 5	6	6	12	7	42
Signal group 6	6	6	12	7	42
Signal group 7	8	5	6	5	47
Signal group 8	8	6	6	6	48
Signal group 9	8	8	217	81	653
Signal group 10	6	9	246	116	698
Signal group 11	2	6	6	6	12
Signal group 12	1	6	6	6	6
Signal group 15	1	6	6	6	6
Signal group 16	1	6	6	6	6
Pedestrian movement 3	1	6	6	6	6
Pedestrian movement 4	1	6	6	6	6

Tuesday, 19 July 2022, 11:00:00 PM AEST to Tuesday, 19 July 2022, 11:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	16	93	39	556
D phase	11	13	13	13	143
E phase	8	13	19	15	125
G phase	3	13	16	14	43
Actual cycle	13	29	120	60	790
Signal group 1	14	8	86	34	485
Signal group 2	14	8	86	33	470
Signal group 3	2	6	8	7	14
Signal group 4	1	7	7	7	7
Signal group 5	11	6	20	8	98
Signal group 6	10	6	12	7	79
Signal group 7	10	5	6	5	58
Signal group 8	8	5	6	5	47
Signal group 9	10	9	141	56	566
Signal group 10	11	8	130	43	483
Signal group 11	1	7	7	7	7
Signal group 12	1	6	6	6	6
Signal group 17	1	6	6	6	6
Signal group 18	3	6	7	6	19
Pedestrian movement 5	1	6	6	6	6
Pedestrian movement 6	3	6	7	6	19

Tuesday, 19 July 2022, 11:15:00 PM AEST to Tuesday, 19 July 2022, 11:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	16	16	79	33	528
D phase	11	13	13	13	143
E phase	13	13	22	14	193
G phase	2	13	15	14	28
Actual cycle	16	29	97	55	892
Signal group 1	16	8	72	25	415
Signal group 2	15	8	101	30	450
Signal group 4	2	6	7	6	13
Signal group 5	14	6	15	7	106
Signal group 6	13	6	15	7	100
Signal group 7	11	5	6	5	63
Signal group 8	10	5	6	5	56
Signal group 9	14	9	72	37	524
Signal group 10	14	8	168	41	583

Signal group 11	2	6	7	6	13
Signal group 18	1	8	8	8	8
Pedestrian movement 6	1	8	8	8	8

Tuesday, 19 July 2022, 11:30:00 PM AEST to Tuesday, 19 July 2022, 11:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	16	106	43	524
D phase	11	13	14	13	144
E phase	7	13	20	15	105
G phase	4	13	15	14	56
Actual cycle	11	29	119	69	760
Signal group 1	12	8	99	37	450
Signal group 2	11	21	99	44	486
Signal group 3	1	7	7	7	7
Signal group 4	3	6	7	6	20
Signal group 5	10	6	19	9	91
Signal group 6	9	6	13	7	71
Signal group 7	10	6	7	6	61
Signal group 8	8	6	6	6	48
Signal group 9	10	8	177	58	583
Signal group 10	9	25	174	67	606
Signal group 11	3	6	7	6	19
Signal group 12	1	6	6	6	6
Signal group 18	3	6	8	6	20
Pedestrian movement 6	3	6	8	6	20

Tuesday, 19 July 2022, 11:45:00 PM AEST to Wednesday, 20 July 2022, 12:00:00 AM AEST:

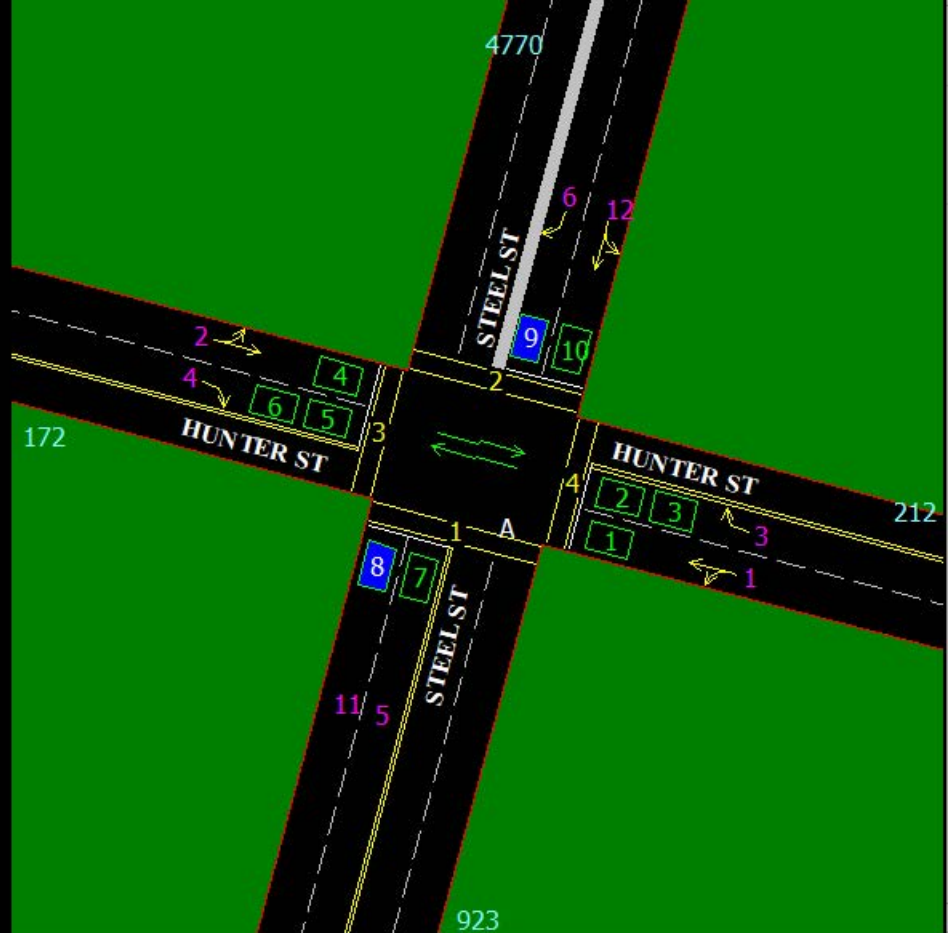
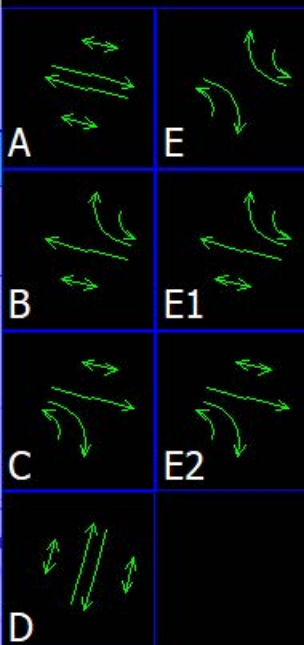
Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	16	185	58	642
D phase	8	13	14	13	105
E phase	6	13	19	14	86
G phase	5	10	14	12	64
Actual cycle	11	30	199	81	897
Signal group 1	11	9	178	52	578
Signal group 2	11	9	178	56	624
Signal group 3	1	6	6	6	6
Signal group 4	4	6	7	6	25
Signal group 5	6	6	12	7	44
Signal group 6	7	6	12	7	50
Signal group 7	7	5	6	5	39
Signal group 8	8	5	6	5	45
Signal group 9	10	9	178	67	673
Signal group 10	8	9	238	93	748
Signal group 11	4	6	6	6	24
Signal group 12	1	6	6	6	6
Signal group 18	1	6	6	6	6
Pedestrian movement 6	1	6	6	6	6

TCS 1138

NEWCASTLE WEST
HAM

2E8
SS=73

7 PHASES



Report: Periodic statistics for site 1138

15 minute intervals

From: Tuesday, 19 July 2022, 12:00:00 AM AEST

To: Tuesday, 19 July 2022, 11:59:59 PM AEST

Tuesday, 19 July 2022, 12:00:00 AM AEST to Tuesday, 19 July 2022, 12:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
Unknown phase	1	14	14	14	14
A phase	6	15	241	95	570
D phase	6	12	17	13	78
Actual cycle	7	14	258	94	662
Signal group 1	5	9	126	59	299
Signal group 2	5	9	126	59	299
Signal group 5	6	5	11	6	40
Signal group 6	6	5	11	6	40

Tuesday, 19 July 2022, 12:15:00 AM AEST to Tuesday, 19 July 2022, 12:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	4	27	252	178	713
D phase	5	12	13	12	61
Actual cycle	4	39	264	190	762
Signal group 1	4	21	246	172	689
Signal group 2	4	21	246	172	689
Signal group 5	5	5	6	5	26
Signal group 6	5	5	6	5	26

Tuesday, 19 July 2022, 12:45:00 AM AEST to Tuesday, 19 July 2022, 1:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	1	80	80	80	80
D phase	2	12	13	12	25
Actual cycle	1	93	93	93	93
Signal group 1	1	74	74	74	74
Signal group 2	1	74	74	74	74
Signal group 5	2	5	7	6	12
Signal group 6	2	5	7	6	12

Tuesday, 19 July 2022, 1:00:00 AM AEST to Tuesday, 19 July 2022, 1:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	1	379	379	379	379
D phase	2	12	13	12	25
Actual cycle	1	392	392	392	392
Signal group 1	1	374	374	374	374
Signal group 2	1	374	374	374	374
Signal group 5	2	5	7	6	12
Signal group 6	2	5	7	6	12

Tuesday, 19 July 2022, 1:15:00 AM AEST to Tuesday, 19 July 2022, 1:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	1	710	710	710	710

D phase	2	12	12	12	24
Actual cycle	1	722	722	722	722
Signal group 1	1	704	704	704	704
Signal group 2	1	704	704	704	704
Signal group 5	2	6	6	6	12
Signal group 6	2	6	6	6	12

Tuesday, 19 July 2022, 1:45:00 AM AEST to Tuesday, 19 July 2022, 2:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	3	170	260	212	636
D phase	4	12	12	12	48
Actual cycle	3	182	272	224	672
Signal group 1	3	164	254	206	618
Signal group 2	3	164	254	206	618
Signal group 5	4	5	6	5	21
Signal group 6	4	5	6	5	21

Tuesday, 19 July 2022, 2:00:00 AM AEST to Tuesday, 19 July 2022, 2:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	2	79	112	95	191
D phase	3	11	13	11	35
Actual cycle	2	92	123	107	215
Signal group 1	2	74	106	90	180
Signal group 2	2	74	106	90	180
Signal group 5	3	5	7	5	17
Signal group 6	3	5	7	5	17

Tuesday, 19 July 2022, 2:15:00 AM AEST to Tuesday, 19 July 2022, 2:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
D phase	1	12	12	12	12
Signal group 1	1	554	554	554	554
Signal group 2	1	554	554	554	554
Signal group 5	1	5	5	5	5
Signal group 6	1	5	5	5	5

Tuesday, 19 July 2022, 2:30:00 AM AEST to Tuesday, 19 July 2022, 2:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	1	561	561	561	561
D phase	1	13	13	13	13
E phase	1	11	11	11	11
Actual cycle	1	572	572	572	572
Signal group 1	1	555	555	555	555
Signal group 2	1	555	555	555	555
Signal group 3	1	5	5	5	5
Signal group 4	1	5	5	5	5
Signal group 5	1	7	7	7	7
Signal group 6	1	7	7	7	7
Signal group 11	1	5	5	5	5
Signal group 12	1	5	5	5	5

Tuesday, 19 July 2022, 3:00:00 AM AEST to Tuesday, 19 July 2022, 3:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
D phase	1	13	13	13	13
Signal group 5	1	6	6	6	6
Signal group 6	1	6	6	6	6

Tuesday, 19 July 2022, 3:30:00 AM AEST to Tuesday, 19 July 2022, 3:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
D phase	1	12	12	12	12
Signal group 5	1	5	5	5	5
Signal group 6	1	5	5	5	5

Tuesday, 19 July 2022, 3:45:00 AM AEST to Tuesday, 19 July 2022, 4:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
D phase	1	12	12	12	12
Signal group 5	1	5	5	5	5
Signal group 6	1	5	5	5	5

Tuesday, 19 July 2022, 4:15:00 AM AEST to Tuesday, 19 July 2022, 4:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	1	170	170	170	170
D phase	2	11	12	11	23
Actual cycle	1	181	181	181	181
Signal group 1	1	164	164	164	164
Signal group 2	1	164	164	164	164
Signal group 5	2	5	5	5	10
Signal group 6	2	5	5	5	10

Tuesday, 19 July 2022, 4:30:00 AM AEST to Tuesday, 19 July 2022, 4:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
D phase	1	12	12	12	12
Signal group 5	1	5	5	5	5
Signal group 6	1	5	5	5	5
Signal group 13	1	8	8	8	8
Pedestrian movement 1	1	8	8	8	8

Tuesday, 19 July 2022, 4:45:00 AM AEST to Tuesday, 19 July 2022, 5:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	5	27	321	132	662
D phase	6	12	13	12	74
Actual cycle	5	39	334	144	723
Signal group 1	5	21	315	126	632
Signal group 2	5	21	315	126	632
Signal group 5	6	5	6	5	34
Signal group 6	6	5	6	5	34

Tuesday, 19 July 2022, 5:00:00 AM AEST to Tuesday, 19 July 2022, 5:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	1	155	155	155	155
D phase	2	12	16	14	28
Actual cycle	1	171	171	171	171

Signal group 1	1	150	150	150	150
Signal group 2	1	150	150	150	150
Signal group 5	2	6	9	7	15
Signal group 6	2	6	9	7	15

Tuesday, 19 July 2022, 5:15:00 AM AEST to Tuesday, 19 July 2022, 5:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	17	14	130	26	447
D phase	17	12	19	16	287
E phase	1	12	12	12	12
Actual cycle	16	31	143	44	719
Signal group 1	17	9	124	20	347
Signal group 2	17	9	124	21	359
Signal group 4	1	7	7	7	7
Signal group 5	17	5	13	10	184
Signal group 6	17	5	13	10	184
Signal group 11	1	6	6	6	6

Tuesday, 19 July 2022, 5:30:00 AM AEST to Tuesday, 19 July 2022, 5:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	15	140	48	676
D phase	12	12	17	14	173
E phase	3	11	13	11	35
Actual cycle	14	28	156	63	884
Signal group 1	14	9	135	42	596
Signal group 2	14	9	135	43	609
Signal group 3	2	5	5	5	10
Signal group 4	3	5	7	5	17
Signal group 5	12	5	11	8	96
Signal group 6	12	5	11	8	96
Signal group 11	3	5	6	5	16
Signal group 12	2	5	5	5	10

Tuesday, 19 July 2022, 5:45:00 AM AEST to Tuesday, 19 July 2022, 6:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	9	18	271	81	736
D phase	9	12	17	13	120
Actual cycle	8	35	283	97	783
Signal group 1	9	12	265	75	682
Signal group 2	9	12	265	75	682
Signal group 5	9	5	11	6	61
Signal group 6	9	5	11	6	61
Signal group 14	1	8	8	8	8
Pedestrian movement 2	1	8	8	8	8

Tuesday, 19 July 2022, 6:00:00 AM AEST to Tuesday, 19 July 2022, 6:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	17	148	50	604
D phase	12	12	16	12	155
E phase	4	12	13	12	49
Actual cycle	12	33	173	65	784

Signal group 1	12	12	142	45	549
Signal group 2	12	12	154	46	560
Signal group 3	2	6	7	6	13
Signal group 4	3	6	7	6	19
Signal group 5	11	5	9	6	71
Signal group 6	11	5	9	6	71
Signal group 11	3	6	6	6	18
Signal group 12	2	6	6	6	12

Tuesday, 19 July 2022, 6:15:00 AM AEST to Tuesday, 19 July 2022, 6:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	15	114	49	645
D phase	14	11	25	15	216
E phase	1	13	13	13	13
Actual cycle	13	28	126	66	862
Signal group 1	13	9	108	43	570
Signal group 2	13	9	108	44	583
Signal group 4	1	7	7	7	7
Signal group 5	14	5	19	8	123
Signal group 6	14	5	19	8	123
Signal group 11	1	5	5	5	5
Signal group 13	1	8	8	8	8
Signal group 15	1	9	9	9	9
Signal group 16	2	8	8	8	16
Pedestrian movement 1	1	8	8	8	8
Pedestrian movement 3	1	9	9	9	9
Pedestrian movement 4	2	6	6	6	12

Tuesday, 19 July 2022, 6:30:00 AM AEST to Tuesday, 19 July 2022, 6:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	16	16	68	36	577
D phase	16	12	24	15	241
E phase	3	11	13	12	36
Nominal cycle length	3	30	60	50	150
Active cycle length	3	30	60	50	150
Actual cycle	16	28	88	52	842
Signal group 1	16	10	62	30	493
Signal group 2	16	10	62	30	494
Signal group 3	2	5	6	5	11
Signal group 4	2	5	7	6	12
Signal group 5	16	5	18	8	137
Signal group 6	16	5	18	8	137
Signal group 11	2	5	6	5	11
Signal group 12	2	5	5	5	10
Signal group 13	1	11	11	11	11
Signal group 14	2	8	8	8	16
Signal group 15	1	8	8	8	8
Signal group 16	2	8	8	8	16
Pedestrian movement 1	1	11	11	11	11
Pedestrian movement 2	2	8	8	8	16
Pedestrian movement 3	1	6	6	6	6
Pedestrian movement 4	2	6	6	6	12

Tuesday, 19 July 2022, 6:45:00 AM AEST to Tuesday, 19 July 2022, 7:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	26	202	63	631
D phase	11	12	24	16	181
E phase	3	12	13	12	38
Nominal cycle length	1	30	30	30	30
Active cycle length	1	30	30	30	30
Actual cycle	10	39	217	83	837
Signal group 1	10	20	196	57	572
Signal group 2	10	31	209	59	598
Signal group 4	3	6	7	6	20
Signal group 5	11	6	18	10	113
Signal group 6	11	6	18	10	113
Signal group 11	3	5	6	5	17
Signal group 13	2	9	9	9	18
Signal group 14	1	8	8	8	8
Signal group 15	2	8	8	8	16
Signal group 16	2	8	8	8	16
Pedestrian movement 1	2	6	7	6	13
Pedestrian movement 2	1	6	6	6	6
Pedestrian movement 3	2	6	6	6	12
Pedestrian movement 4	2	6	6	6	12

Tuesday, 19 July 2022, 7:00:00 AM AEST to Tuesday, 19 July 2022, 7:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	16	95	40	561
D phase	13	12	24	15	204
E phase	6	12	16	13	78
Nominal cycle length	4	30	60	45	180
Active cycle length	6	30	62	50	302
Actual cycle	13	29	107	59	772
Signal group 1	14	10	89	34	478
Signal group 2	14	10	89	36	507
Signal group 3	4	6	7	6	26
Signal group 4	6	6	10	7	42
Signal group 5	14	5	18	9	126
Signal group 6	14	5	18	9	126
Signal group 11	6	5	9	6	37
Signal group 12	4	5	6	5	23
Signal group 13	2	8	8	8	16
Signal group 14	1	9	9	9	9
Signal group 15	1	8	8	8	8
Signal group 16	1	8	8	8	8
Pedestrian movement 1	2	6	6	6	12
Pedestrian movement 2	1	7	7	7	7
Pedestrian movement 3	1	6	6	6	6
Pedestrian movement 4	1	6	6	6	6

Tuesday, 19 July 2022, 7:15:00 AM AEST to Tuesday, 19 July 2022, 7:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	17	15	49	33	570

D phase	16	12	25	17	279
E phase	2	12	13	12	25
Nominal cycle length	1	60	60	60	60
Active cycle length	8	53	61	59	472
Actual cycle	16	27	83	51	830
Signal group 1	17	9	43	27	468
Signal group 2	17	9	45	28	481
Signal group 3	1	6	6	6	6
Signal group 4	2	6	7	6	13
Signal group 5	17	5	19	11	195
Signal group 6	17	5	19	11	195
Signal group 11	2	5	6	5	11
Signal group 12	1	5	5	5	5
Signal group 13	1	8	8	8	8
Signal group 14	3	8	8	8	24
Signal group 16	5	8	8	8	40
Pedestrian movement 1	1	6	6	6	6
Pedestrian movement 2	3	6	8	7	22
Pedestrian movement 4	5	6	6	6	30

Tuesday, 19 July 2022, 7:30:00 AM AEST to Tuesday, 19 July 2022, 7:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	15	21	48	35	525
D phase	15	11	25	19	296
E phase	6	12	13	12	76
Nominal cycle length	1	68	68	68	68
Active cycle length	4	49	66	59	236
Actual cycle	15	36	72	58	884
Signal group 1	15	15	42	29	436
Signal group 2	15	19	42	32	487
Signal group 3	2	6	7	6	13
Signal group 4	5	6	7	6	34
Signal group 5	15	5	18	13	202
Signal group 6	15	5	18	13	202
Signal group 11	5	5	6	5	29
Signal group 12	2	5	6	5	11
Signal group 13	6	8	9	8	51
Signal group 14	4	8	9	8	34
Signal group 15	3	8	8	8	24
Signal group 16	7	8	8	8	56
Pedestrian movement 1	6	6	8	6	40
Pedestrian movement 2	4	6	8	6	27
Pedestrian movement 3	3	6	6	6	18
Pedestrian movement 4	7	6	6	6	42

Tuesday, 19 July 2022, 7:45:00 AM AEST to Tuesday, 19 July 2022, 8:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	21	43	32	418
D phase	14	13	25	22	320
E phase	8	12	13	12	103
Nominal cycle length	6	60	70	66	398
Active cycle length	6	60	69	64	389
Actual cycle	13	45	72	61	804

Signal group 1	14	15	41	28	400
Signal group 2	14	15	41	30	425
Signal group 3	4	6	7	6	27
Signal group 4	6	6	7	6	41
Signal group 5	14	7	19	16	234
Signal group 6	14	7	19	16	234
Signal group 11	6	5	6	5	35
Signal group 12	4	5	6	5	23
Signal group 13	4	8	9	8	34
Signal group 14	5	8	9	8	41
Signal group 15	2	8	8	8	16
Signal group 16	12	7	8	7	95
Pedestrian movement 1	4	6	7	6	25
Pedestrian movement 2	5	6	6	6	30
Pedestrian movement 3	2	6	6	6	12
Pedestrian movement 4	12	5	6	5	71

Tuesday, 19 July 2022, 8:00:00 AM AEST to Tuesday, 19 July 2022, 8:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	22	45	33	436
D phase	14	15	26	22	318
E phase	9	13	18	13	122
Nominal cycle length	8	60	76	68	550
Active cycle length	10	47	75	65	659
Actual cycle	13	42	82	65	850
Signal group 1	13	16	39	28	371
Signal group 2	13	20	46	31	415
Signal group 3	4	6	7	6	27
Signal group 4	8	7	12	7	61
Signal group 5	14	9	20	16	232
Signal group 6	14	9	20	16	232
Signal group 11	8	6	11	6	53
Signal group 12	4	5	6	5	23
Signal group 13	4	7	8	7	31
Signal group 14	5	8	11	9	46
Signal group 15	3	8	8	8	24
Signal group 16	9	8	8	8	72
Pedestrian movement 1	4	6	7	6	25
Pedestrian movement 2	5	6	9	7	35
Pedestrian movement 3	3	5	6	5	17
Pedestrian movement 4	9	5	6	5	53

Tuesday, 19 July 2022, 8:15:00 AM AEST to Tuesday, 19 July 2022, 8:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	23	68	39	478
D phase	12	15	27	23	279
E phase	9	12	14	13	117
Nominal cycle length	11	68	81	72	798
Active cycle length	10	68	95	74	746
Actual cycle	11	54	94	72	797
Signal group 1	12	17	62	33	406
Signal group 2	12	17	62	40	484
Signal group 3	3	7	7	7	21

Signal group 4	9	6	8	6	62
Signal group 5	12	9	21	17	207
Signal group 6	12	9	21	17	207
Signal group 11	9	5	7	5	53
Signal group 12	3	6	6	6	18
Signal group 13	4	8	8	8	32
Signal group 14	7	8	11	8	62
Signal group 15	8	7	8	7	63
Signal group 16	8	8	8	8	64
Pedestrian movement 1	4	6	6	6	24
Pedestrian movement 2	7	6	9	6	48
Pedestrian movement 3	8	5	6	5	47
Pedestrian movement 4	8	5	6	5	47

Tuesday, 19 July 2022, 8:30:00 AM AEST to Tuesday, 19 July 2022, 8:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	23	55	34	444
D phase	13	12	25	22	290
E phase	10	12	14	12	128
Nominal cycle length	8	60	79	70	566
Active cycle length	9	47	80	67	605
Actual cycle	13	41	93	66	862
Signal group 1	13	17	49	30	392
Signal group 2	13	19	49	32	419
Signal group 3	6	6	7	6	38
Signal group 4	8	6	8	6	55
Signal group 5	13	5	18	15	205
Signal group 6	13	5	18	15	205
Signal group 11	8	5	7	5	47
Signal group 12	6	5	6	5	32
Signal group 13	5	8	9	8	41
Signal group 14	6	8	11	8	52
Signal group 15	4	8	8	8	32
Signal group 16	8	8	8	8	64
Pedestrian movement 1	5	6	8	7	35
Pedestrian movement 2	6	6	9	7	42
Pedestrian movement 3	4	6	6	6	24
Pedestrian movement 4	8	6	6	6	48

Tuesday, 19 July 2022, 8:45:00 AM AEST to Tuesday, 19 July 2022, 9:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	20	72	40	481
D phase	13	12	32	22	295
E phase	8	12	20	13	111
Nominal cycle length	9	61	78	70	633
Active cycle length	9	61	99	73	658
Actual cycle	12	33	108	72	866
Signal group 1	12	14	66	34	410
Signal group 2	12	14	69	39	471
Signal group 3	4	6	7	6	27
Signal group 4	8	7	14	8	65
Signal group 5	13	5	26	16	211
Signal group 6	13	5	26	16	211

Signal group 11	8	6	13	7	57
Signal group 12	4	5	6	5	23
Signal group 13	6	8	9	8	50
Signal group 14	6	8	11	8	53
Signal group 15	5	8	8	8	40
Signal group 16	7	8	9	8	57
Pedestrian movement 1	6	6	9	7	46
Pedestrian movement 2	6	6	9	7	44
Pedestrian movement 3	5	6	6	6	30
Pedestrian movement 4	7	6	9	6	45

Tuesday, 19 July 2022, 9:00:00 AM AEST to Tuesday, 19 July 2022, 9:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	24	56	35	421
D phase	13	13	26	23	303
E phase	10	12	13	12	129
Nominal cycle length	13	62	80	67	880
Active cycle length	11	63	79	68	753
Actual cycle	12	50	94	67	815
Signal group 1	13	18	50	30	395
Signal group 2	13	18	51	33	435
Signal group 3	5	6	7	6	34
Signal group 4	8	6	7	6	55
Signal group 5	13	7	20	17	223
Signal group 6	13	7	20	17	223
Signal group 11	8	5	6	5	47
Signal group 12	5	5	6	5	29
Signal group 13	5	8	11	8	43
Signal group 14	8	8	11	9	73
Signal group 15	10	7	9	8	80
Signal group 16	7	8	9	8	57
Pedestrian movement 1	5	6	8	6	32
Pedestrian movement 2	8	6	9	7	59
Pedestrian movement 3	10	5	9	6	62
Pedestrian movement 4	7	6	9	6	45

Tuesday, 19 July 2022, 9:15:00 AM AEST to Tuesday, 19 July 2022, 9:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	20	49	38	534
D phase	15	12	29	20	313
E phase	2	12	12	12	24
Nominal cycle length	3	60	64	62	186
Active cycle length	11	59	62	60	663
Actual cycle	14	44	77	60	847
Signal group 1	14	14	47	33	464
Signal group 2	14	26	43	33	464
Signal group 3	1	6	6	6	6
Signal group 4	1	6	6	6	6
Signal group 5	15	6	22	14	217
Signal group 6	15	6	22	14	217
Signal group 11	1	5	5	5	5
Signal group 12	1	5	5	5	5
Signal group 13	1	8	8	8	8

Signal group 14	4	8	9	8	33
Signal group 15	2	8	8	8	16
Signal group 16	8	8	9	8	65
Pedestrian movement 1	1	8	8	8	8
Pedestrian movement 2	4	6	7	6	25
Pedestrian movement 3	2	6	6	6	12
Pedestrian movement 4	8	5	9	6	50

Tuesday, 19 July 2022, 9:30:00 AM AEST to Tuesday, 19 July 2022, 9:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	24	67	37	527
D phase	13	12	25	21	282
E phase	5	11	14	12	62
Active cycle length	2	60	80	70	140
Actual cycle	13	36	90	61	798
Signal group 1	14	18	61	31	443
Signal group 2	14	18	61	33	469
Signal group 3	3	5	6	5	16
Signal group 4	5	5	9	6	33
Signal group 5	13	5	18	14	194
Signal group 6	13	5	18	14	194
Signal group 11	5	5	9	6	31
Signal group 12	3	4	5	4	14
Signal group 13	5	8	9	8	42
Signal group 14	6	8	10	8	51
Signal group 15	3	8	8	8	24
Signal group 16	6	8	8	8	48
Pedestrian movement 1	5	6	9	7	38
Pedestrian movement 2	6	7	8	7	47
Pedestrian movement 3	3	6	6	6	18
Pedestrian movement 4	6	6	6	6	36

Tuesday, 19 July 2022, 9:45:00 AM AEST to Tuesday, 19 July 2022, 10:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	22	59	39	548
D phase	14	11	25	17	251
E phase	5	12	13	12	63
Nominal cycle length	4	60	70	66	264
Active cycle length	7	59	69	63	444
Actual cycle	14	34	97	61	862
Signal group 1	14	16	54	34	478
Signal group 2	14	16	54	35	492
Signal group 3	2	6	6	6	12
Signal group 4	4	7	7	7	28
Signal group 5	14	5	19	11	162
Signal group 6	14	5	19	11	162
Signal group 11	4	6	6	6	24
Signal group 12	2	5	5	5	10
Signal group 13	5	8	11	8	43
Signal group 14	4	8	11	9	38
Signal group 15	4	8	9	8	33
Signal group 16	5	8	9	8	41
Pedestrian movement 1	5	6	9	7	35

Pedestrian movement 2	4	6	9	8	32
Pedestrian movement 3	4	6	9	6	27
Pedestrian movement 4	5	6	9	6	33

Tuesday, 19 July 2022, 10:00:00 AM AEST to Tuesday, 19 July 2022, 10:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	20	62	36	507
D phase	15	12	25	21	326
E phase	4	12	15	13	53
Active cycle length	2	60	80	70	140
Actual cycle	14	45	100	61	862
Signal group 1	14	14	57	31	438
Signal group 2	14	24	57	33	465
Signal group 3	1	7	7	7	7
Signal group 4	3	6	9	7	22
Signal group 5	15	6	19	15	233
Signal group 6	15	6	19	15	233
Signal group 11	3	5	8	6	19
Signal group 12	1	6	6	6	6
Signal group 13	4	8	11	8	35
Signal group 14	3	8	11	9	28
Signal group 15	4	8	8	8	32
Signal group 16	6	8	8	8	48
Pedestrian movement 1	4	6	9	7	31
Pedestrian movement 2	3	6	8	7	21
Pedestrian movement 3	4	6	8	6	26
Pedestrian movement 4	6	6	8	6	40

Tuesday, 19 July 2022, 10:15:00 AM AEST to Tuesday, 19 July 2022, 10:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	22	71	39	552
D phase	14	12	25	19	269
E phase	4	13	13	13	52
Nominal cycle length	2	65	67	66	132
Active cycle length	3	65	86	77	231
Actual cycle	14	42	95	62	873
Signal group 1	13	16	65	33	433
Signal group 2	13	28	65	37	485
Signal group 4	4	7	7	7	28
Signal group 5	14	5	19	12	181
Signal group 6	14	5	19	12	181
Signal group 11	4	6	6	6	24
Signal group 13	4	8	9	8	33
Signal group 14	3	8	9	8	25
Signal group 15	2	8	9	8	17
Signal group 16	5	8	9	8	41
Pedestrian movement 1	5	6	7	6	31
Pedestrian movement 2	3	7	8	7	23
Pedestrian movement 3	2	8	9	8	17
Pedestrian movement 4	5	6	9	6	33

Tuesday, 19 July 2022, 10:30:00 AM AEST to Tuesday, 19 July 2022, 10:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	22	59	38	459
D phase	12	15	32	24	290
E phase	7	11	13	12	88
Nominal cycle length	10	60	83	70	706
Active cycle length	11	59	82	67	745
Actual cycle	12	48	90	67	813
Signal group 1	12	16	53	33	401
Signal group 2	12	16	53	36	439
Signal group 3	3	5	7	6	19
Signal group 4	6	5	7	6	40
Signal group 5	12	9	25	17	215
Signal group 6	12	9	25	17	215
Signal group 11	6	5	6	5	35
Signal group 12	3	5	6	5	17
Signal group 13	2	8	9	8	17
Signal group 14	6	8	11	9	54
Signal group 15	3	8	8	8	24
Signal group 16	10	8	9	8	81
Pedestrian movement 1	2	6	7	6	13
Pedestrian movement 2	6	6	9	6	41
Pedestrian movement 3	3	6	6	6	18
Pedestrian movement 4	10	6	9	6	65

Tuesday, 19 July 2022, 10:45:00 AM AEST to Tuesday, 19 July 2022, 11:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	20	53	33	472
D phase	14	12	26	22	320
E phase	7	12	14	13	92
Nominal cycle length	7	60	69	66	462
Active cycle length	14	47	69	62	868
Actual cycle	14	32	77	61	860
Signal group 1	14	14	47	28	402
Signal group 2	14	14	47	29	415
Signal group 3	4	5	7	6	26
Signal group 4	6	6	8	7	42
Signal group 5	14	6	19	16	232
Signal group 6	14	6	19	16	232
Signal group 11	6	6	6	6	36
Signal group 12	4	5	6	5	22
Signal group 13	3	8	8	8	24
Signal group 14	9	8	11	8	76
Signal group 15	5	7	9	8	40
Signal group 16	10	7	8	7	78
Pedestrian movement 1	3	5	8	6	19
Pedestrian movement 2	9	5	9	6	62
Pedestrian movement 3	5	5	9	6	32
Pedestrian movement 4	10	5	6	5	57

Tuesday, 19 July 2022, 11:00:00 AM AEST to Tuesday, 19 July 2022, 11:15:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	27	45	34	415
D phase	13	12	25	21	276

E phase	11	12	15	13	144
Nominal cycle length	11	65	77	69	766
Active cycle length	10	64	75	68	689
Actual cycle	12	44	82	66	798
Signal group 1	12	21	39	28	344
Signal group 2	12	24	53	38	463
Signal group 3	2	6	7	6	13
Signal group 4	11	6	10	7	81
Signal group 5	13	5	19	14	192
Signal group 6	13	5	19	14	192
Signal group 11	11	5	9	6	73
Signal group 12	2	5	6	5	11
Signal group 13	3	8	9	8	25
Signal group 14	10	8	11	9	99
Signal group 15	4	8	8	8	32
Signal group 16	6	8	9	8	49
Pedestrian movement 1	3	6	9	7	21
Pedestrian movement 2	10	5	9	7	79
Pedestrian movement 3	4	6	6	6	24
Pedestrian movement 4	6	6	9	6	39

Tuesday, 19 July 2022, 11:15:00 AM AEST to Tuesday, 19 July 2022, 11:30:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	25	51	35	460
D phase	13	12	28	21	277
E phase	10	12	14	13	130
Nominal cycle length	12	60	69	65	782
Active cycle length	13	60	70	65	855
Actual cycle	12	55	82	66	794
Signal group 1	13	20	45	32	422
Signal group 2	13	19	45	34	447
Signal group 3	5	6	8	7	35
Signal group 4	7	6	8	6	48
Signal group 5	14	6	21	15	213
Signal group 6	14	6	21	15	213
Signal group 11	7	5	7	5	41
Signal group 12	5	5	7	6	30
Signal group 13	5	8	9	8	41
Signal group 14	7	8	11	9	63
Signal group 15	4	8	8	8	32
Signal group 16	8	7	8	7	63
Pedestrian movement 1	5	6	7	6	31
Pedestrian movement 2	7	6	11	7	50
Pedestrian movement 3	4	6	6	6	24
Pedestrian movement 4	8	5	6	5	47

Tuesday, 19 July 2022, 11:30:00 AM AEST to Tuesday, 19 July 2022, 11:45:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	22	67	39	511
D phase	13	12	29	22	298
E phase	5	12	15	13	66
Nominal cycle length	9	60	82	71	639
Active cycle length	10	59	82	69	696

Actual cycle	13	49	103	66	862
Signal group 1	13	16	61	33	433
Signal group 2	13	28	61	38	499
Signal group 4	5	7	9	7	38
Signal group 5	13	5	23	16	217
Signal group 6	13	5	23	16	217
Signal group 11	5	5	8	6	33
Signal group 13	4	8	9	8	34
Signal group 14	7	8	12	9	65
Signal group 15	7	8	8	8	56
Signal group 16	8	8	8	8	64
Pedestrian movement 1	4	6	7	6	26
Pedestrian movement 2	7	6	10	7	55
Pedestrian movement 3	7	6	6	6	42
Pedestrian movement 4	8	6	6	6	48

Tuesday, 19 July 2022, 11:45:00 AM AEST to Tuesday, 19 July 2022, 12:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	21	48	30	391
D phase	14	15	26	23	328
E phase	10	12	13	12	126
Nominal cycle length	7	60	73	66	462
Active cycle length	12	59	72	62	751
Actual cycle	13	41	85	62	807
Signal group 1	14	15	46	27	384
Signal group 2	14	15	43	28	399
Signal group 3	6	6	7	6	40
Signal group 4	7	7	7	7	49
Signal group 5	14	9	20	17	242
Signal group 6	14	9	20	17	242
Signal group 11	7	6	6	6	42
Signal group 12	6	5	6	5	34
Signal group 13	6	8	11	8	52
Signal group 14	11	8	11	8	95
Signal group 15	6	8	9	8	49
Signal group 16	11	8	9	8	89
Pedestrian movement 1	6	6	9	7	42
Pedestrian movement 2	11	6	9	6	76
Pedestrian movement 3	6	6	9	6	39
Pedestrian movement 4	11	6	9	6	69

Tuesday, 19 July 2022, 12:00:00 PM AEST to Tuesday, 19 July 2022, 12:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	20	48	35	463
D phase	14	12	27	23	333
E phase	6	13	14	13	80
Nominal cycle length	8	60	73	67	541
Active cycle length	12	59	73	64	775
Actual cycle	13	45	81	65	851
Signal group 1	13	14	42	29	386
Signal group 2	13	27	52	34	453
Signal group 3	1	7	7	7	7
Signal group 4	6	7	9	7	45

Signal group 5	14	6	20	17	246
Signal group 6	14	6	20	17	246
Signal group 11	6	6	8	6	38
Signal group 12	1	6	6	6	6
Signal group 13	5	8	9	8	41
Signal group 14	7	8	11	9	63
Signal group 15	8	7	8	7	63
Signal group 16	10	7	9	8	80
Pedestrian movement 1	5	6	8	6	33
Pedestrian movement 2	7	6	9	7	54
Pedestrian movement 3	8	5	6	5	47
Pedestrian movement 4	10	5	9	6	62

Tuesday, 19 July 2022, 12:15:00 PM AEST to Tuesday, 19 July 2022, 12:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	24	46	35	467
D phase	14	14	30	24	340
E phase	5	13	13	13	65
Nominal cycle length	9	63	74	69	621
Active cycle length	14	59	73	65	919
Actual cycle	13	48	84	65	848
Signal group 1	13	18	40	33	430
Signal group 2	13	18	43	31	404
Signal group 3	4	7	7	7	28
Signal group 4	2	7	7	7	14
Signal group 5	14	7	23	17	250
Signal group 6	14	7	23	17	250
Signal group 11	2	6	6	6	12
Signal group 12	4	6	6	6	24
Signal group 13	8	8	11	9	72
Signal group 14	9	8	9	8	73
Signal group 15	7	8	9	8	57
Signal group 16	10	8	8	8	80
Pedestrian movement 1	8	6	9	7	58
Pedestrian movement 2	9	6	8	6	60
Pedestrian movement 3	7	6	9	6	45
Pedestrian movement 4	10	6	8	6	62

Tuesday, 19 July 2022, 12:30:00 PM AEST to Tuesday, 19 July 2022, 12:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	21	58	36	469
D phase	13	17	31	24	318
E phase	5	12	13	12	64
Nominal cycle length	8	60	77	68	548
Active cycle length	11	59	76	66	728
Actual cycle	12	45	89	66	793
Signal group 1	13	15	52	30	393
Signal group 2	13	19	52	33	432
Signal group 3	2	7	7	7	14
Signal group 4	5	7	7	7	35
Signal group 5	13	10	25	18	237
Signal group 6	13	10	25	18	237
Signal group 11	5	6	6	6	30

Signal group 12	2	6	6	6	12
Signal group 13	3	8	8	8	24
Signal group 14	6	8	11	9	57
Signal group 15	6	7	9	8	49
Signal group 16	13	7	9	8	105
Pedestrian movement 1	3	6	6	6	18
Pedestrian movement 2	6	6	9	7	44
Pedestrian movement 3	6	5	9	6	41
Pedestrian movement 4	13	5	9	6	83

Tuesday, 19 July 2022, 12:45:00 PM AEST to Tuesday, 19 July 2022, 1:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	24	53	34	446
D phase	13	18	33	25	333
E phase	7	12	14	12	90
Nominal cycle length	14	62	71	66	928
Active cycle length	11	62	70	65	725
Actual cycle	13	48	91	65	856
Signal group 1	13	18	47	30	394
Signal group 2	13	18	47	30	395
Signal group 3	4	7	7	7	28
Signal group 4	5	6	8	7	35
Signal group 5	13	12	27	19	253
Signal group 6	13	12	27	19	253
Signal group 11	5	5	6	5	29
Signal group 12	4	6	6	6	24
Signal group 13	6	8	11	8	52
Signal group 14	9	8	12	9	81
Signal group 15	9	8	8	8	72
Signal group 16	11	7	8	7	87
Pedestrian movement 1	6	6	9	7	42
Pedestrian movement 2	9	6	10	7	65
Pedestrian movement 3	9	6	6	6	54
Pedestrian movement 4	11	5	6	5	65

Tuesday, 19 July 2022, 1:00:00 PM AEST to Tuesday, 19 July 2022, 1:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	23	52	36	442
D phase	13	24	30	24	321
E phase	8	12	13	12	103
Nominal cycle length	11	63	82	71	785
Active cycle length	12	62	81	69	833
Actual cycle	12	47	82	69	829
Signal group 1	12	17	46	32	385
Signal group 2	12	21	46	34	411
Signal group 3	4	6	7	6	27
Signal group 4	7	6	7	6	48
Signal group 5	13	18	24	18	242
Signal group 6	13	18	24	18	242
Signal group 11	7	5	6	5	41
Signal group 12	4	5	6	5	23
Signal group 13	5	8	11	8	44
Signal group 14	6	8	9	8	49

Signal group 15	7	8	8	8	56
Signal group 16	10	8	9	8	81
Pedestrian movement 1	5	6	8	6	33
Pedestrian movement 2	6	6	8	6	39
Pedestrian movement 3	7	6	6	6	42
Pedestrian movement 4	10	6	9	6	63

Tuesday, 19 July 2022, 1:15:00 PM AEST to Tuesday, 19 July 2022, 1:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	26	57	41	497
D phase	13	24	28	25	329
E phase	3	13	13	13	39
Nominal cycle length	11	60	80	69	762
Active cycle length	11	60	80	68	757
Actual cycle	12	51	84	70	841
Signal group 1	12	20	51	36	439
Signal group 2	12	20	51	36	439
Signal group 3	2	7	7	7	14
Signal group 4	2	7	7	7	14
Signal group 5	13	18	22	19	249
Signal group 6	13	18	22	19	249
Signal group 11	2	6	7	6	13
Signal group 12	2	6	7	6	13
Signal group 13	5	8	9	8	41
Signal group 14	6	8	9	8	50
Signal group 15	6	7	9	8	48
Signal group 16	13	7	9	7	103
Pedestrian movement 1	5	6	7	6	31
Pedestrian movement 2	6	6	7	6	37
Pedestrian movement 3	6	5	9	6	38
Pedestrian movement 4	13	5	9	6	79

Tuesday, 19 July 2022, 1:30:00 PM AEST to Tuesday, 19 July 2022, 1:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	27	58	41	499
D phase	13	12	25	21	285
E phase	6	13	14	13	79
Nominal cycle length	9	63	83	71	647
Active cycle length	8	64	82	72	581
Actual cycle	12	43	87	69	839
Signal group 1	13	21	52	35	462
Signal group 2	13	28	52	38	501
Signal group 3	2	7	8	7	15
Signal group 4	5	6	7	6	34
Signal group 5	13	6	18	15	203
Signal group 6	13	6	18	15	203
Signal group 11	5	5	6	5	29
Signal group 12	2	6	7	6	13
Signal group 13	8	8	11	8	67
Signal group 14	5	8	11	9	46
Signal group 15	2	8	8	8	16
Signal group 16	9	8	8	8	72
Pedestrian movement 1	8	5	9	6	54

Pedestrian movement 2	5	6	9	7	38
Pedestrian movement 3	2	6	6	6	12
Pedestrian movement 4	9	6	6	6	54

Tuesday, 19 July 2022, 1:45:00 PM AEST to Tuesday, 19 July 2022, 2:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	25	43	35	490
D phase	14	13	31	22	321
E phase	6	12	15	13	81
Nominal cycle length	10	60	70	65	653
Active cycle length	11	60	68	64	713
Actual cycle	13	52	79	63	829
Signal group 1	14	19	43	32	451
Signal group 2	14	22	49	30	433
Signal group 3	4	7	9	8	34
Signal group 4	3	6	7	6	19
Signal group 5	14	7	25	16	234
Signal group 6	14	7	25	16	234
Signal group 11	3	5	6	5	16
Signal group 12	4	6	8	7	30
Signal group 13	6	8	9	8	49
Signal group 14	9	8	11	8	80
Signal group 15	5	8	9	8	41
Signal group 16	9	8	9	8	73
Pedestrian movement 1	6	6	9	7	43
Pedestrian movement 2	9	6	9	7	64
Pedestrian movement 3	5	6	9	6	33
Pedestrian movement 4	9	6	9	6	59

Tuesday, 19 July 2022, 2:00:00 PM AEST to Tuesday, 19 July 2022, 2:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	23	47	36	477
D phase	12	15	25	23	282
E phase	8	13	14	13	105
Nominal cycle length	12	60	75	68	820
Active cycle length	11	60	74	68	748
Actual cycle	12	55	85	69	828
Signal group 1	13	20	42	33	429
Signal group 2	13	18	47	34	443
Signal group 3	5	6	7	6	33
Signal group 4	6	7	8	7	43
Signal group 5	12	9	19	17	207
Signal group 6	12	9	19	17	207
Signal group 11	6	5	7	6	36
Signal group 12	5	5	6	5	28
Signal group 13	4	8	11	9	39
Signal group 14	10	8	12	8	88
Signal group 15	5	8	9	8	42
Signal group 16	8	8	9	8	66
Pedestrian movement 1	4	6	9	7	30
Pedestrian movement 2	10	6	10	7	70
Pedestrian movement 3	5	6	9	7	36
Pedestrian movement 4	8	6	9	6	54

Tuesday, 19 July 2022, 2:15:00 PM AEST to Tuesday, 19 July 2022, 2:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	15	23	48	37	562
D phase	14	12	25	17	239
E phase	7	12	14	12	90
Nominal cycle length	2	66	68	67	134
Active cycle length	2	66	67	66	133
Actual cycle	14	48	85	60	843
Signal group 1	15	17	43	32	488
Signal group 2	15	18	56	36	540
Signal group 3	2	7	7	7	14
Signal group 4	6	7	8	7	44
Signal group 5	14	5	18	10	149
Signal group 6	14	5	18	10	149
Signal group 11	6	6	7	6	38
Signal group 12	2	6	6	6	12
Signal group 13	4	8	9	8	34
Signal group 14	4	8	12	9	37
Signal group 16	4	8	8	8	32
Pedestrian movement 1	4	6	9	7	30
Pedestrian movement 2	4	6	10	8	33
Pedestrian movement 4	4	6	6	6	24

Tuesday, 19 July 2022, 2:30:00 PM AEST to Tuesday, 19 July 2022, 2:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	24	43	34	485
D phase	15	12	25	21	322
E phase	5	12	13	12	64
Nominal cycle length	3	60	63	61	184
Active cycle length	3	60	63	61	185
Actual cycle	14	48	71	59	833
Signal group 1	15	18	37	29	442
Signal group 2	15	18	40	30	454
Signal group 3	3	6	7	6	20
Signal group 4	4	6	7	6	27
Signal group 5	14	6	19	14	209
Signal group 6	14	6	19	14	209
Signal group 11	4	5	6	5	23
Signal group 12	3	5	6	5	17
Signal group 13	3	8	9	8	26
Signal group 14	8	8	11	8	71
Signal group 15	3	8	8	8	24
Signal group 16	8	8	8	8	64
Pedestrian movement 1	3	6	7	6	19
Pedestrian movement 2	8	6	9	7	60
Pedestrian movement 3	3	5	6	5	16
Pedestrian movement 4	8	6	6	6	48

Tuesday, 19 July 2022, 2:45:00 PM AEST to Tuesday, 19 July 2022, 3:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	25	53	37	492

D phase	14	12	28	21	304
E phase	7	13	17	13	96
Nominal cycle length	9	60	74	67	604
Active cycle length	8	59	73	66	534
Actual cycle	13	49	79	66	864
Signal group 1	13	19	51	33	433
Signal group 2	13	27	48	37	482
Signal group 3	1	11	11	11	11
Signal group 4	6	7	8	7	43
Signal group 5	14	5	22	15	215
Signal group 6	14	5	22	15	215
Signal group 11	6	6	7	6	37
Signal group 12	1	10	10	10	10
Signal group 13	4	8	11	8	35
Signal group 14	7	8	11	8	62
Signal group 15	4	8	9	8	34
Signal group 16	8	7	9	8	65
Pedestrian movement 1	4	6	9	7	31
Pedestrian movement 2	7	6	9	7	52
Pedestrian movement 3	4	6	9	7	30
Pedestrian movement 4	8	5	9	6	53

Tuesday, 19 July 2022, 3:00:00 PM AEST to Tuesday, 19 July 2022, 3:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	26	48	37	486
D phase	13	12	30	21	282
E phase	7	12	17	13	96
Nominal cycle length	11	60	73	66	735
Active cycle length	13	59	72	65	855
Actual cycle	12	52	77	66	795
Signal group 1	13	27	42	34	448
Signal group 2	13	20	50	35	466
Signal group 3	3	7	7	7	21
Signal group 4	4	6	11	8	33
Signal group 5	14	5	24	15	218
Signal group 6	14	5	24	15	218
Signal group 11	4	5	10	7	29
Signal group 12	3	6	6	6	18
Signal group 13	6	8	11	9	55
Signal group 14	2	8	11	9	19
Signal group 15	8	7	9	8	64
Signal group 16	6	7	9	8	48
Pedestrian movement 1	6	6	9	7	42
Pedestrian movement 2	2	6	11	8	17
Pedestrian movement 3	8	5	9	6	50
Pedestrian movement 4	6	5	9	6	38

Tuesday, 19 July 2022, 3:15:00 PM AEST to Tuesday, 19 July 2022, 3:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	23	49	33	464
D phase	14	12	25	21	306
E phase	9	12	14	12	115
Nominal cycle length	5	60	75	68	343

Active cycle length	12	59	74	63	764
Actual cycle	14	48	86	63	885
Signal group 1	14	17	43	28	392
Signal group 2	14	17	44	31	443
Signal group 3	4	6	7	6	27
Signal group 4	8	6	8	6	55
Signal group 5	14	6	18	15	219
Signal group 6	14	6	18	15	219
Signal group 11	8	5	7	5	47
Signal group 12	4	5	6	5	23
Signal group 13	3	8	9	8	26
Signal group 14	3	8	9	8	25
Signal group 15	5	8	8	8	40
Signal group 16	7	8	8	8	56
Pedestrian movement 1	3	6	7	6	20
Pedestrian movement 2	3	6	7	6	19
Pedestrian movement 3	5	6	6	6	30
Pedestrian movement 4	7	6	6	6	42

Tuesday, 19 July 2022, 3:30:00 PM AEST to Tuesday, 19 July 2022, 3:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	22	53	36	474
D phase	13	14	25	23	303
E phase	7	12	15	13	92
Nominal cycle length	8	60	79	70	562
Active cycle length	11	59	77	65	715
Actual cycle	13	46	89	65	845
Signal group 1	13	16	47	30	397
Signal group 2	13	28	50	35	464
Signal group 3	2	5	7	6	12
Signal group 4	7	6	9	7	50
Signal group 5	13	8	19	17	225
Signal group 6	13	8	19	17	225
Signal group 11	7	6	8	6	44
Signal group 12	2	5	6	5	11
Signal group 13	7	8	9	8	59
Signal group 14	6	8	11	9	59
Signal group 15	6	8	9	8	49
Signal group 16	9	7	8	7	71
Pedestrian movement 1	7	6	7	6	45
Pedestrian movement 2	6	6	9	7	45
Pedestrian movement 3	6	6	9	6	39
Pedestrian movement 4	9	5	6	5	53

Tuesday, 19 July 2022, 3:45:00 PM AEST to Tuesday, 19 July 2022, 4:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	21	50	34	476
D phase	14	15	26	22	319
E phase	5	12	13	12	64
Nominal cycle length	3	60	65	63	189
Active cycle length	3	60	66	63	191
Actual cycle	13	43	74	60	784
Signal group 1	14	16	44	29	406

Signal group 2	14	15	44	31	444
Signal group 3	1	7	7	7	7
Signal group 4	4	7	7	7	28
Signal group 5	14	9	19	16	228
Signal group 6	14	9	19	16	228
Signal group 11	4	6	6	6	24
Signal group 12	1	6	6	6	6
Signal group 13	10	8	11	8	84
Signal group 14	2	8	8	8	16
Signal group 15	6	8	9	8	49
Signal group 16	5	8	8	8	40
Pedestrian movement 1	10	6	9	7	72
Pedestrian movement 2	2	8	8	8	16
Pedestrian movement 3	6	6	9	6	39
Pedestrian movement 4	5	6	6	6	30

Tuesday, 19 July 2022, 4:00:00 PM AEST to Tuesday, 19 July 2022, 4:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	23	43	33	463
D phase	14	19	30	24	342
E phase	5	12	13	12	63
Nominal cycle length	9	60	69	65	588
Active cycle length	7	60	69	64	454
Actual cycle	13	47	80	62	815
Signal group 1	14	17	37	28	395
Signal group 2	14	22	37	31	434
Signal group 3	2	6	6	6	12
Signal group 4	5	7	8	7	36
Signal group 5	14	13	24	18	257
Signal group 6	14	13	24	18	257
Signal group 11	5	6	7	6	31
Signal group 12	2	5	5	5	10
Signal group 13	4	8	9	8	33
Signal group 14	6	8	11	8	53
Signal group 15	8	7	9	8	64
Signal group 16	7	8	9	8	59
Pedestrian movement 1	4	6	9	6	27
Pedestrian movement 2	6	6	9	6	40
Pedestrian movement 3	8	5	9	6	52
Pedestrian movement 4	7	6	9	7	51

Tuesday, 19 July 2022, 4:15:00 PM AEST to Tuesday, 19 July 2022, 4:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	15	21	44	31	466
D phase	14	13	28	22	313
E phase	8	13	16	13	111
Nominal cycle length	6	60	70	65	390
Active cycle length	6	47	69	60	363
Actual cycle	14	37	82	61	858
Signal group 1	15	15	38	26	391
Signal group 2	15	18	42	31	476
Signal group 3	1	7	7	7	7
Signal group 4	7	7	10	8	56

Signal group 5	15	6	21	15	230
Signal group 6	15	6	21	15	230
Signal group 11	7	6	9	6	48
Signal group 12	1	6	6	6	6
Signal group 13	4	8	8	8	32
Signal group 14	8	8	11	8	67
Signal group 15	8	8	8	8	64
Signal group 16	6	8	8	8	48
Pedestrian movement 1	4	6	8	6	26
Pedestrian movement 2	8	6	9	7	61
Pedestrian movement 3	8	6	6	6	48
Pedestrian movement 4	6	6	6	6	36

Tuesday, 19 July 2022, 4:30:00 PM AEST to Tuesday, 19 July 2022, 4:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	19	60	35	395
D phase	11	24	31	26	288
E phase	12	13	29	16	198
Nominal cycle length	11	64	90	77	857
Active cycle length	10	65	90	81	811
Actual cycle	11	57	97	78	866
Signal group 1	11	14	54	31	344
Signal group 2	11	14	56	37	417
Signal group 3	8	6	9	6	55
Signal group 4	11	7	23	10	119
Signal group 5	11	18	25	19	219
Signal group 6	11	18	25	19	219
Signal group 11	11	6	22	9	108
Signal group 12	8	5	8	5	47
Signal group 13	4	8	8	8	32
Signal group 14	6	8	15	10	64
Signal group 15	6	8	9	8	49
Signal group 16	10	8	9	8	81
Pedestrian movement 1	4	6	6	6	24
Pedestrian movement 2	6	6	13	8	51
Pedestrian movement 3	6	6	9	6	39
Pedestrian movement 4	10	6	9	6	63

Tuesday, 19 July 2022, 4:45:00 PM AEST to Tuesday, 19 July 2022, 5:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	28	57	40	405
D phase	11	15	30	24	274
E phase	10	15	19	16	165
Nominal cycle length	9	66	90	78	706
Active cycle length	10	67	91	80	800
Actual cycle	10	47	101	79	796
Signal group 1	10	22	57	36	365
Signal group 2	10	31	67	45	452
Signal group 3	4	6	12	9	36
Signal group 4	9	8	13	10	92
Signal group 5	11	9	24	18	205
Signal group 6	11	9	24	18	205
Signal group 11	9	7	12	9	83

Signal group 12	4	5	11	8	32
Signal group 13	6	8	8	8	48
Signal group 14	3	11	11	11	33
Signal group 15	4	8	8	8	32
Signal group 16	5	8	9	8	42
Pedestrian movement 1	6	6	6	6	36
Pedestrian movement 2	3	9	9	9	27
Pedestrian movement 3	4	6	6	6	24
Pedestrian movement 4	5	6	9	7	36

Tuesday, 19 July 2022, 5:00:00 PM AEST to Tuesday, 19 July 2022, 5:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	11	22	42	31	345
D phase	12	15	28	24	290
E phase	11	13	27	18	208
Nominal cycle length	7	60	90	78	546
Active cycle length	10	59	90	72	728
Actual cycle	11	59	90	74	817
Signal group 1	11	16	47	29	321
Signal group 2	11	17	58	37	413
Signal group 3	4	6	9	7	29
Signal group 4	8	7	21	14	119
Signal group 5	12	9	22	18	217
Signal group 6	12	9	22	18	217
Signal group 11	8	6	20	13	111
Signal group 12	4	5	8	6	25
Signal group 13	6	8	11	8	51
Signal group 14	3	8	15	11	34
Signal group 15	6	8	9	8	50
Signal group 16	8	8	9	8	66
Pedestrian movement 1	6	6	9	6	41
Pedestrian movement 2	3	6	15	10	30
Pedestrian movement 3	6	6	9	7	42
Pedestrian movement 4	8	6	9	6	54

Tuesday, 19 July 2022, 5:15:00 PM AEST to Tuesday, 19 July 2022, 5:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	31	62	48	485
D phase	10	24	33	27	271
E phase	7	13	21	17	125
Nominal cycle length	6	83	90	87	523
Active cycle length	6	84	90	87	523
Actual cycle	9	60	103	87	789
Signal group 1	10	25	63	44	448
Signal group 2	10	31	57	49	491
Signal group 3	4	6	12	9	38
Signal group 4	6	8	16	11	71
Signal group 5	10	18	26	20	207
Signal group 6	10	18	26	20	207
Signal group 11	6	7	15	10	65
Signal group 12	4	5	11	8	34
Signal group 13	7	8	11	8	62
Signal group 14	6	8	17	11	66

Signal group 15	7	8	9	8	57
Signal group 16	7	8	9	8	59
Pedestrian movement 1	7	6	9	7	52
Pedestrian movement 2	6	6	15	9	56
Pedestrian movement 3	7	6	9	6	45
Pedestrian movement 4	7	6	9	7	51

Tuesday, 19 July 2022, 5:30:00 PM AEST to Tuesday, 19 July 2022, 5:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	23	67	38	465
D phase	11	18	36	25	276
E phase	8	13	20	16	128
Nominal cycle length	11	65	87	73	807
Active cycle length	9	66	85	72	656
Actual cycle	11	59	103	74	822
Signal group 1	12	18	61	35	423
Signal group 2	12	25	61	40	486
Signal group 3	3	6	7	6	20
Signal group 4	6	7	15	11	67
Signal group 5	12	12	29	18	223
Signal group 6	12	12	29	18	223
Signal group 11	6	6	14	10	61
Signal group 12	3	5	6	5	17
Signal group 13	6	8	11	8	51
Signal group 14	7	8	15	10	72
Signal group 15	6	7	9	8	48
Signal group 16	6	7	9	8	49
Pedestrian movement 1	6	6	8	7	42
Pedestrian movement 2	7	6	13	8	60
Pedestrian movement 3	6	5	9	6	38
Pedestrian movement 4	6	5	9	6	41

Tuesday, 19 July 2022, 5:45:00 PM AEST to Tuesday, 19 July 2022, 6:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	26	63	43	520
D phase	12	12	35	22	267
E phase	6	12	18	14	85
Nominal cycle length	11	63	75	70	776
Active cycle length	10	64	75	71	711
Actual cycle	12	40	100	72	872
Signal group 1	12	21	57	37	451
Signal group 2	12	21	57	43	524
Signal group 4	6	6	12	8	50
Signal group 5	12	5	29	16	192
Signal group 6	12	5	29	16	192
Signal group 11	6	5	11	7	43
Signal group 13	7	8	9	8	57
Signal group 14	5	8	12	10	50
Signal group 15	2	8	9	8	17
Signal group 16	5	8	9	8	41
Pedestrian movement 1	7	6	8	6	47
Pedestrian movement 2	5	6	10	8	41
Pedestrian movement 3	2	6	9	7	15

Pedestrian movement 4	5	6	9	7	35
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Tuesday, 19 July 2022, 6:00:00 PM AEST to Tuesday, 19 July 2022, 6:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	22	43	33	467
D phase	14	11	30	17	246
E phase	11	12	17	13	150
Nominal cycle length	7	60	64	62	434
Active cycle length	6	60	64	62	372
Actual cycle	13	49	77	61	805
Signal group 1	14	17	46	30	426
Signal group 2	14	26	47	35	496
Signal group 3	3	6	9	7	22
Signal group 4	8	6	11	7	62
Signal group 5	15	5	24	11	176
Signal group 6	15	5	24	11	176
Signal group 11	8	5	10	6	54
Signal group 12	3	5	8	6	19
Signal group 13	6	8	11	8	51
Signal group 14	2	11	11	11	22
Signal group 15	2	8	9	8	17
Signal group 16	5	8	9	8	42
Pedestrian movement 1	6	6	11	7	43
Pedestrian movement 2	2	9	9	9	18
Pedestrian movement 3	2	6	9	7	15
Pedestrian movement 4	5	6	9	7	36

Tuesday, 19 July 2022, 6:15:00 PM AEST to Tuesday, 19 July 2022, 6:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	24	48	37	485
D phase	12	12	25	21	256
E phase	9	12	13	12	114
Nominal cycle length	7	60	72	66	467
Active cycle length	7	60	72	66	467
Actual cycle	13	49	85	64	842
Signal group 1	13	27	42	35	460
Signal group 2	13	19	49	34	448
Signal group 3	6	6	7	6	39
Signal group 4	5	5	7	6	32
Signal group 5	12	6	18	15	182
Signal group 6	12	6	18	15	182
Signal group 11	5	5	6	5	28
Signal group 12	6	5	6	5	35
Signal group 13	9	8	11	8	79
Signal group 14	1	11	11	11	11
Signal group 15	3	7	8	7	23
Signal group 16	5	8	8	8	40
Pedestrian movement 1	9	6	9	6	60
Pedestrian movement 2	1	9	9	9	9
Pedestrian movement 3	3	5	9	6	20
Pedestrian movement 4	5	6	6	6	30

Tuesday, 19 July 2022, 6:30:00 PM AEST to Tuesday, 19 July 2022, 6:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	26	54	37	490
D phase	14	12	25	18	253
E phase	6	13	13	13	78
Nominal cycle length	4	60	66	63	253
Active cycle length	5	60	80	66	333
Actual cycle	13	44	86	61	796
Signal group 1	13	21	48	32	428
Signal group 2	13	25	48	34	454
Signal group 3	3	7	7	7	21
Signal group 4	4	6	7	6	27
Signal group 5	14	5	18	11	164
Signal group 6	14	5	18	11	164
Signal group 11	4	5	6	5	23
Signal group 12	3	6	6	6	18
Signal group 13	6	8	11	8	53
Signal group 14	4	8	11	9	36
Signal group 15	3	8	8	8	24
Signal group 16	3	7	8	7	23
Pedestrian movement 1	6	6	9	7	42
Pedestrian movement 2	4	6	8	6	26
Pedestrian movement 3	3	6	6	6	18
Pedestrian movement 4	3	5	6	5	17

Tuesday, 19 July 2022, 6:45:00 PM AEST to Tuesday, 19 July 2022, 7:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	19	72	42	600
D phase	14	12	24	17	248
E phase	2	12	14	13	26
Nominal cycle length	4	30	60	45	180
Active cycle length	6	30	80	53	320
Actual cycle	13	45	85	62	808
Signal group 1	14	14	66	37	530
Signal group 2	14	14	66	38	532
Signal group 3	1	7	7	7	7
Signal group 4	1	8	8	8	8
Signal group 5	15	6	18	11	171
Signal group 6	15	6	18	11	171
Signal group 11	1	7	7	7	7
Signal group 12	1	6	6	6	6
Signal group 13	5	8	9	8	43
Signal group 14	2	8	9	8	17
Signal group 15	3	8	8	8	24
Signal group 16	2	8	8	8	16
Pedestrian movement 1	5	6	8	7	35
Pedestrian movement 2	2	6	7	6	13
Pedestrian movement 3	3	6	6	6	18
Pedestrian movement 4	2	6	6	6	12

Tuesday, 19 July 2022, 7:00:00 PM AEST to Tuesday, 19 July 2022, 7:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
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A phase	16	20	48	34	545
D phase	15	12	27	19	285
E phase	5	11	13	12	62
Nominal cycle length	4	30	60	45	180
Active cycle length	7	30	60	48	342
Actual cycle	16	34	72	55	892
Signal group 1	16	14	47	28	463
Signal group 2	16	14	48	29	464
Signal group 3	3	5	7	6	18
Signal group 4	4	5	7	6	26
Signal group 5	15	6	21	12	192
Signal group 6	15	6	21	12	192
Signal group 11	4	5	6	5	23
Signal group 12	3	5	6	5	16
Signal group 13	7	8	9	8	58
Signal group 14	2	8	8	8	16
Signal group 15	4	8	9	8	33
Signal group 16	4	8	9	8	34
Pedestrian movement 1	7	6	9	6	47
Pedestrian movement 2	2	6	8	7	14
Pedestrian movement 3	4	6	9	6	27
Pedestrian movement 4	4	6	9	7	30

Tuesday, 19 July 2022, 7:15:00 PM AEST to Tuesday, 19 July 2022, 7:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	15	20	74	38	584
D phase	15	11	27	18	279
E phase	3	12	13	12	37
Nominal cycle length	12	30	68	57	695
Active cycle length	13	21	86	58	756
Actual cycle	15	37	98	60	900
Signal group 1	14	15	68	35	492
Signal group 2	14	15	68	36	505
Signal group 3	1	6	6	6	6
Signal group 4	2	6	7	6	13
Signal group 5	15	5	21	12	183
Signal group 6	15	5	21	12	183
Signal group 11	2	5	6	5	11
Signal group 12	1	6	6	6	6
Signal group 13	5	8	9	8	41
Signal group 14	2	8	9	8	17
Signal group 15	3	8	8	8	24
Signal group 16	6	8	8	8	48
Pedestrian movement 1	6	6	8	6	39
Pedestrian movement 2	2	7	8	7	15
Pedestrian movement 3	3	6	6	6	18
Pedestrian movement 4	6	6	6	6	36

Tuesday, 19 July 2022, 7:30:00 PM AEST to Tuesday, 19 July 2022, 7:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	15	16	94	36	544
D phase	15	12	26	18	284
E phase	2	13	13	13	26

Nominal cycle length	3	30	60	50	150
Active cycle length	8	30	82	61	492
Actual cycle	15	30	120	56	854
Signal group 1	14	10	88	31	439
Signal group 2	14	10	88	32	452
Signal group 3	1	6	6	6	6
Signal group 4	2	7	7	7	14
Signal group 5	15	5	20	12	187
Signal group 6	15	5	20	12	187
Signal group 11	2	6	6	6	12
Signal group 12	1	5	5	5	5
Signal group 13	4	8	9	8	34
Signal group 14	3	8	9	8	25
Signal group 15	6	8	9	8	49
Signal group 16	3	8	9	8	25
Pedestrian movement 1	4	6	8	7	28
Pedestrian movement 2	4	6	7	6	25
Pedestrian movement 3	6	5	7	6	36
Pedestrian movement 4	3	6	7	6	19

Tuesday, 19 July 2022, 7:45:00 PM AEST to Tuesday, 19 July 2022, 8:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	20	96	44	580
D phase	13	12	28	21	273
E phase	2	13	13	13	26
Nominal cycle length	2	30	60	45	90
Active cycle length	3	30	60	50	150
Actual cycle	12	44	109	66	792
Signal group 1	13	14	90	38	503
Signal group 2	13	14	90	40	529
Signal group 4	2	7	7	7	14
Signal group 5	13	6	22	15	195
Signal group 6	13	6	22	15	195
Signal group 11	2	6	6	6	12
Signal group 13	4	8	9	8	33
Signal group 14	3	8	8	8	24
Signal group 15	5	7	8	7	39
Signal group 16	5	8	9	8	42
Pedestrian movement 1	4	6	7	6	25
Pedestrian movement 2	3	6	6	6	18
Pedestrian movement 3	5	5	6	5	29
Pedestrian movement 4	5	6	9	6	34

Tuesday, 19 July 2022, 8:00:00 PM AEST to Tuesday, 19 July 2022, 8:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	16	16	105	37	602
D phase	16	12	25	16	259
E phase	1	13	13	13	13
Nominal cycle length	2	30	60	45	90
Active cycle length	2	30	60	45	90
Actual cycle	16	28	117	54	874
Signal group 1	16	10	99	31	506
Signal group 2	16	10	99	31	506

Signal group 3	1	7	7	7	7
Signal group 5	16	5	18	9	154
Signal group 6	16	5	18	9	154
Signal group 12	1	6	6	6	6
Signal group 13	6	8	8	8	48
Signal group 15	4	8	8	8	32
Signal group 16	1	8	8	8	8
Pedestrian movement 1	6	6	8	7	42
Pedestrian movement 3	4	6	6	6	24
Pedestrian movement 4	1	6	6	6	6

Tuesday, 19 July 2022, 8:15:00 PM AEST to Tuesday, 19 July 2022, 8:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	15	16	158	42	643
D phase	14	11	25	14	205
E phase	3	11	12	11	35
Nominal cycle length	3	30	60	40	120
Active cycle length	3	30	60	40	120
Actual cycle	15	28	170	58	870
Signal group 1	15	10	152	37	555
Signal group 2	15	10	164	37	567
Signal group 3	2	5	5	5	10
Signal group 4	3	5	6	5	17
Signal group 5	14	5	19	8	116
Signal group 6	14	5	19	8	116
Signal group 11	3	5	6	5	16
Signal group 12	2	5	5	5	10
Signal group 13	6	8	8	8	48
Signal group 14	2	8	9	8	17
Signal group 15	2	9	9	9	18
Pedestrian movement 1	6	6	8	6	38
Pedestrian movement 2	2	6	6	6	12
Pedestrian movement 3	2	9	9	9	18

Tuesday, 19 July 2022, 8:30:00 PM AEST to Tuesday, 19 July 2022, 8:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	14	16	142	46	646
D phase	11	12	25	15	168
E phase	5	11	12	11	59
Actual cycle	13	33	166	64	842
Signal group 1	14	10	136	42	588
Signal group 2	14	10	136	40	564
Signal group 3	5	5	6	5	28
Signal group 4	3	5	6	5	17
Signal group 5	11	5	18	8	96
Signal group 6	11	5	18	8	96
Signal group 11	3	5	6	5	17
Signal group 12	5	5	6	5	26
Signal group 14	1	8	8	8	8
Signal group 15	2	8	8	8	16
Pedestrian movement 2	1	8	8	8	8
Pedestrian movement 3	2	6	6	6	12

Tuesday, 19 July 2022, 8:45:00 PM AEST to Tuesday, 19 July 2022, 9:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	16	225	53	644
D phase	12	12	25	17	215
E phase	1	13	13	13	13
Nominal cycle length	6	30	60	45	270
Active cycle length	6	30	60	45	270
Actual cycle	12	36	250	72	872
Signal group 1	12	10	219	47	574
Signal group 2	12	10	219	48	587
Signal group 4	1	7	7	7	7
Signal group 5	12	5	18	11	138
Signal group 6	12	5	18	11	138
Signal group 11	1	6	6	6	6
Signal group 13	1	8	8	8	8
Signal group 14	2	8	9	8	17
Signal group 15	3	8	8	8	24
Signal group 16	2	8	8	8	16
Pedestrian movement 1	1	6	6	6	6
Pedestrian movement 2	2	6	7	6	13
Pedestrian movement 3	3	5	6	5	17
Pedestrian movement 4	3	6	6	6	18

Tuesday, 19 July 2022, 9:00:00 PM AEST to Tuesday, 19 July 2022, 9:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	15	14	86	31	473
D phase	16	12	25	15	248
E phase	2	12	13	12	25
Nominal cycle length	1	60	60	60	60
Active cycle length	1	60	60	60	60
Actual cycle	15	27	101	48	731
Signal group 1	15	9	80	26	400
Signal group 2	15	9	80	26	399
Signal group 3	1	7	7	7	7
Signal group 4	1	6	6	6	6
Signal group 5	16	5	19	9	145
Signal group 6	16	5	19	9	145
Signal group 11	1	5	5	5	5
Signal group 12	1	6	6	6	6
Signal group 13	2	8	8	8	16
Signal group 14	1	9	9	9	9
Signal group 15	1	8	8	8	8
Signal group 16	3	8	9	8	25
Pedestrian movement 1	2	6	6	6	12
Pedestrian movement 2	1	7	7	7	7
Pedestrian movement 3	1	6	6	6	6
Pedestrian movement 4	3	6	9	7	21

Tuesday, 19 July 2022, 9:15:00 PM AEST to Tuesday, 19 July 2022, 9:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	16	98	40	531

D phase	13	11	25	17	221
E phase	3	11	13	12	37
Nominal cycle length	3	30	60	40	120
Active cycle length	3	30	60	40	120
Actual cycle	13	33	110	58	764
Signal group 1	14	10	92	33	474
Signal group 2	14	10	92	35	500
Signal group 3	1	5	5	5	5
Signal group 4	3	5	7	6	19
Signal group 5	13	5	19	10	138
Signal group 6	13	5	19	10	138
Signal group 11	3	5	6	5	16
Signal group 12	1	5	5	5	5
Signal group 13	2	8	9	8	17
Signal group 15	5	7	9	8	40
Pedestrian movement 1	2	6	6	6	12
Pedestrian movement 3	5	5	9	6	32

Tuesday, 19 July 2022, 9:30:00 PM AEST to Tuesday, 19 July 2022, 9:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	18	142	51	664
D phase	14	12	25	14	204
E phase	1	12	12	12	12
Actual cycle	13	31	166	66	868
Signal group 1	13	12	136	46	600
Signal group 2	13	12	136	45	588
Signal group 3	1	6	6	6	6
Signal group 5	14	5	18	7	110
Signal group 6	14	5	18	7	110
Signal group 12	1	5	5	5	5
Signal group 13	2	8	8	8	16
Signal group 14	2	7	8	7	15
Signal group 16	2	8	8	8	16
Pedestrian movement 1	2	8	8	8	16
Pedestrian movement 2	2	7	8	7	15
Pedestrian movement 4	2	6	6	6	12

Tuesday, 19 July 2022, 9:45:00 PM AEST to Tuesday, 19 July 2022, 10:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	12	16	134	55	669
D phase	12	12	25	16	193
E phase	2	13	13	13	26
Actual cycle	11	35	157	77	847
Signal group 1	12	10	128	49	599
Signal group 2	12	10	128	52	625
Signal group 4	2	7	7	7	14
Signal group 5	12	6	19	9	116
Signal group 6	12	6	19	9	116
Signal group 11	2	6	6	6	12
Signal group 13	1	9	9	9	9
Signal group 15	3	8	9	8	25
Signal group 16	2	8	8	8	16
Pedestrian movement 1	1	6	6	6	6

Pedestrian movement 3	3	6	9	7	21
Pedestrian movement 4	2	6	6	6	12

Tuesday, 19 July 2022, 10:00:00 PM AEST to Tuesday, 19 July 2022, 10:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	13	20	167	43	571
D phase	13	12	25	17	226
E phase	5	12	13	12	62
Nominal cycle length	2	30	60	45	90
Active cycle length	6	30	62	55	332
Actual cycle	13	35	191	66	859
Signal group 1	13	14	161	40	520
Signal group 2	13	15	161	39	519
Signal group 3	2	7	7	7	14
Signal group 4	3	6	6	6	18
Signal group 5	13	5	19	11	144
Signal group 6	13	5	19	11	144
Signal group 11	3	5	5	5	15
Signal group 12	2	6	6	6	12
Signal group 13	1	8	8	8	8
Signal group 14	2	8	9	8	17
Signal group 15	2	8	8	8	16
Signal group 16	2	8	9	8	17
Pedestrian movement 1	1	8	8	8	8
Pedestrian movement 2	2	6	7	6	13
Pedestrian movement 3	2	6	6	6	12
Pedestrian movement 4	2	6	9	7	15

Tuesday, 19 July 2022, 10:15:00 PM AEST to Tuesday, 19 July 2022, 10:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	8	17	111	69	557
D phase	9	12	25	17	153
E phase	1	13	13	13	13
Actual cycle	8	42	124	85	685
Signal group 1	8	11	105	63	511
Signal group 2	8	11	105	65	524
Signal group 4	1	7	7	7	7
Signal group 5	9	5	18	10	92
Signal group 6	9	5	18	10	92
Signal group 11	1	6	6	6	6
Signal group 14	1	8	8	8	8
Signal group 16	3	8	8	8	24
Pedestrian movement 2	1	8	8	8	8
Pedestrian movement 4	3	6	6	6	18

Tuesday, 19 July 2022, 10:30:00 PM AEST to Tuesday, 19 July 2022, 10:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	10	16	141	60	607
D phase	10	11	24	13	135
E phase	2	11	13	12	24
Actual cycle	10	29	153	75	751
Signal group 1	10	10	135	54	547

Signal group 2	10	10	135	54	547
Signal group 3	2	5	7	6	12
Signal group 4	1	5	5	5	5
Signal group 5	10	5	18	6	69
Signal group 6	10	5	18	6	69
Signal group 11	1	5	5	5	5
Signal group 12	2	5	5	5	10
Signal group 16	1	8	8	8	8
Pedestrian movement 4	1	6	6	6	6

Tuesday, 19 July 2022, 10:45:00 PM AEST to Tuesday, 19 July 2022, 11:00:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	3	102	477	246	740
D phase	4	12	25	15	61
Actual cycle	3	114	489	263	789
Signal group 1	4	44	471	191	767
Signal group 2	4	44	471	191	767
Signal group 5	4	5	19	8	34
Signal group 6	4	5	19	8	34
Signal group 13	1	8	8	8	8
Signal group 14	1	8	8	8	8
Signal group 16	1	9	9	9	9
Pedestrian movement 1	1	6	6	6	6
Pedestrian movement 2	1	8	8	8	8
Pedestrian movement 4	1	9	9	9	9

Tuesday, 19 July 2022, 11:00:00 PM AEST to Tuesday, 19 July 2022, 11:15:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	6	18	190	98	590
D phase	7	12	24	15	107
Actual cycle	6	30	202	114	685
Signal group 1	6	12	184	92	554
Signal group 2	6	12	184	92	554
Signal group 5	7	5	18	8	60
Signal group 6	7	5	18	8	60
Signal group 15	1	8	8	8	8
Pedestrian movement 3	1	6	6	6	6

Tuesday, 19 July 2022, 11:15:00 PM AEST to Tuesday, 19 July 2022, 11:30:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	3	57	83	68	205
D phase	3	12	12	12	36
E phase	1	11	11	11	11
Actual cycle	3	69	94	80	240
Signal group 1	3	51	77	62	187
Signal group 2	3	51	77	62	187
Signal group 3	1	5	5	5	5
Signal group 4	1	5	5	5	5
Signal group 5	3	5	5	5	15
Signal group 6	3	5	5	5	15
Signal group 11	1	5	5	5	5
Signal group 12	1	5	5	5	5

Tuesday, 19 July 2022, 11:30:00 PM AEST to Tuesday, 19 July 2022, 11:45:00 PM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	6	20	201	109	654
D phase	7	12	25	15	111
Actual cycle	6	45	215	125	753
Signal group 1	6	14	195	103	618
Signal group 2	6	14	195	103	618
Signal group 5	7	5	18	9	64
Signal group 6	7	5	18	9	64
Signal group 14	2	8	9	8	17
Signal group 16	2	8	8	8	16
Pedestrian movement 2	2	7	8	7	15
Pedestrian movement 4	2	6	6	6	12

Tuesday, 19 July 2022, 11:45:00 PM AEST to Wednesday, 20 July 2022, 12:00:00 AM AEST:

Data item	Frequency	Minimum	Maximum	Average	Total
A phase	4	18	356	121	485
D phase	5	3	24	15	76
E phase	1	13	13	13	13
Actual cycle	4	42	359	140	561
Signal group 1	4	12	350	115	461
Signal group 2	4	12	363	118	474
Signal group 4	1	7	7	7	7
Signal group 5	5	4	18	10	53
Signal group 6	5	4	18	10	53
Signal group 11	1	6	6	6	6
Signal group 13	1	8	8	8	8
Signal group 14	1	11	11	11	11
Signal group 15	2	8	8	8	16
Pedestrian movement 1	1	6	6	6	6
Pedestrian movement 2	1	9	9	9	9
Pedestrian movement 3	2	6	6	6	12

Appendix G

Proportion of Pedestrian Phase Calls

Pedestrian Movements Actuation
Hunter St - Steel St

Movement ID	8:15 - 8:30		8:30 - 8:45		8:45 - 9:00		9:00 - 9:15		60 MINUTE PEAK HOUR		
	Frequency	Ave Duration (s)	Frequency	Ave Duration (s)	Frequency	Ave Duration (s)	Frequency	Ave Duration (s)	Frequency	Percentage (Actuation)	Ave Duration (s)
1	4	6	5	7	6	7	5	6	20	41%	7
2	7	6	6	7	6	7	8	7	27	55%	7
3	8	5	4	6	5	6	10	6	27	55%	6
4	8	5	8	6	7	6	7	6	30	61%	6
Total		22		26		26		25			25

Movement ID	16:45 - 17:00		17:00 - 17:15		17:15 - 15:30		17:30 - 17:45		60 MINUTE PEAK HOUR		
	Frequency	Ave Duration (s)	Frequency	Ave Duration (s)	Frequency	Ave Duration (s)	Frequency	Ave Duration (s)	Frequency	Percentage (Actuation)	Ave Duration (s)
1	6	6	6	6	7	7	6	7	25	58%	7
2	3	9	3	10	6	9	7	8	19	44%	9
3	4	6	6	7	7	6	6	6	23	53%	6
4	5	7	8	6	7	7	6	6	26	60%	7
Total		28		29		29		27			28

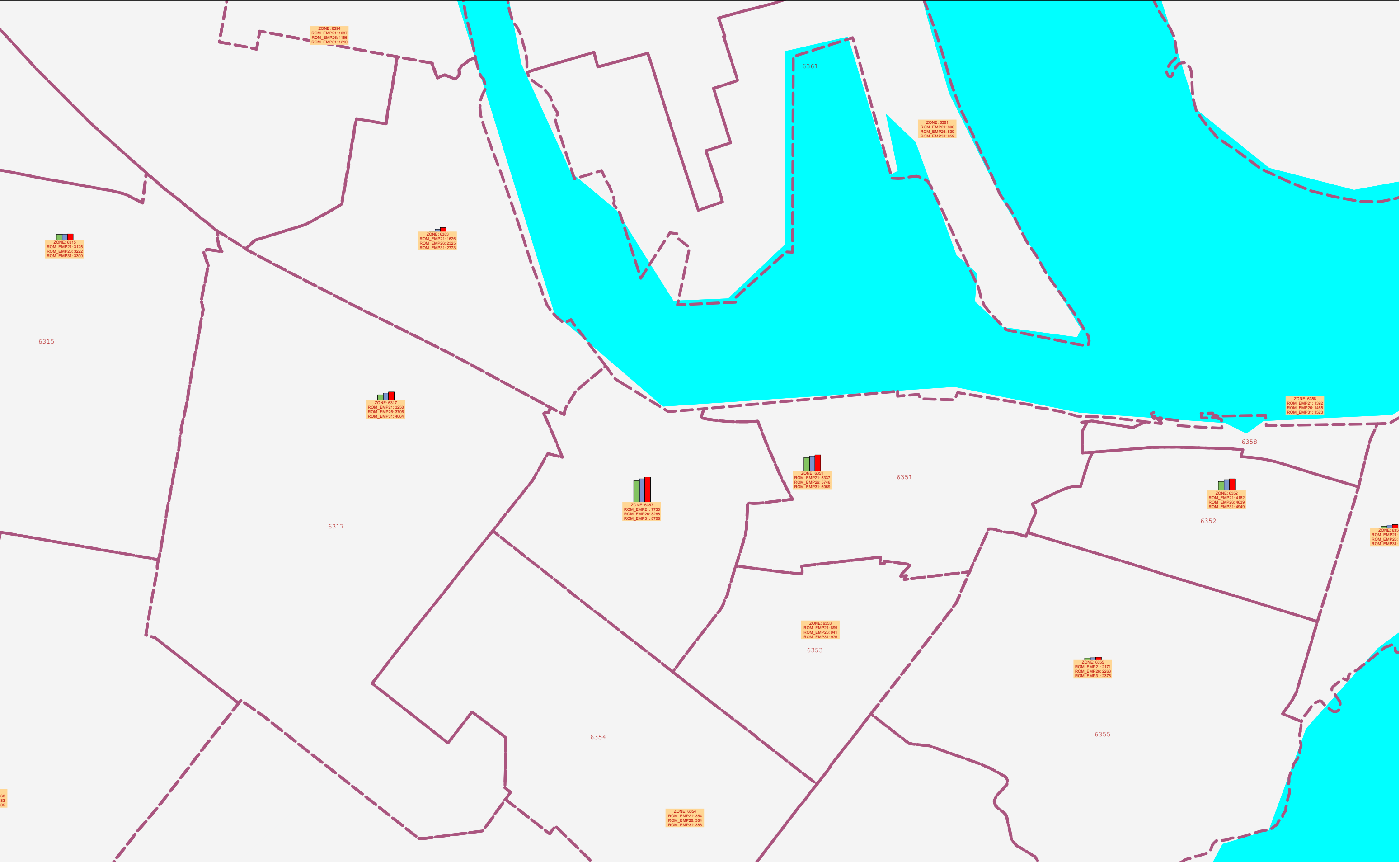
King St - Steel St

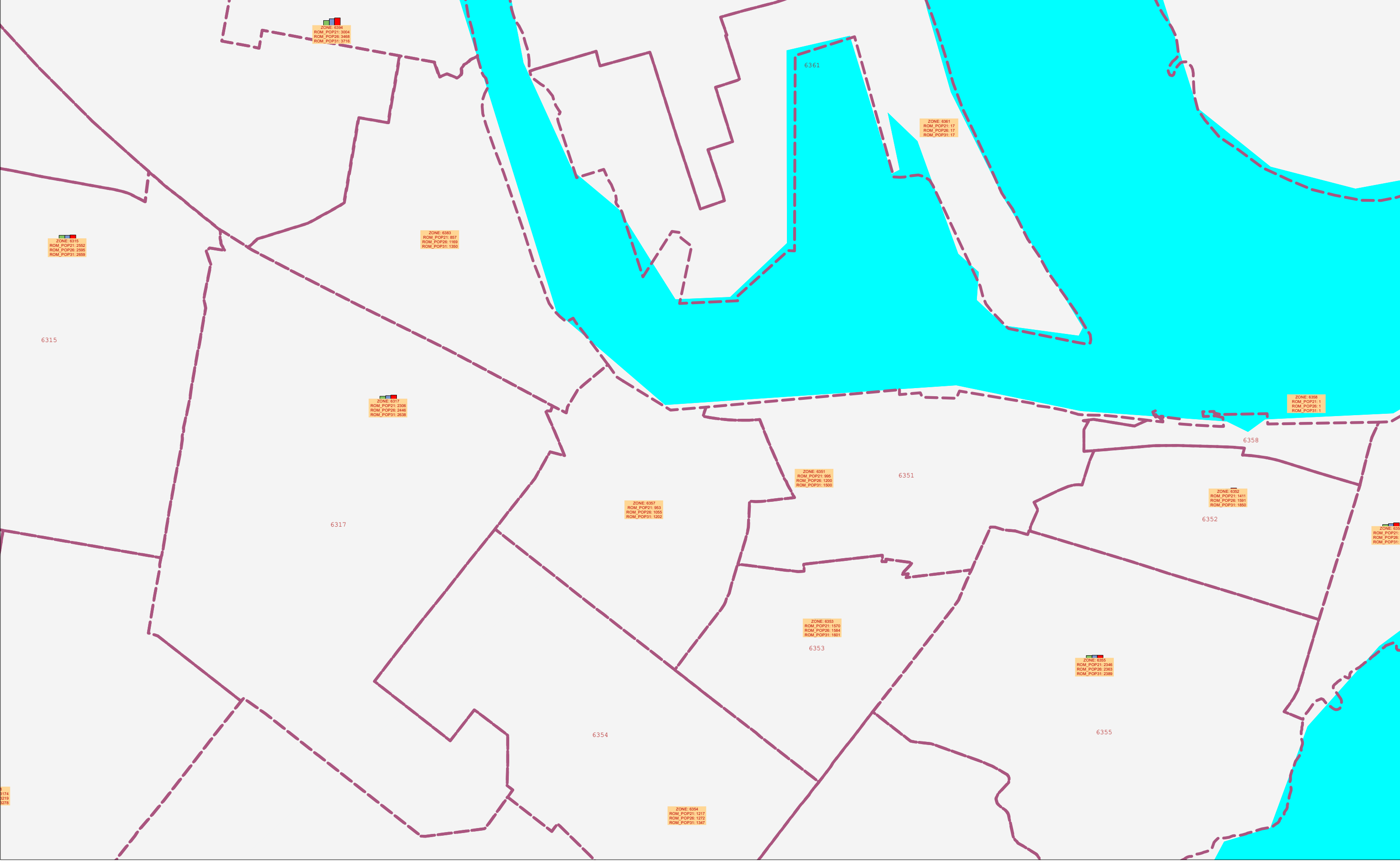
Movement ID	8:15 - 8:30		8:30 - 8:45		8:45 - 9:00		9:00 - 9:15		60 MINUTE PEAK HOUR		
	Frequency	Ave Duration (s)	Frequency	Ave Duration (s)	Frequency	Ave Duration (s)	Frequency	Ave Duration (s)	Frequency	Percentage (Actuation)	Ave Duration (s)
1	4	8	4	8	4	8			12	41%	8
2	4	9	2	10	2	12	8	8	16	55%	10
3	5	7	6	8	4	8	8	8	23	79%	8
4	6	6	5	9	5	9	7	8	23	79%	8
5	9	7	6	8	6	8	8	8	29	100%	8
6	8	7	8	9	6	9	7	8	29	100%	8
Total		44		52		54		40			50

Movement ID	16:45 - 17:00		17:00 - 17:15		17:15 - 15:30		17:30 - 17:45		60 MINUTE PEAK HOUR		
	Frequency	Ave Duration (s)	Frequency	Ave Duration (s)	Frequency	Ave Duration (s)	Frequency	Ave Duration (s)	Frequency	Percentage (Actuation)	Ave Duration (s)
1			3	8	4	8	4	8	11	32%	8
2	1	8	4	11	5	10	2	8	12	35%	9
3	8	8	4	8	4	8	7	8	23	68%	8
4	7	7	6	8	6	8	6	9	25	74%	8
5	7	8	7	8	6	8	7	8	27	79%	8
6	8	7	7	8	8	8	6	9	29	85%	8
Total		38		51		50		50			49

Appendix H

STFM Employment and Population Growth Data



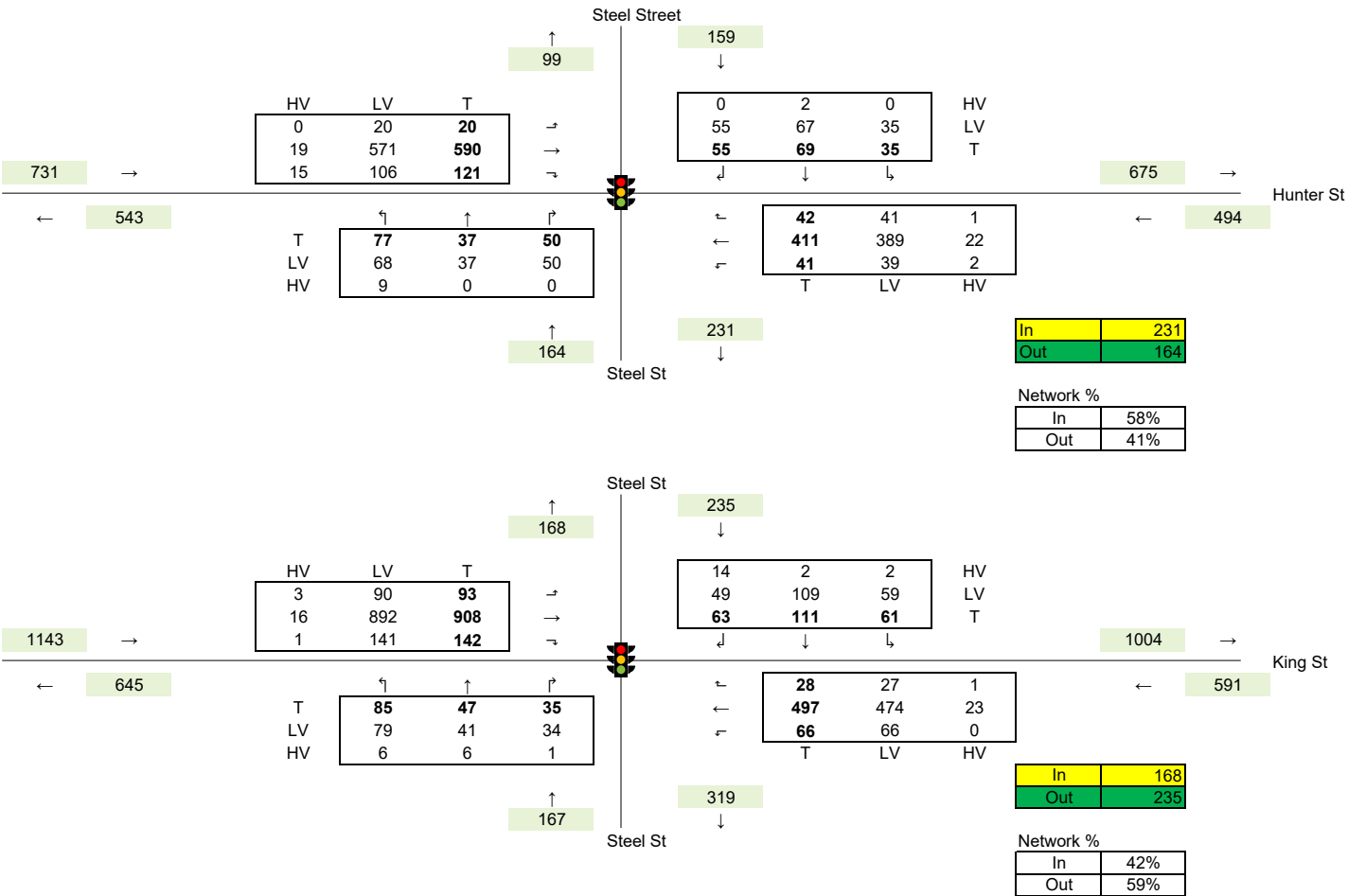


Appendix I

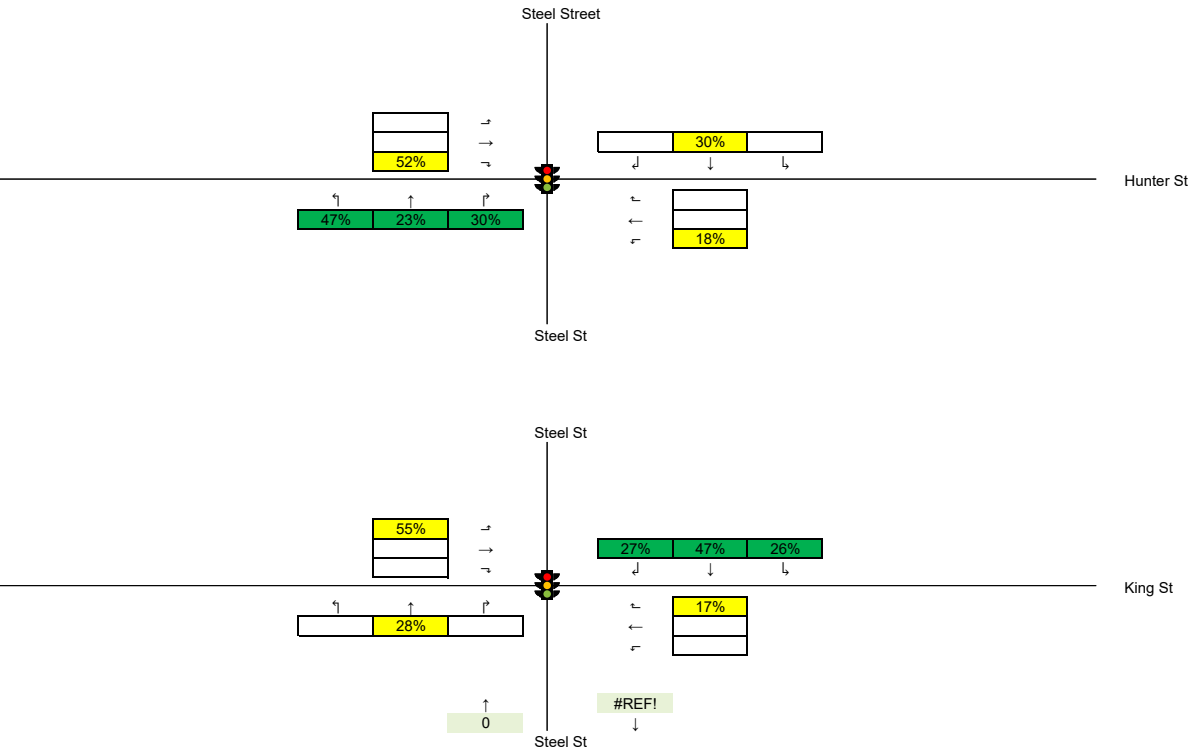
Traffic Flow Diagrams

S0 - Existing Base Case Conditions (2022) AM Peak

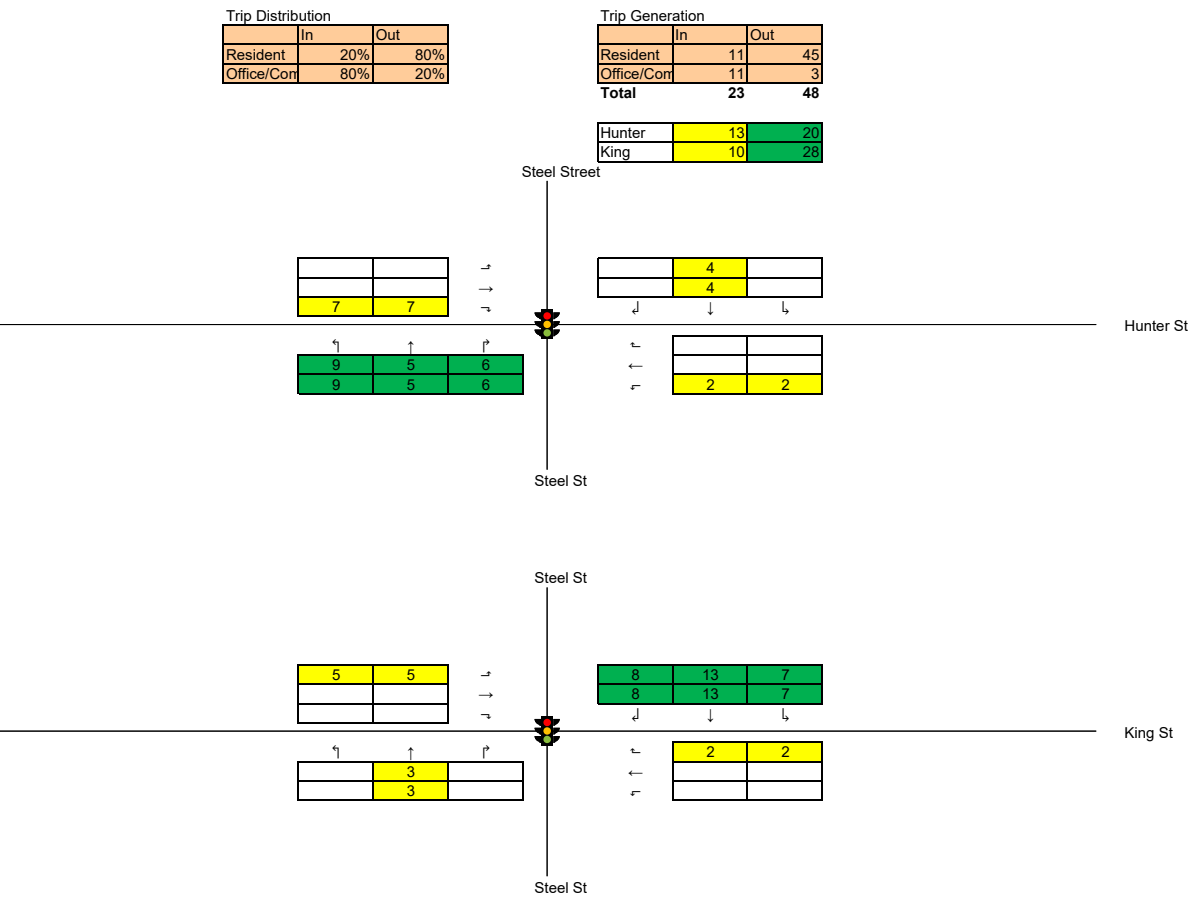
AM PEAK:



Existing Traffic Directional Split

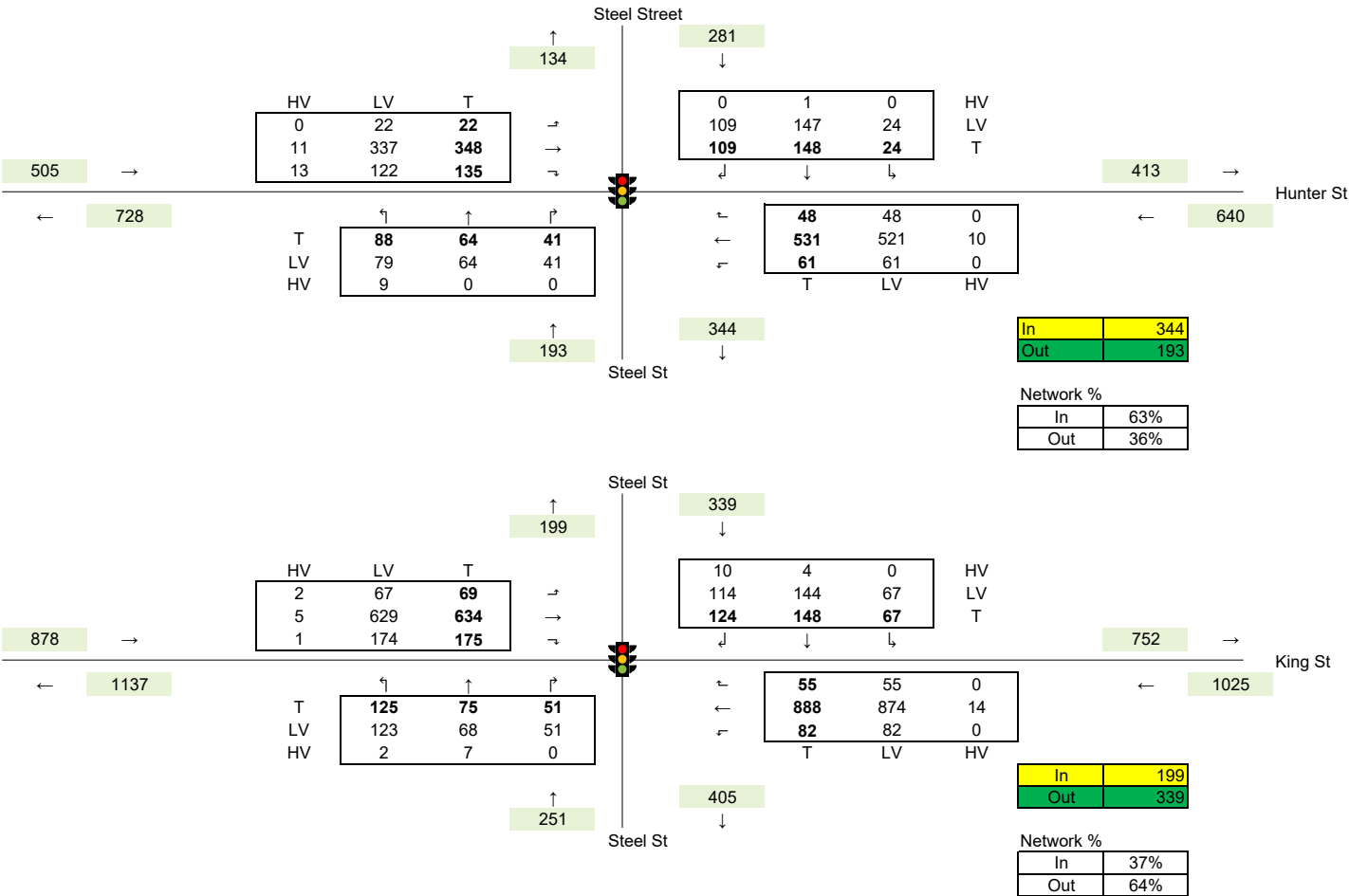


Development Traffic Distribution



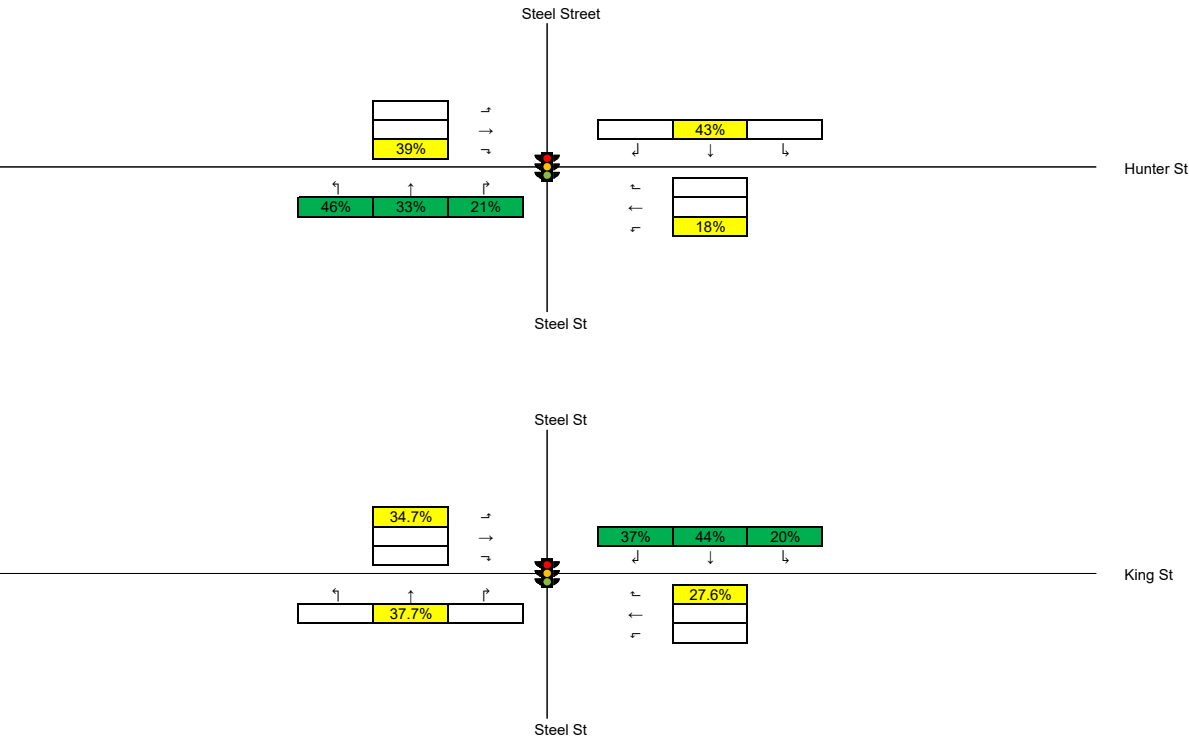
S0 - Existing Base Case Conditions (2022) PM Peak

PM PEAK:

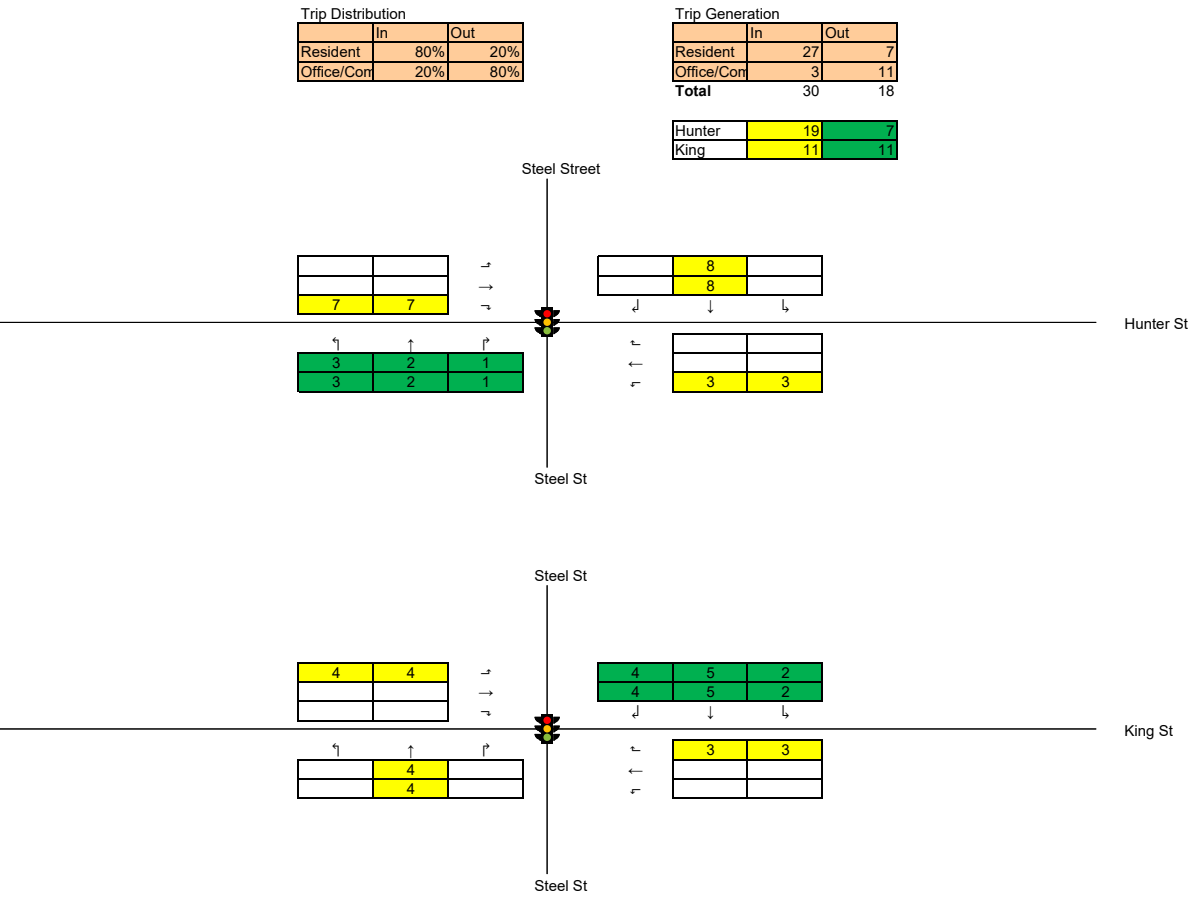


PM PEAK:

Existing Traffic Directional Split

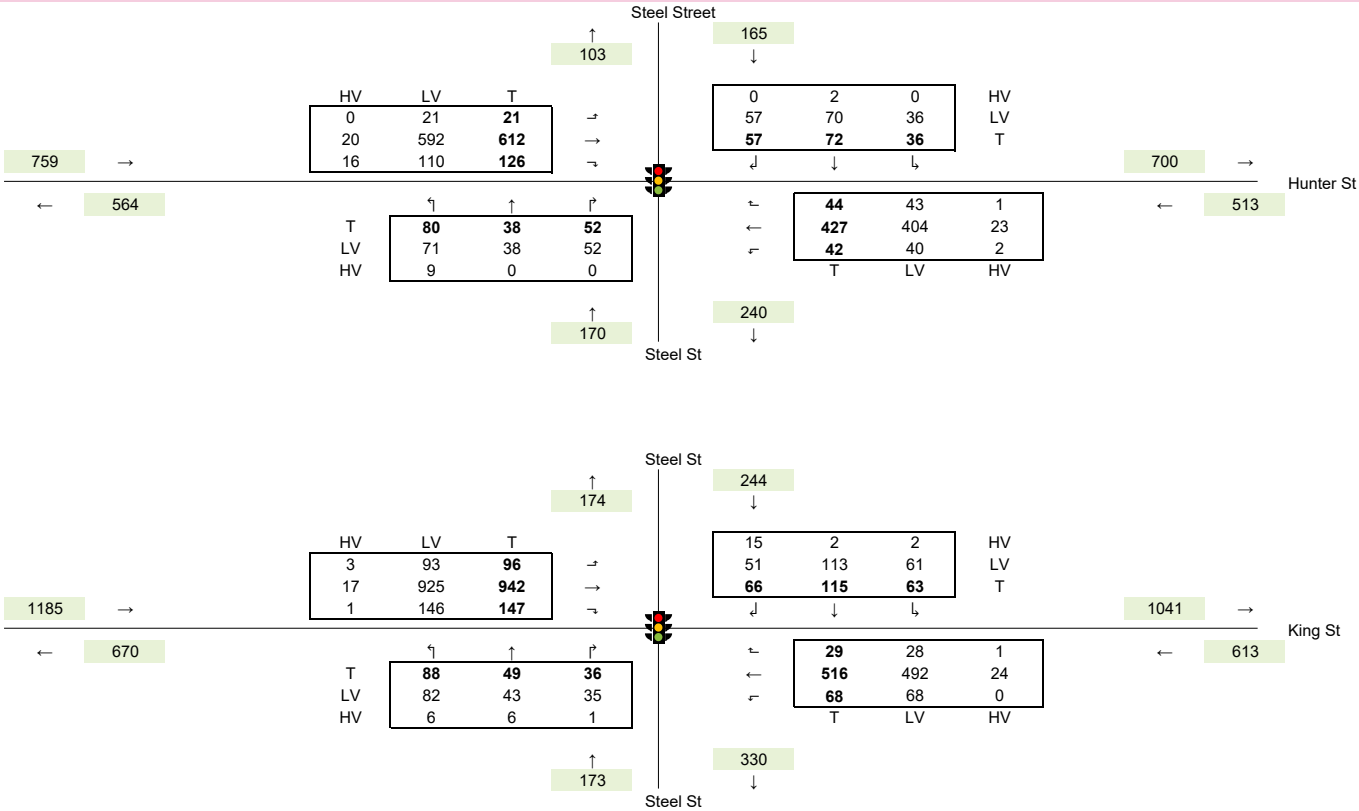


Development Traffic Distribution

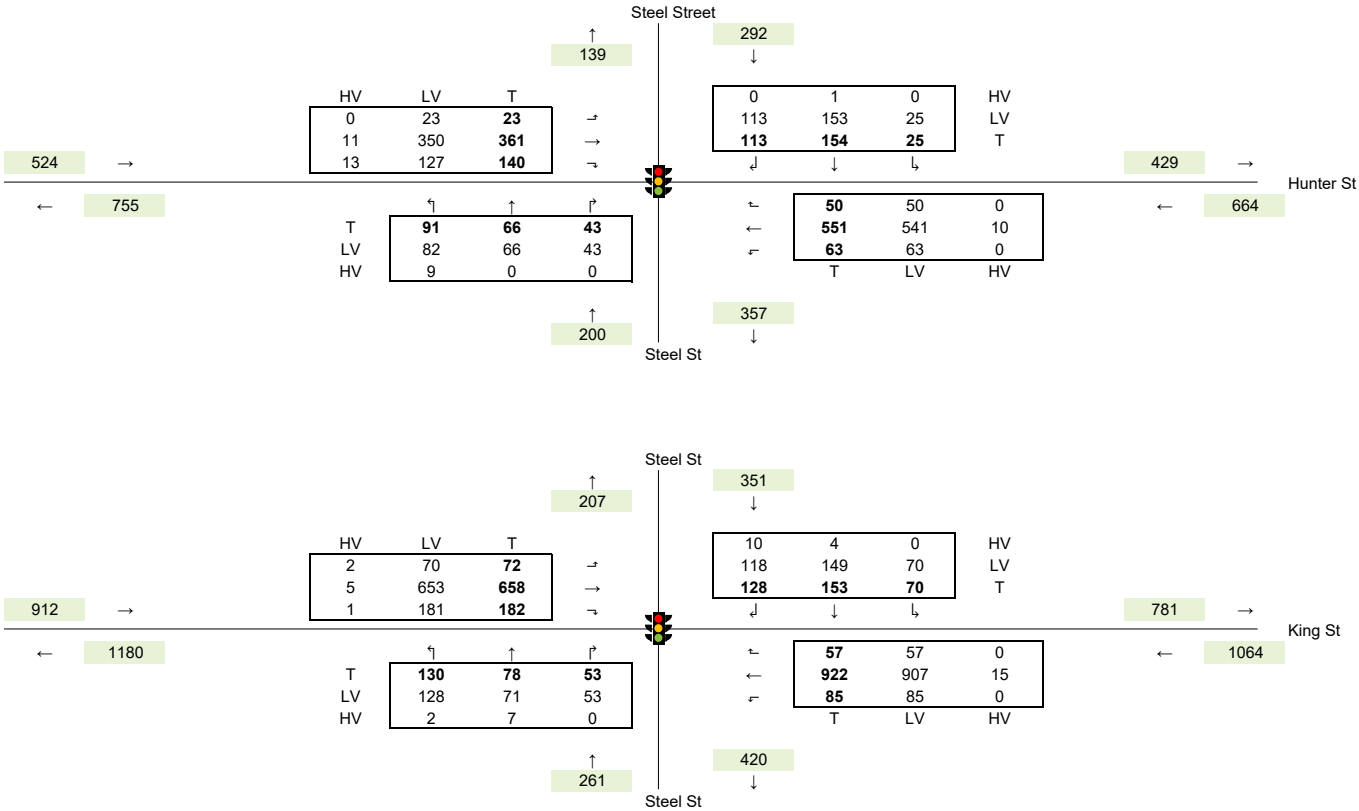


S1 - Future Conditions with background traffic growth only (no development) (2024)

AM PEAK:

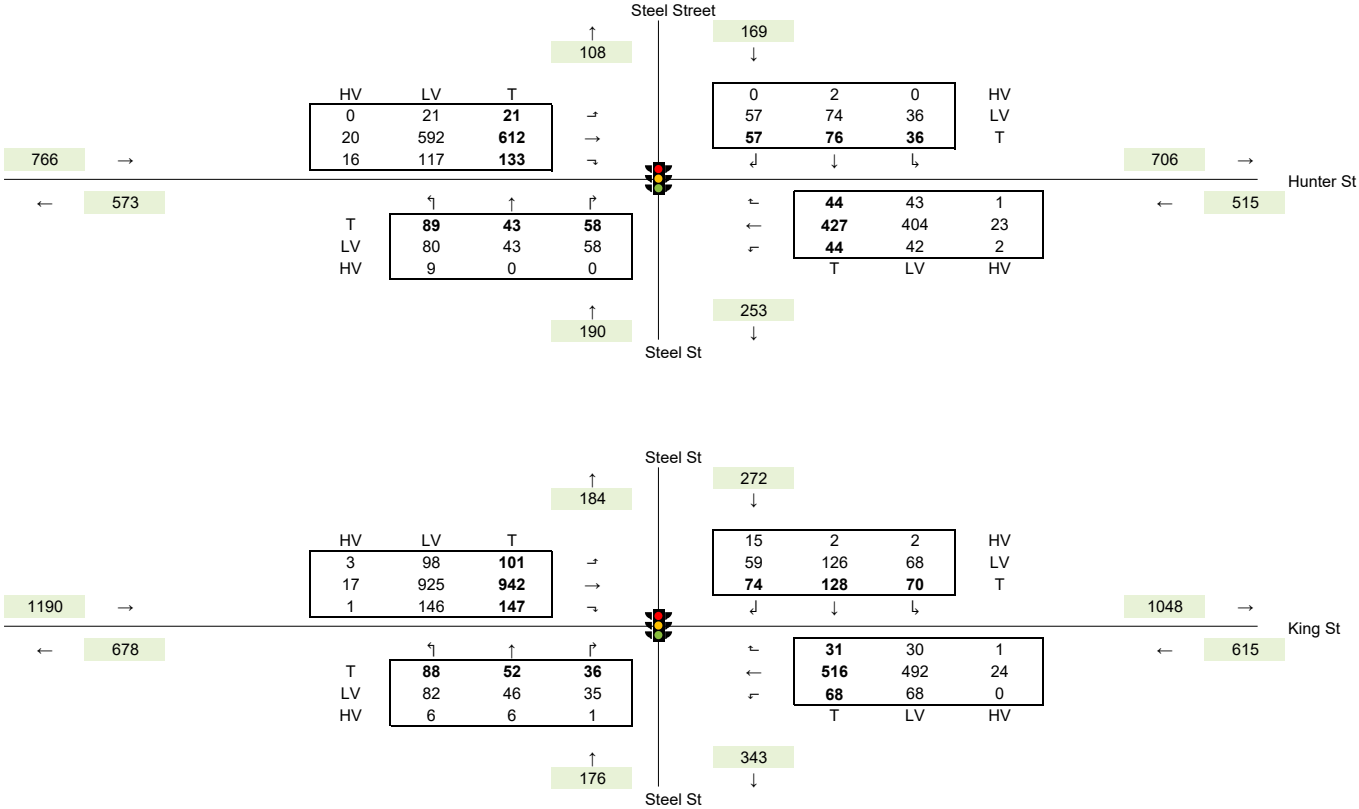


PM PEAK:



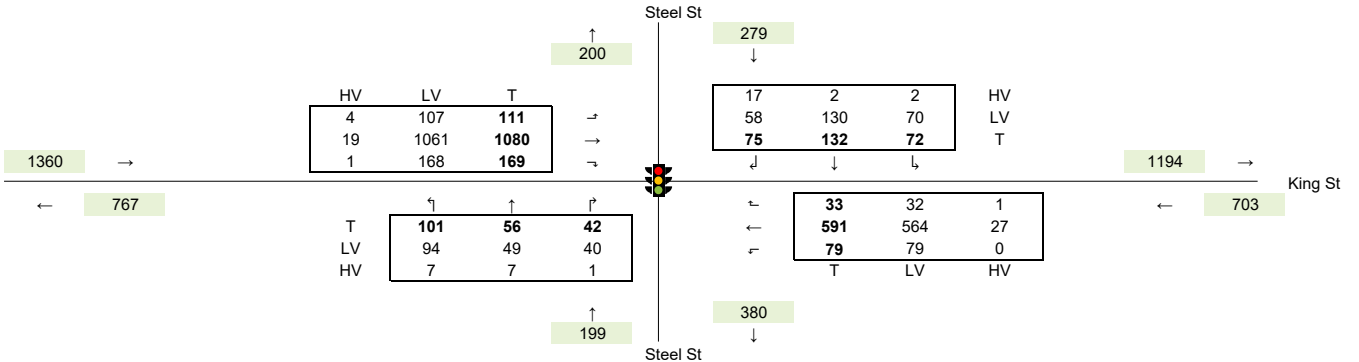
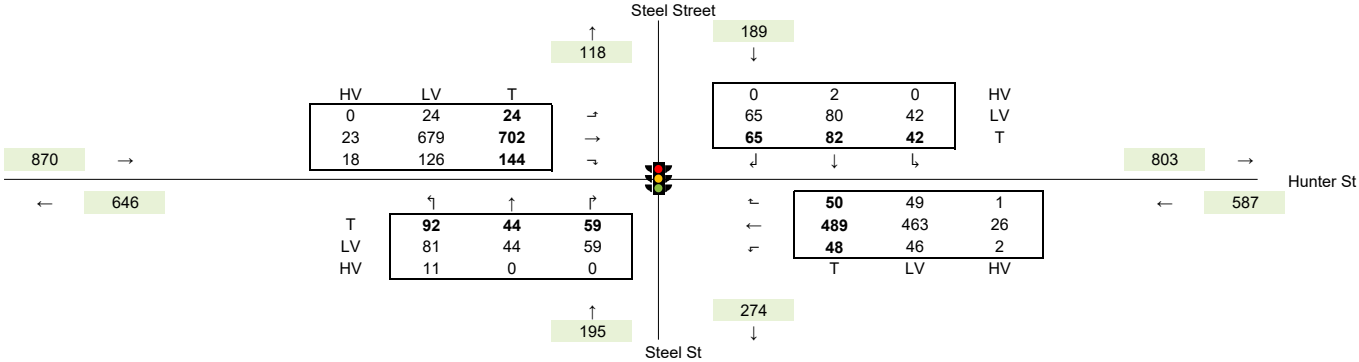
S2 - Future conditions with background traffic growth with proposed development (2024)

AM PEAK:

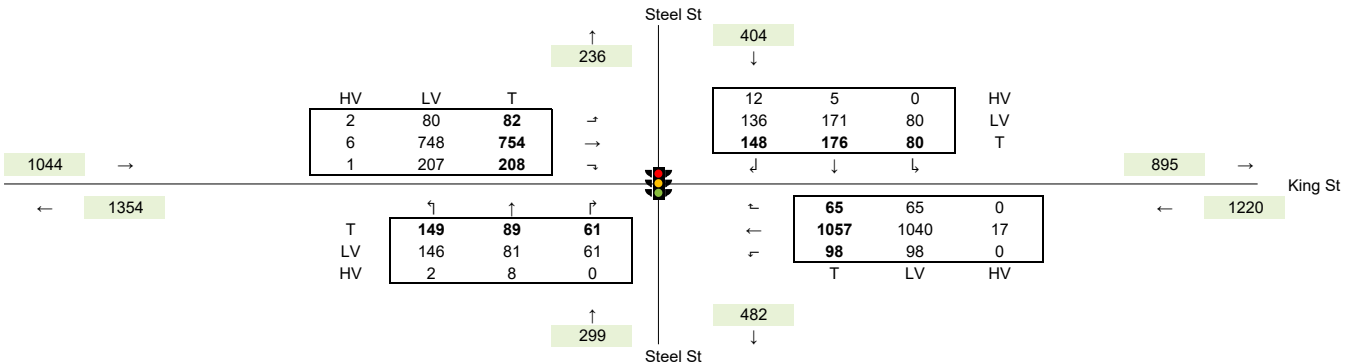
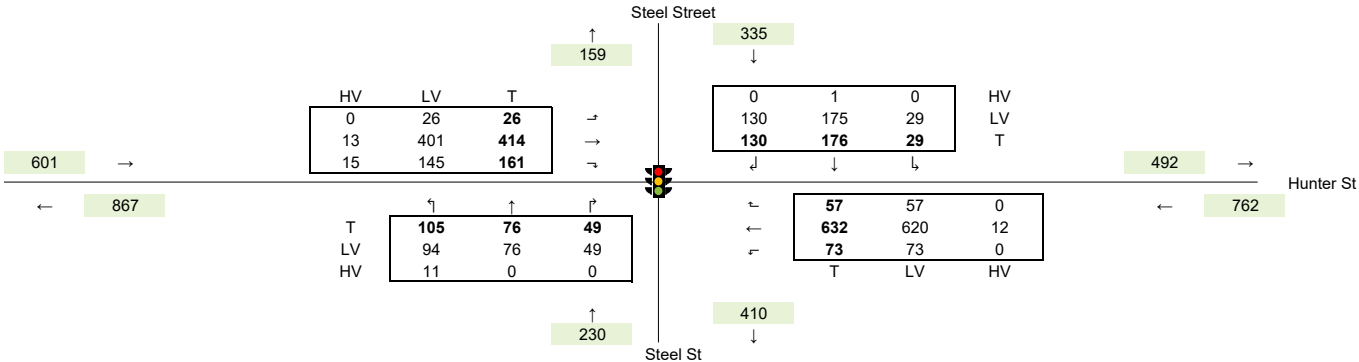


S3 - Future conditions with background traffic growth only (no development) plus 10 years (2034)

AM PEAK:

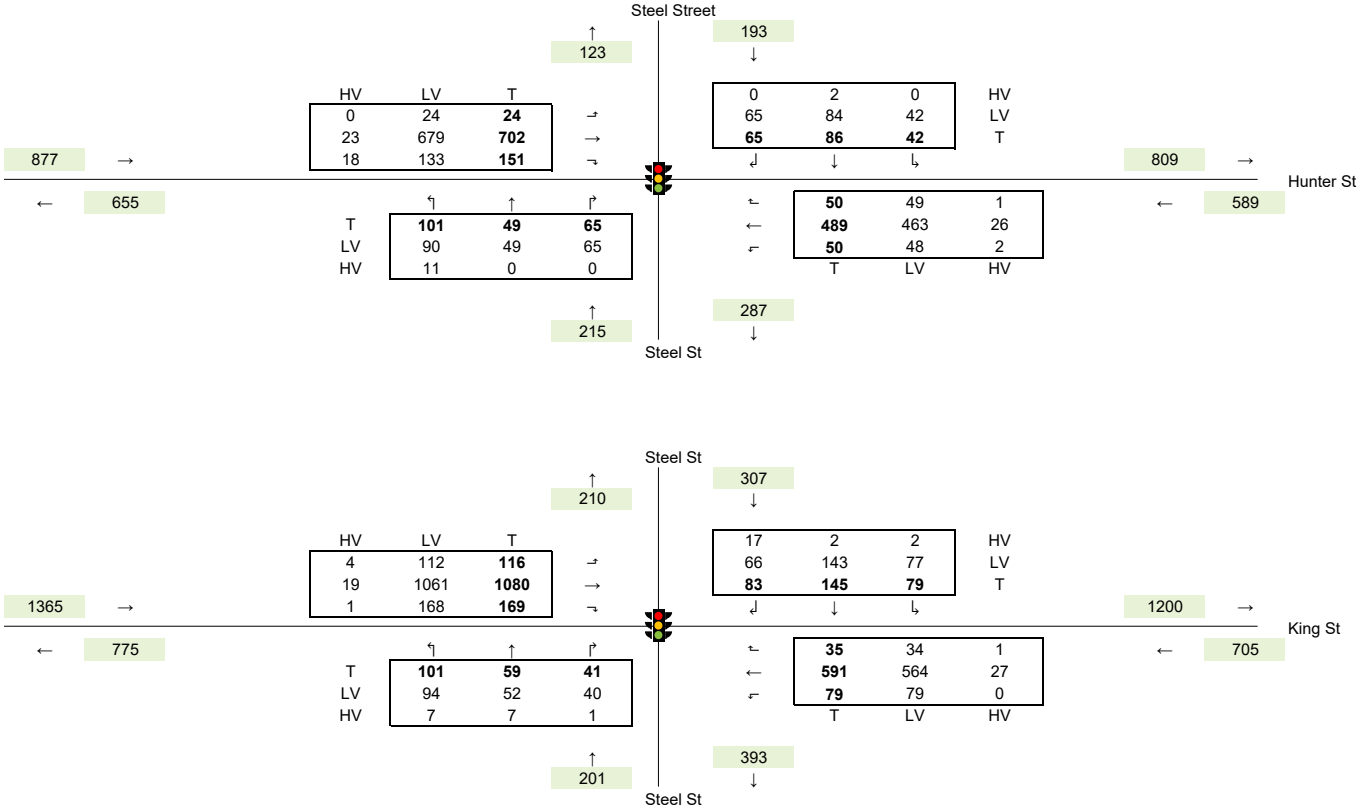


PM PEAK:

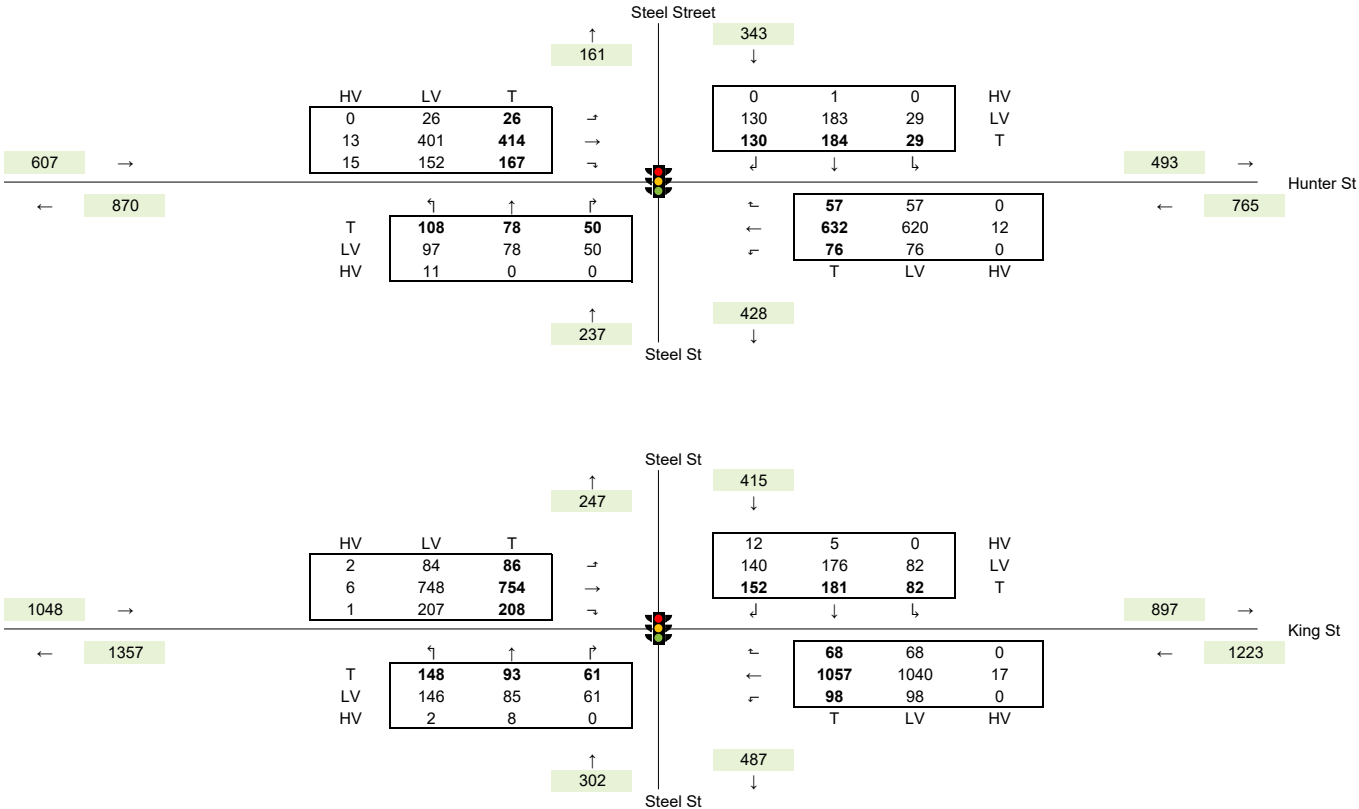


S4 - Future conditions with background traffic growth with proposed development plus 10 years (2034)

AM PEAK:



PM PEAK:



Appendix J

SIDRA Movement Summary Outputs for Average Queue
and 95th Percentile Queue

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St Ex.AM (Site Folder: Existing)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	77	9	81	11.7	0.378	37.7	LOS C	1.7	13.1	0.96	0.76	0.96	16.9
2	T1	37	0	39	0.0	* 0.441	33.9	LOS C	1.9	13.5	0.96	0.77	0.96	13.8
3	R2	50	0	53	0.0	0.441	37.2	LOS C	1.9	13.5	0.96	0.77	0.96	20.7
Approach		164	9	173	5.5	0.441	36.7	LOS C	1.9	13.5	0.96	0.76	0.96	17.6
East: Hunter St East														
4	L2	41	2	43	4.9	0.362	8.6	LOS A	4.3	31.5	0.45	0.42	0.45	35.3
5	T1	411	22	433	5.4	0.362	5.2	LOS A	4.3	31.5	0.45	0.42	0.45	35.4
6	R2	42	1	44	2.4	0.109	12.9	LOS A	0.5	3.5	0.53	0.64	0.53	29.0
Approach		494	25	520	5.1	0.362	6.1	LOS A	4.3	31.5	0.46	0.44	0.46	34.9
North: Steel St North														
7	L2	35	0	37	0.0	0.423	35.5	LOS C	2.3	16.1	0.96	0.76	0.96	20.5
8	T1	69	2	73	2.9	0.423	32.1	LOS C	2.3	16.1	0.96	0.76	0.96	13.8
9	R2	55	0	58	0.0	0.320	38.2	LOS C	1.2	8.7	0.97	0.74	0.97	15.8
Approach		159	2	167	1.3	0.423	35.0	LOS C	2.3	16.1	0.96	0.75	0.96	16.3
West: Hunter St West														
10	L2	20	0	21	0.0	* 0.491	9.4	LOS A	6.6	47.4	0.52	0.47	0.52	32.6
11	T1	590	19	621	3.2	0.491	5.9	LOS A	6.6	47.4	0.52	0.47	0.52	35.1
12	R2	121	15	127	12.4	0.256	11.6	LOS A	1.4	10.7	0.52	0.65	0.52	27.8
Approach		731	34	769	4.7	0.491	6.9	LOS A	6.6	47.4	0.52	0.50	0.52	34.1
All Vehicles		1548	70	1629	4.5	0.491	12.7	LOS A	6.6	47.4	0.59	0.54	0.59	30.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	30.3	LOS D	0.1	0.1	0.92	0.92	209.0	214.4	1.03
East: Hunter St East												
P2	Full	95	100	30.4	LOS D	0.2	0.2	0.92	0.92	208.4	213.6	1.03

North: Steel St North												
P3	Full	68	72	30.3	LOS D	0.1	0.1	0.92	0.92	210.7	216.4	1.03
West: Hunter St West												
P4	Full	46	48	30.3	LOS D	0.1	0.1	0.92	0.92	207.1	212.2	1.02
All		240	253	30.3	LOS D	0.2	0.2	0.92	0.92	208.9	214.2	1.03
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Organisation: TTPP - THE TRANSPORT PLANNING PARTNERSHIP | Licence: NETWORK / 1PC | Processed: Thursday, 1 September 2022 10:00:10 AM

Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St Ex.PM (Site Folder: Existing)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 81 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	88	9	93	10.2	0.289	36.2	LOS C	2.0	15.2	0.90	0.76	0.90	17.3
2	T1	64	0	67	0.0	0.408	34.7	LOS C	2.5	17.4	0.93	0.77	0.93	13.7
3	R2	41	0	43	0.0	* 0.408	38.1	LOS C	2.5	17.4	0.93	0.77	0.93	20.6
Approach		193	9	203	4.7	0.408	36.1	LOS C	2.5	17.4	0.92	0.76	0.92	17.1
East: Hunter St East														
4	L2	61	0	64	0.0	0.491	11.5	LOS A	7.8	55.5	0.56	0.53	0.56	33.1
5	T1	531	10	559	1.9	0.491	8.1	LOS A	7.8	55.5	0.56	0.53	0.56	33.4
6	R2	48	0	51	0.0	0.089	12.6	LOS A	0.6	4.0	0.49	0.63	0.49	29.2
Approach		640	10	674	1.6	0.491	8.8	LOS A	7.8	55.5	0.56	0.53	0.56	33.1
North: Steel St North														
7	L2	24	0	25	0.0	0.459	34.4	LOS C	3.9	27.7	0.92	0.76	0.92	21.1
8	T1	148	1	156	0.7	0.459	31.0	LOS C	3.9	27.7	0.92	0.76	0.92	14.3
9	R2	109	0	115	0.0	0.440	37.2	LOS C	2.6	18.2	0.94	0.78	0.94	16.1
Approach		281	1	296	0.4	0.459	33.7	LOS C	3.9	27.7	0.93	0.77	0.93	15.8
West: Hunter St West														
10	L2	22	0	23	0.0	0.316	10.5	LOS A	4.2	30.1	0.48	0.43	0.48	31.4
11	T1	348	11	366	3.2	0.316	6.9	LOS A	4.2	30.1	0.48	0.43	0.48	34.3
12	R2	135	13	142	9.6	* 0.394	18.5	LOS B	2.3	17.3	0.68	0.72	0.68	23.4
Approach		505	24	532	4.8	0.394	10.2	LOS A	4.2	30.1	0.53	0.51	0.53	31.5
All Vehicles		1619	44	1704	2.7	0.491	16.8	LOS B	7.8	55.5	0.66	0.60	0.66	27.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	34.8	LOS D	0.1	0.1	0.93	0.93	213.4	214.4	1.00
East: Hunter St East												
P2	Full	95	100	34.9	LOS D	0.2	0.2	0.93	0.93	212.9	213.6	1.00

North: Steel St North												
P3	Full	68	72	34.8	LOS D	0.2	0.2	0.93	0.93	215.2	216.4	1.01
West: Hunter St West												
P4	Full	46	48	34.8	LOS D	0.1	0.1	0.93	0.93	211.6	212.2	1.00
All		240	253	34.8	LOS D	0.2	0.2	0.93	0.93	213.4	214.2	1.00
Pedestrians												

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

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 **Site: TCS0923 [King St - Steel St Ex.AM (Site Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 113 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	85	6	89	7.1	0.426	50.2	LOS D	4.2	31.9	0.93	0.78	0.93	20.4
2	T1	47	6	49	12.8	0.426	44.6	LOS D	4.2	31.9	0.93	0.78	0.93	16.2
3	R2	35	1	37	2.9	0.290	62.2	LOS E	1.2	8.9	0.98	0.73	0.98	19.7
Approach		167	13	176	7.8	0.426	51.2	LOS D	4.2	31.9	0.94	0.77	0.94	19.2
East: King St East														
4	L2	66	0	69	0.0	0.069	18.6	LOS B	1.1	7.7	0.50	0.68	0.50	35.9
5	T1	497	23	523	4.6	0.315	22.3	LOS B	5.7	41.7	0.70	0.60	0.70	35.7
6	R2	28	1	29	3.6	0.122	53.0	LOS D	0.9	6.4	0.91	0.72	0.91	18.4
Approach		591	24	622	4.1	0.315	23.4	LOS B	5.7	41.7	0.69	0.61	0.69	34.5
North: Steel St N														
7	L2	61	2	64	3.3	0.601	53.5	LOS D	5.8	41.4	0.98	0.81	0.98	19.4
8	T1	111	2	117	1.8	* 0.601	48.0	LOS D	5.8	41.4	0.98	0.81	0.98	15.9
9	R2	63	14	66	22.2	* 0.584	64.6	LOS E	2.3	19.5	1.00	0.79	1.05	14.0
Approach		235	18	247	7.7	0.601	53.9	LOS D	5.8	41.4	0.98	0.80	1.00	16.2
West: King St West														
10	L2	93	3	98	3.2	0.099	18.4	LOS B	1.5	11.1	0.50	0.69	0.50	29.3
11	T1	908	16	956	1.8	* 0.611	25.6	LOS B	12.3	87.6	0.81	0.71	0.81	33.7
12	R2	142	1	149	0.7	* 0.603	56.9	LOS E	4.9	34.6	0.99	0.80	0.99	18.6
Approach		1143	20	1203	1.7	0.611	28.9	LOS C	12.3	87.6	0.80	0.72	0.80	30.8
All Vehicles		2136	75	2248	3.5	0.611	31.9	LOS C	12.3	87.6	0.80	0.70	0.80	28.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St S												
P1	Full	27	28	50.7	LOS E	0.1	0.1	0.95	0.95	229.6	214.6	0.93
East: King St East												
P21	Stage 1	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	230.0	214.9	0.93
P22	Stage 2	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	223.8	207.4	0.93

North: Steel St N												
P3 Full	12	13	50.7	LOS E	0.0	0.0	0.95	0.95	230.5	215.8	0.94	
West: King St West												
P41 Stage 1	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	229.7	214.7	0.93	
P42 Stage 2	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	223.9	207.8	0.93	
All Pedestrians	363	382	50.9	LOS E	0.4	0.4	0.95	0.95	227.2	211.6	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.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 **Site: TCS0923 [King St - Steel St Ex.PM (Site Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 104 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	125	2	132	1.6	0.586	46.9	LOS D	6.1	44.0	0.96	0.81	0.96	21.6
2	T1	75	7	79	9.3	0.586	41.3	LOS C	6.1	44.0	0.96	0.81	0.96	17.1
3	R2	51	0	54	0.0	0.278	53.5	LOS D	1.6	11.2	0.96	0.75	0.96	21.7
Approach		251	9	264	3.6	0.586	46.6	LOS D	6.1	44.0	0.96	0.80	0.96	20.5
East: King St East														
4	L2	82	0	86	0.0	0.090	19.4	LOS B	1.4	9.5	0.54	0.70	0.54	35.4
5	T1	888	14	935	1.6	* 0.727	30.8	LOS C	12.4	88.0	0.91	0.80	0.91	30.9
6	R2	55	0	58	0.0	0.215	48.9	LOS D	1.6	11.4	0.92	0.75	0.92	19.4
Approach		1025	14	1079	1.4	0.727	30.9	LOS C	12.4	88.0	0.88	0.79	0.88	30.5
North: Steel St N														
7	L2	67	0	71	0.0	0.695	51.1	LOS D	6.9	49.1	0.99	0.86	1.04	20.1
8	T1	148	4	156	2.7	* 0.695	45.6	LOS D	6.9	49.1	0.99	0.86	1.04	16.6
9	R2	124	10	131	8.1	* 0.703	57.8	LOS E	4.2	31.6	1.00	0.85	1.12	15.5
Approach		339	14	357	4.1	0.703	51.1	LOS D	6.9	49.1	1.00	0.85	1.07	16.8
West: King St West														
10	L2	69	2	73	2.9	0.079	19.3	LOS B	1.1	8.1	0.54	0.69	0.54	28.7
11	T1	634	5	667	0.8	0.487	28.0	LOS B	8.2	57.9	0.83	0.71	0.83	32.4
12	R2	175	1	184	0.6	* 0.683	53.5	LOS D	5.7	40.2	1.00	0.84	1.06	19.4
Approach		878	8	924	0.9	0.683	32.4	LOS C	8.2	57.9	0.84	0.74	0.85	28.9
All Vehicles		2493	45	2624	1.8	0.727	35.7	LOS C	12.4	88.0	0.89	0.78	0.91	26.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m					
South: Steel St S												
P1	Full	14	15	46.2	LOS E	0.0	0.0	0.94	0.94	225.0	214.6	0.95
East: King St East												
P21	Stage 1	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	225.5	214.9	0.95
P22	Stage 2	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	219.2	207.4	0.95

North: Steel St N												
P3 Full	18	19	46.2	LOS E	0.1	0.1	0.94	0.94	226.0	215.8	0.95	
West: King St West												
P41 Stage 1	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	225.2	214.7	0.95	
P42 Stage 2	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	219.4	207.8	0.95	
All Pedestrians	330	347	46.3	LOS E	0.3	0.3	0.95	0.95	222.6	211.6	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.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FB2024.AM (Site Folder: Future Base 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	80	9	84	11.3	0.392	37.8	LOS C	1.8	13.6	0.96	0.76	0.96	16.9
2	T1	38	0	40	0.0	0.473	34.9	LOS C	2.0	14.2	0.97	0.77	0.97	13.5
3	R2	52	0	55	0.0	* 0.473	38.3	LOS C	2.0	14.2	0.97	0.77	0.97	20.4
Approach		170	9	179	5.3	0.473	37.3	LOS C	2.0	14.2	0.97	0.77	0.97	17.4
East: Hunter St East														
4	L2	42	2	44	4.8	0.376	8.7	LOS A	4.5	33.1	0.46	0.43	0.46	35.3
5	T1	427	23	449	5.4	0.376	5.3	LOS A	4.5	33.1	0.46	0.43	0.46	35.4
6	R2	44	1	46	2.3	0.119	13.5	LOS A	0.5	3.8	0.54	0.65	0.54	28.6
Approach		513	26	540	5.1	0.376	6.3	LOS A	4.5	33.1	0.47	0.45	0.47	34.8
North: Steel St North														
7	L2	36	0	38	0.0	0.438	35.6	LOS C	2.4	16.8	0.96	0.76	0.96	20.5
8	T1	72	2	76	2.8	0.438	32.2	LOS C	2.4	16.8	0.96	0.76	0.96	13.8
9	R2	57	0	60	0.0	0.298	37.0	LOS C	1.3	8.8	0.96	0.74	0.96	16.1
Approach		165	2	174	1.2	0.438	34.6	LOS C	2.4	16.8	0.96	0.75	0.96	16.3
West: Hunter St West														
10	L2	21	0	22	0.0	* 0.509	9.6	LOS A	7.0	50.1	0.53	0.48	0.53	32.4
11	T1	612	20	644	3.3	0.509	6.0	LOS A	7.0	50.1	0.53	0.48	0.53	35.0
12	R2	126	16	133	12.7	0.275	11.7	LOS A	1.5	11.3	0.53	0.66	0.53	27.7
Approach		759	36	799	4.7	0.509	7.1	LOS A	7.0	50.1	0.53	0.51	0.53	34.0
All Vehicles		1607	73	1692	4.5	0.509	12.8	LOS A	7.0	50.1	0.60	0.54	0.60	29.9

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	30.3	LOS D	0.1	0.1	0.92	0.92	209.0	214.4	1.03
East: Hunter St East												
P2	Full	95	100	30.4	LOS D	0.2	0.2	0.92	0.92	208.4	213.6	1.03

North: Steel St North												
P3	Full	68	72	30.3	LOS D	0.1	0.1	0.92	0.92	210.7	216.4	1.03
West: Hunter St West												
P4	Full	46	48	30.3	LOS D	0.1	0.1	0.92	0.92	207.1	212.2	1.02
All		240	253	30.3	LOS D	0.2	0.2	0.92	0.92	208.9	214.2	1.03
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FB2024.PM (Site Folder: Future Base 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 81 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	91	9	96	9.9	0.298	36.3	LOS C	2.1	15.7	0.90	0.76	0.90	17.3
2	T1	66	0	69	0.0	0.442	35.8	LOS C	2.6	18.4	0.95	0.77	0.95	13.4
3	R2	43	0	45	0.0	* 0.442	39.2	LOS C	2.6	18.4	0.95	0.77	0.95	20.3
Approach		200	9	211	4.5	0.442	36.8	LOS C	2.6	18.4	0.93	0.77	0.93	16.9
East: Hunter St East														
4	L2	63	0	66	0.0	0.509	11.6	LOS A	8.3	58.6	0.57	0.54	0.57	33.0
5	T1	551	10	580	1.8	0.509	8.2	LOS A	8.3	58.6	0.57	0.54	0.57	33.3
6	R2	50	0	53	0.0	0.095	12.6	LOS A	0.6	4.2	0.49	0.63	0.49	29.2
Approach		664	10	699	1.5	0.509	8.9	LOS A	8.3	58.6	0.57	0.54	0.57	33.0
North: Steel St North														
7	L2	25	0	26	0.0	0.477	34.5	LOS C	4.1	29.0	0.93	0.76	0.93	21.0
8	T1	154	1	162	0.6	0.477	31.1	LOS C	4.1	29.0	0.93	0.76	0.93	14.3
9	R2	113	0	119	0.0	0.483	38.4	LOS C	2.8	19.3	0.96	0.78	0.96	15.8
Approach		292	1	307	0.3	0.483	34.2	LOS C	4.1	29.0	0.94	0.77	0.94	15.6
West: Hunter St West														
10	L2	23	0	24	0.0	0.328	10.6	LOS A	4.4	31.5	0.49	0.44	0.49	31.3
11	T1	361	11	380	3.0	0.328	7.0	LOS A	4.4	31.5	0.49	0.44	0.49	34.2
12	R2	140	13	147	9.3	* 0.426	19.5	LOS B	2.5	18.6	0.70	0.73	0.70	22.9
Approach		524	24	552	4.6	0.426	10.5	LOS A	4.4	31.5	0.54	0.52	0.54	31.3
All Vehicles		1680	44	1768	2.6	0.509	17.1	LOS B	8.3	58.6	0.67	0.60	0.67	27.0

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	34.8	LOS D	0.1	0.1	0.93	0.93	213.4	214.4	1.00
East: Hunter St East												
P2	Full	95	100	34.9	LOS D	0.2	0.2	0.93	0.93	212.9	213.6	1.00

North: Steel St North												
P3	Full	68	72	34.8	LOS D	0.2	0.2	0.93	0.93	215.2	216.4	1.01
West: Hunter St West												
P4	Full	46	48	34.8	LOS D	0.1	0.1	0.93	0.93	211.6	212.2	1.00
All		240	253	34.8	LOS D	0.2	0.2	0.93	0.93	213.4	214.2	1.00
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FB2024.AM (Site Folder: Future Base 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 113 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	88	6	93	6.8	0.442	50.4	LOS D	4.4	33.2	0.93	0.78	0.93	20.4
2	T1	49	6	52	12.2	0.442	44.8	LOS D	4.4	33.2	0.93	0.78	0.93	16.2
3	R2	36	1	38	2.8	0.299	62.3	LOS E	1.3	9.2	0.98	0.73	0.98	19.7
Approach		173	13	182	7.5	0.442	51.3	LOS D	4.4	33.2	0.94	0.77	0.94	19.2
East: King St East														
4	L2	68	0	72	0.0	0.071	18.6	LOS B	1.1	7.9	0.50	0.69	0.50	35.9
5	T1	516	24	543	4.7	0.327	22.5	LOS B	6.0	43.6	0.70	0.60	0.70	35.6
6	R2	29	1	31	3.4	0.126	53.0	LOS D	0.9	6.7	0.92	0.72	0.92	18.4
Approach		613	25	645	4.1	0.327	23.5	LOS B	6.0	43.6	0.69	0.62	0.69	34.5
North: Steel St N														
7	L2	63	2	66	3.2	0.622	53.7	LOS D	6.0	43.0	0.98	0.81	0.98	19.3
8	T1	115	2	121	1.7	* 0.622	48.2	LOS D	6.0	43.0	0.98	0.81	0.98	15.9
9	R2	65	14	68	21.5	* 0.600	64.7	LOS E	2.4	20.1	1.00	0.79	1.07	14.0
Approach		243	18	256	7.4	0.622	54.1	LOS D	6.0	43.0	0.99	0.81	1.00	16.2
West: King St West														
10	L2	96	3	101	3.1	0.102	18.4	LOS B	1.6	11.5	0.50	0.69	0.50	29.3
11	T1	942	17	992	1.8	* 0.660	26.0	LOS B	12.9	91.6	0.82	0.72	0.82	33.5
12	R2	147	1	155	0.7	* 0.624	57.3	LOS E	5.1	36.1	0.99	0.81	1.01	18.5
Approach		1185	21	1247	1.8	0.660	29.2	LOS C	12.9	91.6	0.81	0.73	0.81	30.7
All Vehicles		2214	77	2331	3.5	0.660	32.1	LOS C	12.9	91.6	0.81	0.71	0.81	28.6

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Level of Delay	Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St S												
P1	Full	27	28	50.7	LOS E	0.1	0.1	0.95	0.95	229.6	214.6	0.93
East: King St East												
P21	Stage 1	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	230.0	214.9	0.93

P22 Stage 2	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	223.8	207.4	0.93
North: Steel St N											
P3 Full	12	13	50.7	LOS E	0.0	0.0	0.95	0.95	230.5	215.8	0.94
West: King St West											
P41 Stage 1	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	229.7	214.7	0.93
P42 Stage 2	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	223.9	207.8	0.93
All Pedestrians	363	382	50.9	LOS E	0.4	0.4	0.95	0.95	227.2	211.6	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.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FB2024.PM (Site Folder: Future Base 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 104 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	130	2	137	1.5	0.609	47.1	LOS D	6.3	46.0	0.96	0.81	0.96	21.5
2	T1	78	7	82	9.0	0.609	41.6	LOS C	6.3	46.0	0.96	0.81	0.96	17.1
3	R2	53	0	56	0.0	0.289	53.6	LOS D	1.7	11.6	0.96	0.75	0.96	21.7
Approach		261	9	275	3.4	0.609	46.8	LOS D	6.3	46.0	0.96	0.80	0.96	20.4
East: King St East														
4	L2	85	0	89	0.0	0.094	19.4	LOS B	1.4	9.8	0.54	0.70	0.54	35.4
5	T1	922	15	971	1.6	* 0.757	32.2	LOS C	13.3	94.6	0.92	0.83	0.95	30.3
6	R2	57	0	60	0.0	0.223	48.9	LOS D	1.7	11.8	0.92	0.75	0.92	19.4
Approach		1064	15	1120	1.4	0.757	32.1	LOS C	13.3	94.6	0.89	0.82	0.92	29.9
North: Steel St N														
7	L2	69	0	73	0.0	0.717	51.7	LOS D	7.2	51.3	1.00	0.87	1.07	19.9
8	T1	153	4	161	2.6	* 0.717	46.2	LOS D	7.2	51.3	1.00	0.87	1.07	16.4
9	R2	128	10	135	7.8	* 0.724	58.3	LOS E	4.4	32.8	1.00	0.87	1.14	15.4
Approach		350	14	368	4.0	0.724	51.7	LOS D	7.2	51.3	1.00	0.87	1.10	16.7
West: King St West														
10	L2	72	2	76	2.8	0.082	19.4	LOS B	1.2	8.5	0.54	0.69	0.54	28.6
11	T1	658	5	693	0.8	0.507	28.2	LOS B	8.6	60.9	0.83	0.72	0.83	32.3
12	R2	182	1	192	0.5	* 0.711	54.1	LOS D	6.0	42.3	1.00	0.85	1.09	19.2
Approach		912	8	960	0.9	0.711	32.7	LOS C	8.6	60.9	0.84	0.74	0.86	28.7
All Vehicles		2587	46	2723	1.8	0.757	36.4	LOS C	13.3	94.6	0.90	0.80	0.93	26.5

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Flow Vol.	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed	
		ped/h	ped/h	sec		[Ped ped Dist] m			sec	m	m/sec	
South: Steel St S												
P1	Full	14	15	46.2	LOS E	0.0	0.0	0.94	0.94	225.0	214.6	0.95
East: King St East												
P21	Stage 1	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	225.5	214.9	0.95

P22 Stage 2	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	219.2	207.4	0.95
North: Steel St N											
P3 Full	18	19	46.2	LOS E	0.1	0.1	0.94	0.94	226.0	215.8	0.95
West: King St West											
P41 Stage 1	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	225.2	214.7	0.95
P42 Stage 2	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	219.4	207.8	0.95
All Pedestrians	330	347	46.3	LOS E	0.3	0.3	0.95	0.95	222.6	211.6	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.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FD2024.AM (Site Folder: Future w Development 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	89	9	94	10.1	0.389	36.7	LOS C	1.9	14.7	0.95	0.77	0.95	17.2
2	T1	43	0	45	0.0	0.482	34.0	LOS C	2.2	15.7	0.97	0.78	0.97	13.7
3	R2	58	0	61	0.0	* 0.482	37.3	LOS C	2.2	15.7	0.97	0.78	0.97	20.7
Approach		190	9	200	4.7	0.482	36.3	LOS C	2.2	15.7	0.96	0.77	0.96	17.7
East: Hunter St East														
4	L2	44	2	46	4.5	0.385	9.2	LOS A	4.8	34.8	0.48	0.45	0.48	34.9
5	T1	427	23	449	5.4	0.385	5.8	LOS A	4.8	34.8	0.48	0.45	0.48	35.0
6	R2	44	1	46	2.3	0.123	14.1	LOS A	0.5	3.9	0.56	0.65	0.56	28.3
Approach		515	26	542	5.0	0.385	6.8	LOS A	4.8	34.8	0.49	0.47	0.49	34.4
North: Steel St North														
7	L2	36	0	38	0.0	0.410	34.5	LOS C	2.4	17.1	0.95	0.76	0.95	20.8
8	T1	76	2	80	2.6	0.410	31.1	LOS C	2.4	17.1	0.95	0.76	0.95	14.1
9	R2	57	0	60	0.0	0.282	35.9	LOS C	1.2	8.7	0.94	0.74	0.94	16.4
Approach		169	2	178	1.2	0.410	33.4	LOS C	2.4	17.1	0.95	0.75	0.95	16.6
West: Hunter St West														
10	L2	21	0	22	0.0	* 0.520	10.1	LOS A	7.3	52.4	0.55	0.50	0.55	31.9
11	T1	612	20	644	3.3	0.520	6.6	LOS A	7.3	52.4	0.55	0.50	0.55	34.6
12	R2	133	16	140	12.0	0.298	12.9	LOS A	1.7	12.8	0.57	0.67	0.57	26.8
Approach		766	36	806	4.7	0.520	7.8	LOS A	7.3	52.4	0.55	0.53	0.55	33.5
All Vehicles		1640	73	1726	4.5	0.520	13.4	LOS A	7.3	52.4	0.62	0.56	0.62	29.6

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	30.3	LOS D	0.1	0.1	0.92	0.92	209.0	214.4	1.03
East: Hunter St East												
P2	Full	95	100	30.4	LOS D	0.2	0.2	0.92	0.92	208.4	213.6	1.03

North: Steel St North												
P3	Full	68	72	30.3	LOS D	0.1	0.1	0.92	0.92	210.7	216.4	1.03
West: Hunter St West												
P4	Full	46	48	30.3	LOS D	0.1	0.1	0.92	0.92	207.1	212.2	1.02
All		240	253	30.3	LOS D	0.2	0.2	0.92	0.92	208.9	214.2	1.03
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FD2024.PM (Site Folder: Future w Development 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 81 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	94	9	99	9.6	0.307	36.3	LOS C	2.1	16.2	0.91	0.76	0.91	17.3
2	T1	68	0	72	0.0	0.460	36.0	LOS C	2.7	19.0	0.95	0.78	0.95	13.3
3	R2	44	0	46	0.0	* 0.460	39.3	LOS C	2.7	19.0	0.95	0.78	0.95	20.3
Approach		206	9	217	4.4	0.460	36.9	LOS C	2.7	19.0	0.93	0.77	0.93	16.9
East: Hunter St East														
4	L2	66	0	69	0.0	0.513	11.7	LOS A	8.3	59.0	0.58	0.54	0.58	33.0
5	T1	551	10	580	1.8	0.513	8.3	LOS A	8.3	59.0	0.58	0.54	0.58	33.3
6	R2	50	0	53	0.0	0.095	12.6	LOS A	0.6	4.2	0.49	0.63	0.49	29.2
Approach		667	10	702	1.5	0.513	8.9	LOS A	8.3	59.0	0.57	0.55	0.57	33.0
North: Steel St North														
7	L2	25	0	26	0.0	0.498	34.7	LOS C	4.3	30.4	0.93	0.77	0.93	21.0
8	T1	162	1	171	0.6	0.498	31.3	LOS C	4.3	30.4	0.93	0.77	0.93	14.2
9	R2	113	0	119	0.0	0.487	38.5	LOS C	2.8	19.3	0.96	0.78	0.96	15.8
Approach		300	1	316	0.3	0.498	34.3	LOS C	4.3	30.4	0.94	0.77	0.94	15.6
West: Hunter St West														
10	L2	23	0	24	0.0	0.328	10.6	LOS A	4.4	31.5	0.49	0.44	0.49	31.3
11	T1	361	11	380	3.0	0.328	7.0	LOS A	4.4	31.5	0.49	0.44	0.49	34.2
12	R2	147	13	155	8.8	* 0.448	19.7	LOS B	2.6	19.8	0.71	0.74	0.71	22.8
Approach		531	24	559	4.5	0.448	10.7	LOS A	4.4	31.5	0.55	0.52	0.55	31.2
All Vehicles		1704	44	1794	2.6	0.513	17.3	LOS B	8.3	59.0	0.67	0.61	0.67	26.9

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	34.8	LOS D	0.1	0.1	0.93	0.93	213.4	214.4	1.00
East: Hunter St East												
P2	Full	95	100	34.9	LOS D	0.2	0.2	0.93	0.93	212.9	213.6	1.00

North: Steel St North												
P3	Full	68	72	34.8	LOS D	0.2	0.2	0.93	0.93	215.2	216.4	1.01
West: Hunter St West												
P4	Full	46	48	34.8	LOS D	0.1	0.1	0.93	0.93	211.6	212.2	1.00
All		240	253	34.8	LOS D	0.2	0.2	0.93	0.93	213.4	214.2	1.00
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FD2024.AM (Site Folder: Future w Development 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 113 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	88	6	93	6.8	0.434	49.5	LOS D	4.5	33.5	0.93	0.78	0.93	20.7
2	T1	52	6	55	11.5	0.434	43.9	LOS D	4.5	33.5	0.93	0.78	0.93	16.5
3	R2	36	1	38	2.8	0.299	62.3	LOS E	1.3	9.2	0.98	0.73	0.98	19.7
Approach		176	13	185	7.4	0.434	50.4	LOS D	4.5	33.5	0.94	0.77	0.94	19.4
East: King St East														
4	L2	68	0	72	0.0	0.071	18.6	LOS B	1.1	7.9	0.50	0.69	0.50	35.9
5	T1	516	24	543	4.7	0.327	22.5	LOS B	6.0	43.6	0.70	0.60	0.70	35.6
6	R2	31	1	33	3.2	0.144	54.2	LOS D	1.0	7.2	0.93	0.72	0.93	18.1
Approach		615	25	647	4.1	0.327	23.7	LOS B	6.0	43.6	0.69	0.62	0.69	34.4
North: Steel St N														
7	L2	70	2	74	2.9	0.654	53.5	LOS D	6.7	48.0	0.98	0.83	1.00	19.4
8	T1	128	2	135	1.6	* 0.654	47.9	LOS D	6.7	48.0	0.98	0.83	1.00	15.9
9	R2	73	14	77	19.2	* 0.664	65.6	LOS E	2.8	22.4	1.00	0.82	1.12	13.9
Approach		271	18	285	6.6	0.664	54.1	LOS D	6.7	48.0	0.99	0.83	1.03	16.2
West: King St West														
10	L2	101	3	106	3.0	0.107	18.5	LOS B	1.7	12.1	0.51	0.70	0.51	29.3
11	T1	942	17	992	1.8	* 0.669	26.0	LOS B	13.0	92.4	0.82	0.72	0.82	33.5
12	R2	147	1	155	0.7	* 0.669	59.0	LOS E	5.2	36.9	1.00	0.83	1.05	18.2
Approach		1190	21	1253	1.8	0.669	29.4	LOS C	13.0	92.4	0.81	0.73	0.82	30.5
All Vehicles		2252	77	2371	3.4	0.669	32.5	LOS C	13.0	92.4	0.81	0.71	0.82	28.3

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St S												
P1	Full	27	28	50.7	LOS E	0.1	0.1	0.95	0.95	229.6	214.6	0.93
East: King St East												
P21	Stage 1	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	230.0	214.9	0.93

P22 Stage 2	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	223.8	207.4	0.93
North: Steel St N											
P3 Full	12	13	50.7	LOS E	0.0	0.0	0.95	0.95	230.5	215.8	0.94
West: King St West											
P41 Stage 1	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	229.7	214.7	0.93
P42 Stage 2	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	223.9	207.8	0.93
All Pedestrians	363	382	50.9	LOS E	0.4	0.4	0.95	0.95	227.2	211.6	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.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FD2024.PM (Site Folder: Future w Development 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 104 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	130	2	137	1.5	0.625	47.3	LOS D	6.5	47.0	0.97	0.82	0.97	21.5
2	T1	82	7	86	8.5	0.625	41.7	LOS C	6.5	47.0	0.97	0.82	0.97	17.0
3	R2	53	0	56	0.0	0.289	53.6	LOS D	1.7	11.6	0.96	0.75	0.96	21.7
Approach		265	9	279	3.4	0.625	46.8	LOS D	6.5	47.0	0.97	0.80	0.97	20.3
East: King St East														
4	L2	85	0	89	0.0	0.094	19.4	LOS B	1.4	9.8	0.54	0.70	0.54	35.4
5	T1	922	15	971	1.6	* 0.759	32.2	LOS C	13.3	94.5	0.92	0.83	0.95	30.3
6	R2	60	0	63	0.0	0.235	49.0	LOS D	1.8	12.5	0.92	0.75	0.92	19.4
Approach		1067	15	1123	1.4	0.759	32.2	LOS C	13.3	94.5	0.89	0.82	0.92	29.9
North: Steel St N														
7	L2	72	0	76	0.0	0.742	52.5	LOS D	7.6	53.8	1.00	0.89	1.10	19.7
8	T1	158	4	166	2.5	* 0.742	47.0	LOS D	7.6	53.8	1.00	0.89	1.10	16.2
9	R2	132	10	139	7.6	* 0.746	58.9	LOS E	4.6	34.0	1.00	0.88	1.17	15.3
Approach		362	14	381	3.9	0.746	52.4	LOS D	7.6	53.8	1.00	0.89	1.12	16.5
West: King St West														
10	L2	77	2	81	2.6	0.088	19.4	LOS B	1.3	9.1	0.54	0.70	0.54	28.6
11	T1	658	5	693	0.8	0.508	28.2	LOS B	8.7	61.0	0.83	0.72	0.83	32.3
12	R2	182	1	192	0.5	* 0.711	54.1	LOS D	6.0	42.3	1.00	0.85	1.09	19.2
Approach		917	8	965	0.9	0.711	32.6	LOS C	8.7	61.0	0.84	0.74	0.86	28.7
All Vehicles		2611	46	2748	1.8	0.759	36.6	LOS C	13.3	94.5	0.90	0.80	0.93	26.4

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St S												
P1	Full	14	15	46.2	LOS E	0.0	0.0	0.94	0.94	225.0	214.6	0.95
East: King St East												
P21	Stage 1	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	225.5	214.9	0.95

P22 Stage 2	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	219.2	207.4	0.95
North: Steel St N											
P3 Full	18	19	46.2	LOS E	0.1	0.1	0.94	0.94	226.0	215.8	0.95
West: King St West											
P41 Stage 1	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	225.2	214.7	0.95
P42 Stage 2	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	219.4	207.8	0.95
All Pedestrians	330	347	46.3	LOS E	0.3	0.3	0.95	0.95	222.6	211.6	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.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FB2034.AM (Site Folder: Future Base 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	92	11	97	12.0	0.453	38.1	LOS C	2.1	15.9	0.97	0.77	0.97	16.8
2	T1	44	0	46	0.0	0.564	35.7	LOS C	2.4	16.6	0.99	0.80	1.02	13.3
3	R2	59	0	62	0.0	* 0.564	39.0	LOS C	2.4	16.6	0.99	0.80	1.02	20.2
Approach		195	11	205	5.6	0.564	37.8	LOS C	2.4	16.6	0.98	0.79	1.00	17.3
East: Hunter St East														
4	L2	48	2	51	4.2	0.430	9.0	LOS A	5.5	39.9	0.49	0.45	0.49	35.1
5	T1	489	26	515	5.3	0.430	5.5	LOS A	5.5	39.9	0.49	0.45	0.49	35.2
6	R2	50	1	53	2.0	0.162	15.7	LOS B	0.7	4.8	0.60	0.67	0.60	27.4
Approach		587	29	618	4.9	0.430	6.7	LOS A	5.5	39.9	0.50	0.47	0.50	34.5
North: Steel St North														
7	L2	42	0	44	0.0	0.503	36.0	LOS C	2.7	19.5	0.97	0.77	0.97	20.3
8	T1	82	2	86	2.4	0.503	32.6	LOS C	2.7	19.5	0.97	0.77	0.97	13.7
9	R2	65	0	68	0.0	0.359	37.4	LOS C	1.5	10.2	0.96	0.75	0.96	16.0
Approach		189	2	199	1.1	0.503	35.0	LOS C	2.7	19.5	0.97	0.77	0.97	16.3
West: Hunter St West														
10	L2	24	0	25	0.0	* 0.583	10.1	LOS A	8.7	62.2	0.57	0.53	0.57	31.9
11	T1	701	22	738	3.1	0.583	6.5	LOS A	8.7	62.2	0.57	0.53	0.57	34.6
12	R2	144	18	152	12.5	0.353	13.4	LOS A	1.9	14.5	0.59	0.69	0.59	26.5
Approach		869	40	915	4.6	0.583	7.8	LOS A	8.7	62.2	0.57	0.55	0.57	33.5
All Vehicles		1840	82	1937	4.5	0.583	13.4	LOS A	8.7	62.2	0.63	0.57	0.63	29.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	30.3	LOS D	0.1	0.1	0.92	0.92	209.0	214.4	1.03
East: Hunter St East												
P2	Full	95	100	30.4	LOS D	0.2	0.2	0.92	0.92	208.4	213.6	1.03

North: Steel St North												
P3	Full	68	72	30.3	LOS D	0.1	0.1	0.92	0.92	210.7	216.4	1.03
West: Hunter St West												
P4	Full	46	48	30.3	LOS D	0.1	0.1	0.92	0.92	207.1	212.2	1.02
All		240	253	30.3	LOS D	0.2	0.2	0.92	0.92	208.9	214.2	1.03
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FB2034.PM (Site Folder: Future Base 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 81 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	105	11	111	10.5	0.345	36.6	LOS C	2.4	18.4	0.91	0.77	0.91	17.2
2	T1	76	0	80	0.0	0.551	37.5	LOS C	3.1	21.8	0.97	0.79	0.97	13.0
3	R2	49	0	52	0.0	0.551	40.9	LOS C	3.1	21.8	0.97	0.79	0.97	19.8
Approach		230	11	242	4.8	0.551	37.8	LOS C	3.1	21.8	0.95	0.78	0.95	16.6
East: Hunter St East														
4	L2	73	0	77	0.0	0.621	12.3	LOS A	10.2	72.6	0.62	0.58	0.62	32.5
5	T1	632	12	665	1.9	0.621	8.9	LOS A	10.2	72.6	0.62	0.58	0.62	32.9
6	R2	57	0	60	0.0	* 0.125	12.3	LOS A	0.6	4.1	0.65	0.66	0.65	29.4
Approach		762	12	802	1.6	0.621	9.5	LOS A	10.2	72.6	0.62	0.59	0.62	32.6
North: Steel St North														
7	L2	29	0	31	0.0	0.537	34.2	LOS C	4.7	33.4	0.93	0.78	0.93	21.1
8	T1	176	1	185	0.6	0.537	30.8	LOS C	4.7	33.4	0.93	0.78	0.93	14.4
9	R2	130	0	137	0.0	* 0.616	41.4	LOS C	3.3	23.4	0.99	0.83	1.04	15.1
Approach		335	1	353	0.3	0.616	35.2	LOS C	4.7	33.4	0.96	0.80	0.98	15.3
West: Hunter St West														
10	L2	26	0	27	0.0	0.489	18.3	LOS B	7.5	53.7	0.72	0.64	0.72	25.2
11	T1	414	13	436	3.1	0.489	14.7	LOS B	7.5	53.7	0.72	0.64	0.72	29.7
12	R2	160	15	168	9.4	* 0.590	23.6	LOS B	3.3	25.0	0.81	0.79	0.82	21.0
Approach		600	28	632	4.7	0.590	17.2	LOS B	7.5	53.7	0.74	0.68	0.74	27.5
All Vehicles		1927	52	2028	2.7	0.621	19.7	LOS B	10.2	72.6	0.76	0.67	0.76	25.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	34.8	LOS D	0.1	0.1	0.93	0.93	213.4	214.4	1.00
East: Hunter St East												
P2	Full	95	100	34.9	LOS D	0.2	0.2	0.93	0.93	212.9	213.6	1.00

North: Steel St North												
P3	Full	68	72	34.8	LOS D	0.2	0.2	0.93	0.93	215.2	216.4	1.01
West: Hunter St West												
P4	Full	46	48	34.8	LOS D	0.1	0.1	0.93	0.93	211.6	212.2	1.00
All		240	253	34.8	LOS D	0.2	0.2	0.93	0.93	213.4	214.2	1.00
Pedestrians												

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

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FB2034.AM (Site Folder: Future Base 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 113 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	101	7	106	6.9	0.533	52.2	LOS D	5.2	39.1	0.96	0.80	0.96	20.0
2	T1	56	7	59	12.5	0.533	46.5	LOS D	5.2	39.1	0.96	0.80	0.96	15.8
3	R2	41	1	43	2.4	0.388	64.1	LOS E	1.5	10.7	1.00	0.74	1.00	19.3
Approach		198	15	208	7.6	0.533	53.0	LOS D	5.2	39.1	0.97	0.79	0.97	18.8
East: King St East														
4	L2	79	0	83	0.0	0.079	17.7	LOS B	1.3	8.9	0.49	0.69	0.49	36.6
5	T1	591	27	622	4.6	0.353	20.9	LOS B	6.7	48.7	0.69	0.59	0.69	36.7
6	R2	33	1	35	3.0	0.153	54.3	LOS D	1.1	7.7	0.93	0.73	0.93	18.1
Approach		703	28	740	4.0	0.353	22.1	LOS B	6.7	48.7	0.68	0.61	0.68	35.3
North: Steel St N														
7	L2	72	2	76	2.8	0.753	58.1	LOS E	7.4	52.6	1.00	0.89	1.11	18.3
8	T1	132	2	139	1.5	* 0.753	52.6	LOS D	7.4	52.6	1.00	0.89	1.11	14.9
9	R2	75	17	79	22.7	* 0.797	69.9	LOS E	3.0	24.8	1.00	0.90	1.33	13.2
Approach		279	21	294	7.5	0.797	58.7	LOS E	7.4	52.6	1.00	0.90	1.17	15.2
West: King St West														
10	L2	111	4	117	3.6	0.115	17.6	LOS B	1.8	12.9	0.49	0.69	0.49	29.9
11	T1	1080	19	1137	1.8	* 0.729	24.8	LOS B	15.0	106.4	0.82	0.73	0.82	34.2
12	R2	169	1	178	0.6	* 0.768	61.8	LOS E	6.3	44.1	1.00	0.88	1.16	17.6
Approach		1360	24	1432	1.8	0.768	28.8	LOS C	15.0	106.4	0.82	0.75	0.84	30.9
All Vehicles		2540	88	2674	3.5	0.797	32.1	LOS C	15.0	106.4	0.81	0.73	0.84	28.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St S												
P1	Full	27	28	50.7	LOS E	0.1	0.1	0.95	0.95	229.6	214.6	0.93
East: King St East												
P21	Stage 1	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	230.0	214.9	0.93

P22 Stage 2	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	223.8	207.4	0.93
North: Steel St N											
P3 Full	12	13	50.7	LOS E	0.0	0.0	0.95	0.95	230.5	215.8	0.94
West: King St West											
P41 Stage 1	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	229.7	214.7	0.93
P42 Stage 2	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	223.9	207.8	0.93
All Pedestrians	363	382	50.9	LOS E	0.4	0.4	0.95	0.95	227.2	211.6	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.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FB2034.PM (Site Folder: Future Base 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 104 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	148	2	156	1.4	0.694	48.8	LOS D	7.5	54.3	0.98	0.85	1.02	21.1
2	T1	89	8	94	9.0	0.694	43.2	LOS D	7.5	54.3	0.98	0.85	1.02	16.6
3	R2	61	0	64	0.0	0.332	53.9	LOS D	1.9	13.5	0.97	0.75	0.97	21.6
Approach		298	10	314	3.4	0.694	48.2	LOS D	7.5	54.3	0.98	0.83	1.01	20.0
East: King St East														
4	L2	98	0	103	0.0	0.106	19.0	LOS B	1.6	11.2	0.54	0.70	0.54	35.7
5	T1	1057	17	1113	1.6	* 0.852	38.8	LOS C	17.6	124.9	0.95	0.96	1.09	27.5
6	R2	65	0	68	0.0	0.272	50.3	LOS D	2.0	13.8	0.94	0.76	0.94	19.0
Approach		1220	17	1284	1.4	0.852	37.9	LOS C	17.6	124.9	0.92	0.92	1.04	27.5
North: Steel St N														
7	L2	80	0	84	0.0	0.827	56.8	LOS E	9.0	63.9	1.00	0.96	1.21	18.7
8	T1	176	5	185	2.8	* 0.827	51.2	LOS D	9.0	63.9	1.00	0.96	1.21	15.3
9	R2	148	12	156	8.1	* 0.839	62.9	LOS E	5.4	40.3	1.00	0.96	1.33	14.5
Approach		404	17	425	4.2	0.839	56.6	LOS E	9.0	63.9	1.00	0.96	1.25	15.7
West: King St West														
10	L2	82	2	86	2.4	0.092	18.9	LOS B	1.3	9.5	0.53	0.70	0.53	29.0
11	T1	754	6	794	0.8	0.573	28.2	LOS B	10.2	72.1	0.85	0.74	0.85	32.3
12	R2	208	1	219	0.5	* 0.870	63.0	LOS E	7.7	54.0	1.00	0.97	1.34	17.4
Approach		1044	9	1099	0.9	0.870	34.4	LOS C	10.2	72.1	0.86	0.78	0.92	28.0
All Vehicles		2966	53	3122	1.8	0.870	40.2	LOS C	17.6	124.9	0.91	0.87	1.03	25.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
		ped/h	ped/h	sec						sec	m	m/sec
South: Steel St S												
P1	Full	14	15	46.2	LOS E	0.0	0.0	0.94	0.94	225.0	214.6	0.95
East: King St East												
P21	Stage 1	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	225.5	214.9	0.95

P22 Stage 2	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	219.2	207.4	0.95
North: Steel St N											
P3 Full	18	19	46.2	LOS E	0.1	0.1	0.94	0.94	226.0	215.8	0.95
West: King St West											
P41 Stage 1	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	225.2	214.7	0.95
P42 Stage 2	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	219.4	207.8	0.95
All Pedestrians	330	347	46.3	LOS E	0.3	0.3	0.95	0.95	222.6	211.6	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.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FD2034.AM (Site Folder: Future w Development 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	101	11	106	10.9	0.444	37.0	LOS C	2.2	17.0	0.96	0.78	0.96	17.1
2	T1	49	0	52	0.0	0.565	34.7	LOS C	2.6	18.1	0.98	0.80	1.00	13.5
3	R2	65	0	68	0.0	*0.565	38.0	LOS C	2.6	18.1	0.98	0.80	1.00	20.5
Approach		215	11	226	5.1	0.565	36.8	LOS C	2.6	18.1	0.97	0.79	0.98	17.6
East: Hunter St East														
4	L2	50	2	53	4.0	0.440	9.5	LOS A	5.7	41.9	0.51	0.47	0.51	34.6
5	T1	489	26	515	5.3	0.440	6.1	LOS A	5.7	41.9	0.51	0.47	0.51	34.8
6	R2	50	1	53	2.0	0.168	16.4	LOS B	0.7	4.9	0.62	0.68	0.62	27.1
Approach		589	29	620	4.9	0.440	7.2	LOS A	5.7	41.9	0.52	0.49	0.52	34.1
North: Steel St North														
7	L2	42	0	44	0.0	0.469	34.8	LOS C	2.8	19.7	0.96	0.77	0.96	20.7
8	T1	86	2	91	2.3	0.469	31.4	LOS C	2.8	19.7	0.96	0.77	0.96	14.0
9	R2	65	0	68	0.0	0.338	37.2	LOS C	1.4	10.1	0.96	0.75	0.96	16.1
Approach		193	2	203	1.0	0.469	34.1	LOS C	2.8	19.7	0.96	0.76	0.96	16.5
West: Hunter St West														
10	L2	24	0	25	0.0	*0.602	10.7	LOS A	9.0	64.9	0.60	0.55	0.60	31.3
11	T1	701	22	738	3.1	0.602	7.1	LOS A	9.0	64.9	0.60	0.55	0.60	34.2
12	R2	151	18	159	11.9	0.381	14.1	LOS A	2.1	15.8	0.61	0.70	0.61	26.0
Approach		876	40	922	4.6	0.602	8.4	LOS A	9.0	64.9	0.60	0.57	0.60	33.0
All Vehicles		1873	82	1972	4.4	0.602	13.9	LOS A	9.0	64.9	0.65	0.59	0.65	29.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	30.3	LOS D	0.1	0.1	0.92	0.92	209.0	214.4	1.03
East: Hunter St East												
P2	Full	95	100	30.4	LOS D	0.2	0.2	0.92	0.92	208.4	213.6	1.03

North: Steel St North												
P3	Full	68	72	30.3	LOS D	0.1	0.1	0.92	0.92	210.7	216.4	1.03
West: Hunter St West												
P4	Full	46	48	30.3	LOS D	0.1	0.1	0.92	0.92	207.1	212.2	1.02
All		240	253	30.3	LOS D	0.2	0.2	0.92	0.92	208.9	214.2	1.03
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FD2034.PM (Site Folder: Future w Development 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 81 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	108	11	114	10.2	0.355	36.7	LOS C	2.5	18.9	0.92	0.77	0.92	17.2
2	T1	78	0	82	0.0	0.567	37.7	LOS C	3.2	22.4	0.98	0.79	0.98	12.9
3	R2	50	0	53	0.0	* 0.567	41.0	LOS C	3.2	22.4	0.98	0.79	0.98	19.8
Approach		236	11	248	4.7	0.567	37.9	LOS C	3.2	22.4	0.95	0.78	0.95	16.6
East: Hunter St East														
4	L2	76	0	80	0.0	0.615	12.3	LOS A	10.3	73.1	0.62	0.58	0.62	32.5
5	T1	632	12	665	1.9	0.615	8.9	LOS A	10.3	73.1	0.62	0.58	0.62	32.9
6	R2	57	0	60	0.0	0.119	13.9	LOS A	0.7	5.2	0.53	0.65	0.53	28.5
Approach		765	12	805	1.6	0.615	9.6	LOS A	10.3	73.1	0.61	0.59	0.61	32.5
North: Steel St North														
7	L2	29	0	31	0.0	0.567	35.2	LOS C	5.0	35.2	0.95	0.79	0.95	20.8
8	T1	184	1	194	0.5	0.567	31.8	LOS C	5.0	35.2	0.95	0.79	0.95	14.1
9	R2	130	0	137	0.0	0.620	41.5	LOS C	3.3	23.4	0.99	0.83	1.05	15.0
Approach		343	1	361	0.3	0.620	35.8	LOS C	5.0	35.2	0.96	0.80	0.99	15.2
West: Hunter St West														
10	L2	26	0	27	0.0	0.376	10.9	LOS A	5.2	37.6	0.51	0.46	0.51	31.1
11	T1	414	13	436	3.1	0.376	7.3	LOS A	5.2	37.6	0.51	0.46	0.51	34.0
12	R2	167	15	176	9.0	* 0.618	24.5	LOS B	3.6	26.9	0.82	0.81	0.86	20.6
Approach		607	28	639	4.6	0.618	12.2	LOS A	5.2	37.6	0.59	0.56	0.60	30.2
All Vehicles		1951	52	2054	2.7	0.620	18.4	LOS B	10.3	73.1	0.71	0.64	0.72	26.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	34.8	LOS D	0.1	0.1	0.93	0.93	213.4	214.4	1.00
East: Hunter St East												
P2	Full	95	100	34.9	LOS D	0.2	0.2	0.93	0.93	212.9	213.6	1.00

North: Steel St North												
P3	Full	68	72	34.8	LOS D	0.2	0.2	0.93	0.93	215.2	216.4	1.01
West: Hunter St West												
P4	Full	46	48	34.8	LOS D	0.1	0.1	0.93	0.93	211.6	212.2	1.00
All		240	253	34.8	LOS D	0.2	0.2	0.93	0.93	213.4	214.2	1.00
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FD2034.AM (Site Folder: Future w Development 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 113 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	101	7	106	6.9	0.520	51.2	LOS D	5.2	39.4	0.95	0.80	0.95	20.2
2	T1	59	7	62	11.9	0.520	45.6	LOS D	5.2	39.4	0.95	0.80	0.95	16.0
3	R2	41	1	43	2.4	0.339	62.5	LOS E	1.5	10.5	0.99	0.74	0.99	19.6
Approach		201	15	212	7.5	0.520	51.9	LOS D	5.2	39.4	0.96	0.79	0.96	19.0
East: King St East														
4	L2	79	0	83	0.0	0.081	18.2	LOS B	1.3	9.1	0.50	0.69	0.50	36.2
5	T1	591	27	622	4.6	0.367	22.3	LOS B	6.9	50.3	0.71	0.61	0.71	35.7
6	R2	35	1	37	2.9	0.163	54.4	LOS D	1.1	8.2	0.93	0.73	0.93	18.1
Approach		705	28	742	4.0	0.367	23.5	LOS B	6.9	50.3	0.70	0.63	0.70	34.5
North: Steel St N														
7	L2	79	2	83	2.5	0.780	58.5	LOS E	8.2	58.4	1.00	0.92	1.14	18.2
8	T1	145	2	153	1.4	* 0.780	53.0	LOS D	8.2	58.4	1.00	0.92	1.14	14.9
9	R2	83	17	87	20.5	* 0.762	67.7	LOS E	3.2	26.4	1.00	0.88	1.25	13.5
Approach		307	21	323	6.8	0.780	58.4	LOS E	8.2	58.4	1.00	0.91	1.17	15.3
West: King St West														
10	L2	116	4	122	3.4	0.121	18.1	LOS B	1.9	13.8	0.50	0.70	0.50	29.5
11	T1	1080	19	1137	1.8	* 0.760	26.8	LOS B	15.4	109.4	0.85	0.76	0.85	33.0
12	R2	169	1	178	0.6	* 0.768	61.8	LOS E	6.3	44.1	1.00	0.88	1.16	17.6
Approach		1365	24	1437	1.8	0.768	30.4	LOS C	15.4	109.4	0.84	0.77	0.86	30.1
All Vehicles		2578	88	2714	3.4	0.780	33.5	LOS C	15.4	109.4	0.83	0.75	0.86	27.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
		ped/h	ped/h	sec						sec	m	m/sec
South: Steel St S												
P1	Full	27	28	50.7	LOS E	0.1	0.1	0.95	0.95	229.6	214.6	0.93
East: King St East												
P21	Stage 1	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	230.0	214.9	0.93

P22 Stage 2	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	223.8	207.4	0.93
North: Steel St N											
P3 Full	12	13	50.7	LOS E	0.0	0.0	0.95	0.95	230.5	215.8	0.94
West: King St West											
P41 Stage 1	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	229.7	214.7	0.93
P42 Stage 2	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	223.9	207.8	0.93
All Pedestrians	363	382	50.9	LOS E	0.4	0.4	0.95	0.95	227.2	211.6	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.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FD2034.PM (Site Folder: Future w Development 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 104 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	148	2	156	1.4	0.710	49.3	LOS D	7.7	55.7	0.99	0.86	1.04	20.9
2	T1	93	8	98	8.6	0.710	43.7	LOS D	7.7	55.7	0.99	0.86	1.04	16.5
3	R2	61	0	64	0.0	0.332	53.9	LOS D	1.9	13.5	0.97	0.75	0.97	21.6
Approach		302	10	318	3.3	0.710	48.5	LOS D	7.7	55.7	0.98	0.84	1.03	19.9
East: King St East														
4	L2	98	0	103	0.0	0.106	19.0	LOS B	1.6	11.2	0.54	0.70	0.54	35.7
5	T1	1057	17	1113	1.6	* 0.854	39.0	LOS C	17.6	124.9	0.95	0.96	1.10	27.4
6	R2	68	0	72	0.0	0.285	50.4	LOS D	2.1	14.4	0.94	0.76	0.94	19.0
Approach		1223	17	1287	1.4	0.854	38.0	LOS C	17.6	124.9	0.92	0.93	1.04	27.4
North: Steel St N														
7	L2	82	0	86	0.0	0.850	58.5	LOS E	9.4	67.1	1.00	0.99	1.25	18.3
8	T1	181	5	191	2.8	* 0.850	53.0	LOS D	9.4	67.1	1.00	0.99	1.25	14.9
9	R2	152	12	160	7.9	* 0.860	64.5	LOS E	5.6	42.0	1.00	0.98	1.37	14.3
Approach		415	17	437	4.1	0.860	58.3	LOS E	9.4	67.1	1.00	0.99	1.30	15.3
West: King St West														
10	L2	86	2	91	2.3	0.096	18.9	LOS B	1.4	10.0	0.53	0.70	0.53	28.9
11	T1	754	6	794	0.8	0.574	28.2	LOS B	10.3	72.3	0.85	0.74	0.85	32.3
12	R2	208	1	219	0.5	* 0.870	63.0	LOS E	7.7	54.0	1.00	0.97	1.34	17.4
Approach		1048	9	1103	0.9	0.870	34.4	LOS C	10.3	72.3	0.85	0.78	0.92	28.0
All Vehicles		2988	53	3145	1.8	0.870	40.6	LOS C	17.6	124.9	0.91	0.88	1.03	24.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
		ped/h	ped/h	sec						sec	m	m/sec
South: Steel St S												
P1	Full	14	15	46.2	LOS E	0.0	0.0	0.94	0.94	225.0	214.6	0.95
East: King St East												
P21	Stage 1	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	225.5	214.9	0.95

P22 Stage 2	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	219.2	207.4	0.95
North: Steel St N											
P3 Full	18	19	46.2	LOS E	0.1	0.1	0.94	0.94	226.0	215.8	0.95
West: King St West											
P41 Stage 1	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	225.2	214.7	0.95
P42 Stage 2	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	219.4	207.8	0.95
All Pedestrians	330	347	46.3	LOS E	0.3	0.3	0.95	0.95	222.6	211.6	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.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (Ave queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St Ex.AM (Site Folder: Existing)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	77	9	81	11.7	0.378	37.7	LOS C	2.8	21.4	0.96	0.76	0.96	16.9
2	T1	37	0	39	0.0	* 0.441	33.9	LOS C	3.1	22.0	0.96	0.77	0.96	13.8
3	R2	50	0	53	0.0	0.441	37.2	LOS C	3.1	22.0	0.96	0.77	0.96	20.7
Approach		164	9	173	5.5	0.441	36.7	LOS C	3.1	22.0	0.96	0.76	0.96	17.6
East: Hunter St East														
4	L2	41	2	43	4.9	0.362	8.6	LOS A	7.0	51.4	0.45	0.42	0.45	35.3
5	T1	411	22	433	5.4	0.362	5.2	LOS A	7.0	51.4	0.45	0.42	0.45	35.4
6	R2	42	1	44	2.4	0.109	12.9	LOS A	0.8	5.7	0.53	0.64	0.53	29.0
Approach		494	25	520	5.1	0.362	6.1	LOS A	7.0	51.4	0.46	0.44	0.46	34.9
North: Steel St North														
7	L2	35	0	37	0.0	0.423	35.5	LOS C	3.7	26.3	0.96	0.76	0.96	20.5
8	T1	69	2	73	2.9	0.423	32.1	LOS C	3.7	26.3	0.96	0.76	0.96	13.8
9	R2	55	0	58	0.0	0.320	38.2	LOS C	2.0	14.2	0.97	0.74	0.97	15.8
Approach		159	2	167	1.3	0.423	35.0	LOS C	3.7	26.3	0.96	0.75	0.96	16.3
West: Hunter St West														
10	L2	20	0	21	0.0	* 0.491	9.4	LOS A	10.8	77.3	0.52	0.47	0.52	32.6
11	T1	590	19	621	3.2	0.491	5.9	LOS A	10.8	77.3	0.52	0.47	0.52	35.1
12	R2	121	15	127	12.4	0.256	11.6	LOS A	2.2	17.4	0.52	0.65	0.52	27.8
Approach		731	34	769	4.7	0.491	6.9	LOS A	10.8	77.3	0.52	0.50	0.52	34.1
All Vehicles		1548	70	1629	4.5	0.491	12.7	LOS A	10.8	77.3	0.59	0.54	0.59	30.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	30.3	LOS D	0.1	0.1	0.92	0.92	209.0	214.4	1.03
East: Hunter St East												
P2	Full	95	100	30.4	LOS D	0.2	0.2	0.92	0.92	208.4	213.6	1.03

North: Steel St North												
P3	Full	68	72	30.3	LOS D	0.1	0.1	0.92	0.92	210.7	216.4	1.03
West: Hunter St West												
P4	Full	46	48	30.3	LOS D	0.1	0.1	0.92	0.92	207.1	212.2	1.02
All		240	253	30.3	LOS D	0.2	0.2	0.92	0.92	208.9	214.2	1.03
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St Ex.PM (Site Folder: Existing)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 81 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	88	9	93	10.2	0.289	36.2	LOS C	3.3	24.8	0.90	0.76	0.90	17.3
2	T1	64	0	67	0.0	0.408	34.7	LOS C	4.1	28.4	0.93	0.77	0.93	13.7
3	R2	41	0	43	0.0	* 0.408	38.1	LOS C	4.1	28.4	0.93	0.77	0.93	20.6
Approach		193	9	203	4.7	0.408	36.1	LOS C	4.1	28.4	0.92	0.76	0.92	17.1
East: Hunter St East														
4	L2	61	0	64	0.0	0.491	11.5	LOS A	12.8	90.6	0.56	0.53	0.56	33.1
5	T1	531	10	559	1.9	0.491	8.1	LOS A	12.8	90.6	0.56	0.53	0.56	33.4
6	R2	48	0	51	0.0	0.089	12.6	LOS A	0.9	6.6	0.49	0.63	0.49	29.2
Approach		640	10	674	1.6	0.491	8.8	LOS A	12.8	90.6	0.56	0.53	0.56	33.1
North: Steel St North														
7	L2	24	0	25	0.0	0.459	34.4	LOS C	6.4	45.2	0.92	0.76	0.92	21.1
8	T1	148	1	156	0.7	0.459	31.0	LOS C	6.4	45.2	0.92	0.76	0.92	14.3
9	R2	109	0	115	0.0	0.440	37.2	LOS C	4.3	29.8	0.94	0.78	0.94	16.1
Approach		281	1	296	0.4	0.459	33.7	LOS C	6.4	45.2	0.93	0.77	0.93	15.8
West: Hunter St West														
10	L2	22	0	23	0.0	0.316	10.5	LOS A	6.8	49.1	0.48	0.43	0.48	31.4
11	T1	348	11	366	3.2	0.316	6.9	LOS A	6.8	49.1	0.48	0.43	0.48	34.3
12	R2	135	13	142	9.6	* 0.394	18.5	LOS B	3.7	28.3	0.68	0.72	0.68	23.4
Approach		505	24	532	4.8	0.394	10.2	LOS A	6.8	49.1	0.53	0.51	0.53	31.5
All Vehicles		1619	44	1704	2.7	0.491	16.8	LOS B	12.8	90.6	0.66	0.60	0.66	27.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	34.8	LOS D	0.1	0.1	0.93	0.93	213.4	214.4	1.00
East: Hunter St East												
P2	Full	95	100	34.9	LOS D	0.2	0.2	0.93	0.93	212.9	213.6	1.00

North: Steel St North												
P3	Full	68	72	34.8	LOS D	0.2	0.2	0.93	0.93	215.2	216.4	1.01
West: Hunter St West												
P4	Full	46	48	34.8	LOS D	0.1	0.1	0.93	0.93	211.6	212.2	1.00
All		240	253	34.8	LOS D	0.2	0.2	0.93	0.93	213.4	214.2	1.00
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 **Site: TCS0923 [King St - Steel St Ex.AM (Site Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 113 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	85	6	89	7.1	0.426	50.2	LOS D	6.9	52.1	0.93	0.78	0.93	20.4
2	T1	47	6	49	12.8	0.426	44.6	LOS D	6.9	52.1	0.93	0.78	0.93	16.2
3	R2	35	1	37	2.9	0.290	62.2	LOS E	2.0	14.6	0.98	0.73	0.98	19.7
Approach		167	13	176	7.8	0.426	51.2	LOS D	6.9	52.1	0.94	0.77	0.94	19.2
East: King St East														
4	L2	66	0	69	0.0	0.069	18.6	LOS B	1.8	12.5	0.50	0.68	0.50	35.9
5	T1	497	23	523	4.6	0.315	22.3	LOS B	9.4	68.1	0.70	0.60	0.70	35.7
6	R2	28	1	29	3.6	0.122	53.0	LOS D	1.5	10.5	0.91	0.72	0.91	18.4
Approach		591	24	622	4.1	0.315	23.4	LOS B	9.4	68.1	0.69	0.61	0.69	34.5
North: Steel St N														
7	L2	61	2	64	3.3	0.601	53.5	LOS D	9.5	67.6	0.98	0.81	0.98	19.4
8	T1	111	2	117	1.8	* 0.601	48.0	LOS D	9.5	67.6	0.98	0.81	0.98	15.9
9	R2	63	14	66	22.2	* 0.584	64.6	LOS E	3.8	31.8	1.00	0.79	1.05	14.0
Approach		235	18	247	7.7	0.601	53.9	LOS D	9.5	67.6	0.98	0.80	1.00	16.2
West: King St West														
10	L2	93	3	98	3.2	0.099	18.4	LOS B	2.5	18.1	0.50	0.69	0.50	29.3
11	T1	908	16	956	1.8	* 0.611	25.6	LOS B	20.1	142.9	0.81	0.71	0.81	33.7
12	R2	142	1	149	0.7	* 0.603	56.9	LOS E	8.0	56.5	0.99	0.80	0.99	18.6
Approach		1143	20	1203	1.7	0.611	28.9	LOS C	20.1	142.9	0.80	0.72	0.80	30.8
All Vehicles		2136	75	2248	3.5	0.611	31.9	LOS C	20.1	142.9	0.80	0.70	0.80	28.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m					
South: Steel St S												
P1	Full	27	28	50.7	LOS E	0.1	0.1	0.95	0.95	229.6	214.6	0.93
East: King St East												
P21	Stage 1	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	230.0	214.9	0.93
P22	Stage 2	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	223.8	207.4	0.93

North: Steel St N												
P3 Full	12	13	50.7	LOS E	0.0	0.0	0.95	0.95	230.5	215.8	0.94	
West: King St West												
P41 Stage 1	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	229.7	214.7	0.93	
P42 Stage 2	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	223.9	207.8	0.93	
All Pedestrians	363	382	50.9	LOS E	0.4	0.4	0.95	0.95	227.2	211.6	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.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 **Site: TCS0923 [King St - Steel St Ex.PM (Site Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 104 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	125	2	132	1.6	0.586	46.9	LOS D	9.9	71.9	0.96	0.81	0.96	21.6
2	T1	75	7	79	9.3	0.586	41.3	LOS C	9.9	71.9	0.96	0.81	0.96	17.1
3	R2	51	0	54	0.0	0.278	53.5	LOS D	2.6	18.3	0.96	0.75	0.96	21.7
Approach		251	9	264	3.6	0.586	46.6	LOS D	9.9	71.9	0.96	0.80	0.96	20.5
East: King St East														
4	L2	82	0	86	0.0	0.090	19.4	LOS B	2.2	15.5	0.54	0.70	0.54	35.4
5	T1	888	14	935	1.6	* 0.727	30.8	LOS C	20.2	143.7	0.91	0.80	0.91	30.9
6	R2	55	0	58	0.0	0.215	48.9	LOS D	2.7	18.6	0.92	0.75	0.92	19.4
Approach		1025	14	1079	1.4	0.727	30.9	LOS C	20.2	143.7	0.88	0.79	0.88	30.5
North: Steel St N														
7	L2	67	0	71	0.0	0.695	51.1	LOS D	11.3	80.1	0.99	0.86	1.04	20.1
8	T1	148	4	156	2.7	* 0.695	45.6	LOS D	11.3	80.1	0.99	0.86	1.04	16.6
9	R2	124	10	131	8.1	* 0.703	57.8	LOS E	6.9	51.5	1.00	0.85	1.12	15.5
Approach		339	14	357	4.1	0.703	51.1	LOS D	11.3	80.1	1.00	0.85	1.07	16.8
West: King St West														
10	L2	69	2	73	2.9	0.079	19.3	LOS B	1.8	13.3	0.54	0.69	0.54	28.7
11	T1	634	5	667	0.8	0.487	28.0	LOS B	13.4	94.4	0.83	0.71	0.83	32.4
12	R2	175	1	184	0.6	* 0.683	53.5	LOS D	9.3	65.6	1.00	0.84	1.06	19.4
Approach		878	8	924	0.9	0.683	32.4	LOS C	13.4	94.4	0.84	0.74	0.85	28.9
All Vehicles		2493	45	2624	1.8	0.727	35.7	LOS C	20.2	143.7	0.89	0.78	0.91	26.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St S												
P1	Full	14	15	46.2	LOS E	0.0	0.0	0.94	0.94	225.0	214.6	0.95
East: King St East												
P21	Stage 1	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	225.5	214.9	0.95
P22	Stage 2	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	219.2	207.4	0.95

North: Steel St N												
P3 Full	18	19	46.2	LOS E	0.1	0.1	0.94	0.94	226.0	215.8	0.95	
West: King St West												
P41 Stage 1	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	225.2	214.7	0.95	
P42 Stage 2	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	219.4	207.8	0.95	
All Pedestrians	330	347	46.3	LOS E	0.3	0.3	0.95	0.95	222.6	211.6	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.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FB2024.AM (Site Folder: Future Base 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	80	9	84	11.3	0.392	37.8	LOS C	2.9	22.2	0.96	0.76	0.96	16.9
2	T1	38	0	40	0.0	0.473	34.9	LOS C	3.3	23.2	0.97	0.77	0.97	13.5
3	R2	52	0	55	0.0	* 0.473	38.3	LOS C	3.3	23.2	0.97	0.77	0.97	20.4
Approach		170	9	179	5.3	0.473	37.3	LOS C	3.3	23.2	0.97	0.77	0.97	17.4
East: Hunter St East														
4	L2	42	2	44	4.8	0.376	8.7	LOS A	7.4	54.1	0.46	0.43	0.46	35.3
5	T1	427	23	449	5.4	0.376	5.3	LOS A	7.4	54.1	0.46	0.43	0.46	35.4
6	R2	44	1	46	2.3	0.119	13.5	LOS A	0.9	6.2	0.54	0.65	0.54	28.6
Approach		513	26	540	5.1	0.376	6.3	LOS A	7.4	54.1	0.47	0.45	0.47	34.8
North: Steel St North														
7	L2	36	0	38	0.0	0.438	35.6	LOS C	3.9	27.4	0.96	0.76	0.96	20.5
8	T1	72	2	76	2.8	0.438	32.2	LOS C	3.9	27.4	0.96	0.76	0.96	13.8
9	R2	57	0	60	0.0	0.298	37.0	LOS C	2.1	14.4	0.96	0.74	0.96	16.1
Approach		165	2	174	1.2	0.438	34.6	LOS C	3.9	27.4	0.96	0.75	0.96	16.3
West: Hunter St West														
10	L2	21	0	22	0.0	* 0.509	9.6	LOS A	11.4	81.8	0.53	0.48	0.53	32.4
11	T1	612	20	644	3.3	0.509	6.0	LOS A	11.4	81.8	0.53	0.48	0.53	35.0
12	R2	126	16	133	12.7	0.275	11.7	LOS A	2.4	18.5	0.53	0.66	0.53	27.7
Approach		759	36	799	4.7	0.509	7.1	LOS A	11.4	81.8	0.53	0.51	0.53	34.0
All Vehicles		1607	73	1692	4.5	0.509	12.8	LOS A	11.4	81.8	0.60	0.54	0.60	29.9

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	30.3	LOS D	0.1	0.1	0.92	0.92	209.0	214.4	1.03
East: Hunter St East												
P2	Full	95	100	30.4	LOS D	0.2	0.2	0.92	0.92	208.4	213.6	1.03

North: Steel St North												
P3	Full	68	72	30.3	LOS D	0.1	0.1	0.92	0.92	210.7	216.4	1.03
West: Hunter St West												
P4	Full	46	48	30.3	LOS D	0.1	0.1	0.92	0.92	207.1	212.2	1.02
All		240	253	30.3	LOS D	0.2	0.2	0.92	0.92	208.9	214.2	1.03
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FB2024.PM (Site Folder: Future Base 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 81 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	91	9	96	9.9	0.298	36.3	LOS C	3.4	25.6	0.90	0.76	0.90	17.3
2	T1	66	0	69	0.0	0.442	35.8	LOS C	4.3	30.0	0.95	0.77	0.95	13.4
3	R2	43	0	45	0.0	* 0.442	39.2	LOS C	4.3	30.0	0.95	0.77	0.95	20.3
Approach		200	9	211	4.5	0.442	36.8	LOS C	4.3	30.0	0.93	0.77	0.93	16.9
East: Hunter St East														
4	L2	63	0	66	0.0	0.509	11.6	LOS A	13.5	95.6	0.57	0.54	0.57	33.0
5	T1	551	10	580	1.8	0.509	8.2	LOS A	13.5	95.6	0.57	0.54	0.57	33.3
6	R2	50	0	53	0.0	0.095	12.6	LOS A	1.0	6.9	0.49	0.63	0.49	29.2
Approach		664	10	699	1.5	0.509	8.9	LOS A	13.5	95.6	0.57	0.54	0.57	33.0
North: Steel St North														
7	L2	25	0	26	0.0	0.477	34.5	LOS C	6.7	47.3	0.93	0.76	0.93	21.0
8	T1	154	1	162	0.6	0.477	31.1	LOS C	6.7	47.3	0.93	0.76	0.93	14.3
9	R2	113	0	119	0.0	0.483	38.4	LOS C	4.5	31.5	0.96	0.78	0.96	15.8
Approach		292	1	307	0.3	0.483	34.2	LOS C	6.7	47.3	0.94	0.77	0.94	15.6
West: Hunter St West														
10	L2	23	0	24	0.0	0.328	10.6	LOS A	7.2	51.4	0.49	0.44	0.49	31.3
11	T1	361	11	380	3.0	0.328	7.0	LOS A	7.2	51.4	0.49	0.44	0.49	34.2
12	R2	140	13	147	9.3	* 0.426	19.5	LOS B	4.0	30.4	0.70	0.73	0.70	22.9
Approach		524	24	552	4.6	0.426	10.5	LOS A	7.2	51.4	0.54	0.52	0.54	31.3
All Vehicles		1680	44	1768	2.6	0.509	17.1	LOS B	13.5	95.6	0.67	0.60	0.67	27.0

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	34.8	LOS D	0.1	0.1	0.93	0.93	213.4	214.4	1.00
East: Hunter St East												
P2	Full	95	100	34.9	LOS D	0.2	0.2	0.93	0.93	212.9	213.6	1.00

North: Steel St North												
P3	Full	68	72	34.8	LOS D	0.2	0.2	0.93	0.93	215.2	216.4	1.01
West: Hunter St West												
P4	Full	46	48	34.8	LOS D	0.1	0.1	0.93	0.93	211.6	212.2	1.00
All		240	253	34.8	LOS D	0.2	0.2	0.93	0.93	213.4	214.2	1.00
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FB2024.AM (Site Folder: Future Base 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 113 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	88	6	93	6.8	0.442	50.4	LOS D	7.2	54.1	0.93	0.78	0.93	20.4
2	T1	49	6	52	12.2	0.442	44.8	LOS D	7.2	54.1	0.93	0.78	0.93	16.2
3	R2	36	1	38	2.8	0.299	62.3	LOS E	2.1	15.0	0.98	0.73	0.98	19.7
Approach		173	13	182	7.5	0.442	51.3	LOS D	7.2	54.1	0.94	0.77	0.94	19.2
East: King St East														
4	L2	68	0	72	0.0	0.071	18.6	LOS B	1.8	12.9	0.50	0.69	0.50	35.9
5	T1	516	24	543	4.7	0.327	22.5	LOS B	9.8	71.2	0.70	0.60	0.70	35.6
6	R2	29	1	31	3.4	0.126	53.0	LOS D	1.5	10.9	0.92	0.72	0.92	18.4
Approach		613	25	645	4.1	0.327	23.5	LOS B	9.8	71.2	0.69	0.62	0.69	34.5
North: Steel St N														
7	L2	63	2	66	3.2	0.622	53.7	LOS D	9.8	70.2	0.98	0.81	0.98	19.3
8	T1	115	2	121	1.7	* 0.622	48.2	LOS D	9.8	70.2	0.98	0.81	0.98	15.9
9	R2	65	14	68	21.5	* 0.600	64.7	LOS E	4.0	32.8	1.00	0.79	1.07	14.0
Approach		243	18	256	7.4	0.622	54.1	LOS D	9.8	70.2	0.99	0.81	1.00	16.2
West: King St West														
10	L2	96	3	101	3.1	0.102	18.4	LOS B	2.6	18.7	0.50	0.69	0.50	29.3
11	T1	942	17	992	1.8	* 0.660	26.0	LOS B	21.0	149.5	0.82	0.72	0.82	33.5
12	R2	147	1	155	0.7	* 0.624	57.3	LOS E	8.4	58.9	0.99	0.81	1.01	18.5
Approach		1185	21	1247	1.8	0.660	29.2	LOS C	21.0	149.5	0.81	0.73	0.81	30.7
All Vehicles		2214	77	2331	3.5	0.660	32.1	LOS C	21.0	149.5	0.81	0.71	0.81	28.6

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St S												
P1	Full	27	28	50.7	LOS E	0.1	0.1	0.95	0.95	229.6	214.6	0.93
East: King St East												
P21	Stage 1	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	230.0	214.9	0.93

P22 Stage 2	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	223.8	207.4	0.93
North: Steel St N											
P3 Full	12	13	50.7	LOS E	0.0	0.0	0.95	0.95	230.5	215.8	0.94
West: King St West											
P41 Stage 1	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	229.7	214.7	0.93
P42 Stage 2	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	223.9	207.8	0.93
All Pedestrians	363	382	50.9	LOS E	0.4	0.4	0.95	0.95	227.2	211.6	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.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

Site: TCS0923 [King St - Steel St FB2024.PM (Site Folder: Future Base 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 104 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	130	2	137	1.5	0.609	47.1	LOS D	10.3	75.1	0.96	0.81	0.96	21.5
2	T1	78	7	82	9.0	0.609	41.6	LOS C	10.3	75.1	0.96	0.81	0.96	17.1
3	R2	53	0	56	0.0	0.289	53.6	LOS D	2.7	19.0	0.96	0.75	0.96	21.7
Approach		261	9	275	3.4	0.609	46.8	LOS D	10.3	75.1	0.96	0.80	0.96	20.4
East: King St East														
4	L2	85	0	89	0.0	0.094	19.4	LOS B	2.3	16.1	0.54	0.70	0.54	35.4
5	T1	922	15	971	1.6	* 0.757	32.2	LOS C	21.7	154.3	0.92	0.83	0.95	30.3
6	R2	57	0	60	0.0	0.223	48.9	LOS D	2.8	19.3	0.92	0.75	0.92	19.4
Approach		1064	15	1120	1.4	0.757	32.1	LOS C	21.7	154.3	0.89	0.82	0.92	29.9
North: Steel St N														
7	L2	69	0	73	0.0	0.717	51.7	LOS D	11.8	83.7	1.00	0.87	1.07	19.9
8	T1	153	4	161	2.6	* 0.717	46.2	LOS D	11.8	83.7	1.00	0.87	1.07	16.4
9	R2	128	10	135	7.8	* 0.724	58.3	LOS E	7.2	53.5	1.00	0.87	1.14	15.4
Approach		350	14	368	4.0	0.724	51.7	LOS D	11.8	83.7	1.00	0.87	1.10	16.7
West: King St West														
10	L2	72	2	76	2.8	0.082	19.4	LOS B	1.9	13.8	0.54	0.69	0.54	28.6
11	T1	658	5	693	0.8	0.507	28.2	LOS B	14.1	99.3	0.83	0.72	0.83	32.3
12	R2	182	1	192	0.5	* 0.711	54.1	LOS D	9.8	69.0	1.00	0.85	1.09	19.2
Approach		912	8	960	0.9	0.711	32.7	LOS C	14.1	99.3	0.84	0.74	0.86	28.7
All Vehicles		2587	46	2723	1.8	0.757	36.4	LOS C	21.7	154.3	0.90	0.80	0.93	26.5

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St S												
P1	Full	14	15	46.2	LOS E	0.0	0.0	0.94	0.94	225.0	214.6	0.95
East: King St East												
P21	Stage 1	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	225.5	214.9	0.95

P22 Stage 2	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	219.2	207.4	0.95
North: Steel St N											
P3 Full	18	19	46.2	LOS E	0.1	0.1	0.94	0.94	226.0	215.8	0.95
West: King St West											
P41 Stage 1	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	225.2	214.7	0.95
P42 Stage 2	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	219.4	207.8	0.95
All Pedestrians	330	347	46.3	LOS E	0.3	0.3	0.95	0.95	222.6	211.6	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.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FD2024.AM (Site Folder: Future w Development 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	89	9	94	10.1	0.389	36.7	LOS C	3.2	24.1	0.95	0.77	0.95	17.2
2	T1	43	0	45	0.0	0.482	34.0	LOS C	3.7	25.7	0.97	0.78	0.97	13.7
3	R2	58	0	61	0.0	* 0.482	37.3	LOS C	3.7	25.7	0.97	0.78	0.97	20.7
Approach		190	9	200	4.7	0.482	36.3	LOS C	3.7	25.7	0.96	0.77	0.96	17.7
East: Hunter St East														
4	L2	44	2	46	4.5	0.385	9.2	LOS A	7.8	56.8	0.48	0.45	0.48	34.9
5	T1	427	23	449	5.4	0.385	5.8	LOS A	7.8	56.8	0.48	0.45	0.48	35.0
6	R2	44	1	46	2.3	0.123	14.1	LOS A	0.9	6.4	0.56	0.65	0.56	28.3
Approach		515	26	542	5.0	0.385	6.8	LOS A	7.8	56.8	0.49	0.47	0.49	34.4
North: Steel St North														
7	L2	36	0	38	0.0	0.410	34.5	LOS C	3.9	27.8	0.95	0.76	0.95	20.8
8	T1	76	2	80	2.6	0.410	31.1	LOS C	3.9	27.8	0.95	0.76	0.95	14.1
9	R2	57	0	60	0.0	0.282	35.9	LOS C	2.0	14.2	0.94	0.74	0.94	16.4
Approach		169	2	178	1.2	0.410	33.4	LOS C	3.9	27.8	0.95	0.75	0.95	16.6
West: Hunter St West														
10	L2	21	0	22	0.0	* 0.520	10.1	LOS A	11.9	85.4	0.55	0.50	0.55	31.9
11	T1	612	20	644	3.3	0.520	6.6	LOS A	11.9	85.4	0.55	0.50	0.55	34.6
12	R2	133	16	140	12.0	0.298	12.9	LOS A	2.7	20.8	0.57	0.67	0.57	26.8
Approach		766	36	806	4.7	0.520	7.8	LOS A	11.9	85.4	0.55	0.53	0.55	33.5
All Vehicles		1640	73	1726	4.5	0.520	13.4	LOS A	11.9	85.4	0.62	0.56	0.62	29.6

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	30.3	LOS D	0.1	0.1	0.92	0.92	209.0	214.4	1.03
East: Hunter St East												
P2	Full	95	100	30.4	LOS D	0.2	0.2	0.92	0.92	208.4	213.6	1.03

North: Steel St North												
P3	Full	68	72	30.3	LOS D	0.1	0.1	0.92	0.92	210.7	216.4	1.03
West: Hunter St West												
P4	Full	46	48	30.3	LOS D	0.1	0.1	0.92	0.92	207.1	212.2	1.02
All		240	253	30.3	LOS D	0.2	0.2	0.92	0.92	208.9	214.2	1.03
Pedestrians												

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

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FD2024.PM (Site Folder: Future w Development 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 81 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	94	9	99	9.6	0.307	36.3	LOS C	3.5	26.4	0.91	0.76	0.91	17.3
2	T1	68	0	72	0.0	0.460	36.0	LOS C	4.4	31.0	0.95	0.78	0.95	13.3
3	R2	44	0	46	0.0	* 0.460	39.3	LOS C	4.4	31.0	0.95	0.78	0.95	20.3
Approach		206	9	217	4.4	0.460	36.9	LOS C	4.4	31.0	0.93	0.77	0.93	16.9
East: Hunter St East														
4	L2	66	0	69	0.0	0.513	11.7	LOS A	13.6	96.3	0.58	0.54	0.58	33.0
5	T1	551	10	580	1.8	0.513	8.3	LOS A	13.6	96.3	0.58	0.54	0.58	33.3
6	R2	50	0	53	0.0	0.095	12.6	LOS A	1.0	6.9	0.49	0.63	0.49	29.2
Approach		667	10	702	1.5	0.513	8.9	LOS A	13.6	96.3	0.57	0.55	0.57	33.0
North: Steel St North														
7	L2	25	0	26	0.0	0.498	34.7	LOS C	7.1	49.6	0.93	0.77	0.93	21.0
8	T1	162	1	171	0.6	0.498	31.3	LOS C	7.1	49.6	0.93	0.77	0.93	14.2
9	R2	113	0	119	0.0	0.487	38.5	LOS C	4.5	31.5	0.96	0.78	0.96	15.8
Approach		300	1	316	0.3	0.498	34.3	LOS C	7.1	49.6	0.94	0.77	0.94	15.6
West: Hunter St West														
10	L2	23	0	24	0.0	0.328	10.6	LOS A	7.2	51.4	0.49	0.44	0.49	31.3
11	T1	361	11	380	3.0	0.328	7.0	LOS A	7.2	51.4	0.49	0.44	0.49	34.2
12	R2	147	13	155	8.8	* 0.448	19.7	LOS B	4.3	32.3	0.71	0.74	0.71	22.8
Approach		531	24	559	4.5	0.448	10.7	LOS A	7.2	51.4	0.55	0.52	0.55	31.2
All Vehicles		1704	44	1794	2.6	0.513	17.3	LOS B	13.6	96.3	0.67	0.61	0.67	26.9

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	34.8	LOS D	0.1	0.1	0.93	0.93	213.4	214.4	1.00
East: Hunter St East												
P2	Full	95	100	34.9	LOS D	0.2	0.2	0.93	0.93	212.9	213.6	1.00

North: Steel St North												
P3	Full	68	72	34.8	LOS D	0.2	0.2	0.93	0.93	215.2	216.4	1.01
West: Hunter St West												
P4	Full	46	48	34.8	LOS D	0.1	0.1	0.93	0.93	211.6	212.2	1.00
All		240	253	34.8	LOS D	0.2	0.2	0.93	0.93	213.4	214.2	1.00
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FD2024.AM (Site Folder: Future w Development 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 113 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	88	6	93	6.8	0.434	49.5	LOS D	7.3	54.7	0.93	0.78	0.93	20.7
2	T1	52	6	55	11.5	0.434	43.9	LOS D	7.3	54.7	0.93	0.78	0.93	16.5
3	R2	36	1	38	2.8	0.299	62.3	LOS E	2.1	15.0	0.98	0.73	0.98	19.7
Approach		176	13	185	7.4	0.434	50.4	LOS D	7.3	54.7	0.94	0.77	0.94	19.4
East: King St East														
4	L2	68	0	72	0.0	0.071	18.6	LOS B	1.8	12.9	0.50	0.69	0.50	35.9
5	T1	516	24	543	4.7	0.327	22.5	LOS B	9.8	71.2	0.70	0.60	0.70	35.6
6	R2	31	1	33	3.2	0.144	54.2	LOS D	1.6	11.8	0.93	0.72	0.93	18.1
Approach		615	25	647	4.1	0.327	23.7	LOS B	9.8	71.2	0.69	0.62	0.69	34.4
North: Steel St N														
7	L2	70	2	74	2.9	0.654	53.5	LOS D	11.0	78.3	0.98	0.83	1.00	19.4
8	T1	128	2	135	1.6	* 0.654	47.9	LOS D	11.0	78.3	0.98	0.83	1.00	15.9
9	R2	73	14	77	19.2	* 0.664	65.6	LOS E	4.5	36.6	1.00	0.82	1.12	13.9
Approach		271	18	285	6.6	0.664	54.1	LOS D	11.0	78.3	0.99	0.83	1.03	16.2
West: King St West														
10	L2	101	3	106	3.0	0.107	18.5	LOS B	2.8	19.8	0.51	0.70	0.51	29.3
11	T1	942	17	992	1.8	* 0.669	26.0	LOS B	21.2	150.9	0.82	0.72	0.82	33.5
12	R2	147	1	155	0.7	* 0.669	59.0	LOS E	8.5	60.2	1.00	0.83	1.05	18.2
Approach		1190	21	1253	1.8	0.669	29.4	LOS C	21.2	150.9	0.81	0.73	0.82	30.5
All Vehicles		2252	77	2371	3.4	0.669	32.5	LOS C	21.2	150.9	0.81	0.71	0.82	28.3

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Level of Delay	Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St S												
P1	Full	27	28	50.7	LOS E	0.1	0.1	0.95	0.95	229.6	214.6	0.93
East: King St East												
P21	Stage 1	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	230.0	214.9	0.93

P22 Stage 2	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	223.8	207.4	0.93
North: Steel St N											
P3 Full	12	13	50.7	LOS E	0.0	0.0	0.95	0.95	230.5	215.8	0.94
West: King St West											
P41 Stage 1	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	229.7	214.7	0.93
P42 Stage 2	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	223.9	207.8	0.93
All Pedestrians	363	382	50.9	LOS E	0.4	0.4	0.95	0.95	227.2	211.6	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.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FD2024.PM (Site Folder: Future w Development 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 104 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	130	2	137	1.5	0.625	47.3	LOS D	10.6	76.8	0.97	0.82	0.97	21.5
2	T1	82	7	86	8.5	0.625	41.7	LOS C	10.6	76.8	0.97	0.82	0.97	17.0
3	R2	53	0	56	0.0	0.289	53.6	LOS D	2.7	19.0	0.96	0.75	0.96	21.7
Approach		265	9	279	3.4	0.625	46.8	LOS D	10.6	76.8	0.97	0.80	0.97	20.3
East: King St East														
4	L2	85	0	89	0.0	0.094	19.4	LOS B	2.3	16.1	0.54	0.70	0.54	35.4
5	T1	922	15	971	1.6	* 0.759	32.2	LOS C	21.7	154.2	0.92	0.83	0.95	30.3
6	R2	60	0	63	0.0	0.235	49.0	LOS D	2.9	20.3	0.92	0.75	0.92	19.4
Approach		1067	15	1123	1.4	0.759	32.2	LOS C	21.7	154.2	0.89	0.82	0.92	29.9
North: Steel St N														
7	L2	72	0	76	0.0	0.742	52.5	LOS D	12.4	87.8	1.00	0.89	1.10	19.7
8	T1	158	4	166	2.5	* 0.742	47.0	LOS D	12.4	87.8	1.00	0.89	1.10	16.2
9	R2	132	10	139	7.6	* 0.746	58.9	LOS E	7.4	55.5	1.00	0.88	1.17	15.3
Approach		362	14	381	3.9	0.746	52.4	LOS D	12.4	87.8	1.00	0.89	1.12	16.5
West: King St West														
10	L2	77	2	81	2.6	0.088	19.4	LOS B	2.1	14.8	0.54	0.70	0.54	28.6
11	T1	658	5	693	0.8	0.508	28.2	LOS B	14.1	99.5	0.83	0.72	0.83	32.3
12	R2	182	1	192	0.5	* 0.711	54.1	LOS D	9.8	69.0	1.00	0.85	1.09	19.2
Approach		917	8	965	0.9	0.711	32.6	LOS C	14.1	99.5	0.84	0.74	0.86	28.7
All Vehicles		2611	46	2748	1.8	0.759	36.6	LOS C	21.7	154.2	0.90	0.80	0.93	26.4

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Input Crossing	Dem. Vol.	Aver. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St S												
P1	Full	14	15	46.2	LOS E	0.0	0.0	0.94	0.94	225.0	214.6	0.95
East: King St East												
P21	Stage 1	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	225.5	214.9	0.95

P22 Stage 2	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	219.2	207.4	0.95
North: Steel St N											
P3 Full	18	19	46.2	LOS E	0.1	0.1	0.94	0.94	226.0	215.8	0.95
West: King St West											
P41 Stage 1	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	225.2	214.7	0.95
P42 Stage 2	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	219.4	207.8	0.95
All Pedestrians	330	347	46.3	LOS E	0.3	0.3	0.95	0.95	222.6	211.6	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.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FB2034.AM (Site Folder: Future Base 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	92	11	97	12.0	0.453	38.1	LOS C	3.4	25.9	0.97	0.77	0.97	16.8
2	T1	44	0	46	0.0	0.564	35.7	LOS C	3.9	27.1	0.99	0.80	1.02	13.3
3	R2	59	0	62	0.0	*0.564	39.0	LOS C	3.9	27.1	0.99	0.80	1.02	20.2
Approach		195	11	205	5.6	0.564	37.8	LOS C	3.9	27.1	0.98	0.79	1.00	17.3
East: Hunter St East														
4	L2	48	2	51	4.2	0.430	9.0	LOS A	8.9	65.1	0.49	0.45	0.49	35.1
5	T1	489	26	515	5.3	0.430	5.5	LOS A	8.9	65.1	0.49	0.45	0.49	35.2
6	R2	50	1	53	2.0	0.162	15.7	LOS B	1.1	7.8	0.60	0.67	0.60	27.4
Approach		587	29	618	4.9	0.430	6.7	LOS A	8.9	65.1	0.50	0.47	0.50	34.5
North: Steel St North														
7	L2	42	0	44	0.0	0.503	36.0	LOS C	4.5	31.8	0.97	0.77	0.97	20.3
8	T1	82	2	86	2.4	0.503	32.6	LOS C	4.5	31.8	0.97	0.77	0.97	13.7
9	R2	65	0	68	0.0	0.359	37.4	LOS C	2.4	16.6	0.96	0.75	0.96	16.0
Approach		189	2	199	1.1	0.503	35.0	LOS C	4.5	31.8	0.97	0.77	0.97	16.3
West: Hunter St West														
10	L2	24	0	25	0.0	*0.583	10.1	LOS A	14.1	101.5	0.57	0.53	0.57	31.9
11	T1	701	22	738	3.1	0.583	6.5	LOS A	14.1	101.5	0.57	0.53	0.57	34.6
12	R2	144	18	152	12.5	0.353	13.4	LOS A	3.1	23.7	0.59	0.69	0.59	26.5
Approach		869	40	915	4.6	0.583	7.8	LOS A	14.1	101.5	0.57	0.55	0.57	33.5
All Vehicles		1840	82	1937	4.5	0.583	13.4	LOS A	14.1	101.5	0.63	0.57	0.63	29.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
		ped/h	ped/h	sec			m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	30.3	LOS D	0.1	0.1	0.92	0.92	209.0	214.4	1.03
East: Hunter St East												
P2	Full	95	100	30.4	LOS D	0.2	0.2	0.92	0.92	208.4	213.6	1.03

North: Steel St North												
P3	Full	68	72	30.3	LOS D	0.1	0.1	0.92	0.92	210.7	216.4	1.03
West: Hunter St West												
P4	Full	46	48	30.3	LOS D	0.1	0.1	0.92	0.92	207.1	212.2	1.02
All		240	253	30.3	LOS D	0.2	0.2	0.92	0.92	208.9	214.2	1.03
Pedestrians												

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

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FB2034.PM (Site Folder: Future Base 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 81 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	105	11	111	10.5	0.345	36.6	LOS C	3.9	30.0	0.91	0.77	0.91	17.2
2	T1	76	0	80	0.0	0.551	37.5	LOS C	5.1	35.6	0.97	0.79	0.97	13.0
3	R2	49	0	52	0.0	0.551	40.9	LOS C	5.1	35.6	0.97	0.79	0.97	19.8
Approach		230	11	242	4.8	0.551	37.8	LOS C	5.1	35.6	0.95	0.78	0.95	16.6
East: Hunter St East														
4	L2	73	0	77	0.0	0.621	12.3	LOS A	16.7	118.5	0.62	0.58	0.62	32.5
5	T1	632	12	665	1.9	0.621	8.9	LOS A	16.7	118.5	0.62	0.58	0.62	32.9
6	R2	57	0	60	0.0	* 0.125	12.3	LOS A	0.9	6.6	0.65	0.66	0.65	29.4
Approach		762	12	802	1.6	0.621	9.5	LOS A	16.7	118.5	0.62	0.59	0.62	32.6
North: Steel St North														
7	L2	29	0	31	0.0	0.537	34.2	LOS C	7.8	54.5	0.93	0.78	0.93	21.1
8	T1	176	1	185	0.6	0.537	30.8	LOS C	7.8	54.5	0.93	0.78	0.93	14.4
9	R2	130	0	137	0.0	* 0.616	41.4	LOS C	5.5	38.2	0.99	0.83	1.04	15.1
Approach		335	1	353	0.3	0.616	35.2	LOS C	7.8	54.5	0.96	0.80	0.98	15.3
West: Hunter St West														
10	L2	26	0	27	0.0	0.489	18.3	LOS B	12.2	87.6	0.72	0.64	0.72	25.2
11	T1	414	13	436	3.1	0.489	14.7	LOS B	12.2	87.6	0.72	0.64	0.72	29.7
12	R2	160	15	168	9.4	* 0.590	23.6	LOS B	5.4	40.8	0.81	0.79	0.82	21.0
Approach		600	28	632	4.7	0.590	17.2	LOS B	12.2	87.6	0.74	0.68	0.74	27.5
All Vehicles		1927	52	2028	2.7	0.621	19.7	LOS B	16.7	118.5	0.76	0.67	0.76	25.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St South												
P1	Full	31	33	34.8	LOS D	0.1	0.1	0.93	0.93	213.4	214.4	1.00
East: Hunter St East												
P2	Full	95	100	34.9	LOS D	0.2	0.2	0.93	0.93	212.9	213.6	1.00

North: Steel St North												
P3	Full	68	72	34.8	LOS D	0.2	0.2	0.93	0.93	215.2	216.4	1.01
West: Hunter St West												
P4	Full	46	48	34.8	LOS D	0.1	0.1	0.93	0.93	211.6	212.2	1.00
All		240	253	34.8	LOS D	0.2	0.2	0.93	0.93	213.4	214.2	1.00
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FB2034.AM (Site Folder: Future Base 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 113 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	101	7	106	6.9	0.533	52.2	LOS D	8.5	63.8	0.96	0.80	0.96	20.0
2	T1	56	7	59	12.5	0.533	46.5	LOS D	8.5	63.8	0.96	0.80	0.96	15.8
3	R2	41	1	43	2.4	0.388	64.1	LOS E	2.4	17.4	1.00	0.74	1.00	19.3
Approach		198	15	208	7.6	0.533	53.0	LOS D	8.5	63.8	0.97	0.79	0.97	18.8
East: King St East														
4	L2	79	0	83	0.0	0.079	17.7	LOS B	2.1	14.5	0.49	0.69	0.49	36.6
5	T1	591	27	622	4.6	0.353	20.9	LOS B	10.9	79.5	0.69	0.59	0.69	36.7
6	R2	33	1	35	3.0	0.153	54.3	LOS D	1.7	12.6	0.93	0.73	0.93	18.1
Approach		703	28	740	4.0	0.353	22.1	LOS B	10.9	79.5	0.68	0.61	0.68	35.3
North: Steel St N														
7	L2	72	2	76	2.8	0.753	58.1	LOS E	12.1	85.8	1.00	0.89	1.11	18.3
8	T1	132	2	139	1.5	* 0.753	52.6	LOS D	12.1	85.8	1.00	0.89	1.11	14.9
9	R2	75	17	79	22.7	* 0.797	69.9	LOS E	4.8	40.4	1.00	0.90	1.33	13.2
Approach		279	21	294	7.5	0.797	58.7	LOS E	12.1	85.8	1.00	0.90	1.17	15.2
West: King St West														
10	L2	111	4	117	3.6	0.115	17.6	LOS B	2.9	21.1	0.49	0.69	0.49	29.9
11	T1	1080	19	1137	1.8	* 0.729	24.8	LOS B	24.4	173.6	0.82	0.73	0.82	34.2
12	R2	169	1	178	0.6	* 0.768	61.8	LOS E	10.2	72.0	1.00	0.88	1.16	17.6
Approach		1360	24	1432	1.8	0.768	28.8	LOS C	24.4	173.6	0.82	0.75	0.84	30.9
All Vehicles		2540	88	2674	3.5	0.797	32.1	LOS C	24.4	173.6	0.81	0.73	0.84	28.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St S												
P1	Full	27	28	50.7	LOS E	0.1	0.1	0.95	0.95	229.6	214.6	0.93
East: King St East												
P21	Stage 1	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	230.0	214.9	0.93

P22 Stage 2	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	223.8	207.4	0.93
North: Steel St N											
P3 Full	12	13	50.7	LOS E	0.0	0.0	0.95	0.95	230.5	215.8	0.94
West: King St West											
P41 Stage 1	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	229.7	214.7	0.93
P42 Stage 2	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	223.9	207.8	0.93
All Pedestrians	363	382	50.9	LOS E	0.4	0.4	0.95	0.95	227.2	211.6	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.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FB2034.PM (Site Folder: Future Base 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 104 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	148	2	156	1.4	0.694	48.8	LOS D	12.2	88.6	0.98	0.85	1.02	21.1
2	T1	89	8	94	9.0	0.694	43.2	LOS D	12.2	88.6	0.98	0.85	1.02	16.6
3	R2	61	0	64	0.0	0.332	53.9	LOS D	3.1	22.0	0.97	0.75	0.97	21.6
Approach		298	10	314	3.4	0.694	48.2	LOS D	12.2	88.6	0.98	0.83	1.01	20.0
East: King St East														
4	L2	98	0	103	0.0	0.106	19.0	LOS B	2.6	18.3	0.54	0.70	0.54	35.7
5	T1	1057	17	1113	1.6	* 0.852	38.8	LOS C	28.7	203.8	0.95	0.96	1.09	27.5
6	R2	65	0	68	0.0	0.272	50.3	LOS D	3.2	22.4	0.94	0.76	0.94	19.0
Approach		1220	17	1284	1.4	0.852	37.9	LOS C	28.7	203.8	0.92	0.92	1.04	27.5
North: Steel St N														
7	L2	80	0	84	0.0	0.827	56.8	LOS E	14.7	104.3	1.00	0.96	1.21	18.7
8	T1	176	5	185	2.8	* 0.827	51.2	LOS D	14.7	104.3	1.00	0.96	1.21	15.3
9	R2	148	12	156	8.1	* 0.839	62.9	LOS E	8.8	65.7	1.00	0.96	1.33	14.5
Approach		404	17	425	4.2	0.839	56.6	LOS E	14.7	104.3	1.00	0.96	1.25	15.7
West: King St West														
10	L2	82	2	86	2.4	0.092	18.9	LOS B	2.2	15.5	0.53	0.70	0.53	29.0
11	T1	754	6	794	0.8	0.573	28.2	LOS B	16.7	117.7	0.85	0.74	0.85	32.3
12	R2	208	1	219	0.5	* 0.870	63.0	LOS E	12.5	88.1	1.00	0.97	1.34	17.4
Approach		1044	9	1099	0.9	0.870	34.4	LOS C	16.7	117.7	0.86	0.78	0.92	28.0
All Vehicles		2966	53	3122	1.8	0.870	40.2	LOS C	28.7	203.8	0.91	0.87	1.03	25.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped	Dist]					
		ped/h	ped/h	sec		ped	m			sec	m	m/sec
South: Steel St S												
P1	Full	14	15	46.2	LOS E	0.0	0.0	0.94	0.94	225.0	214.6	0.95
East: King St East												
P21	Stage 1	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	225.5	214.9	0.95

P22 Stage 2	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	219.2	207.4	0.95
North: Steel St N											
P3 Full	18	19	46.2	LOS E	0.1	0.1	0.94	0.94	226.0	215.8	0.95
West: King St West											
P41 Stage 1	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	225.2	214.7	0.95
P42 Stage 2	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	219.4	207.8	0.95
All Pedestrians	330	347	46.3	LOS E	0.3	0.3	0.95	0.95	222.6	211.6	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.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FD2034.AM (Site Folder: Future w Development 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 72 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	101	11	106	10.9	0.444	37.0	LOS C	3.6	27.7	0.96	0.78	0.96	17.1
2	T1	49	0	52	0.0	0.565	34.7	LOS C	4.2	29.6	0.98	0.80	1.00	13.5
3	R2	65	0	68	0.0	* 0.565	38.0	LOS C	4.2	29.6	0.98	0.80	1.00	20.5
Approach		215	11	226	5.1	0.565	36.8	LOS C	4.2	29.6	0.97	0.79	0.98	17.6
East: Hunter St East														
4	L2	50	2	53	4.0	0.440	9.5	LOS A	9.3	68.3	0.51	0.47	0.51	34.6
5	T1	489	26	515	5.3	0.440	6.1	LOS A	9.3	68.3	0.51	0.47	0.51	34.8
6	R2	50	1	53	2.0	0.168	16.4	LOS B	1.1	8.1	0.62	0.68	0.62	27.1
Approach		589	29	620	4.9	0.440	7.2	LOS A	9.3	68.3	0.52	0.49	0.52	34.1
North: Steel St North														
7	L2	42	0	44	0.0	0.469	34.8	LOS C	4.5	32.1	0.96	0.77	0.96	20.7
8	T1	86	2	91	2.3	0.469	31.4	LOS C	4.5	32.1	0.96	0.77	0.96	14.0
9	R2	65	0	68	0.0	0.338	37.2	LOS C	2.4	16.5	0.96	0.75	0.96	16.1
Approach		193	2	203	1.0	0.469	34.1	LOS C	4.5	32.1	0.96	0.76	0.96	16.5
West: Hunter St West														
10	L2	24	0	25	0.0	* 0.602	10.7	LOS A	14.8	106.0	0.60	0.55	0.60	31.3
11	T1	701	22	738	3.1	0.602	7.1	LOS A	14.8	106.0	0.60	0.55	0.60	34.2
12	R2	151	18	159	11.9	0.381	14.1	LOS A	3.4	25.9	0.61	0.70	0.61	26.0
Approach		876	40	922	4.6	0.602	8.4	LOS A	14.8	106.0	0.60	0.57	0.60	33.0
All Vehicles		1873	82	1972	4.4	0.602	13.9	LOS A	14.8	106.0	0.65	0.59	0.65	29.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
		ped/h	ped/h	sec						sec	m	m/sec
South: Steel St South												
P1	Full	31	33	30.3	LOS D	0.1	0.1	0.92	0.92	209.0	214.4	1.03
East: Hunter St East												
P2	Full	95	100	30.4	LOS D	0.2	0.2	0.92	0.92	208.4	213.6	1.03

North: Steel St North												
P3	Full	68	72	30.3	LOS D	0.1	0.1	0.92	0.92	210.7	216.4	1.03
West: Hunter St West												
P4	Full	46	48	30.3	LOS D	0.1	0.1	0.92	0.92	207.1	212.2	1.02
All		240	253	30.3	LOS D	0.2	0.2	0.92	0.92	208.9	214.2	1.03
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: X:\22106 643 Hunter Street, Newcastle West\07 Modelling Files\Model\22106-M01V01-220831 (95th%tile queue).sip9

MOVEMENT SUMMARY

 Site: TCS1138 [Hunter St - Steel St FD2034.PM (Site Folder: Future w Development 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 81 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St South														
1	L2	108	11	114	10.2	0.355	36.7	LOS C	4.1	30.8	0.92	0.77	0.92	17.2
2	T1	78	0	82	0.0	0.567	37.7	LOS C	5.2	36.6	0.98	0.79	0.98	12.9
3	R2	50	0	53	0.0	* 0.567	41.0	LOS C	5.2	36.6	0.98	0.79	0.98	19.8
Approach		236	11	248	4.7	0.567	37.9	LOS C	5.2	36.6	0.95	0.78	0.95	16.6
East: Hunter St East														
4	L2	76	0	80	0.0	0.615	12.3	LOS A	16.8	119.3	0.62	0.58	0.62	32.5
5	T1	632	12	665	1.9	0.615	8.9	LOS A	16.8	119.3	0.62	0.58	0.62	32.9
6	R2	57	0	60	0.0	0.119	13.9	LOS A	1.2	8.4	0.53	0.65	0.53	28.5
Approach		765	12	805	1.6	0.615	9.6	LOS A	16.8	119.3	0.61	0.59	0.61	32.5
North: Steel St North														
7	L2	29	0	31	0.0	0.567	35.2	LOS C	8.2	57.5	0.95	0.79	0.95	20.8
8	T1	184	1	194	0.5	0.567	31.8	LOS C	8.2	57.5	0.95	0.79	0.95	14.1
9	R2	130	0	137	0.0	0.620	41.5	LOS C	5.5	38.3	0.99	0.83	1.05	15.0
Approach		343	1	361	0.3	0.620	35.8	LOS C	8.2	57.5	0.96	0.80	0.99	15.2
West: Hunter St West														
10	L2	26	0	27	0.0	0.376	10.9	LOS A	8.6	61.4	0.51	0.46	0.51	31.1
11	T1	414	13	436	3.1	0.376	7.3	LOS A	8.6	61.4	0.51	0.46	0.51	34.0
12	R2	167	15	176	9.0	* 0.618	24.5	LOS B	5.8	43.9	0.82	0.81	0.86	20.6
Approach		607	28	639	4.6	0.618	12.2	LOS A	8.6	61.4	0.59	0.56	0.60	30.2
All Vehicles		1951	52	2054	2.7	0.620	18.4	LOS B	16.8	119.3	0.71	0.64	0.72	26.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
		ped/h	ped/h	sec						sec	m	m/sec
South: Steel St South												
P1	Full	31	33	34.8	LOS D	0.1	0.1	0.93	0.93	213.4	214.4	1.00
East: Hunter St East												
P2	Full	95	100	34.9	LOS D	0.2	0.2	0.93	0.93	212.9	213.6	1.00

North: Steel St North												
P3	Full	68	72	34.8	LOS D	0.2	0.2	0.93	0.93	215.2	216.4	1.01
West: Hunter St West												
P4	Full	46	48	34.8	LOS D	0.1	0.1	0.93	0.93	211.6	212.2	1.00
All		240	253	34.8	LOS D	0.2	0.2	0.93	0.93	213.4	214.2	1.00
Pedestrians												

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

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FD2034.AM (Site Folder: Future w Development 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 113 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	101	7	106	6.9	0.520	51.2	LOS D	8.5	64.3	0.95	0.80	0.95	20.2
2	T1	59	7	62	11.9	0.520	45.6	LOS D	8.5	64.3	0.95	0.80	0.95	16.0
3	R2	41	1	43	2.4	0.339	62.5	LOS E	2.4	17.1	0.99	0.74	0.99	19.6
Approach		201	15	212	7.5	0.520	51.9	LOS D	8.5	64.3	0.96	0.79	0.96	19.0
East: King St East														
4	L2	79	0	83	0.0	0.081	18.2	LOS B	2.1	14.8	0.50	0.69	0.50	36.2
5	T1	591	27	622	4.6	0.367	22.3	LOS B	11.3	82.2	0.71	0.61	0.71	35.7
6	R2	35	1	37	2.9	0.163	54.4	LOS D	1.9	13.3	0.93	0.73	0.93	18.1
Approach		705	28	742	4.0	0.367	23.5	LOS B	11.3	82.2	0.70	0.63	0.70	34.5
North: Steel St N														
7	L2	79	2	83	2.5	0.780	58.5	LOS E	13.4	95.2	1.00	0.92	1.14	18.2
8	T1	145	2	153	1.4	* 0.780	53.0	LOS D	13.4	95.2	1.00	0.92	1.14	14.9
9	R2	83	17	87	20.5	* 0.762	67.7	LOS E	5.2	43.1	1.00	0.88	1.25	13.5
Approach		307	21	323	6.8	0.780	58.4	LOS E	13.4	95.2	1.00	0.91	1.17	15.3
West: King St West														
10	L2	116	4	122	3.4	0.121	18.1	LOS B	3.1	22.6	0.50	0.70	0.50	29.5
11	T1	1080	19	1137	1.8	* 0.760	26.8	LOS B	25.1	178.6	0.85	0.76	0.85	33.0
12	R2	169	1	178	0.6	* 0.768	61.8	LOS E	10.2	72.0	1.00	0.88	1.16	17.6
Approach		1365	24	1437	1.8	0.768	30.4	LOS C	25.1	178.6	0.84	0.77	0.86	30.1
All Vehicles		2578	88	2714	3.4	0.780	33.5	LOS C	25.1	178.6	0.83	0.75	0.86	27.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St S												
P1	Full	27	28	50.7	LOS E	0.1	0.1	0.95	0.95	229.6	214.6	0.93
East: King St East												
P21	Stage 1	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	230.0	214.9	0.93

P22 Stage 2	125	132	50.9	LOS E	0.4	0.4	0.95	0.95	223.8	207.4	0.93
North: Steel St N											
P3 Full	12	13	50.7	LOS E	0.0	0.0	0.95	0.95	230.5	215.8	0.94
West: King St West											
P41 Stage 1	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	229.7	214.7	0.93
P42 Stage 2	37	39	50.7	LOS E	0.1	0.1	0.95	0.95	223.9	207.8	0.93
All Pedestrians	363	382	50.9	LOS E	0.4	0.4	0.95	0.95	227.2	211.6	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.

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MOVEMENT SUMMARY

 Site: TCS0923 [King St - Steel St FD2034.PM (Site Folder: Future w Development 2034)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 104 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Steel St S														
1	L2	148	2	156	1.4	0.710	49.3	LOS D	12.5	90.9	0.99	0.86	1.04	20.9
2	T1	93	8	98	8.6	0.710	43.7	LOS D	12.5	90.9	0.99	0.86	1.04	16.5
3	R2	61	0	64	0.0	0.332	53.9	LOS D	3.1	22.0	0.97	0.75	0.97	21.6
Approach		302	10	318	3.3	0.710	48.5	LOS D	12.5	90.9	0.98	0.84	1.03	19.9
East: King St East														
4	L2	98	0	103	0.0	0.106	19.0	LOS B	2.6	18.3	0.54	0.70	0.54	35.7
5	T1	1057	17	1113	1.6	* 0.854	39.0	LOS C	28.7	203.9	0.95	0.96	1.10	27.4
6	R2	68	0	72	0.0	0.285	50.4	LOS D	3.4	23.5	0.94	0.76	0.94	19.0
Approach		1223	17	1287	1.4	0.854	38.0	LOS C	28.7	203.9	0.92	0.93	1.04	27.4
North: Steel St N														
7	L2	82	0	86	0.0	0.850	58.5	LOS E	15.4	109.5	1.00	0.99	1.25	18.3
8	T1	181	5	191	2.8	* 0.850	53.0	LOS D	15.4	109.5	1.00	0.99	1.25	14.9
9	R2	152	12	160	7.9	* 0.860	64.5	LOS E	9.2	68.6	1.00	0.98	1.37	14.3
Approach		415	17	437	4.1	0.860	58.3	LOS E	15.4	109.5	1.00	0.99	1.30	15.3
West: King St West														
10	L2	86	2	91	2.3	0.096	18.9	LOS B	2.3	16.3	0.53	0.70	0.53	28.9
11	T1	754	6	794	0.8	0.574	28.2	LOS B	16.7	118.0	0.85	0.74	0.85	32.3
12	R2	208	1	219	0.5	* 0.870	63.0	LOS E	12.5	88.1	1.00	0.97	1.34	17.4
Approach		1048	9	1103	0.9	0.870	34.4	LOS C	16.7	118.0	0.85	0.78	0.92	28.0
All Vehicles		2988	53	3145	1.8	0.870	40.6	LOS C	28.7	203.9	0.91	0.88	1.03	24.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Steel St S												
P1	Full	14	15	46.2	LOS E	0.0	0.0	0.94	0.94	225.0	214.6	0.95
East: King St East												
P21	Stage 1	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	225.5	214.9	0.95

P22 Stage 2	98	103	46.4	LOS E	0.3	0.3	0.95	0.95	219.2	207.4	0.95
North: Steel St N											
P3 Full	18	19	46.2	LOS E	0.1	0.1	0.94	0.94	226.0	215.8	0.95
West: King St West											
P41 Stage 1	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	225.2	214.7	0.95
P42 Stage 2	51	54	46.3	LOS E	0.1	0.1	0.94	0.94	219.4	207.8	0.95
All Pedestrians	330	347	46.3	LOS E	0.3	0.3	0.95	0.95	222.6	211.6	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.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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